

FLATHEAD



FLATHEAD RIVER BASIN
BIBLIOGRAPHY
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FLATHEAD RIVER BASIN BIBLIOGRAPHY

A COMPREHENSIVE ANNOTATED BIBLIOGRAPHY ON THE FLATHEAD RIVER BASIN

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ACKNOWLEDGMENTS

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Special thanks are extended to the Salish Kootenai Community College and Bob Bigart, Peggy Big Sam, Gordon Brown and Pat Phillips for contributing a number of annotations from the Salish and Kootenai Tribes Bibliography: An Annotated and Indexed Bibliography of General Interest Materials Dealing with the History and Culture of the Tribes. Published by: Steve Matt, Sr., Fund for Indian Education, Salish Kootenai Community College, and Two Eagle River School.

Finally, I would like to thank the Steering Committee of the Flathead River Basin Environmental Impact Study and the Montana Department of Natural Resources who administered the grant from the U.S. Environmental Protection Agency.

This project has been financed, in part, with Federal funds from the Environmental Protection Agency under grant number R00822201. The contents do not necessarily reflect the views and policies of the Environmental Protection Agency.

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INTRODUCTION

This comprehensive bibliography, conducted under the supervision of the Flathead River Basin Environmental Impact Study manager's office, is an attempt to identify and compile all historical and scientific information of significance pertaining to the natural or socio-economic environment of the Flathead River basin.

The Flathead River Basin Bibliography is a listing of bibliographic citations with annotations of published and unpublished references. In the hope that it will be useful to the broadest spectrum of individuals and organizations, it includes both technical and significant non-technical references. The following criteria were used in the selection of materials for inclusion in the bibliography:

- 1) documents that contain data collected within or directly adjacent to the Flathead River basin; and
- 2) documents in which the geographical area of interest is greater than the Flathead River Basin that have information specific to the Flathead, are referenced repeatedly in documents that are specific to the Flathead or that deal with an element of the natural or socio-economic environment that plays a major or dominant role in the Flathead River basin.

Newspaper articles and, for the most part, congressional records have not been included.

The purpose of the bibliography is threefold. First, to provide a single reference on information pertaining to the basin; second, to aid in the determination of basin planning needs and priorities; and third, to add a historical perspective to our knowledge of the basin.

Individual citations are organized alphabetically and are indexed by subject and geographical area. A species index is also included. The annotations summarize the content, not the conclusions of the literature. Appendices include lists of published and unpublished materials which were either too extensive to annotate or for which annotations would serve no useful purpose. These appendices are a significant part of the bibliography and should not be overlooked.

Sources used in the compilation of the citations were countless other bibliographies, literature cited lists and lists of references. Annotations were derived, with few exceptions, directly from the original literature.

The Salish Kootenai Community College kindly contributed a large number of annotated citations from Salish and Kootenai Tribes Bibliography: An Annotated and Indexed Bibliography of General Interest Materials Dealing with the History and Culture of the Tribes. The annotations that were taken directly from that bibliography are noted by the initials SKCC after the annotation.

Much of the literature cited here is readily available. The George C. Ruhle Park library in West Glacier has copies of almost all the literature pertaining to Glacier National Park. The Flathead County Library in Kalispell and the University of Montana Library in Missoula are local sources that have copies of a large number of the references listed here. Most of the Federal publications may be ordered through the National Technical Information Service of the U.S. Department of Commerce in Springfield, Virginia. Dissertations and some theses may be obtained through University Microfilms International in Ann Arbor, Michigan.

Although every attempt has been made to be as thorough and meticulous as possible, it is probable some errors and some significant omissions have been made. It would be appreciated if these were brought to the attention of the Flathead River Basin Environmental Impact Study office, 723 5th Ave. East, Kalispell, Montana 59901.

ABSTRACT

This report is a comprehensive annotated bibliography of published and unpublished literature pertaining to the Flathead River basin. It contains 3600 citations with abstracts listed alphabetically by author and indexed by subject, geographical area and species. Extensive appendices list additional miscellaneous data and reports.

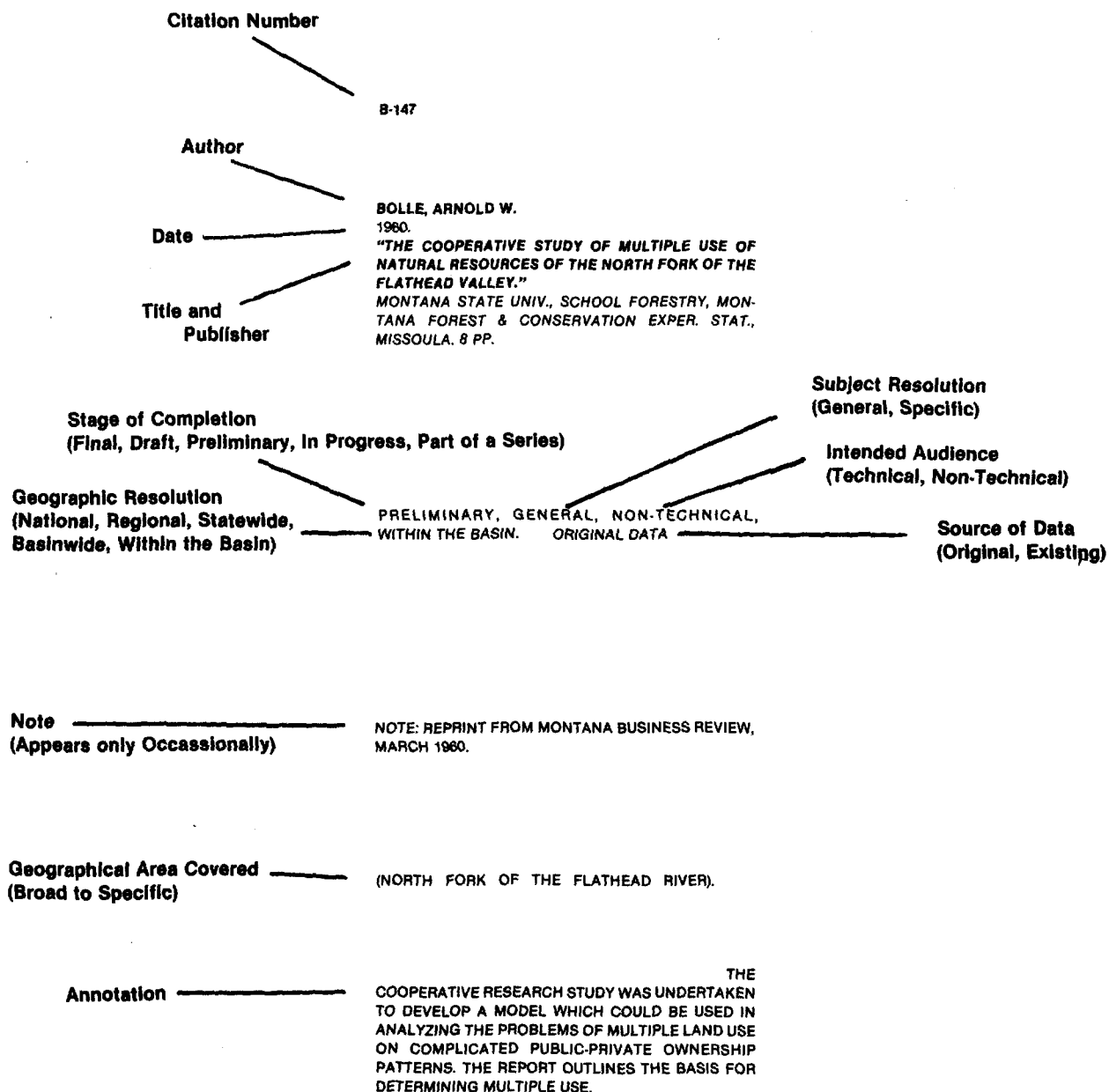
PREFACE

In recent years, government, private and public institutions have produced information at an unprecedented, almost overwhelming, rate; making the task of searching for available information on a given subject very time consuming. This has happened at a time when agencies and the public are required to make more and more decisions affecting their lives and communities. Sound decisions must have their roots in a thorough knowledge of existing information, and hence, access to information has become very important.

The Flathead River basin is no exception. A wealth of information exists (perhaps more than for most areas of comparable size and population) for a number of reasons. Within the basin boundary lies a national forest, a major portion of a national park, an Indian reservation, three wilderness areas, and the largest natural body of fresh water west of the Mississippi. The output of data has also been accelerated by a number of major potential developments that face the area. At the same time, these developments will require sound decision making based on all applicable existing information.

The Steering Committee of the Flathead River Basin Environmental Impact Study has taken a major step in improving agency and public access to information with this inventory of existing data. The Flathead Bibliography includes over 3,600 citations dating from the early 1800's, covering a spectrum of subjects from the natural environment to socioeconomic conditions. It is hoped that this publication will help to ensure that existing information is used.

CITATION KEY



A-1

AAGAARD, FERN C.

1969.

TEMPERATURE OF SURFACE WATERS IN MONTANA.
HELENA, MT.: MONTANA DEPT. FISH & GAM. 600+ PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA: PEND D'OREILLE & FLATHEAD RIVER BASINS). THE PURPOSE OF THIS PUBLICATION IS TO COMPILE ALL AVAILABLE SURFACE WATER TEMPERATURE DATA IN THE STATE IN A FORM USABLE TO ALL INTERESTED PARTIES. THE GRAPHS PRESENTED WITH EACH SET OF DATA ENABLE THE USER TO QUICKLY DETERMINE THE APPROXIMATE RANGE AND DISTRIBUTION OF WATER TEMPERATURE THROUGHOUT THE YEAR AT EACH POINT OF MEASUREMENT. THE TABULATED DATA ALLOWS A MORE DETAILED ANALYSIS OF THE TEMPERATURES. THE PUBLICATION IS USED AS A BASIS FOR EVALUATING THE RECREATIONAL AND INDUSTRIAL POTENTIALS OF STREAMS AND LAKES IN THE STATE.

A-2

AAMODT, PAUL L.

1977.

URANIUM HYDROGEOCHEMICAL AND STREAM SEDIMENT RECONNAISSANCE IN LINCOLN AND FLATHEAD COUNTIES, NORTHWEST MONTANA.
LOS ALAMOS, N. M.: U.S. ENERGY RESEARCH & DEVELOPMENT ADMINISTRATION, LOS ALAMOS SCIENTIFIC LAB. OF UNIV. CALIFORNIA. 132 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(LINCOLN & FLATHEAD COUNTIES). BETWEEN MID-MAY AND LATE JUNE, 1976, 3,409 WATER AND WATER-TRANSPORTED SEDIMENT SAMPLES WERE COLLECTED FROM 1,781 LOCATIONS SPREAD OVER AN APPROXIMATE 17,000-KM2 AREA OF NORTHWESTERN MONTANA. ALL OF THE SAMPLES WERE ANALYZED FOR TOTAL URANIUM AT THE LASL, USING STANDARDIZED PROCEDURES AND RIGOROUS QUALITY CONTROLS—THE WATERS BY FLUOROMETRY AND THE SEDIMENT (AND THOSE WATERS WITH 10 PPB URANIUM) BY DELAYED-NEUTRON CONTINUING METHODS. THE FIELD COLLECTION, TREATMENT, AND PACKAGING OF THE SAMPLES WERE PERFORMED FOLLOWING STRICT LASL SPECIFICATIONS.

A-3

ABBOTT, RAYMOND.

1979.

STILLWATER WATER TRAIL. TALLY LAKE RANGER DISTRICT, FLATHEAD NATIONAL FOREST.
WHITEFISH, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST, TALLY LAKE RANGER DIST. 15 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: TALLY LAKE RANGER DISTRICT). THIS PROPOSAL IS CONCERNED WITH THE IMPLEMENTATION OF A RECREATIONAL WATER TRAIL ON THE STILLWATER DRAINAGE. A SERIES OF CONNECTING LAKES AND RIVERS WOULD PROVIDE FOR A WATER TRAIL EXTENDING 12 MILES. AN EXAMINATION OF THE AFFECTED ENVIRONMENT IS INCLUDED, FOUR ALTERNATIVES ARE DESCRIBED AND EVALUATED, AND THE SELECTION OF A PREFERRED ALTERNATIVE IS MADE. MANAGEMENT REQUIREMENTS, CONSTRAINTS, AND MITIGATIVE MEASURES ARE INCLUDED.

A-4

ACCESS AND INVOLVEMENT: THE CITIZEN'S ROLE IN DECISION MAKING - CLOUD SEEDING IN THE SOUTH FORK.

1974.

MISSOULA, MT.: MONTANA COMMITTEE FOR HUMANITIES. 25 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER, BOB MARSHALL WILDERNESS AREA, & COLUMBIA FALLS). THE



TEXT OF A PUBLIC MEETING HELD TO DISCUSS THE BONNEVILLE POWER ADMINISTRATION'S DECISION TO CLOUD SEED IN THE SOUTH FORK OF THE FLATHEAD RIVER. PANELISTS REPRESENTED THE BPA, GLACIER NATIONAL PARK, FLATHEAD NATIONAL FOREST, AND PRIVATE CITIZENS.

A-5

ACKERMAN, BRUCE.

1975.

A PRELIMINARY REPORT ON GRADIENT MODELING OF FIVE ARTIODACTYL SPECIES IN GLACIER NATIONAL PARK.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 20 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). AS A RESULT OF GRADIENT ANALYSIS OF FIVE UNGULATE SPECIES, BASED ON THREE YEARS OF DATA, THERE IS EVIDENCE THAT THIS APPROACH MAY PROVIDE A USEFUL METHOD OF ANALYSIS OF ANIMAL HABITAT USE AND INTER-SPECIFIC RELATIONS. 920 OBSERVATIONS WERE PLOTTED ON SEVEN ENVIRONMENTAL GRADIENTS.

A-6

1966.

A PROFILE OF LUMBER MARKETING IN WESTERN MONTANA.

MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, MONTANA FOREST & RANGE CONSERVATION EXPR. STAT. BULL. NO. 30. 20 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

NOTE: TABLES AND FIGURES ARE INCLUDED.

(WESTERN MONTANA). THE STUDY DESCRIBES THE INITIAL MARKET AND DEFINES METHODS BY WHICH MANUFACTURERS INTRODUCE THEIR PRODUCTS INTO REGIONAL AND NATIONAL MARKETS. IT IS THE RESULT OF INTERVIEWS WITH 31 LUMBER PRODUCERS. THE PRODUCERS, THE COMMODITY PRODUCED, MARKETING POLICIES AND PRACTICES, SHIPMENT PATTERNS, AND SHIPMENT CHARACTERISTICS ARE DISCUSSED.

A-7

ADAMS, DONALD F., AND KOPPE, R. K.

1969.

"INSTRUMENTING LIGHT AIRCRAFT FOR AIR POLLUTION RESEARCH."

J. AIR POLLUTION CONTROL ASSOC. 19:410-415.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MILLER CREEK DRAINAGE NEAR OLNEY). THE AIRBORNE INSTRUMENTATION PACKAGE DESCRIBED IN THIS ARTICLE MEASURES AND RECORDS UP TO 27 POLLUTANT AND FLIGHT VARIABLES. REAL TIME ANALYSIS INSTRUMENTATION INCLUDE NONDISPERSIVE INFRARED ANALYZERS FOR CO₂, CO AND HYDROCARBONS, CONDUCTIVITY AND COULOMETRIC ANALYZERS FOR SULFUR DIOXIDE AND SULFUR-CONTAINING GASES, AND CHARLSON-AHLQUIST VISUAL RANGE NEPHELOMETER. A BATTLE "BULK SAMPLER" WAS USED TO COLLECT PARTICULATES.

A-8

ADAMS, DONALD F., AND KOPPE, R.K.

1969.

"THE USE OF REAL TIME AIRBORNE INSTRUMENTATION."

WASHINGTON STATE UNIV., PULLMAN. PAPER 69-AP-27. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MILLER CREEK DRAINAGE NEAR OLNEY). AIRBORNE INSTRUMENTATION WAS USED TO STUDY SMOKE PLUMES FROM EXPERIMENTAL PRESCRIBED BURNS CONDUCTED BY THE NORTHERN FOREST FIRE LABORATORY AND REGION ONE FORESTERS. BURNS WERE SCHEDULED BETWEEN MAY AND NOVEMBER EACH SUMMER TO REPRESENT A VARIETY OF FUEL MOISTURE AND METEOROLOGICAL CONDITIONS. FLIGHTS WERE MADE THROUGH THE SMOKE PLUMES WITH REAL TIME INSTRUMENTATION TO ESTABLISH AEROSOL CONCENTRATIONS AND SIZE DISTRIBUTION, VISUAL RANGE, AND CARBON DIOXIDE PROFILES. FLIGHT PATTERNS WERE SELECTED TO CHARACTERIZE PLUME TRANSPORT AND DISPERSION DOWNWIND UNDER KNOWN METEOROLOGICAL CONDITIONS. DATA DEMONSTRATE THE UTILITY OF AIRBORNE REAL TIME INSTRUMENTATION IN AIR POLLUTION RESEARCH.

A-9

ADAMS, DONALD F.; KOPPE, R.K.; AND ROBINSON, E.

1976.

"AIR AND SURFACE MEASUREMENTS OF CONSTITUENTS OF PRESCRIBED FOREST SLASH SMOKE."

WASHINGTON, D.C.: NATIONAL ACADEMY SCIENCES. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MILLER CREEK DRAINAGE NEAR OLNEY). DATA FROM A GROUND LEVEL NETWORK OF AIR SAMPL-

ING STATIONS, MEASUREMENTS OF SMOKE PLUMES FROM THE AIRCRAFT, AND RESULTS FROM LABORATORY STUDIES ON BURNING TABLES ARE PRESENTED AND DISCUSSED. DISPERSION OF SMOKE AT HIGHER ALTITUDES WAS MEASURED THROUGH SAMPLING OF PARTICULATES AND CO₂ IN PLUMES FROM SEVERAL FIRES WITH INSTRUMENTS ABOARD THE AIRCRAFT.

A-10
ADAMS, LOWELL.
1956.
"AN ANALYSIS OF A POPULATION OF SNOWSHOE HARES IN NORTHWESTERN MONTANA."
U.S. DISSERTATION, JOHNS HOPKINS UNIV., BALTIMORE, MD. 146 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE AREA). THE LONG RANGE STUDY ANALYZES THE NATURAL CAUSES OF FLUCTUATION IN POPULATIONS OF *LEPUS AMERICANUS* ERXLEBEN. GOALS INCLUDE: 1) SAMPLING OF FECAL PELLETS TO ESTIMATE HARE NUMBERS, 2) QUANTITATIVE EVALUATION OF FOOD HABITS, 3) ANALYSIS OF FACTORS OF THE PHYSICAL ENVIRONMENT AFFECTING DISTRIBUTION AND ABUNDANCE, AND 4) THE RECORDING OF LIFE HISTORY DATA. FOOD-COVER-PREDATOR COMPLEX, COVER DENSITY, AND PHYSICAL OBSTACLES ARE THE ENVIRONMENTAL FACTORS CONSIDERED.

A-11
ADAMS, LOWELL.
1958.
"AN ANALYSIS OF A POPULATION OF SNOWSHOE HARES IN NORTHWESTERN MONTANA."
ECOLOGICAL MONOGRAPHS 28 (APRIL 1958):141-170.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: BULL ISLAND). THE STUDY HAD THE LONG-RANGE OBJECTIVE OF ANALYZING THE NATURAL CAUSES OF FLUCTUATIONS IN SNOWSHOE HARE (*LEPUS AMERICANUS*) POPULATIONS BY INVESTIGATING AS MANY ASPECTS OF THE HARE'S ECOLOGY AS POSSIBLE ON AN ISLAND HAVING AN ISOLATED POPULATION. THIS REPORT DEALS WITH THREE TOPICS: 1) A TECHNIQUE FOR ESTIMATING HARE NUMBERS BY SAMPLING THE FECAL PELLETS IN THE AREA, 2) FACTORS OF THE PHYSICAL ENVIRONMENT WHICH AFFECT HARE DISTRIBUTION AND ABUNDANCE, AND 3) LIFE HISTORY OF THE HARES AS REVEALED BY LIVE TRAPPING AND FIELD OBSERVATIONS. VEGETATION COVER, PHYSICAL OBSTRUCTIONS, AND THE FOOD-COVER-PREDATOR COMPLEX ARE THE ENVIRONMENTAL FACTORS WHICH ARE EXAMINED. INCLUDED IN A DISCUSSION OF POPULATION FORCES ARE: REPRODUCTION, HOME RANGE, MOVEMENTS, SELF-PROTECTION BEHAVIOR, FOOD HABITS, MORTALITY, AND ALTITUDINAL GRADATION IN POPULATION CYCLES.

A-12
ADAMS, LOWELL; SALVIN, S.B.; AND HADLOW, W.J.
1958.
"RINGWORM IN A POPULATION OF SNOWSHOE HARES."
J. MAMMALOGY 37 (FEBRUARY 1958):6-12.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: BULL ISLAND). DURING THE COURSE OF STUDIES ON A POPULATION OF *LEPUS AMERICANUS* A DISEASED CONDITION OF THE SKIN WAS OBSERVED IN MANY OF THE ANIMALS. THE PURPOSE OF THIS PAPER WAS TO SHOW THAT THIS PATHOLOGIC SKIN CONDITION WAS CAUSED BY THE FUNGUS *TRICHOPHYTON MENTAGROPHYTES* AND TO DESCRIBE THE EXTENT OF THIS DISEASE AMONG THE HARES.

A-13
AFANASIEV, M. M.
1959.
"CHERRY LEAF SPOTS AND CORYNEUM BLIGHT."
MONTANA STATE COLL., EXTEN. SERVICE, BOZEMAN, MT. (TYPEWRITTEN). 2 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: THESE BLIGHTS OCCUR IN THE FLATHEAD VALLEY.

(FLATHEAD LAKE AREA). TWO TYPES OF LEAF SPOT DISEASES AFFECT CHERRY TREES IN MONTANA. ONE IS CALLED CHERRY LEAF SPOT AND IS CAUSED BY THE FUNGUS *COCOMOYCES BIALIS* AND THE OTHER IS CALLED CORYNEUM BLIGHT AND IS CAUSED BY THE FUNGUS *CORYNEUM BEJERNICKII*. THE FUNGI LIFE CYCLES ARE DESCRIBED AND DESCRIPTIONS OF WHAT INFECTED TREES LOOK LIKE ARE GIVEN.

A-14
AFANASIEV, M. M.
1964.
"VIRUS DISEASES OF SWEET CHERRIES IN MONTANA."
PROC. MONTANA ACADEMY SCIENCES 14:27.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: FLATHEAD LAKE). THE SYMPTOMS OF THE VIRUS "RUSTY MOTTLE" WHICH ATTACKS SWEET CHERRY ORCHARDS ARE DISCUSSED. CONTROL MEASURES ARE OUTLINED.

A-15
AHNER, MARK.
1978.
"THE CUMULATIVE IMPACTS OF THE MOUNTAIN PINE BEETLE EPIDEMIC ON THE NORTH FORK DRAINAGE OF THE FLATHEAD RIVER."
KALISPELL, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY, N.W. AREA. 7 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THIS REPORT INCLUDES: A SUMMARY OF INFECTED LANDS IN THE DRAINAGE; HAZARD POTENTIAL RATINGS FOR MAPPED AREAS; AND PROBABLE IMPACTS OF THE PROPOSED HARVEST OF BUG-KILLED TIMBER ON SOIL, AIR, WATER, WILDLIFE, FISHERIES, AESTHETICS, AND RECREATION.

A-16
AHNER, MARK.
1978.
"GAS AND OIL APPLICATIONS ON THE FLATHEAD FOREST: TECHNICAL MEMORANDUM."
FLATHEAD COUNTY AREA-WIDE PLANNING ORG., KALISPELL, MT. (TYPEWRITTEN). 16 PP.
FINAL, SPECIFIC, TECHNICAL, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS REPORT IS AN ATTEMPT TO ASSESS THE PROBABLE IMPACTS OF OIL AND GAS DEVELOPMENTS UPON THE ENVIRONMENT, ECONOMY, AND SOCIAL CHARACTER OF FLATHEAD COUNTY. THE INFORMATION IS PRESENTED IN FIVE SEPARATE SECTIONS: GENERAL CONSIDERATIONS, EXPLORATION PHASE, DEVELOPMENT PHASE, OPERATION PHASE, POST-OPERATION PHASE.

A-17
AHNER, MARK.
1978.
"PRESENT AND FUTURE LOGGING ACTIVITY IN THE NORTH FORK DRAINAGE OF THE FLATHEAD RIVER."
MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY, MISSOULA, MT. (TYPEWRITTEN). 16 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THIS REPORT CONTAINS A SUMMARY OF THE LOGGING ACTIVITIES ASSOCIATED WITH THE MOUNTAIN PINE BEETLE EPIDEMIC IN THE NORTH FORK. TABLES PRESENT DATA ON LEGAL DESCRIPTIONS AND APPROXIMATE VOLUME REMOVED FROM PRIVATE LANDS, AS WELL AS STATE SALES AWARDED IN FISCAL YEAR 1978 AND PROPOSED SALES FOR FISCAL YEAR 1979 TO 1983.

A-18
AIKIN, W.O.
1971.
"FIELD INVESTIGATION, LAKE MARY RONAN."
KALISPELL, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, WATER QUALITY BUREAU. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE MARY RONAN). THIS REPORT EXAMINES THE CURRENT WATER QUALITY SITUATION AT LAKE MARY RONAN AND THE SURROUNDING DRAINAGE. CAMPGROUNDS, SUBDIVISIONS, PROPOSED LOGGING OPERATIONS BY THE U.S. FOREST SERVICE AND BURLINGTON NORTHERN, AND THE GUINN RANCH ARE DESCRIBED AND EVALUATED WITH RESPECT TO THEIR IMPACT ON WATER QUALITY.

A-19
AITON, JOHN F.
1938.
"ENLARGED SPLEENS IN WHITE-TAIL DEER AT GLACIER NATIONAL PARK," IN TRANSACTIONS OF THE THIRD NORTH AMERICAN WILDLIFE CONFERENCE. BALTIMORE, MD., FEBRUARY 14-17, 1938, PP. 290-292.
WASHINGTON, D.C.: AMERICAN WILDLIFE INSTITUTE. IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGGING CREEK AREA & THE McDONALD DISTRICT). THIS PAPER IS BASED ON THE AUTOPSIES OF FOURTEEN DEER. DATA COLLECTED INCLUDES: WEIGHT, AGE, WEIGHTS OF KIDNEYS, LIVER, SPLEEN, CONDITION OF HAIR, THE PRESENCE OF FLUKES, AND SEX. ALTHOUGH SPLEEN ENLARGEMENT IS NOTED, NO ATTEMPT IS MADE TO EXPLAIN THE CAUSE.

A-20
AITON, JOHN F.
1942.
"RANDOM NOTES ON THE WILDLIFE OF GLACIER NATIONAL PARK."
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 60 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). TOPICS COVERED IN THIS REPORT INCLUDE: EARLY POPULATIONS, PREDATORY ANIMAL CONTROL MEASURES, RELATIONSHIP OF PREDATORS TO BIG GAME ANIMALS, ARTIFICIAL FEEDING, NATIONAL PARK SERVICE WILDLIFE POLICY, ANIMAL DISEASES FROM AUTOPSY REPORTS, FOOD HABIT STUDIES FROM A SUMMARY OF STOMACH CONTENTS, COMPARATIVE OCCURRENCE OF PLANT SPECIES BY AREAS, COMPARISONS BETWEEN THE DIET OF NORMAL ANIMALS AND THOSE DYING FROM STARVATION, AND POPULATION ESTIMATES. EMPHASIS IS PLACED ON BIG GAME SPECIES.

A-21
AITON, JOHN F.
1938.
"RELATIONSHIP OF PREDATORS TO WHITETAIL DEER IN GLACIER NATIONAL PARK," IN TRANS. THIRD

NORTH AMERICAN WILDLIFE CONFERENCE.
FEBRUARY 14-17, BALTIMORE, MD., PP. 302-304.
WASHINGTON, D.C.: AMERICAN WILDLIFE INSTITUTE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PAPER ADDRESSES
ITSELF TO THE MANAGEMENT PROBLEM OF
PREDATOR CONTROL INSIDE THE PARK. IT REPORTS
ON DATA CONCERNING THE MORTALITY OF WHITE-
TAILED DEER DURING THE WINTER AND EARLY SPR-
ING MONTHS. EVIDENCE OF COYOTE KILL AND
RESULTS OF GAME COUNTS (LIONS, WOLVES,
COYOTES, WHITE-TAILED DEER) ARE PRESENTED.

A-22
ALBERDING, HERBERT.
1983.
"ISOSTATIC ADJUSTMENTS IN GLACIER NATIONAL
PARK, MONTANA, SUGGEST BEHAVIOR OF A KELVIN
BODY WITH FULL STRAIN RECOVERY," IN
GEOLOGICAL SOCIETY OF AMERICA ABSTRACTS
FOR 1982.
NEW YORK: GEOLOGICAL SOCIETY AMERICA. SPEC.
GSA PAPER NO. 78.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ABSTRACT SUMMARIZES
A PAPER CONCERNED WITH ISOSTATIC AD-
JUSTMENTS THAT APPEAR TO EXIST WITH FULL
STRAIN RECOVERY SUCH AS WOULD TAKE PLACE IN
A KELVIN BODY WITH A RETARDATION TIME OF
60,000,000 YEARS. IT EXAMINES THE EXISTENCE OF
ISOSTATIC BALANCE BETWEEN THE PRESENT 2000
FEET OF AVERAGE RELIEF OF THE BLACKFOOT ERO-
SION SURFACE AND THE AVERAGE THICKNESS OF
10,000 FEET OF LOW-DIPPING SEDIMENT, THE RE-
MAINDER OF ABOUT 40,000 FEET ORIGINALLY PRE-
SENT ABOVE THE LEWIS OVERTHRUST.

A-23
ALBERT, GENE.
1975.
"GLACIER: BELEAGUERED PARK OF 1975."
NATIONAL PARKS & CONSERVATION MAGAZINE,
NOVEMBER 1975, PP. 4-11.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH & SOUTH FORKS OF
THE FLATHEAD RIVER). THIS ARTICLE DESCRIBES
THE TWO MAJOR THREATS TO GLACIER PARK
ECOSYSTEMS: THE PROPOSED CANADIAN COAL
DEVELOPMENT IN CABIN CREEK, AND OIL AND GAS
LEASING ON FOREST SERVICE LAND ADJACENT TO
THE PARK.

A-24
ALBRIGHT, GEORGE L.
1921.
OFFICIAL EXPLORATIONS FOR PACIFIC RAILROADS,
1863-1885.
BERKELEY: UNIV. CALIFORNIA PRESS. 187 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(WEST OF MISSISSIPPI RIVER: NORTHWESTERN MON-
TANA). THE PACIFIC RAILROAD SURVEY OF 1863-65
WAS THE FIRST ATTEMPT OF THE FEDERAL GOVERN-
MENT TO CONDUCT A COMPREHENSIVE
SYSTEMATIC EXAMINATION OF THE VAST REGION
LYING BETWEEN THE MISSISSIPPI RIVER AND THE
PACIFIC OCEAN. THIS STUDY WAS BASED ALMOST
ENTIRELY UPON GOVERNMENT DOCUMENTS. OF
SPECIAL INTEREST IS THE CHAPTER ON "STEVENS"
EXPLORATIONS BETWEEN THE FORTY-SEVENTH AND
FORTY-NINTH PARALLELS, WHICH DESCRIBES ONE
OF THE EARLIEST RECORDED EXPLORATIONS OF
THE GLACIER PARK AREA.

A-25
ALDEN, WILLIAM C.
1913.
"EARLY PLEISTOCENE GLACIATION IN THE ROCKY
MOUNTAINS OF GLACIER NATIONAL PARK, MON-
TANA," IN COMPTE-RENDU OF THE 12TH SESSION,
PP. 479-484.
OTTAWA, CAN.: INTERNATIONAL GEOLOGICAL CON-
GRESS.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER DISCUSSES THE
RELATIONS OF GLACIAL DRIFT DEPOSITS WHICH
CAP REMNANTS OF THE TERTIARY PENEPLAIN. THE
DISCUSSION INCLUDES MODIFICATION OF THE
DEPOSITS BY WEATHERING AS WELL AS WHAT
TOPOGRAPHIC RELATIONS AND EROSION INDICATE
WITH REGARD TO AN EXTENSION OF THE ROCKY
MOUNTAIN GLACIERS ON TO THE PLAINS IN EARLY
PLEISTOCENE TIME.

A-26
ALDEN, WILLIAM C.
1937.
"GEOLOGY OF GLACIER NATIONAL PARK."
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. 145 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT WAS
PREPARED FROM ALDEN'S FIELD STUDIES IN THE
PARK DURING THE SUMMER OF 1936 AND FROM THE
LARGE AMOUNT OF DATA PREVIOUSLY COLLECTED
BY ALDEN, M.R. CAMPBELL, AND EUGENE STEB-
INGER. THE PARTS OF THE REPORT THAT DEAL WITH
AREAS WEST OF THE CONTINENTAL DIVIDE DISCUSS
GEOLOGY OF THE REGION TRAVERSED BY GOING-
TO-THE-SUN HIGHWAY. IT INCLUDES: ST. MARY AND
MCDONALD CREEK VALLEYS; GRANITE PARK TRAIL;
AHERN PASS; FLATTOP MOUNTAIN; CAMAS AND
SPRAGUE CREEKS; BROWNS PASS TO TRAPPERS
PEAK; THE FLAXVILLE PLAIN AND ASSOCIATED
FEATURES IN THE NORTH FORK VALLEY, MCDONALD
CREEK AND THE APGAR MOUNTAINS; GEOLOGY OF
JOHN STEVENS CANYON ALONG THE GREAT NORTHERN
RAILROAD; AND HIGHWAY 2, INCLUDING
BELTON TO BAD ROCK CANYON, BELTON AND EAST,
AND GLACIATION OF THE MARIAS PASS.

A-27
ALDEN, WILLIAM C.
1937.
"GEOLOGY OF GLACIER NATIONAL PARK. PART III:
GEOLOGY OF THE REGION TRAVERSED BY THE
GOING-TO-THE-SUN HIGHWAY, ST. MARY, AND
MCDONALD CREEK VALLEYS."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE,
GLACIER NATIONAL PARK, WEST GLACIER, MT. 25 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE AREAS COVERED IN THIS
SECTION OF THE REPORT ARE: THE GRANITE PARK
TRAIL, MCDONALD CREEK, AHERN PASS AND FLAT-
TOP MOUNTAIN, CAMAS AND SPRAGUE CREEKS,
BROWNS PASS TO TRAPPER PEAK, AND SPERRY AND
HARRISON GLACIERS. DESCRIPTIONS OF THE
TOPOGRAPHY, STRUCTURE, AND GEOLOGIC
HISTORY OF THE AREAS ARE INCLUDED.

A-28
ALDEN, WILLIAM C.
1914.
GLACIERS OF GLACIER NATIONAL PARK
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 48
PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN
NOTE: PHOTOGRAPHS OF GLACIERS AND MORaine
DEPOSITS ARE INCLUDED

(GLACIER NATL. PARK) THE PAPER DESCRIBES
BLACKFEET, HARRISON, BELLY RIVER, SPERRY,

SWIFTCURRENT, AND AGASSIZ/KINTLA GLACIERS
AND THE GLACIERS OF THE NORTHWESTERN PART
OF THE PARK. IT DISCUSSES THEIR SIZE, AC-
CESSIBILITY, CREVASSES, ICE CASCADES,
MORAINES, MOVEMENT, STRATIFIED LAYERING AND
DRAINAGE, ROCK SCOURING AND OTHER WORK,
AND THE FORMER EXTENT OF THE GLACIERS.

A-29
ALDEN, WILLIAM C.
1953.
PHYSIOGRAPHY AND GLACIAL GEOLOGY OF
WESTERN MONTANA AND ADJACENT AREAS.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROF.
PAPER 231. 200 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, STATEWIDE.

(WESTERN MONTANA). THIS BULLETIN DISCUSSES
FIELD STUDIES OF THE AREA'S PHYSIOGRAPHY AND
GLACIAL GEOLOGY. THE VALLEYS WITHIN THE
FLATHEAD RIVER BASIN AND THEIR DEPOSITS
ALONG RIVER BLUFFS EXPOSING PLEISTOCENE AND
TERTIARY AGED SEDIMENTS ARE DESCRIBED. TER-
TIARY FEATURES FOUND IN GLACIER NATIONAL
PARK ARE DISCUSSED. WISCONSIN AGE GLACIATION
AND GLACIAL DEPOSITS FOUND IN THE FLATHEAD
REGION AND FEATURES ASSOCIATED WITH GLACIAL
LAKE MISSOULA ARE ALSO DESCRIBED.

A-30
ALDEN, WILLIAM C.
1912.
"PRE-WISCONSIN GLACIAL DRIFT IN THE REGION OF
GLACIER NATIONAL PARK, MONTANA."
BULL. GEOLOGICAL SOCIETY AMERICA 23(28
NOVEMBER 1912):567-708.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PURPOSE OF THE PAPER
IS TO DESCRIBE DEPOSITS WHICH INDICATE THAT
THE LEWIS AND LIVINGSTON RANGES WERE SUB-
JECTED TO GLACIATION PRIOR TO THE WISCONSIN
STAGE. A BRIEF DESCRIPTION IS PRESENTED OF THE
CHARACTER AND RELATIONS OF THE DEPOSITS ON
THE TWO MEDICINE, CUT BANK, MILK RIVER, SAINT
MARY, LOWER SAINT MARY LAKE, BOULDER, AND
SWIFTCURRENT RIDGES. THE AGE OF THE GLACIAL
DRIFT IS DISCUSSED.

A-31
ALDEN, WILLIAM C., AND STEBINGER, EUGENE.
1913.
"PRE-WISCONSIN GLACIAL DRIFT IN THE REGION OF
GLACIER NATIONAL PARK, MONTANA."
BULL. GEOLOGICAL SOCIETY AMERICA 24:529-572.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER DESCRIBES THE
PHENOMENON OF RIDGES CARPED WITH GLACIAL
DRIFT DEPOSITS, WHICH, BECAUSE OF
TOPOGRAPHIC AND WEATHERING MODIFICATIONS,
ARE REGARDED AS MUCH OLDER THAN THE DRIFT IN
THE INTERVENING VALLEYS. DEPOSITS ON BELLY
RIVER RIDGE AND ON THE RIDGE EAST OF WATER-
TON LAKES AND THE ABSENCE OF PENEPLAIN REM-
NANTS IN SOUTHERN ALBERTA IS DISCUSSED. THE
PAPER ALSO EXAMINES REASONS FOR DIF-
FERENCES IN TOPOGRAPHIC DEVELOPMENT, THE
BLACKFOOT PENEPLAIN AND CYCLES OF EROSION,
THE WISCONSIN STAGE OF GLACIATION AND THE
THIRD SET OF PLAINS, PRE-WISCONSIN DRIFT ON
THE BLACKFOOT PENEPLAIN, TIME AND EXTENT OF
THE FIRST MOUNTAIN GLACIER, AND DEPOSITS ON
HORBETHIEF RIDGE AND LANDSLIDE BUTTE. THE
RELATIONS OF THE EARLIER AND LATER DRIFT OF
THE MOUNTAIN GLACIERS TO THAT OF THE
KEEWATIN ICEBHEET IN SOUTHERN ALBERTA AND
RELATIONS OF THE "SASKATCHEWAN" BRIDGE
ETC. ARE ALSO PRESENTED.

- A-32**
ALDRICH, DANIEL FREDERICK.
1978.
"OVERWINTERING, SPRINGTIME DEVELOPMENT AND MIGRATION OF SOME APHIDAE, INCLUDING MYZUS PERSICAE, OF NORTHWESTERN MONTANA."
M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 112 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (LOWER FLATHEAD VALLEY). THE GREEN PEACH APHID, MYZUS PERSICAE, WAS FOUND OVERWINTERING IN NORTHWESTERN MONTANA AS EGGS ON PEACH, PRUNUS PERSICAE. THE POTATOE APHID, MACROSIPHUM EUPHORBIAE, WAS FOUND OVERWINTERING AS EGGS ON WILD ROSE. OTHER SPECIES OF APHIDAE OVERWINTERING IN THE AREA ON PRUNUS DOMESTICA, P. AMERICANA, P. VIRGINIANA, AND ON CRATEGUS SPP. ARE IDENTIFIED. THE OCCURRENCE AND PERIOD OF MIGRATIONS ARE DESCRIBED POTATO LEAFROLL VIRUS WITHIN THE AREA WAS INVESTIGATED AND PERTINENT BIOLOGY OF ITS PRIMARY VECTOR, MYZUS PERSICAE, IS REVIEWED.
- A-33**
ALLARD, JOSEPH.
1936.
"AN OLD-TIMER SPEAKS."
INDIANS AT WORK 4(15 AUGUST 1936):41-42.
- (MONTANA: FLATHEAD INDIAN RESERVATION). ALLARD SPEAKS ABOUT THE HISTORY OF THE BUFFALO ON THE FLATHEAD RESERVATION. SKCC.
- A-34**
ALLEN, RONALD L.
1968.
"A STUDY OF THE CHARACTERISTICS OF SUCCESSFUL AND UNSUCCESSFUL STUDENTS ENROLLED IN THE ADULT INDIAN TRAINING PROGRAM CONDUCTED BY THE ADULT EDUCATION CENTER OF THE UNIVERSITY OF MONTANA."
PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. UNIV. MICROFILM NO. 89-02203.
- (MONTANA). A STUDY OF THE SUCCESSFUL AND UNSUCCESSFUL INDIAN STUDENTS OF AN ADULT TRAINING CENTER AT THE UNIVERSITY OF MONTANA DURING THE LATE 1960'S. A NUMBER OF THE STUDENTS WERE FROM THE FLATHEAD INDIAN RESERVATION. SKCC.
- A-35**
ALLER, ALVIN R.
1960.
"THE COMPOSITION OF THE LAKE MCDONALD FOREST, GLACIER NATIONAL PARK."
ECOLOGY 41(JANUARY 1960):29-33.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK: LAKE MCDONALD). THE STUDY TESTS ASSUMPTIONS MADE CONCERNING SUCCESSIONAL TRENDS, PICTURES THE ACTUAL STRUCTURE OF THE FOREST COMMUNITY AT VARIOUS ALTITUDES, AND CORRELATES THIS WITH ENVIRONMENTAL FACTORS. SPECIES, THEIR FREQUENCY, AND CLIMAX DOMINANTS ARE IDENTIFIED.
- A-36**
ALT, DAVID D., AND HYNDMAN, DONALD W.
1976.
ROADSIDE GEOLOGY OF THE NORTHERN ROCKIES.
MISSOULA, MT.: MOUNTAIN PRESS PUBL. CO. 280 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.
- (NORTHERN ROCKY MTS.). THIS IS A GUIDE TO GEOLOGY THAT CAN BE OBSERVED FROM THE ROADSIDE. A GENERAL OVERVIEW OF THE GEOLOGIC DEVELOPMENT OF THE AREA IS FOLLOW-

ED BY INDIVIDUAL ROADGUIDES. THESE CONSIST OF AN OUTLINE OF THE MAIN FEATURES, THE MOST PROMINENT ROCKS ALONG THE ROAD, AND THE PROCESSES THAT FORMED THEM. EACH ROADGUIDE ALSO CONTAINS A CROSSSECTION SHOWING DIAGRAMMATICALLY THE STRUCTURAL ARRANGEMENT OF THE SUBSURFACE ROCKS.

- A-37**
ALT, DAVID D., AND HYNDMAN, DONALD W.
1978.
ROCKS, ICE, AND WATER: THE GEOLOGY OF WATERTON-GLACIER PARK.
MISSOULA, MT.: MOUNTAIN PRESS PUBL. CO. 104 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: THE LATTER HALF OF THE BOOK INCLUDES ROADGUIDES FOR GOING-TO-THE-SUN, TWO MEDICINE, MANY GLACIER, AND NORTH FORK ROADS, CHIEF MOUNTAIN INTERNATIONAL HIGHWAY, WATERTON PARK ROADS, WATERTON LAKE BOAT TRIP, U.S. 2, AND U.S. 89-BLACKFOOT HIGHWAY.

(GLACIER NATL. PARK). THE BOOK DESCRIBES THE GEOLOGY AND GEOLOGIC PROCESSES, BOTH PAST AND PRESENT, WHICH ARE THE BASIS OF THE PARK'S SCENERY. THE HIKER SHOULD ALSO FIND THE BOOK USEFUL. ALTYN, APPEKUNNY, GRINNELL, SIYEH, SHEPARD, AND KINTLA FORMATIONS ARE DISCUSSED.

- A-38**
ALT, DAVID D., AND WEIDMAN, ROBERT.
1972.
"GUIDEBOOK: GLACIER PARK FIELD TRIP."
INDIANA UNIV., BLOOMINGTON. (MIMEO). 66 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN

(GLACIER NATL. PARK: FLATHEAD & LAKE COUNTIES). THIS FIELD GUIDE WAS DEVELOPED TO BE USED ON A FOUR DAY FIELD TRIP FROM CARDWELL TO CHOTEAU TO MANY GLACIER TO MISSOULA TO CARDWELL. THE TEXT AND ILLUSTRATIONS EMPHASIZE A BROAD APPROACH MINIMIZING THE USE OF FORMATION NAMES, MILEAGES, AND DETAILS BEARING ON SPECIFIC OUTCROPS. THE GEOLOGIC VARIETY SEEN ON THE TRIP INCLUDES: VOLCANISM AND PLUTONISM, GLACIAL GEOLOGY, ORE DEPOSITS, OVERTHRUSTS, IMBRICATE STRUCTURE, EXTENSIONAL BLOCK FAULTING, LINEAMENT STRUCTURE, AND GIANT RIPLE MARKS.

- A-39**
ALTMAN, MARGARET.
1963.
THE SOCIAL ROLE OF THE AGING UNGULATE.
BOULDER, CO.: UNIV. COLORADO. 6 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: COPIES NOT AVAILABLE FOR DISTRIBUTION, BUT ONE COPY IS DEPOSITED AND MAY BE REVIEWED AT THE NATIONAL BISON RANGE, MOIESE.

(GRAND TETON & YELLOWSTONE NATL. PARKS, TETON NATL. FOREST, & THE NATL. BISON RANGE). OLDER INDIVIDUAL BISON, ELK, AND MOOSE WERE OBSERVED TO DETERMINE PARTICIPATION IN SPECIES INTERACTION, POSITION IN RELATION TO SPECIES GROUPS DURING THE BREEDING SEASON, AFFILIATION WITH OTHER AGE GROUPS, AND DISENGAGEMENT FROM THEIR GROUP.

- A-40**
ALVORD, MAJOR B.
1855.
"CONCERNING THE MANNERS AND CUSTOMS, THE SUPERSTITIONS, ETC., OF THE INDIANS IN OREGON." IN INFORMATION RESPECTING THE HISTORY, CONDITIONS, AND PROSPECTS OF THE INDIAN TRIBES OF

THE UNITED STATES. VOL. 5. EDITED BY HENRY R. SCHOOLCRAFT. VOL. 5.
PHILADELPHIA: J.B. LIPPINCOTT & CO.
ORIGINAL DATA.

(OREGON TERRITORY). THIS SUMMARY DESCRIPTION OF THE LIFEWAYS OF THE INDIANS IN OREGON TERRITORY INCLUDES THE FLATHEAD AND THE PEND D'OREILLES. THE INFORMATION WAS OBTAINED IN 1853. SKCC.

- A-41**
ALWIN, JOHN A.
1972.
"PATTERNS OF MONTANA'S TOWNS: 1880-1920."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 131 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS STUDY SERVES FOUR MAIN PURPOSES: 1) TO CARTOGRAPHICALLY DEPICT AND TRACE THE CHANGING PATTERNS OF TOWNS IN MONTANA BETWEEN 1880 AND 1920; 2) TO ANALYZE THESE PATTERNS USING RELEVANT GEOGRAPHIC AND HISTORIC FACTS, THEORIES, AND TECHNIQUES; 3) TO SEEK A PREVAILING THEME WHICH INFLUENCED THE DEVELOPMENT PATTERN; AND 4) TO PROVIDE INFORMATION FOR TEACHERS AND STUDENTS OF MONTANA GEOGRAPHY AND HISTORY.

- A-42**
AMERICAN BISON SOCIETY.
1909-1910; 1912; 1915-1916.
ANNUAL REPORTS, 3RD, 5TH, 10TH.
NEW YORK.
PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THREE EARLY REPORTS ON THE CONDITION OF THE BISON BISON HERD ON THE NATIONAL RANGE. ARTICLES THAT TAKE IN FLATHEAD HERDS INCLUDE: "OUR NATIONAL HERDS OF BUFFALO," "THE OUTLAW REMNANT OF THE PABLO BISON HERD," AND "THE FOUNDING OF THE MONTANA NATIONAL BISON HERD."

- A-43**
AMERICAN GEOPHYSICAL UNION. COMMITTEE ON GLACIERS. SUBCOMMITTEE ON AMERICAN ROCKY MOUNTAINS.
"BIBLIOGRAPHY: GLACIERS OF THE AMERICAN ROCKY MOUNTAINS."
17 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(NORTHERN U.S. ROCKY MTS.: GLACIER NATL. PARK & MISSION MTS.). REPORTS WHICH COVER GLACIATION IN GENERAL, AS WELL AS REPORTS SPECIFIC TO GLACIER NATIONAL PARK AND THE MISSION MOUNTAINS, ARE LISTED IN THIS UNPUBLISHED BIBLIOGRAPHY.

- A-44**
AMERICAN GEOPHYSICAL UNION.
REPORTS, HYDROLOGY: 1944. REPORTS OF COMMITTEE ON GLACIERS, 1935-36, 1943-43, 1943-44, AND 1950.
TRANS. AMERICAN GEOPHYSICAL UNION. 7 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN U.S.: MONTANA). THESE REPORTS CONTAIN DATA ON THE GLACIERS OF GLACIER NATIONAL PARK. THEY REVIEW PRECIPITATION DATA FOR THE VARIOUS YEARS AND THE CURRENT CONDITIONS OF SPERRY, JACKSON, AND GRINNELL GLACIERS.

A-45
AMES, MICHAEL.
 1973.
"MISSIONARIES' TOIL FOR SOULS AND SURVIVAL: INTRODUCING CHRISTIANITY TO THE PACIFIC NORTHWEST."
AMERICAN WEST 10:28-33, 63.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE ARTICLE DESCRIBES THE HISTORY OF MISSIONARY ACTIVITIES WHICH BEGAN IN 1831 WITH THE ARRIVAL IN ST. LOUIS OF SALISH INDIANS SEARCHING FOR PRIESTS. JASON AND DANIEL LEE, SAMUEL PARKER, DR. MARCUS WHITMAN, AND THE CATHOLIC MISSIONARIES WHO ESTABLISHED THE ST. IGNATIUS MISSION ARE DISCUSSED.

A-46
AMES, ROBIN, AND REAM, ROBERT.
 1978.
RECREATIONAL USE OF THE LOWER FLATHEAD RIVER: SUMMER 1977.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, MONTANA FOREST & CONSERVATION EXPR. STAT. 28 PP.
 FINAL, ORIGINAL DATA, SPECIFIC, TECHNICAL, WITHIN THE BASIN.

(LOWER FLATHEAD RIVER). THE PURPOSE OF THIS STUDY WAS TO IDENTIFY PATTERNS AND AMOUNTS OF RECREATIONAL USE. DATA WAS OBTAINED THROUGH OBSERVATIONS AND INTERVIEWS WITH USERS AT RIVER ACCESS POINTS. INCLUDED ARE TABLES WHICH SHOW RESPONSES TO QUESTIONS CONCERNING PREFERENCES FOR FUTURE RIVER DEVELOPMENT, DESIRE TO KEEP THE RIVER FREE FLOWING, AND THE NEED FOR MORE FLATWATER BOATING IN THE AREA.

A-47
AMMAN, GENE D.
 1978.
"BIOLOGY, ECOLOGY, AND CAUSES OF OUTBREAKS OF THE MOUNTAIN PINE BEETLE IN LODGEPOLE PINE FORESTS." IN THEORY AND PRACTICE OF MOUNTAIN PINE BEETLE MANAGEMENT IN LODGEPOLE PINE FORESTS: SYMPOSIUM PROCEEDINGS.
MOSCOW, ID.: UNIV. IDAHO, FOREST, WILDLIFE, & RANGE EXPR. STAT. 14 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ROCKY MTNS.: GLACIER NATL. PARK). THE TOPICS COVERED IN THIS REPORT ARE: DISTRIBUTION AND HOST TREES; LIFE CYCLE; FACTORS AFFECTING BROOD SURVIVAL; INSECT DEFOLIATION/MOUNTAIN PINE BEETLE ASSOCIATIONS; DROUGHT/BEETLE ASSOCIATIONS; AND THE EFFECT OF TREE DIAMETER, PHLOEM THICKNESS, AGE, AND CLIMATE ON INFESTATIONS.

A-48
AMMAN, GENE D., ET. AL.
 1977.
GUIDELINES FOR REDUCING LOSSES OF LODGEPOLE PINE TO THE MOUNTAIN PINE BEETLE IN UNMANAGED STANDS IN THE ROCKY MOUNTAINS.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. GEN. TECH. REPT. INT-36, 19 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ROCKY MTNS.). THE REPORT PRESENTS GUIDELINES DESCRIBING HABITS OF THE MOUNTAIN PINE BEETLE (*DENDROCTONUS PONDEROSAE*) IN LODGEPOLE PINE (*Pinus contorta*) AND ALTERNATIVES THAT LAND MANAGERS COULD USE TO REDUCE BEETLE-CAUSED LOSSES. THE GUIDELINES ARE APPLICABLE ONLY TO UNMANAGED LODGEPOLE PINE STANDS. THE LIFE CYCLE OF THE BEETLE, THE TREE FACTORS

INVOLVED IN THE BEETLE-TREE RELATIONSHIP (DIAMETER, SIZE, PHLOEM THICKNESS, TREE AGE, STAND DENSITY), AND OTHER FACTORS SUCH AS ELEVATION AND LATITUDE ARE DESCRIBED. A BRIEF DISCUSSION OF PREDICTING STAND SUSCEPTIBILITY IS INCLUDED.

A-49
ANACONDA ALUMINUM.
 1973-1975.
ANACONDA ALUMINUM AMBIENT AIR AND VEGETATION SAMPLING, GLACIER PARK: 1972, 1973, 1974.
COLUMBIA FALLS, MT.: ANACONDA ALUMINUM CO., COLUMBIA FALLS REDUCTION PLANT.
 PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS & GLACIER NATL. PARK). THESE ANNUAL REPORTS CONTAIN THE CUMULATIVE RESULTS OF SAMPLING IN GLACIER NATIONAL PARK. AIR SURVEYS WERE CONDUCTED WITH THE SODIUM BICARBONATE TUBE AND THE CALCIUM FORMAT PAPER, SUSPENDED PARTICULATE SAMPLER (1974), AND SETTLEABLE PARTICULATE SAMPLER (1974). VEGETATION WAS SAMPLED AT TEN DIFFERENT LOCATIONS AND PROCESSED ON A DRY WEIGHT BASIS.

A-50
ANACONDA COMPANY.
 1972.
ANACONDA ALUMINUM FLUORIDE ANALYSIS OF BONE SPECIMENS, 1971.
COLUMBIA FALLS, MT.: ANACONDA CO., ANACONDA ALUMINUM. 5 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS & GLACIER NATL. PARK). THIS REPORT CONTAINS THE DATA OBTAINED FROM FLUORIDE ANALYSIS OF BONE SAMPLES TAKEN FROM COLUMBIAN GROUND SQUIRREL, GOLDEN-MANTLED GROUND SQUIRREL, YELLOW PINE CHIPMUNK, RED-TAILED GROUSE, AND WHITE-TAILED DEER.

A-51
ANACONDA COMPANY. ALUMINUM DIVISION. COLUMBIA FALLS REDUCTION PLANT.
 1976.
"ANACONDA ALUMINUM AMBIENT AIR AND VEGETATION SAMPLING, GLACIER NATIONAL PARK."
ANACONDA CO., ALUMINUM DIV., COLUMBIA FALLS REDUCTION PLANT, COLUMBIA FALLS, MT. (TYPEWRITTEN). 17 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK & COLUMBIA FALLS REDUCTION PLANT AREA). THE FILE CONTAINS DATA FOR THE AMBIENT AIR AND VEGETATION SAMPLING TAKEN IN GLACIER NATIONAL PARK DURING THE 1975 SEASON. AMBIENT AIR SURVEYS WERE CONDUCTED WITH THE SODIUM BICARBONATE TUBE, SUSPENDED PARTICULATE SAMPLER, AND SETTLEABLE PARTICULATE SAMPLER. VEGETATION WAS SAMPLED AT TEN DIFFERENT LOCATIONS AND PROCESSED ON A DRY WEIGHT BASIS TO DETERMINE PARTS PER MILLION FLUORIDE.

A-52
ANACONDA COMPANY. ANACONDA ALUMINUM COMPANY DIVISION.
 1974.
COMMENT OF THE ANACONDA ALUMINUM COMPANY REDUCTION DIVISION TO STATE OF MONTANA'S ENVIRONMENTAL IMPACT STATEMENT OF FEB. 7, 1974.
COLUMBIA FALLS, MT. 45 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THESE COMMENTS COVER A DESCRIPTION OF THE PLANT'S PROCESSES, CON-

TROL METHODS AND COMPLIANCE, EXISTING ENVIRONMENTAL AND POLLUTANT EFFECTS, IMPACTS OF POSSIBLE ACTIONS AND ANALYSIS OF PROPOSED ACTION.

A-53
ANACONDA COMPANY, ANACONDA ALUMINUM COMPANY DIVISION.
 1973.
PETITION FOR VARIANCE FROM CERTAIN RULES AND REGULATIONS TO THE DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES AND THE MONTANA STATE BOARD OF HEALTH BY ANACONDA ALUMINUM COMPANY DIVISION.
COLUMBIA FALLS, MT. 18 + PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THIS IS A COPY OF THE PETITION REQUESTING A ONE-YEAR EXEMPTION UNDER SECTION 69-3918 OF THE REVISED CODES OF MONTANA FROM COMPLIANCE WITH THE FLUORIDE AND PARTICULATE REGULATION SET FORTH IN 16-2.14(1)-S14080 OF THE MONTANA ADMINISTRATIVE CODES. THE COMPANY PROPOSES TO CONTINUE ITS EFFORTS TO DEVELOP TECHNICALLY AND ECONOMICALLY FEASIBLE SOLUTIONS TO FURTHER CONTROL ITS EMISSIONS AT THE COLUMBIA FALLS PLANT.

A-54
ANASTASIO, ANGELO.
 1955.
"INTERGROUP RELATIONS IN THE SOUTHERN PLATEAU."
PH.D. DISSERTATION, UNIV. CHICAGO.

(PACIFIC NORTHWEST). THIS IS AN INTERESTING STUDY OF TRIBAL RELATIONS IN THE PLATEAU REGION. ANASTASIO'S SOUTHERN PLATEAU REFERS TO THE INTERIOR REGION OF THE PACIFIC NORTHWEST IN THE UNITED STATES. SKCC.

A-55
ANDERSON, F.W., AND KELSEY, F.D.
 1891.
"COMMON AND CONSPICUOUS ALGAE OF MONTANA."
BULL. TORREY BOTANICAL CLUB 18:137-146.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE ARTICLE CONTAINS A DESCRIPTIVE LISTING OF VARIOUS ALGAE. IT DESCRIBES ABUNDANCE, PHYSICAL CHARACTERISTICS AND DIMENSIONS, LOCATIONS, AND DATE OF SPECIMEN COLLECTION.

A-56
ANDERSON, I.V.
 1976.
"CHIEF PAUL CHARLO—FOUR ELK AND TWELVE DEER." IN EARLY DAYS IN THE FOREST SERVICE, VOL. 4, PP. 17-20.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, NORTHERN REGION.

(MONTANA: FLATHEAD NATL. FOREST). THIS DESCRIPTION OF ANDERSON'S 1940 DEALINGS WITH SOME FLATHEAD LEADERS RELATES TO ALLOWING TRIBAL MEMBERS FROM THE FLATHEAD TO HUNT SURPLUS BIG GAME ANIMALS ON THE FLATHEAD NATIONAL FOREST. THE IDEA WAS FINALLY REJECTED. SKCC.

A-57
ANDERSON, N.L.
 (IN PRESS).
A SURVEY OF DESTRUCTIVE AND USEFUL INSECTS IN MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV., AGRIC. EXPR. STAT.

IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD & LAKE COUNTIES). THE OBJECTIVE OF THIS PROJECT WAS TO ESTABLISH BASE LINE INFORMATION ON THE PRESENCE AND DISTRIBUTION OF TERRESTRIAL INSECTS IN THE STATE, ESPECIALLY IN AREAS OF ANTICIPATED MAN-MADE ENVIRONMENTAL CHANGE. THE PROJECT ATTEMPTED TO EVALUATE THE EFFECTS OF CHANGES IN AGRONOMIC PRACTICES ON BENEFICIAL AND DESTRUCTIVE INSECT POPULATIONS. EXTENSIVE COLLECTIONS OF TERRESTRIAL INSECTS WERE MADE, AND DATA FROM STATE AND FEDERAL SURVEYS WERE UTILIZED. DATA WERE COMPARED TO DETERMINE DISTRIBUTIONAL CHANGES AND POSSIBLE CHANGES IN ABUNDANCE. A SURVEY OF GREEN PEACH APHID ASSOCIATED WITH POTATO GROWING AREAS OF LAKE AND FLATHEAD COUNTIES WAS MADE. A STUDY OF THE BIOLOGY OF THE APHID AND ITS RELATIONSHIP TO POTATO LEAF ROLL WAS INITIATED.

A-58
ANDERSON, VIRGINIA.
1957.

"NATIVE COSTUMES OF THE FLATHEAD AND KUTENAI INDIAN TRIBES ON THE FLATHEAD RESERVATION IN MONTANA."
M.A. THESIS, KANSAS STATE COLL., MANHATTAN.

(FLATHEAD INDIAN RESERVATION). THIS STUDY OF THE STYLES OF CLOTHING USED BY THE TRIBES OF THE FLATHEAD RESERVATION INCLUDES DESCRIPTIONS OF THEIR DECORATION AND CONSTRUCTION. SKCC.

A-59
ANDRICHUK, JOHN M.
1955.

"CARBONIFEROUS STRATIGRAPHY IN MOUNTAINS OF NORTHWESTERN MONTANA AND SOUTHWESTERN ALBERTA," IN *GUIDEBOOK: 8TH ANNUAL FIELD CONFERENCE*, PP. 85-95. EDITED BY PAUL J. LEWIS.
BILLINGS, MT.: BILLINGS GEOLOGICAL SOCIETY.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA & SOUTHWESTERN ALBERTA). THE PAPER SUMMARIZES INTERPRETATIONS OF CARBONIFEROUS STRATIGRAPHY BASED ON THE WRITER'S DETAILED LITHOLOGIC STUDIES. THE IDENTIFICATION OF UNITS IN VARIOUS FORMATIONS, THE UNITS' PALEONTOLOGY AND THEIR CORRELATION, AND THE CHARACTERISTICS OF THE FORMATIONS (ROCK THICKNESS, ROCK TYPES, COLORS, ETC.) ARE DISCUSSED. INCLUDED IN THE PAPER ARE THE SUN RIVER, TETON RIVER, BIRCH CREEK, BANFF AND MOUNT HEAD AREAS AS WELL AS HIGHWOOD AND CROWS NEST PASS.

A-60
ANDRICHUCK, JOHN MICHAEL.
1951.

"REGIONAL STRATIGRAPHIC ANALYSIS OF THE DEVONIAN SYSTEM IN WYOMING, MONTANA, SOUTHERN SASKATCHEWAN, AND ALBERTA."
PH.D. DISSERTATION, NORTHWESTERN UNIV., EVANSTON, ILL. 342 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(WYOMING, MONTANA, SOUTHERN SASKATCHEWAN, & ALBERTA). THE PURPOSE OF THIS STUDY WAS TO APPLY METHODS OF REGIONAL STRATIGRAPHIC ANALYSIS TO DEVONIAN ROCKS IN ORDER TO RECONSTRUCT, AS ACCURATELY AS POSSIBLE, THE GEOLOGIC HISTORY OF THE AREA DURING THE FORMATION OF SEDIMENTS BELONGING TO THIS STRATIGRAPHIC INTERVAL. IT INCLUDES A DETAILED STRATIGRAPHIC REPORT, WITH THE DEVONIAN STRATA DIVIDED INTO CONSISTENT OPERATION

LITHOGRAPHIC UNITS; A PETROGRAPHIC STUDY OF THE CHARACTERISTIC ROCK TYPES; A DETAILED DESCRIPTION OF THE MEASURED SURFACE SECTIONS; GENERALIZED SAMPLE DESCRIPTIONS OF THE SUBSURFACE SECTIONS NOT INCLUDED IN THE ROCK CORRELATION CHARTS; AND A KEY TO ALL THE SECTIONS USED IN THE CONSTRUCTION OF THE MAP.

A-61
ANNUAL REPORT OF GLACIER MEASUREMENTS.
1931-1967.

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN).

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
AVAILABLE FROM: GLACIER NATL. PARK, HISTORICAL FILES.

(GLACIER NATL. PARK). THESE FILES CONTAIN ANNUAL MEASUREMENTS TAKEN DURING THE SUMMER. EMPHASIS IS PLACED ON THE STUDY OF GRINNELL, SPERRY, AND JACKSON GLACIERS. THE REPORTS INCLUDE CHARTS NOTING RECESSON, PHOTOGRAPHS AND DIAGRAMS. SOME TOPOGRAPHIC MAPPING OF THE GLACIERS WAS CONDUCTED.

A-62
ANONYMOUS.
1908.

"FLATHEAD INDIAN RESERVATION, MONTANA, REACHED VIA THE GREAT NORTHERN RAILWAY."
GREAT NORTHERN RAILWAY, ST. PAUL, MINN.

(MONTANA: FLATHEAD INDIAN RESERVATION). THIS PROMOTIONAL BOOKLET ENCOURAGES THE IMMIGRATION OF WHITES ONTO THE FLATHEAD RESERVATION LANDS. SKCC.

A-63
ANONYMOUS.
1975.

HISTORIC AND SCENIC MISSOULA AND RAVALLI COUNTIES: SOUVENIR OF THE NATIONAL IRRIGATION CONGRESS.
MISSOULA, MT.: JEAN'S ANTIQUES; REPRINT ED.

(MISSOULA & RAVALLI COUNTIES). THIS REPRINT INCLUDES BIOGRAPHICAL SKETCHES OF JOSEPH ALLARD, MICHAEL PABLO, AGENT W.H. SMEAD, AND A NUMBER OF RESERVATION TRADERS. SKCC.

A-64
ANONYMOUS.
1954.

100 YEARS IN THE FLATHEAD VALLEY: THE ST. IGNATIUS CENTENNIAL.
ST. IGNATIUS, MT.

(ST. IGNATIUS AREA). THIS SOUVENIR BOOKLET OF THE CENTENNIAL CELEBRATION OF THE FOUNDING OF ST. IGNATIUS MISSION INCLUDES SEVERAL HISTORICAL ARTICLES ABOUT THE MISSION IN GENERAL, THE SISTERS OF PROVIDENCE, THE URSULINES, AND THE ALLARD FAMILY. SKCC.

A-65
ANTOINETTE, MOTHER MARY.
1949.

THE INSTITUTE OF PROVIDENCE. VOL. 5: THE SISTERS OF PROVIDENCE IN OREGON, 1936.
MONTREAL, QUEBEC: PROVIDENCE MOTHER HOUSE.
ORIGINAL DATA.

(ST. IGNATIUS MISSION). THIS VOLUME MENTIONS THE ESTABLISHMENT OF THE SISTERS OF PROVIDENCE SCHOOL AT ST. IGNATIUS MISSION. IT INCLUDES TRANSCRIPTION OF A LETTER FROM SISTER JOSEPH DESCRIBING THE JOURNEY OF THE FIRST BAND OF SISTERS TO ST. IGNATIUS. SKCC.

A-66
ANTOS, JOSEPH AVERY.
1977.

"GRAND FIR (ABIES GRANDIS (DOUGL.) FORBES) FORESTS OF THE SWAN VALLEY."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 220 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: SWAN VALLEY). THE BASIC OBJECTIVES OF THIS STUDY WERE TO: 1) DETERMINE THE COMPOSITIONAL CHARACTERISTICS OF FORESTS REPRESENTING THE ENTIRE RANGE OF CONDITIONS UNDER WHICH GRAND FIR GROWS IN THE SWAN VALLEY, 2) IDENTIFY THE ENVIRONMENTAL FACTORS RESPONSIBLE FOR THE VARIATIONS IN SPECIES COMPOSITION AND ABUNDANCE, 3) ELUCIDATE THE SUCCESSIONAL PATTERNS PRESENT, AND 4) ILLUSTRATE HOW THIS INFORMATION CAN BE APPLIED TO RESOURCE MANAGEMENT IN THE SWAN VALLEY.

A-67
ANTREI, ALBERT.
1963.

"FATHER PIERRE JEAN DESMET."
MONTANA MAGAZINE OF WESTERN HISTORY
13:24-43.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: ABORIGINAL LANDS OF THE FLATHEAD INDIANS). AN ACCOUNT OF THE ACTIVITIES OF THE JESUIT MISSIONARY WHO IN 1840 FOUNDED ST. MARY'S MISSION AMONG THE FLATHEAD TRIBE.

A-68
AOKI, HARUO.
1968.
"SALISHAN INDIAN LANGUAGES."
IDAHO YESTERDAYS 12(SPRING 1968):8-11.

THIS ARTICLE OUTLINES THE STATE OF LINGUISTIC STUDIES OF THE SALISH FAMILY OF LANGUAGES. SKCC.

A-69
APPERT, SUE A.
1977.

"A COMPARATIVE STUDY OF LAKE OUTLET ECOSYSTEMS."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 104 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: TALLY, BOWMAN, AND KINTLA LAKES IN THE FLATHEAD DRAINAGE AND LINDBERG, AND CYGNET LAKES IN THE SWAN RIVER DRAINAGE ARE AMONG THE LAKES STUDIED.

(MONTANA). THE STUDY EXAMINES CORRELATIONS BETWEEN THE PRODUCTIVITY OF 13 LAKES AND THE SPECIES RICHNESS AND COMPOSITION OF BENTHIC INSECTS IN THE OUTLET STREAMS. THE PRESENCE AND RELATIVE ABUNDANCE OF INSECT SPECIES IN THE STREAMS IS NOTED. PRODUCTIVITY INDICES BASED ON AMOUNTS OF DISSOLVED IONS IN THE LAKES AND CHLOROPHYLL AND PARTICULATE CARBON MEASUREMENTS ARE UTILIZED TO PREDICT SPECIES NUMBERS. COMPARISONS BETWEEN LAKES ARE DRAWN.

A-70
APPEGATE, ROGER.
1979.

"GERMINATION OF COW PARSNIP SEEDS FROM GRIZZLY BEAR FECES."
J. MAMMOLOGY 60:2-4.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS IS A REPORT ON THE GERMINABILITY OF HERACLEUM LANATUM SEEDS

RETRIEVED FROM FECES OF GRIZZLY BEARS (URSUS ARCTOS). THE OBJECTIVE OF THIS STUDY WAS TO DETERMINE IF GERMINATION RATES OF SEEDS FROM BEAR FECES WERE DIFFERENT FROM THOSE OF SEEDS FROM RIPE PICKED FRUIT. THE INFORMATION WAS NEEDED TO EVALUATE THE IMPORTANCE OF BEARS AS DISPERSERS OF PLANTS.

A-71

APPLETON, JOHN B.
1939.

THE PACIFIC NORTHWEST: A SELECTED BIBLIOGRAPHY.

PORTLAND: N.W. REGIONAL COUNCIL. 455 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE LISTING INCLUDES COMPLETED RESEARCH IN THE NATURAL RESOURCE AND SOCIO-ECONOMIC FIELDS AND ANNOTATIONS OF IN-PROGRESS AND CONTEMPLATED RESEARCH DURING THE PERIOD FROM 1930 TO 1939. THERE IS NO INDEX. EACH MAJOR SUBJECT DIVISION (AGRICULTURE, FOREST, MINERAL, WATER, POWER RESOURCES, FISHERIES, HUMAN PROBLEMS, COMMERCE AND INDUSTRY, GOVERNMENT, EDUCATION, PLANNING, MAPS AND DIAGRAMS) CARRIES AN INTERPRETATIVE COMMENT APPRAISING RESEARCH TRENDS, GAPS, AND NEEDS.

A-72

"ARE OUR TREATIES WITH THE INDIANS 'SCRAPS OF PAPER?'"

AMERICAN INDIAN LIFE. SUPPLEMENT TO BULL. 11(DECEMBER 1927-FEBRUARY 1928):1-16.

(MONTANA: FLATHEAD INDIAN RESERVATION). THIS PAMPHLET ARGUES IN DEFENSE OF SAVING ALL OF THE REVENUES FROM THE FLATHEAD POWER SITE FOR THE FLATHEAD TRIBE. IT WAS PROBABLY WRITTEN BY JOHN COLLIER. SKCC.

A-73

ARLEE HIGH SCHOOL AMERICAN HISTORY CLASS. A HISTORY OF ARLEE.

MISSOULA, MT.: MOUNTAIN PRESS. 71 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN. NUMEROUS HISTORIC PHOTOGRAPHS ARE INCLUDED.

(ARLEE AREA). BASED PARTLY ON INTERVIEWS WITH LONG-TIME RESIDENTS, THIS HISTORY DESCRIBES THE ESTABLISHMENT AND DEVELOPMENT OF THE COMMUNITY, AS WELL AS THE WAY OF LIFE IN THE LATE 1800'S AND EARLY 1900'S. THE FOLLOWING HISTORIC ACCOUNTS ARE INCLUDED: THE MOVEMENT OF CHIEF CHARLOT'S BAND TO THE JOCKO VALLEY, THE FUR TRADE ACTIVITIES OF JOCKO FINLAY, RANCH SETTLEMENT, THE SALE AND ROUND-UP OF THE BUFFALO HERD, THE ESTABLISHMENT OF ARLEE BUSINESSES, TRANSPORTATION, SCHOOLS AND CHURCHES, LOGGING ACTIVITIES, AND RECREATION.

A-74

ARMSTRONG, ROBERT H., AND MORTON, W.M.
1968.

REVISED ANNOTATED BIBLIOGRAPHY ON THE DOLLY VARDEN CHAR.

JUNEAU: ALASKA DEPT. FISH & GAME.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(NORTH AMERICA). THIS BIBLIOGRAPHY CONTAINS 377 REFERENCES ON THE SALVELINUS MALMA (WALBAUM). A SUBJECT INDEX IS INCLUDED.

A-75

ARNO, STEPHEN F.
1966.

ALPINE LARCH (LARIX LYALLII PARLATORE) AND ITS NATURAL OCCURRENCE.

MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY. 52 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(EASTERN SLOPE OF MISSION RANGE & SWAN RANGE). THE PURPOSE OF THIS PAPER IS TO COMPIL THE MOST COMPLETE DESCRIPTION OF ALPINE LARCH CURRENTLY AVAILABLE. CHAPTERS COVER: PHYSICAL AND GROWTH CHARACTERISTICS, HYBRIDIZATION WITH WESTERN LARCH, AND THE DIFFERENTIATION BETWEEN ALPINE AND WESTERN LARCHES. ASPECTS OF THE HABITAT, ASSOCIATED SPECIES, ADAPTABILITY OF THE SPECIES, AND MAPS OF THE SPECIES' RANGE ARE INCLUDED.

A-76

ARNO, STEPHEN.
1979.

CLASSIFICATION OF SERAL COMMUNITIES FOR MAJOR FOREST HABITAT TYPES IN WESTERN MONTANA AND CENTRAL IDAHO. 2ND ANNUAL PROGRESS REPORT.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPER. STAT., FORESTRY SCIENCES LAB. STUDY INT-1205-587. 58 PP.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN MONTANA & CENTRAL IDAHO). THE GOAL OF THIS STUDY IS TO DEVELOP CLASSIFICATIONS OF COMMON SERAL COMMUNITY TYPES (BASED ON KEY SPECIES AND STAND LIFE FORMS) FOR A FEW MAJOR HABITAT TYPES AND OUTLINE THE SUCCESSIONAL SEQUENCES OF COMMUNITY TYPES ON EACH HABITAT TYPE. THE FIRST PART OF THIS REPORT COVERS THE SUCCESSIONAL STAGES OF THE PSEUDOTSUGA VACCINIUM GLOBULARE AND ABIES LASIOCARPA XEROPHYLLUM HABITAT TYPES. THE SECOND PART DISCUSSES HYPOTHESIZED SUCCESSIONAL PATTERNS OF TREE SPECIES ON THE PSEUDOTSUGA PHYSOCARPUS AND ABIES LASIOCARPA XEROPHYLLUM HABITAT TYPES.

A-77

ARNO, STEPHEN F.
1970.

"ECOLOGY OF ALPINE LARCH (LARIX LYALLII PARL.) IN THE PACIFIC NORTHWEST."

PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 264 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: MISSION MTN. RANGE, BOB MARSHALL WILDERNESS AREA, GLACIER NATL. PARK, & WHITEFISH RANGE). UTILIZING A QUANTITATIVE ANALYSIS OF ASSOCIATED VEGETATION AND DATA ON CLIMATE, SURFACE SOILS, AND PHYSIOGRAPHY, THIS STUDY INVESTIGATES THE ECOLOGY OF ALPINE LARCH AND VEGETATIONAL COMMUNITIES ASSOCIATED WITH THE SPECIES THROUGHOUT ITS NATURAL RANGE. DESCRIPTIVE DATA WAS GATHERED FOR 127 SAMPLE STANDS REPRESENTING A BROAD SPECTRUM OF MICRO ENVIRONMENTAL SITUATIONS AND PLANT COMMUNITIES IN WHICH THE LARCH OCCURS. INCLUDED IN THE DISCUSSION ARE: COMMON UNDERSTORY DOMINANT SPECIES, THE INDIRECT RELATIONSHIP OF UNDERSTORY SPECIES TO ALPINE LARCH, THE LARCH AS CLIMAX SPECIES ON SEVERE SITES, AND THE RELATIONSHIP OF LARCH TO ACIDIC SUBSTRATES POOR IN MINERAL IONS.

A-78

ARNO, STEPHEN F.
1979.

FOREST REGIONS OF MONTANA.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPER. STAT. RES. PAPER INT-218. 39 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS REPORT CATEGORIZES FOREST VEGETATION ACROSS MONTANA INTO EIGHT FOREST REGIONS. THE REGIONS CORRELATE THE INFLUENCE OF CLIMATE AND GENERAL TOPOGRAPHY TO FOREST VEGETATION—INCLUDING THE DISTRIBUTION OF TREES AND UNDERGROWTH SPECIES AND FOREST HABITAT TYPES. DATA ON THE DISTRIBUTION OF PLANT SPECIES AND HABITAT TYPES AND FOREST ZONATION ARE PRESENTED FOR EACH REGION.

A-79

ARNO, STEPHEN F.
1966.

"INTERPRETING THE TIMBERLINE: AN AID TO HELP PARK NATURALISTS TO ACQUAINT VISITORS WITH THE SUBALPINE ECOTONE OF WESTERN NORTH AMERICA."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 206 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(GLACIER NATL. PARK). THIS PAPER ATTEMPTS TO SURVEY TIMBERLINES OF WESTERN NORTH AMERICA IN A MANNER PRIMARILY DESIGNED TO SERVE PUBLIC INTERPRETERS OF NATURAL HISTORY. PARTICULAR EMPHASIS IS PLACED ON DESCRIBING COMMON TREE SPECIES ENCOUNTERED AT TIMBERLINE. CAUSES OF TIMBERLINE FORMATION AND HOW TREES ADAPT TO THE ENVIRONMENT ARE OTHER TOPICS ADDRESSED.

A-80

ARNO, STEPHEN F., AND HABECK, JAMES R.
1972.

"ECOLOGY OF ALPINE LARCH (LARIX LYALLII PARL.) IN THE PACIFIC NORTHWEST."

ECOLOGICAL MONOGRAPHS 42(FALL 1972):417-450.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: NORTH FORK OF THE FLATHEAD RIVER). THE DUAL OBJECTIVES OF THIS STUDY WERE TO PROVIDE BASIC INFORMATION ON THE ECOLOGY OF LARIX LYALLII AND TO ANALYZE THE VEGETATIONAL COMMUNITIES ASSOCIATED WITH ALPINE LARCH THROUGHOUT ITS NATURAL RANGE. INTERPRETATION OF PREVIOUS WORK, ECOLOGICAL LIFE HISTORY, VEGETATIONAL DATA AND A DISCUSSION ARE INCLUDED. LARIX LYALLII STANDS OCCUR IN THE NORTH FORK OF THE FLATHEAD.

A-81

ARTHUR, CHESTER A.
1883.

"MESSAGE FROM THE PRESIDENT OF THE UNITED STATES TRANSMITTING A LETTER FROM THE SECRETARY OF THE INTERIOR RESPECTING THE RATIFICATION OF AN AGREEMENT WITH THE CONFEDERATED TRIBES OF FLATHEAD, KOOTENAY, AND UPPER PEND D'OREILLES INDIANS, FOR THE SALE OF A PORTION OF THEIR RESERVATION IN MONTANA TERRITORY."

SENATE EXECUTIVE DOCUMENT NO. 44, 47TH CONG., 2ND SESS., SERIAL 2076.

ORIGINAL DATA.

(MONTANA: FLATHEAD INDIAN RESERVATION). THIS REPORT DEALS WITH THE AGREEMENT WITH THE CONFEDERATED TRIBES TO SELL THE NORTHERN PACIFIC RAILROAD THE RIGHT-OF-WAY THROUGH THE RESERVATION. IT INCLUDES MINUTES OF THE 1882 CONFERENCE WITH THE RESERVATION INDIAN LEADERS. SKCC.

A-82

ARTHUR, GEORGE W.
1875.

AN INTRODUCTION TO THE ECOLOGY OF EARLY HISTORIC COMMUNAL BISON HUNTING AMONG THE NORTHERN PLAINS INDIANS.

OTTAWA, CAN.: NATIONAL MUSEUMS OF CANADA.
ARCHEOLOGICAL SURVEY OF CANADA PAPER NO.
37.

(NORTHERN PLAINS). THIS INTRODUCTION TO THE
HABITS OF THE BUFFALO AND DIFFERENT INDIAN
HUNTING METHODS ON THE NORTHERN PLAINS
MENTIONS THE FLATHEAD TRIBES BUT CONCEN-
TRATES ON THE GENERAL HUNTING ECONOMY IN
THE AREA. SKCC.

A-83
ARTLEY, DONALD K.
1978.

**"PREDICTING DUFF REDUCTION FROM BROADCAST
BURNING IN WESTERN LARCH-DOUGLAS FIR
STANDS."**

M.S. THESIS, UNIV. MONTANA, MISSOULA. 72 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(CORAM EXPR. FOREST). THE OBJECTIVE OF THIS
STUDY WAS TO ATTEMPT TO DEVELOP PREDICTION
EQUATIONS FOR THE PERCENTAGES OF DUFF
REDUCTION BY DEPTH, AND MINERAL SOIL EX-
POSURE BY AREA, RESULTING FROM BROADCAST
BURNING OF LOGGING SLASH IN A WESTERN
LARCH-DOUGLAS FIR STAND. ONLY PREBURN
MEASUREMENTS WERE TO BE CONSIDERED AS
POSSIBLE VARIATIONS. SEPARATE EQUATIONS FOR
CLEARCUTS AND SHELTERWOODS WERE PLANNED.

A-84
ARTLEY, DONALD K.; SHEARER, RAYMOND C.; AND
STEELE, ROBERT W.
1978.

**EFFECTS OF BURNING MOIST FUELS ON SEED BED
PREPARATION IN CUTOVER WESTERN LARCH
FORESTS.**

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST
SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT.
RES. PAPER INT-211. 14 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(CORAM EXPR. FOREST). THE OBJECTIVE OF THIS
STUDY WAS TO DEVELOP A MODEL FOR PREDICTING
DUFF REDUCTION AND MINERAL SOIL EXPOSURE
RESULTING FROM BROADCAST BURNING, USING ON-
LY PREBURN MEASUREMENTS FOR INPUTS. NON-
CONIFEROUS ROOT MORTALITY, SOIL HEATING, AND
SOIL WATER CONTENT WERE QUANTIFIED.

A-85
ASKEW, W. BLAINE.
1975.

**"A PRELIMINARY STUDY OF THE FLORA AND TAX-
ONOMY OF THE ORDER LYCOPERDALES
(GASTEROMYCETES) OF ALBERTA AND NOR-
THWESTERN MONTANA."**

M.A. THESIS, UNIV. MONTANA, MISSOULA. 159 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(NORTHWESTERN MONTANA). THE FOLLOWING OB-
JECTIVES WERE ESTABLISHED FOR THE STUDY: 1) TO
COMPILE A PRELIMINARY LIST OF SPECIES FOUND IN
THE STUDY AREA AND TO CHART THEIR DISTRIBU-
TION AND ECOLOGY, 2) TO DETERMINE THE
MICROSCOPIC CHARACTER OF THE PERIDIA OF THE
SPECIMENS COLLECTED IN ADDITION TO THE TRADI-
TIONALLY DESCRIBED COMPONENTS OF THE
FRUITING BODIES, 3) TO FOLLOW THE DEVELOP-
MENT OF THE SPOROPORE IN SELECTED SPECIES,
AND 4) TO INCORPORATE ALL OBSERVED DATA INTO
REVISED TAXONOMIC DESCRIPTIONS OF THE
SPECIES.

A-86
ASKEW, BLAIN, AND MILLER, ORSON K., JR.
1977.
**"NEW EVIDENCE OF CLOSE RELATIONSHIPS BET-
WEEN RADIIGERA AND GEASTRUM
(LYCOPERDALES)."**

CANADIAN J. BOTANY 55(1 NOVEMBER
1977):2693-2700.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(NORTHWESTERN MONTANA). SPECIMENS OF
RADIIGERA FUSCOGLEBA AND GEASTRUM LIM-
BATUM WERE STUDIED BOTH 'IN SITU' AND
MICROSCOPICALLY AND ARE DESCRIBED IN DETAIL.
THE STUDY'S PURPOSE INVOLVED THE OBSERVA-
TION OF THE DEVELOPMENTAL STAGES OF THE TWO
SPECIES AND THE DETERMINATION OF THE
DISTINGUISHING FEATURES OF COMMON SPECIES
OF RADIIGERA AND THE RELATIONSHIP OF THAT
GENUS TO GEASTRUM. NEW DISTRIBUTIONAL
RECORDS FOR TWO SPECIES OF RADIIGERA AND
FOR GEASTRUM LIMBATUM ARE REPORTED FOR THE
PACIFIC NORTHWEST.

A-87
ATWOOD, WALLACE W.
1949.

"GLACIER NATIONAL PARK IN DANGER."
NATIONAL PARKS MAGAZINE (JANUARY-MARCH
1949):10-18.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE
FLATHEAD RIVER). THIS ARTICLE DISCUSSES HOW
THE PROPOSED CONSTRUCTION OF A DAM AT
GLACIER VIEW POINT ON THE NORTH FORK OF THE
FLATHEAD RIVER WOULD AFFECT GLACIER NA-
TIONAL PARK. PHOTOGRAPHS ACCOMPANY THE AR-
TICLE.

A-88
AUBREY, CHARLES.
1902.

"THE EDMONTON BUFFALO HERD."
FOREST AND STREAM, 5 JULY 1902, PP. 6-10.
ORIGINAL DATA.

(MONTANA: FLATHEAD INDIAN RESERVATION).
AUBREY WAS A TRADER ON THE MARIAS RIVER AND
DESCRIBES THE EVENTS LEADING UP TO THE 1878
FOUNDING OF THE PABLO-ALLARD BUFFALO HERD
ON THE FLATHEAD RESERVATION BY SAM WALKING
COYOTE. SKCC.

A-89
AUSTIN, RAYMOND RICHARD.
1973.

**"HABITAT DIVERSITY AS RELATED TO PHEASANT
USE ON A GAME MANAGEMENT AREA IN NOR-
THWESTERN MONTANA."**

M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 63
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MONTANA: NINEPIPE GAME MANAGEMENT AREA).
THE PURPOSE OF THIS STUDY WAS TO EVALUATE
THE PHEASANT USE OF THE CULTIVATED, NATIVE,
AND WETLAND VEGETATION ON THE STUDY AREA.
THE STUDY INCLUDED THE SUMMER PERIODS OF
1970 AND 1971 AND THE WINTER PERIOD OF 1971.
DETAILED VEGETATION MAPS WERE MADE OF THE
STUDY AREA. SUMMER PHEASANT OBSERVATIONS
WERE PLOTTED ON THESE MAPS AND THE VEGETA-
TION WITHIN A NINE-ACRE BLOCK AROUND THEM
WAS ANALYZED. AN INDEX OF DIVERSITY WAS
CALCULATED, AS WAS THE FREQUENCY OF OCCUR-
RENCE AND AVERAGE PERCENT OF AREA FOR EACH
COVER TYPE WITHIN THE NINE-ACRE BLOCKS. THE
RESULTS FROM THE 631 OBSERVATIONS OF BOTH
SUMMERS WERE COMPARED WITH THE RESULTS OF
200 RANDOMLY SELECTED SITES IN EACH SECTION,
WHICH WERE ANALYZED IN THE SAME MANNER AS
THE OBSERVATION SITES.

A-90
AYERS, H.B.
1900.

**"LEWIS AND CLARK FOREST RESERVE, MONTANA."
IN 21ST ANNUAL REPORT, PART V: FOREST
RESERVES.**

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MONTANA: HISTORICAL LEWIS & CLARK FOREST
RESERVE, WHICH INCLUDED THE EASTERN PORTION
OF THE PRESENT FLATHEAD NATL. FOREST). AN
OVERVIEW OF THE RESERVE IS GIVEN WITH BRIEF
DESCRIPTIONS OF TOPOGRAPHY, ROCK, SOIL,
AGRICULTURAL AND GRAZING LAND, MINING,
CLIMATE, OCCUPANCY, FISH AND GAME, AND
SCENERY. INCLUDED IN A GENERAL DISCUSSION OF
THE FOREST RESOURCE IS INFORMATION ON
SPECIES, DISTRIBUTION, SIZE AND QUALITY, CUT-
TING, FIRES, RATE OF GROWTH, ACCESSIBILITY,
MARKETS, MANAGEMENT SUGGESTIONS, AND
REGULATIONS SUGGESTED FOR CUTTING.

A-91
AYRES, H. B.
1900.

**THE FLATHEAD FOREST RESERVE. USDI
GEOLOGICAL SURVEY 20TH ANNUAL REPORT, PART 5,
1899-1899.**

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
316 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). AN EARLY DETAILED
DESCRIPTION OF THE ORIGINAL FLATHEAD FOREST.
THE BOUNDARIES WERE THE EAST SIDE OF PRESENT
DAY GLACIER PARK TO ABOUT 22 MILES WEST OF
THE NORTH FORK, THE CANADIAN BORDER, AND
COLUMBIA FALLS ON THE SOUTH. THE REPORT
ASSESSES THE CONDITION OF THE TIMBER,
REGENERATION, THE IMPACT OF FIRE,
UNDERGROWTH, AND AGRICULTURAL POTENTIAL.
LIST OF TREE AND SHRUB SPECIES, MAPS OF
SPECIES RANGE AND MANY PHOTOGRAPHS ARE IN-
CLUDED.

A-92
AYERS, JERRY F.
1976.

**"A HYDROLOGIC STUDY OF AN ALPINE KARST,
FLATHEAD COUNTY, MONTANA."**

M.S. THESIS, WASHINGTON STATE UNIV., PULLMAN.
86 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD COUNTY: SILVERTIP MTN.). THE PURPOSE
OF THIS STUDY WAS TO INVESTIGATE THE
GEOLOGICAL, HYDROLOGICAL, AND GEOCHEMICAL
CONTROLS THAT INFLUENCED THE DEVELOPMENT
OF THE SILVERTIP MOUNTAIN ALPINE KARST
SYSTEM IN MONTANA AND TO SHOW THE EFFECTS
OF PAST CLIMATIC AND GEOMORPHIC EVENTS.
FIELD WORK INCLUDED: MAPPING CAVE PASSAGES,
GEOLOGIC MAPPING OF THE ROCKS WITHIN THE
AREA, DETAILED SAMPLING OF THE DEVONIAN SEC-
TION, COLLECTION AND ANALYSIS OF WATER
SAMPLES, SURVEY OF CAVE ENTRANCE LOCATIONS,
AND TRACING OF SUBSURFACE STREAM FLOW BY A
FLORESCENT DYE. LAB WORK INCLUDED EXAMINA-
TION OF ETCHED SLAB SURFACES FOR THE DETER-
MINATION OF LITHOLOGIC RELATIONSHIPS AND
ATOMIC ABSORPTION SPECTROPHOTOMETRIC
ANALYSIS OF THE WATER SAMPLES FOR CALCIUM
AND MAGNESIUM CONCENTRATIONS.

B-1

BADEN, GERALD M.

1952.

**"PLANT SUCCESSION FOLLOWING GLACIAL RECES-
SION IN GLACIER NATIONAL PARK, MONTANA."**

PAPER PRESENTED TO DR. EDWIN PHILLIPS,
POMONA COLLEGE, BOTANY DEPT., POMONA, CALIF.
36 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS STUDY DISCUSSES
OBSERVATIONS MADE ON SCATTERED CONIFEROUS
FORESTS, ESTABLISHED ON AREAS PREVIOUSLY OC-
CUPIED BY GLACIAL ICE. DATA ON ABUNDANCE AND
VARIETY OF PIONEER VEGETATION IS PRESENTED.
FACTORS INFLUENCING THE ESTABLISHMENT OF
THESE PIONEERS, SUCH AS SOIL TYPE, SEED
SOURCES, AND CLIMATIC FACTORS WERE IN-
VESTIGATED.

B-2

BAGGLEY, GEORGE F.

1936.

**"STATUS AND DISTRIBUTION OF THE GRIZZLY BEAR
(URSUS HORRIBILIS) IN THE UNITED STATES."**

PROC. NORTH AMERICAN WILDLIFE CONFERENCE
1:646-650.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, NATIONAL.

(UNITED STATES). THIS ARTICLE PRESENTS A BRIEF
HISTORY OF THE FIRST RECORDED OBSERVATIONS
OF THE GRIZZLY BEAR; NOTES HISTORICAL
RECORDS WHICH MENTION GRIZZLY BEAR POPULA-
TIONS AND DISCUSSES THE CURRENT STATUS OF
THE SPECIES.

B-3

BAHAR, HUSHANG.

1955.

"PEND D'OREILLE KINSHIP."

M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 89
PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). PEND D'OREILLE
KINSHIP TERMINOLOGY, BEHAVIOR, AND ATTITUDES
TOWARDS THEIR RELATIVES WERE EXAMINED,
ALONG WITH THE CHANGES WHICH HAVE OCCUR-
RED IN THEIR KINSHIP SYSTEM THROUGH THE PRO-
CESS OF ACCULTURATION. RESEARCH METHODS IN-
VOLVED INFORMAL QUESTIONING, FORMAL INTER-
VIEWS, AND NON-PARTICIPANT OBSERVATION
METHODS. TERMS AND RULES PERTAINING TO CON-
SANGUINAL AND AFFINAL RELATIVES ARE DESCRIBED
AS WELL AS A VARIETY OF OLDER AND MODERN
KINSHIP BEHAVIOR. INCLUDED ARE DISCUSSIONS
OF THE KINSHIP PRACTICE OF LARGER FAMILY
UNITS, RESPECTFUL AND JOKING RELATIONSHIPS
(I.E., PARENT-CHILD, GRANDPARENT-GRANDCHILD).

B-4

BAHLS, LOREN L.

1976.

**A REPORT ON ANALYSES OF PERIPHYTON COLLEC-
TIONS FROM THE NORTH FORK AND THE MIDDLE
FORK OF THE FLATHEAD RIVER.**

KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
12 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTH & MIDDLE FORKS OF THE FLATHEAD RIVER).
THIS REPORT DESCRIBES THE BENTHIC ALGAL
FLORA AT FOUR SITES ON THE UPPER FLATHEAD
RIVER. A DISCUSSION OF THE DATA, CONCLUSIONS,
AND RESULTS ARE INCLUDED.



B-5

BAILEY, REEVE M., AND BOND, CARL E.

1963.

**FOUR NEW SPECIES OF FRESHWATER SCULPINS,
GENUS COTTUS, FROM WESTERN NORTH AMERICA.**

ANN ARBOR, MI.: UNIV. MICHIGAN. OCCASIONAL
PAPERS, MUSEUM OF ZOOLOGY, NO. 634. 27 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(WESTERN NORTH AMERICA: NORTH & MIDDLE
FORKS OF THE FLATHEAD RIVER). THIS PAPER
DESCRIBES THE NEW SPECIES COTTUS CONFUSUS,
THE SHORthead SCULPIN, FOUND IN TRIBUTARIES
TO BOTH THE NORTH AND MIDDLE FORKS OF THE
FLATHEAD RIVER. THE HABITAT, GEOGRAPHIC
VARIATION AND DIAGNOSIS OF THE SPECIES IS
DESCRIBED.

B-6

BAILEY, VERNON.

1931.

"BIGHORNS OF PLAIN AND PEAK."

NATURE, NOVEMBER 1931, PP. 279-282.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA,
REGIONAL.

(WESTERN U.S.: GLACIER NATL. PARK). THIS AC-
COUNT OF THE HISTORICAL TERRITORY OF THE
BIGHORN SHEEP INCLUDES INFORMATION ON THE
ROCKY MOUNTAIN BIGHORN SHEEP (OVIS
CANADENSIS) FOUND IN GLACIER NATIONAL PARK.

B-7

BAILEY, VERNON.

1931.

"THE MOUNTAIN GOAT THAT IS NOT A GOAT."

NATURE, SEPTEMBER 1931, PP. 153-157.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(GLACIER NATL. PARK). THIS ARTICLE DISCUSSES
THE ROCKY MOUNTAIN GOAT; INCLUDED ARE AC-
COUNTS OF HUMAN-GOAT ENCOUNTERS,
PHOTOGRAPHS, AND ACCOUNTS OF YOUNG GOATS
BEING CARRIED AWAY AND EATEN BY EAGLES.

B-8

BAILEY, VERNON, AND BAILEY, FLORENCE.

1918.

WILD ANIMALS OF GLACIER NATIONAL PARK.

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE,
WESTERN MUSEUM LABS. 210 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS TAXONOMIC KEY IS AC-
COMPANIED BY AN EXPLANATORY TEXT AND
PHOTOGRAPHS OF THE MAMMALS AND BIRDS
FOUND IN GLACIER NATIONAL PARK. A DESCRIPTION
OF THE PHYSIOGRAPHY AND LIFE ZONES IN THE
PARK IS INCLUDED.

B-9

BAILEY, VIRGINIA L. AND BAILEY, H. E.
1949.

WOODY PLANTS OF THE WESTERN NATIONAL
PARKS. AMERICAN MIDLAND NATURALIST,
MONOGRAPH NO. 4.

NOTRE DAME: UNIV. NOTRE DAME. 260 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(WESTERN NATL. PARKS: GLACIER NATL. PARK). THIS
REPORT WAS BASED ON FIELD OBSERVATIONS AND
PLANT COLLECTIONS; IT LISTS OVER 560 WOODY
PLANTS. ONLY THE SHRUBS ARE CONSIDERED IN
DETAIL; HOWEVER, A KEY TO THE TREES IS INCLUD-
ED. BOTH COMMON AND SCIENTIFIC NAMES ARE IN-
CLUDED.

B-10

BAIN, OAKFORD, AND WALTER, K.
1973.

PART I: SURVEY OF ORCHARD CONDITIONS AND
PESTICIDE PRACTICES IN FLATHEAD LAKE CHERRY
ORCHARDS. PART II: AN ENVIRONMENTAL HEALTH
EVALUATION OF PESTICIDES AND PRACTICES IN
FLATHEAD COUNTY CHERRY ORCHARDS.

HELENA, MT.: MONTANA DEPT. AGRICULTURE, DIV.
PESTICIDES; AND MONTANA DEPT. HEALTH & EN-
VIRONMENTAL SCIENCES, ENVIRONMENTAL
SCIENCE BUREAU. 39 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). PART I: THROUGH INTERVIEWS
WITH MOST OF THE CHERRY GROWERS IN THE AREA,
THIS REPORT HAS COMPILED INFORMATION ABOUT
THE SPECIFIC PESTICIDES USED, METHODS OF AP-
PLICATION, THE NUMBER OF APPLICATORS,
STORAGE AND DISPOSAL OF THE PESTICIDES AND
SAFETY PRECAUTIONS TAKEN. RECOMMENDATIONS
ARE MADE CONCERNING THE NEED TO FURTHER
EDUCATE CHERRY GROWERS ABOUT THE SAFE USE
OF PESTICIDES. A LIST OF PESTS AND CHEMICALS
USED IS INCLUDED. PART II: THIS REPORT DEFINES
THE OCCUPATIONAL HEALTH HAZARDS CONFRONT-
ING ORCHARD PESTICIDE APPLICATORS AND PRO-
VIDES RECOMMENDATIONS TO MINIMIZE THESE
HAZARDS.

B-11

BAKER, MARCUS.
1900.

SURVEY OF THE NORTHWESTERN BOUNDARY OF
THE UNITED STATES, 1857-1861.

WASHINGTON, D.C.: U.S. DEPT. INTERIOR,
GEOLOGICAL SURVEY. BULL. NO. 174. 78 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
REGIONAL.

NOTE: APPENDIX INCLUDES REPORTS OF J. G.
PARKE, CHIEF SURVEYOR, AND ARCHIBALD CAMP-
BELL, COMMISSIONER NORTHWEST BOUNDARY
SURVEY.

(NORTHWESTERN U.S. BOUNDARY). A CONCISE
HISTORY OF THE NORTHWESTERN BOUNDARY, ITS
ESTABLISHMENT, SURVEY, AND MARKING IS
PRESENTED ALONG WITH A SUMMARY OF THE
RESULTS OF SCIENTIFIC INVESTIGATIONS CON-
DUCTED DURING THE SURVEY. THIS BULLETIN WAS
PREPARED FROM: GOVERNMENT PUBLICATIONS,
MANUSCRIPT RECORDS IN THE U.S. STATE DEPT-
MENT, AND MEMORIES OF SURVIVING SURVEY PAR-
TICIPANTS. INCLUDED ARE TABLES OF GEOGRAPHIC
COORDINATES, BOUNDARY MONUMENTS, ELEV-
ATIONS AT VARIOUS STATIONS AND LISTS OF INDIAN
GEOGRAPHIC NAMES. MENTION IS MADE OF THE
SCIENTIFIC STUDIES MADE, THE INVESTIGATORS,
AND AMOUNTS OF MONEY PAID FOR THE WORK.

B-12

BAKER, PAUL E.
1955.

THE FORGOTTEN KUTENAI.

BOISE, ID.: MOUNTAIN STATES PRESS, INC. 64 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
REGIONAL.

(ABORIGINAL LANDS OF THE KOOTENAI INDIANS).
THIS MONOGRAPH ON THE KUTENAI DISCUSSES
EARLY HISTORY OF THE TRIBE, THE ANCIENT
KUTENAI RELIGION, AND INDIAN-WHITE RELATION-
SHIPS. THE FOLLOWING ASPECTS OF HISTORIC
KUTENAI LIFE ARE DESCRIBED: HEALTH, MARRIAGE
AND FAMILY, HOUSING, WAYS OF SUBSISTENCE,
LAND TENURE, HAND CRAFT, EDUCATION, SPORTS,
AND POLITICAL ORGANIZATION. PRERESERVATION
AND RESERVATION TIMES ARE DEPICTED.

B-13

BAKER, VICTOR R.
1978.

"THE SPOKANE FLOOD CONTROVERSY AND THE
MARTIAN OUTFLOW CHANNELS."

SCIENCE 202 (22 DECEMBER 1978):1249-1256.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
REGIONAL.

(PACIFIC NORTHWEST: PREHISTORIC LAKE
MISSOULA). THE ARTICLE EVALUATES THE EVIDENCE
THAT FLUVIAL PROCESSES SHAPED MARS' SUR-
FACE, AS SHOWN BY CATASTROPHIC FLOOD CHAN-
NELS, IN RELATION TO J.H. BRETZ (1923-32) THEORY
OF THE CATASTROPHIC FLOOD ORIGIN OF THE
CHANNELED SCABLAND (THE SPOKANE FLOOD). THE
DEVELOPMENT OF BRETZ' THEORY IS OUTLINED; ITS
RELATIONSHIP TO GLACIAL LAKE MISSOULA IS
NOTED. THE SCIENTIFIC DEBATE THE THEORY LAUN-
CHED AND ITS REVISIONS ARE CONSIDERED. THE
VALUE OF OUTRAGEOUS HYPOTHESES IS ARGUED.

B-14

BALDWIN, M. D.

THE RAISE OF FLATHEAD COUNTY AND KALISPELL.
6 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

NOTE: THIS ARTICLE DUPLICATED IN SAM JOHNS
HISTORY, VOL. 2, P. 139.
AVAILABLE FROM: FLATHEAD COUNTY LIBRARY:
MONTANA FILES.

(FLATHEAD COUNTY: KALISPELL). AN EARLY
HISTORY OF FLATHEAD COUNTY AND KALISPELL
WRITTEN BY A MEMBER OF THE GROUP THAT EX-
PLORED THE AREA FROM ASHLEY TO MARIAS PASS.
THE PAPER DESCRIBES THE CREATION OF THE
TOWN IN 1881 AND THE COUNTY IN 1894, THE COM-
ING OF THE GREAT NORTHERN RAILROAD, LOCAL
NEWSPAPERS, BANKS, AND COURT SYSTEM.

B-15

BALDWIN, PAUL H.
1956.

"BREEDING RECORD OF BREWER SPARROW IN NOR-
THWESTERN MONTANA."

THE CONDOR 58(SEPTEMBER 1956):251.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(SANDERS COUNTY: NIARADA). THIS IS A REPORT ON
A BREEDING POPULATION OF SPIZELLA BREWERI
BREWERI NEAR NIARADA. THE HABITAT THE BIRDS
WERE FOUND IN IS DESCRIBED, AND ASSOCIATED
BIRD SPECIES ARE LISTED.

B-16

BALFE, JOSEPH J., S. J.
1948.

"THE FOURTEENTH STATION."

INDIAN SENTINEL, MAY 1948, PP. 67-68.

(FLATHEAD INDIAN RESERVATION: ST. IGNATIUS MIS-
SION). THIS ARTICLE DESCRIBES THE CELEBRATION
OF PASSION WEEK AT ST. IGNATIUS MISSION. SKCC.

B-17

BALFE, JOSEPH J., S. J.
1952.

"THE FLATHEADS REJOICE."

INDIAN SENTINEL, DECEMBER 1952, PP. 153-154.

(FLATHEAD INDIAN RESERVATION: JOCKO). THIS AR-
TICLE DESCRIBES THE DEDICATION OF A NEW
CHURCH AT JOCKO. SKCC.

B-18

BAMBERG, SAMUEL A.
1961.

"PLANT ECOLOGY OF ALPINE TUNDRA AREAS IN
MONTANA AND ADJACENT WYOMING."

M.A. THESIS, UNIV. COLORADO, BOULDER. 160 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(WYOMING & MONTANA: GLACIER NATL. PARK). THIS
STUDY DESCRIBES THE GENERAL LANDSCAPE AND
VEGETATION OF FIFTEEN ALPINE TUNDRA AREAS
STUDIED DURING THE SUMMERS OF 1958 AND 1959.
QUANTITATIVE DATA ON PLANT SPECIES COVER
WERE COLLECTED. SOIL PROFILES OF REPRESENT-
ATIVE STANDS WERE EXAMINED AND SOIL
SAMPLES WERE COLLECTED. TWELVE STAND TYPES
AND FOUR VEGETATION COMPLEXES WERE SYN-
THESIZED AND DESCRIBED FROM THE OBSERVA-
TIONS AND DATA. THE FOLLOWING INFORMATION IS
GIVEN FOR EACH MOUNTAIN RANGE: GENERAL
GEOGRAPHY, EXTENT OF ALPINE TUNDRA, SOME
SPECIAL ENVIRONMENTAL FEATURES,
CHARACTERISTICS OF STAND TYPES PRESENT, AND
COMPARISON WITH OTHER RANGES.

B-19

BAMBERG, SAMUEL A.
1964.

"ECOLOGY OF THE VEGETATION AND SOILS
ASSOCIATED WITH CALCAREOUS PARENT MATERIAL
IN THE ALPINE REGION OF MONTANA."

PH.D. DISSERTATION, UNIV. CALIFORNIA, BERKELEY.
106 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: BIG SNOWY MTNS., FLINT CREEK MTNS.,
& LEWIS RANGE). THE ECOSYSTEMS OF THE THREE
ALPINE AREAS WERE INVESTIGATED TO COMPARE
AND CORRELATE SPECIFIC FEATURES OF THE
VEGETATION AND SOILS WITH CALCAREOUS
PARENT MATERIAL. THE DISSERTATION DESCRIBES
SPECIES COMPOSITION AND ABUNDANCE, RELATED
ECOLOGY OF THE VEGETATION, SOIL MORPHOLOGY
AND CHEMISTRY, SOIL TEMPERATURES, AND FROST
PHENOMENA AND RELATED SOIL STABILITY.

B-20

BAMBERG, SAMUEL A., AND MAJOR, JACK.
1968.

"ECOLOGY OF THE VEGETATION AND SOILS
ASSOCIATED WITH CALCAREOUS PARENT
MATERIALS IN THREE ALPINE REGIONS OF MON-
TANA."

ECOLOGICAL MONOGRAPHS 38(SPRING
1968):127-167.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

NOTE: TABLES AND CHARTS OF METEOROLOGICAL
DATA, COVER CLASSES, SOIL TEMPERATURES PRO-
FILES, AND SOIL MOVEMENT PLOTS ARE INCLUDED.

(BIG SNOWY MTNS., FLINT CREEK RANGE, & GLACIER
NATL. PARK). THE PAPER IS AN ECOLOGICAL STUDY
OF THE INTERACTION OF SOIL PARENT MATERIAL
WITH THE VEGETATION COMPONENT OF THREE
ALPINE ECOSYSTEMS. SPECIFIC CHARACTERISTICS

OF VEGETATION AND SOILS OF THE THREE AREAS WERE COMPARED. THE FEATURES STUDIED WERE: FLORISTIC COMPOSITION, SPECIES ABUNDANCE, AND SITE RELATIONS OF THE VEGETATION, SOIL MORPHOLOGY AND CHEMISTRY, SOIL TEMPERATURES, AND FROST-SOIL INTERACTIONS AND RELATED SOIL STABILITY. MAINTENANCE OF THE AREAS' DISTINCTIVE VEGETATION AND SOILS IS CONSIDERED TO BE RELATED TO A COMBINATION OF PHYSICAL AND CHEMICAL FACTORS. THE ARTICLE CONCLUDES WITH A PLANT SPECIES LIST.

B-21
BANCROFT, HUBERT H.
 1883.
THE WORKS OF HUBERT HOWE BANCROFT. THE NATIVE RACES. 5 VOLS.
 SAN FRANCISCO: A. L. BANCROFT & CO. 4000 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: THE DISCUSSION OF INLAND TRIBES OF THE COLUMBIANS DESCRIBE THE SALISH AND KOOTENAI INDIANS: PHYSIQUE, DWELLING, FOOD AND PREPARATION, HUNTING, WAR, BOATS, HORSES, CHIEFS, FAMILIES, MEDICINE, MORALITY. (VOL. 1, PP. 251-291). INFORMATION ON SALISH LANGUAGE AND RELIGION IS ALSO INCLUDED (VOL. 3).

(PACIFIC NORTHWEST: ABORIGINAL LANDS OF THE SALISH & KOOTENAI TRIBES). A COLLECTION OF EXTENSIVE INFORMATION ON INDIANS OF "WILD" AND "CIVILIZED" TRIBES PRECEDING WHITE CONTACT. THE WORK DESCRIBES CHARACTERISTICS (FOOD SUPPLY, CLOTHING, SHELTER, TOOLS, ARTS, LAWS, WOMEN, CUSTOMS, MEDICINE, DEATH) FOR TERRITORIAL DIVISIONS (HYPERBOREANS, COLUMBIANS, CALIFORNIANS, NEW MEXICANS, MEXICO, CENTRAL AMERICA). VOLUMES DISCUSSING MYTHOLOGY AND PRIMITIVE HISTORY ARE REPRESENTED.

B-22
BANCROFT, HUBERT H.
 1890.
THE WORKS OF HUBERT HOWE BANCROFT. VOL. 31: HISTORY OF WASHINGTON, IDAHO, AND MONTANA, 1845-1889.
 SAN FRANCISCO: THE HISTORY CO. 836 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(MONTANA: FLATHEAD INDIAN RESERVATION). A HISTORY OF THE STATE FROM 1845 TO 1889. REFERENCE IS MADE TO THE FIRST WHITE WOMAN RESIDENT OF THE STATE WHO ARRIVED IN THE FLATHEAD IN 1855, AND TO THE JESUIT MISSIONARIES' WORK IN DEVELOPING THE ST. IGNATIUS MISSION.

B-23
BANSNER, URSULA.
 1974.
"MOUNTAIN GOAT-HUMAN INTERACTIONS IN THE SPERRY-GUNSIGHT PASS AREA OF GLACIER NATIONAL PARK."
 GLACIER NATIONAL PARK LIBRARY, WEST GLACIER, MT. (TYPEWRITTEN).
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: SPERRY-GUNSIGHT PASS). THIS RESEARCH PROJECT WAS AN ATTEMPT TO DETERMINE HOW A POPULATION OF OREAMUS AMERICANUS IS AFFECTED BY HIGH INTENSITY HUMAN BACKCOUNTRY USE AND THE PRESENCE OF INTRODUCED SALT, AND WHETHER THESE TWO FACTORS CAUSE UNNATURAL OR UNDESIRABLE ENCOUNTERS WITH PEOPLE. DATA COLLECTED IS ANALYZED IN RELATION TO HABITAT UTILIZATION, SOCIAL STRUCTURE, AND INDIVIDUAL HUMAN AND GOAT BEHAVIOR.

B-24
BANSNER, URSULA.
 1976.
MOUNTAIN GOAT-HUMAN INTERACTIONS IN THE SPERRY-GUNSIGHT PASS AREA, GLACIER NATIONAL PARK.
 MISSOULA, MT.: UNIV. MONTANA. 45 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: NATIONAL PARK SERV., GLACIER NATIONAL PARK LIBRARY.

(GLACIER NATL. PARK: SPERRY-GUNSIGHT PASS). THE OBJECTIVE OF THIS STUDY WAS TO EXAMINE THE BEHAVIORAL RELATIONSHIP OF OREAMUS AMERICANUS AND MAN DURING CLOSE PROXIMITY INTERACTIONS. SPECIFIC BEHAVIORAL INFORMATION WAS RECORDED DURING INTERACTIONS BETWEEN THE TWO GROUPS AND ANALYZED TO DETERMINE WHAT SPECIFIC HUMAN ACTIVITIES, MOVEMENTS, AND BEHAVIORS: 1) STIMULATE CLOSE RANGE MOUNTAIN GOAT APPROACHES, 2) ARE TOLERATED BY MOUNTAIN GOATS AS PEOPLE APPROACH THEM, AND 3) STIMULATE MOUNTAIN GOAT FEAR RESPONSES. GENERAL ECOLOGICAL INFORMATION WAS ALSO COLLECTED AND ANALYZED TO DETERMINE THE EFFECT OF HABITUATION TO PEOPLE ON MOUNTAIN GOAT HABITAT USE PATTERNS IN RELATION TO ESCAPE TERRAIN AND GROUP SIZES.

B-25
BARASH, DAVID P.
 1971.
"COOPERATIVE HUNTING IN THE LYNX."
J. MAMMOLOGY 52:1.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: PIEGAN CIRQUE). A BRIEF ARTICLE REPORTING ON THE CIRCUMSTANCES OF THE FIRST OBSERVED EXAMPLE OF COOPERATIVE HUNTING AMONG THREE LYNX CANADENSIS.

B-26
BARASH, DAVID P.
 1973.
"TERRITORIAL AND FORAGING BEHAVIOR OF PIKA (OCHOTONA PRINCEPS) IN MONTANA."
AMERICAN MIDLAND NATURALIST 89(JANUARY 1973).
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE INDIVIDUAL AND SOCIAL BEHAVIORS OF THE PIKA (OCHOTONA PRINCEPS) WERE OBSERVED IN THE STUDY AREA, A TALUS SLOPE BORDERING A SUBALPINE MEADOW AND ROCKY OUTCROPPINGS. THE STUDY NOTED THE ANIMALS' SOCIAL TOLERANCE/INTOLERANCE, TERRITORIALISM, AND THE YOUNG'S EXHIBITION OF ADULT BEHAVIOR. AUDITORY COMMUNICATION IS DESCRIBED ALONG WITH HAYING AND FEEDING BEHAVIOR AND PATTERNS OF DAILY ACTIVITY. CORRELATION BETWEEN PIKA SOCIAL ORGANIZATION AND ECOLOGY IS DISCUSSED.

B-27
BARASH, DAVID P.
 1974.
"THE SOCIAL BEHAVIOR OF THE HOARY MARMOT."
ANIMAL BEHAVIOR 22(1):256-261.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT DESCRIBES AN INITIAL ATTEMPT TO EVALUATE THE BASIC SOCIAL CHARACTERISTICS OF MARMOTA CALIGATA. RECOGNITION BEHAVIOR, PLAY, AGONISTIC AND SEXUAL BEHAVIOR ARE DESCRIBED.

B-28
BARCE, GEORGE, AND LAVANWAY, D.
 1968.
BUNKER CREEK, STREAM HABITAT SURVEY.

SPOTTED BEAR RANGER STATION, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BUNKER CREEK, MIDDLE FORK CREEK, & NORTH FORK OF BUNKER CREEK). THIS REPORT DESCRIBES THE PHYSICAL CHARACTERISTICS OF THE STREAM, THE FISHING POTENTIAL, BOTTOM MATERIALS, COMPUTES PRIORITY A AND B LIMITING FACTORS, AND DESCRIBES STATION LOCATIONS. PHOTOGRAPHS ARE INCLUDED.

B-29
BARCE, GEORGE, AND NELSON, M.
 1971.
BALL CREEK STREAM HABITAT SURVEY.
SPOTTED BEAR RANGER STATION, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 25 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BALL CREEK). THIS REPORT DESCRIBES THE CONDITION OF THE WATERSHED AND CONTAINS A HYDROLOGIC ANALYSES OF SULLIVAN CREEK. IT DESCRIBES THE PHYSICAL CHARACTERISTICS OF THE STREAM, STATION LOCATIONS, AND COMPUTES PRIORITY A + B LIMITING FACTORS. PHOTOGRAPHS ARE INCLUDED.

B-30
BARCE, GEORGE, AND NELSON, M.
 1971.
BRANCH CREEK STREAM HABITAT SURVEY.
SPOTTED BEAR RANGER STATION, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 30 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BRANCH CREEK). THIS REPORT CONTAINS AN ANALYSIS OF THE HYDROLOGIC IMPACT OF PROPOSED TIMBER SALES, OUTLINES THE PHYSICAL CHARACTERISTICS OF THE STREAM, COMPUTES PRIORITY A AND B LIMITING FACTORS AND DESCRIBES STATION LOCATIONS. PHOTOGRAPHS ARE INCLUDED.

B-31
BARCE, GEORGE, AND NELSON, M.
 1971.
TAYLOR CREEK AND ELAM CREEK—STREAM HABITAT SURVEY.
SPOTTED BEAR RANGER STATION, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(TAYLOR & ELAM CREEKS). THIS REPORT DESCRIBES THE WATERSHED CONDITION, STREAM PROTECTION PLANS DURING PROPOSED TIMBER SALES, PHYSICAL CHARACTERISTICS OF THE STREAMS, COMPUTES PRIORITY A LIMITING FACTORS, AND DESCRIBES STATION LOCATIONS. PHOTOGRAPHS ARE INCLUDED.

B-32
BARCE, GEORGE, AND NEMETH, J.
 1971.
DEAN CREEK AND WHITCOMB CREEK STREAM HABITAT SURVEY.
SPOTTED BEAR RANGER STATION, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(DEAN & WHITCOMB CREEKS). THIS REPORT DESCRIBES THE PHYSICAL CHARACTERISTICS OF THE STREAMS, COMPUTES PRIORITY A AND B LIMITING FACTORS, AND DESCRIBES STATION LOCATIONS. PHOTOGRAPHS ARE INCLUDED.

B-33
BARGER, ROLAND L.
1979.

"THE FOREST RESIDUES UTILIZATION R & D PROGRAM IN BRIEF." IN PROCEEDINGS OF ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMOUNT. FOREST & RANGE EXPR. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTS.: CORAM EXPR. FOREST). SINCE 1974, THE INTERMOUNTAIN EXPERIMENT STATION HAS DIRECTED A COORDINATED PROGRAM OF RESEARCH, THE FOREST RESIDUES UTILIZATION R & D PROGRAM, TOWARD INVESTIGATING ALTERNATIVE TIMBER HARVESTING PRACTICES THAT MAY FACILITATE MORE INTENSIVE, ENVIRONMENTALLY COMPATIBLE, TIMBER UTILIZATION. THE EVALUATION OF BIOLOGICAL AND RESOURCE MANAGEMENT CONSEQUENCES OF ALTERNATIVE HARVESTING PRACTICES HAS BEEN A MAJOR COMPONENT OF THE PROGRAM. EMPHASIS WAS DIRECTED TOWARD DETERMINING THE BIOLOGICAL CONSEQUENCES OF SUCCESSIVELY MORE INTENSE LEVELS OF UTILIZATION, AND ALTERNATIVE POST HARVEST RESIDUE TREATMENTS.

B-34
BARNES, WILLIAM C.
1963.

"GEOLOGY OF THE NORTHEAST WHITEFISH RANGE, NORTHWEST MONTANA."

PH.D. DISSERTATION, PRINCETON UNIV., PRINCETON, N.J. 102 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH RANGE). THIS DISSERTATION IS CONCERNED WITH THE AREA'S STRATIGRAPHY AND STRUCTURAL GEOLOGY. THE ROCKS WITHIN THE AREA RANGE FROM PRECAMBRIAN TO CENOZOIC. THE PRECAMBRIAN SEQUENCE IS CORRELATED WITH THE BELT SERIES. THE PRESENCE OF MUD-CRACK CASTS, CURRENT AND OSCILLATION RIPPLE MARKS, AND PARALLEL THIN LAMINATION IS CONSIDERED TO INDICATE SHALLOW WATER DEPOSITIONAL CONDITIONS. MIDDLE TERTIARY SANDSTONES, MUDSTONES, AND LIGNITES WERE FOUND TO UNDERLIE THE NORTH FORK VALLEY. RELATIONSHIPS TO THE LEWIS THRUST OVERTURNED FOLDS INVOLVING THE PRECAMBRIAN SEQUENCE, THE SEQUENCE OF SOUTHWEST DIPPING FAULTS, TWO MAJOR FAULTS AND THE FORMATION OF THE NORTH FORK VALLEY BY THE NORTH FORK FAULT IS DESCRIBED.

B-35
BARNETT, GRACE, AND BARNETT, OLIVE.
1947.

THE MYSTERY IN MISSION VALLEY.
NEW YORK: OXFORD UNIV. PRESS. 158+ PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MISSION VALLEY). A NOVEL DESCRIBING SCENERY, WESTERN LIFE, AND FLATHEAD INDIAN LIFE. HAS DRAWINGS BY THE AUTHORS.

B-36
BARNIER, CECIL D.
1971.

"ARCHAEOLOGICAL SURVEY OF THE NATIONAL BISON RANGE AND OTHER PORTIONS OF THE LOWER FLATHEAD BASIN, MONTANA."
ARCHAEOLOGY IN MONTANA 12(4).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). DUE TO A LACK OF ARCHAEOLOGICAL INFORMATION AVAILABLE ABOUT NORTHWESTERN MONTANA, THIS SURVEY WAS

UNDERTAKEN TO PROVIDE DATA ON KNOWN SITES ON THE RANGE AND TO LOCATE UNKNOWN SITES SO THEY MIGHT BE PROTECTED. A REVIEW OF THE GEOLOGY AND GEOMORPHOLOGY AND THE HISTORY OF THE LOWER BASIN AND THE BISON RANGE ARE INCLUDED. THE REPORT DESCRIBES OCCUPATION SITES AND CAMPSITES, PITS, CAIRNS, AND COLLECTED ARTIFACTS.

B-37
BARRACLOUGH, MARY E.
1954.

"BIOLOGY OF CANADA GEESE (BRANTA CANADENSIS MOFFITTI) IN THE FLATHEAD VALLEY OF MONTANA."

M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 91 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY: FLATHEAD LAKE & LOWER FLATHEAD BASIN). THE OBJECTIVES OF THIS STUDY WERE: 1) TO DETERMINE THE STATUS OF THE POPULATION OF CANADA GEESE THROUGH QUANTITATIVE MEASUREMENT OF THE POPULATION, PRODUCTIVITY, AND MORTALITY; 2) TO DETERMINE AND EVALUATE THOSE FACTORS WHICH CONTROL OR AFFECT PRODUCTIVITY AND MORTALITY; AND 3) TO MAKE SUGGESTIONS FOR MANAGEMENT. THE BREEDING POPULATION, NESTING ACTIVITY AND LOCATIONS, NESTING SUCCESS, CLUTCH SIZE, HATCH, BROODING PERIOD, AND GOSSLING MORTALITY WERE MONITORED. THE POPULATION DURING HUNTING SEASON, HUNTER KILL, GOOSE MOVEMENTS, THE DISTRIBUTION OF HUNTING PRESSURE, CRIPPLING LOSSES, THE WINTER POPULATION, AND THE OVERALL STATUS OF THE POPULATION WERE ALSO DETERMINED. METHODS INCLUDED AERIAL AND GROUND SURVEYS, COLOR-MARKING OF THE YOUNG, TRAPPING AND BANDING, AND CHECKING HUNTERS' BAGS.

B-38
BARROWS, J. S.
1951.

FOREST FIRES IN THE NORTHERN ROCKY MOUNTAINS.

U.S. DEPT. AGRICULTURE, FOREST SERVICE, NORTHERN ROCKY MTN. FOREST & RANGE EXPR. STAT. PAPER NO. 28. 251 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTS.: FLATHEAD NATL. FOREST). THIS IS A REPORT ON AN ANALYSIS OF 36,000 FOREST FIRES IN THE NORTHERN ROCKY MOUNTAINS. THE ANALYSIS WAS MADE TO GAIN A BETTER UNDERSTANDING OF THE OCCURRENCE, BEHAVIOR, CONTROL, AND EFFECTS OF FIRES, AND IN TURN TO OBTAIN ESSENTIAL INFORMATION REQUIRED FOR IMPROVED PLANNING AND MANAGEMENT OF FIRE PROTECTION SYSTEMS. EXTENSIVE CHARTS AND GRAPHS ILLUSTRATE THE FINDINGS.

B-39
BATEMAN, ANDREW F., AND LUTZ, G. A.
1977.

LEASABLE MINERAL AND WATER POWER LAND CLASSIFICATION MAP OF THE CHOTEAU 1 X 2 QUADRANGLE, MONTANA.

RESTON, VA.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. MISC. INVESTIGATION SERIES, MAP 1-1012. 1 P.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(POWELL, FLATHEAD, & LAKE COUNTIES). THIS MINERAL LAND CLASSIFICATION MAP ILLUSTRATES WITHDRAWN AND CLASSIFIED LANDS, PROSPECTIVELY VALUABLE LANDS, KNOWN LEASING AREAS, AND THE LOCATION OF MINERAL OCCURRENCE OR MINES TO THE NEAREST 40-ACRE TRACT. THE SCALE IS 1:250,000.

B-40
BATEMAN, ANDREW F., AND LUTZ, G. A.
1977.

LEASABLE MINERAL AND WATER POWER LAND CLASSIFICATION MAP OF THE CUT BANK QUADRANGLE, MONTANA.

RESTON, VA.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. MISC. INVESTIGATION SERIES. MAP 1-1013. 1 P.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(GLACIER NATL. PARK & FLATHEAD NATL. FOREST). THIS MAP ILLUSTRATES LANDS WITHDRAWN, CLASSIFIED, AND PROSPECTIVELY VALUABLE FOR LEASABLE MINERALS; OCCURRENCES OF OTHER SELECTED MINERALS; AND LANDS WITHDRAWN FOR WATERPOWER AND RESERVOIR SITES. THE SCALE IS 1:250,000.

B-41
BATEMAN, ANDREW F.; ALLEN, E. G.; AND GILES, G. C.
1977.

LEASABLE MINERAL AND WATER POWER LAND CLASSIFICATION MAP OF THE KALISPELL 1 X 2 QUADRANGLE, MONTANA.

WASHINGTON, D.C.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. MISC. INVESTIGATION SERIES, MAP 1-1016. 1 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(KALISPELL QUADRANGLE). THIS MAP (SCALE 1:250,000) ILLUSTRATES MINERAL LAND CLASSIFICATION, BOTH CLASSIFIED AND WITHDRAWN LANDS, AND SHOWS THE LOCATION OF MINERAL OCCURRENCE OR MINES TO THE NEAREST 40 ACRE TRACT.

B-42
BATTELLE MEMORIAL INSTITUTE.
1967.

THE PACIFIC NORTHWEST: ECONOMIC GROWTH IN A QUALITY ENVIRONMENT: AN UPDATE
RICHLAND, WASH.: BATTELLE MEMORIAL INST., NORTHWEST LABS. 20 PP.
PART OF A SERIES, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS PAMPHLET IS A REVIEW AND UPDATE OF THE BASIC ECONOMIC STUDY BY BATTELLE MEMORIAL INSTITUTE. 1967. THE FIRST SECTION OF THE PAMPHLET CONTAINS CONCLUSIONS AND RECOMMENDATIONS WRITTEN IN THE CURRENT TIME FRAME AND IS FOLLOWED BY A REVIEW OF THE 1967 STUDY.

B-43
BATTELLE MEMORIAL INSTITUTE.
1967.

THE PACIFIC NORTHWEST: A STUDY OF ECONOMIC GROWTH IN A QUALITY ENVIRONMENT
COLUMBUS, OH.: BATTELLE MEMORIAL INST., COLUMBUS LABS. 79 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE OBJECTIVES OF THIS STUDY WERE TO: 1) ANALYZE RECENT ECONOMIC TRENDS AND FUTURE GROWTH PROSPECTS FOR THE PACIFIC NORTHWEST; 2) PROJECT POPULATION AND EMPLOYMENT GROWTH IN THE REGION THROUGH 1980; 3) IDENTIFY THE CORRELATION BETWEEN HUMAN AND ENVIRONMENTAL FACTORS AND ECONOMIC GROWTH POTENTIAL; AND 4) RECOMMEND POSITIVE ACTION PROGRAMS TO ENABLE THE REGION TO REALIZE ITS GROWTH POTENTIAL AND AT THE SAME TIME PRESERVE THE DESIRABLE ENVIRONMENTAL ATTRIBUTES. MATERIAL FOR THIS STUDY WAS DRAWN FROM NATIONAL AND REGIONAL ECONOMIC STUDIES, FROM A DETAILED STATISTICAL ANALYSIS OF RECENT TRENDS IN THE NATIONAL AND REGIONAL ECONOMY, AND FROM A SERIES OF POSITION PAPERS DEVELOPED BY 30 LEADERS IN VARIOUS SECTORS OF THE ECONOMY OF THE REGION.

B-44
BATTELLE MEMORIAL INSTITUTE. PACIFIC NORTHWEST LABORATORIES.
 1967.
FINAL REPORT ON NUCLEAR POWER PLANT SITING IN THE PACIFIC NORTHWEST FOR THE BONNEVILLE POWER ADMINISTRATION.
 PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION. CONTRACT NO. 14-03-67868. 666 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: 1) THE PREFERRED NUCLEAR-SITING AREAS INCLUDE THE AREA OF THE LOWER FLATHEAD BASIN. A SITE LOCATED NEAR THOMPSON FALLS, JUST SOUTHWEST OF THE BASIN, IS DISCUSSED. 2) APPENDICES INCLUDE DATA ON POPULATION GROWTH TRENDS IN THE REGION, BASIC HEAT TRANSFER MECHANISMS FOR BODIES OF WATER EXPOSED TO THE ATMOSPHERE, EFFECTS OF ELEVATED TEMPERATURE ON AQUATIC ORGANISMS, INDIRECT CONSTRUCTION COSTS, ETC.

(PACIFIC NORTHWEST). THE REPORT PRESENTS IN DETAIL INFORMATION ON THE UNIQUE ASPECTS OF NUCLEAR POWER PLANT SITING, THE PREFERRED SITING AREAS WITHIN SIX MAJOR SUBAREAS, EXAMPLES OF NUCLEAR POWER PLANT SITES WITHIN THE PREFERRED SITING AREAS TO ILLUSTRATE COMPARATIVE SITING FACTORS, AND IMPORTANT ECONOMIC FACTORS IN SITING THE PLANTS. PART I, CONCERNING SITING CONSIDERATIONS, DISCUSSES REGULATORY FACTORS, PHYSICAL AND ENVIRONMENTAL SITE FACTORS, RECOMMENDED ON-SITE GEOLOGIC, METEOROLOGICAL, BIOLOGIC AND OTHER STUDIES, ECONOMIC SITE FACTORS AND PUBLIC UNDERSTANDING. IN PART II REPRESENTATIVE SITES AND THEIR PROPOSED PLANTS ARE DESCRIBED; ACCESSIBILITY, GROUND FORMATIONS, METEOROLOGIC CHARACTERISTICS, WASTE HEAT DISCHARGE, BIOLOGICAL EFFECTS AND COSTS ARE SUMMARIZED. PART III CONSIDERS SUCH ECONOMIC FACTORS AS CAPITAL COSTS, INTEREST RATES, TRANSMISSION COSTS, TAXES, INSURANCE EXPENSES, AND LABOR COSTS. THE ECONOMICS OF LIGHT AND HEAVY WATER REACTORS ARE PRESENTED.

B-45
BAUER, JOHN W., ED.
 1977.
MONTANA HUMAN SERVICES DIRECTORY. 3RD EDITION.
 BOZEMAN, MT.: MONTANA STATE UNIV., SOCIAL WORK PROGRAM. 161 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). AN ALPHABETIZED LISTING OF SERVICE ORGANIZATIONS, PRIVATE AND GOVERNMENTAL, IS PROVIDED IN THIS DIRECTORY. IT LISTS THE DIRECTOR, ADDRESS, PHONE, SERVICES, ELIGIBILITY, HOURS, AND FEES FOR SERVICES.

B-46
BAUER, RALPH R.
 1969.
FLATHEAD LAKE BACTERIOLOGICAL SURVEY.
 CORVALLIS, ORE.: U.S. DEPT. INTERIOR, FEDERAL WATER POLLUTION CONTROL ADMINISTRATION, N.W. REGION, PACIFIC N.W. WATER LAB. 60 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE PURPOSE OF THIS SURVEY WAS TO DETERMINE THE CONCENTRATION AND DISTRIBUTION OF COLIFORM BACTERIA PRESENT IN THE LAKE DURING HEAVY USE PERIODS AS COMPARED WITH THE APPLICABLE STATE WATER QUALITY STANDARDS. THE SAMPLING AND ANALYTICAL PROGRAM IS OUTLINED, METHODS DESCRIBED, AND RESULTS AND DISCUSSION INCLUDED. SUMMARIES OF THE DATA AND SAMPLE STATION DESCRIPTIONS ARE CONTAINED IN THE APPENDIX.

B-47
BAUMANN, RICHARD W.
 1970.
"THE GENUS NEMOURA (PLECOPTERA) OF THE ROCKY MOUNTAINS."
 PH.D. DISSERTATION, UNIV. UTAH, SALT LAKE CITY. 172 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ROCKY MTNS.). THIS DISSERTATION GIVES STANDARDIZED DESCRIPTIONS FOR ALL SPECIES. KEYS WERE CONSTRUCTED TO ALLOW SPECIFIC DETERMINATION OF THE ADULT MALES AND FEMALES. MALE AND FEMALE GENITALIA ARE ILLUSTRATED FOR EACH SPECIES AND THE TYPE LOCALITY AND THE LOCATION OF THE HOLOTYPE SPECIMENS IS INCLUDED. DISTRIBUTION MAPS ARE PRESENTED AND SEASONAL EMERGENCE PATTERNS ARE DISCUSSED.

B-48
BAUMANN, RICHARD W., AND GAUFIN, ARDEN R.
 1971.
"NEW SPECIES OF NEMOURA FROM WESTERN NORTH AMERICA."
 THE PAN-PACIFIC ENTOMOLOGIST 47(OCTOBER 1971):9-18.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ROCKY MTNS.: FLATHEAD COUNTY & GLACIER NATL. PARK). THE ROCKY MOUNTAIN SPECIES OF THE GENUS NEMOURA WERE STUDIED IN THIS REPORT. NEMOURA POTTERI, N. CORDILLERA, N. GLACIER WERE ALL FOUND WITHIN THE FLATHEAD BASIN. DETAILED TAXONOMIC DESCRIPTIONS AND DRAWINGS ARE INCLUDED.

B-49
BAUMGARTNER, DAVID M., AND BOYD, R. J.
 1976.
TREE PLANTING IN THE INLAND NORTHWEST. SHORTCOURSE PROCEEDINGS.
 PULLMAN, WASH.: WASHINGTON STATE UNIV. COOP. EXTEN. SERVICE. 311 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(INLAND NORTHWEST). THE OBJECTIVE OF THIS PAPER WAS TO PRESENT CURRENT INFORMATION TO TECHNICIANS AND FORESTERS WHO PLAN AND SUPERVISE REFORESTATION ACTIVITIES. THE EMPHASIS IS ON THE USE AND CARE OF BARE-ROOTED SEEDLINGS. THE PRESENTATIONS WERE GROUPED INTO THE FOLLOWING CATEGORIES: TREE PLANTING IN THE INLAND NORTHWEST, SEED PROCUREMENT AND NURSERY OPERATIONS, SITE PREPARATION, AND PLANTING AND PLANTATION CARE.

B-50
BAYNES, ERNEST H.
 1909.
"OUR NATIONAL ANIMAL, THE BUFFALO."
 RECREATION MAGAZINE, 1909, P. 1.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: DESCRIPTION OF MONTANA HERDS INCLUDES C.E. CONRAD'S HERD AT KALISPELL AND THE HERD AT PABLO.
 AVAILABLE FROM: FLATHEAD COUNTY LIBRARY, KALISPELL.

(UNITED STATES: KALISPELL & PABLO). AN ACCOUNT OF INSPECTION IN 1908 OF REMAINING BUFFALO HERDS IN MONTANA, UTAH, SOUTH DAKOTA, TEXAS AND OTHERS. THE SECURING OF BILL PASSAGE TO PROVIDE FOR BUFFALO RANGE AND THE PURCHASE OF BUFFALO TO STOCK IT BY THE AMERICAN BISON SOCIETY IS DESCRIBED.

B-51
BEALL, ROBERT C.
 1970.
"IDENTIFICATION OF BIG-GAME ANIMALS ON SMALL CAMERA VERTICLE AERIAL PHOTOGRAPHY."
 M.S. THESIS, UNIV. MONTANA, MISSOULA. 87 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS STUDY ATTEMPTS TO DETERMINE IF IT IS FEASIBLE TO DESIGN AN AERIAL PHOTOGRAPHIC SYSTEM THAT WOULD ENABLE THE PHOTOGRAPHIC INTERPRETER TO: IDENTIFY BIG GAME ANIMALS AS ANIMALS; IDENTIFY BIG GAME ANIMALS TO SEX AND AGE GROUP. IF SUCH A SYSTEM WERE FEASIBLE, THEN AERIAL PHOTOGRAPHS WOULD BECOME A USEFUL TOOL FOR BIG GAME CENSUSING.

B-52
BEALS, RALPH L.
 1935.
HISTORY OF GLACIER NATIONAL PARK, WITH PARTICULAR EMPHASIS ON THE NORTHERN DEVELOPMENTS.
 BERKELEY, CA: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, FIELD DIV. EDUCATION. 27 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE DOMINATING NEED WHICH GOVERNED THE PREPARATION OF THE PAPER WAS THE REQUIREMENT OF A SUCCINCT ACCOUNT OF THE ACTIVITIES OF THE NORTHERN FUR TRADE AND THOSE PHASES OF CANADIAN HISTORY WHICH TOUCHED UPON THIS AREA. A LITERATURE REVIEW IS INCLUDED.

B-53
BEALS, RALPH L.
"EARLIEST GLACIER." IN SEE IT NOW: HISTORIC MONTANA. A BYPASSED BEAVER BONANZA. HERITAGE SERIES, NO. 9.
 HELENA, MT.: HISTORICAL SOCIETY OF MONTANA PRESS.
 PART OF A SERIES, SPECIFIC, NON-TECHNICAL, EXISTING DATA,

NOTE: REVISED FROM GLORIOUS GLACIER.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE EARLY HISTORY OF THE PARK AS A HISTORY OF FUR TRADE EXPANSION AND EFFORTS TO TAP THE BEAVER RESOURCE. THE ACTIVITIES OF THE HUDSON BAY COMPANY AND ONE OF ITS TRADERS, DAVID THOMPSON, IN THE EXPLORATION OF THE NORTHERN ROCKY MOUNTAIN REGION AND THE FIRST POSITIVE VISITATION OF GLACIER BY A WHITE MAN HUGH MONROE IS DISCUSSED. THE NAMING OF CHIEF MOUNTAIN BY LEWIS OF THE LEWIS AND CLARK EXPEDITION, THE AMERICAN FUR TRADE AND ESTABLISHMENT OF FORTS IN NORTHERN MONTANA IS ALSO EXAMINED.

B-54
BEATTY, M. E., AND JOHNSON, ARTHUR.
 1952.
A NEW LEASE ON LIFE FOR GLACIERS IN GLACIER NATIONAL PARK?
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 10 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK HISTORICAL FILES.

(GLACIER NATL. PARK). THIS SHORT PAPER REVIEWS CLIMATIC TRENDS AFFECTING GLACIAL RECESSION AND MEASUREMENT DATA FROM AGASSIZ, SPERRY, JACKSON, AND GRINNELL GLACIERS. CORRELATIONS ARE DRAWN BETWEEN WEATHER RECORDS AND GLACIER FLUCTUATIONS.

- B-55**
BEAUFAT, WILLIAM R.
1971.
"FIRE AND SMOKE IN MONTANA FORESTS." IN
FOREST LAND USE AND THE ENVIRONMENT. EDITED
BY R. M. WEDDLE.
MISSOULA, MT.: MONTANA FOREST & CONSERVA-
TION EXPR. STAT., SCHOOL FORESTRY, UNIV. MON-
TANA. 23 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.
- (MONTANA: CORAM EXPR. FOREST). THIS PAPER
PRESENTS INFORMATION ON THE NATURAL FORCES
OPERATING IN MONTANA FORESTS WHICH
PREDISPOSE THEM TO WILDFIRES, IT DESCRIBES
THE PRESENT STATE OF SCIENTIFIC KNOWLEDGE
ON THE PRODUCTION AND DISPERSION OF SMOKE
FROM FOREST FIRES AND DISCUSSES ALTERNATE
TREATMENTS OF BOTH FIRE AND SMOKE IN
FORESTS MANAGED FOR WILD ANIMALS, WATER
AND WOOD. A DEFINITION OF TERMS IS INCLUDED.
- B-56**
BEAUFAT, WILLIAM R., AND CRAMER, O. P.
1972.
PRESCRIBED FIRE SMOKE DISPERSION PRINCIPLES
IN NORTHERN ROCKY MOUNTAIN FORESTS.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST
SERVICE, REGION ONE, DIV. FIRE CONTROL. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.
- (NORTHERN ROCKY MTNS.: MILLER CREEK; NEWMAN
RIDGE). THIS PAPER REPORTS ON A STUDY IN WHICH
PRESCRIBED FIRES IN LOGGING SLASH WERE
SCHEDULED DURING THE ENTIRE AVAILABLE BURN-
ING SEASON, IN ORDER TO SAMPLE A SPECTRUM OF
WEATHER, FUEL MOISTURE AND FUEL VOLUME CON-
DITIONS AND TO EVALUATE THE EFFECTS OF THESE
VARIABLES ON BURN ACCOMPLISHMENT AND
SMOKE PLUME BEHAVIOR.
- B-57**
BEAUFAT, WILLIAM R., AND FISHER, W. C.
1969.
IDENTIFYING WEATHER SUITABLE FOR PRESCRIB-
ED BURNING.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST
SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT.
RES. NOTE INT-94. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (MILLER CREEK DRAINAGE NEAR OLN). FOREST
MANAGERS REQUIRE 24 HOUR RECORDS OF
TEMPERATURE, RELATIVE HUMIDITY, AND WIND-
SPEED TO USE FIRE EFFICIENTLY AND EFFECTIVELY.
WHEN CAREFULLY CALIBRATED AND INTERPRETED,
MODIFIED HYDROTHERMOGRAPHS PROVIDE
MINIMUM INSTRUMENTATION TO OBTAIN THOSE
RECORDS. AN ACTUAL CASE OF RECORD INTER-
PRETATION AND USE IS INCLUDED.
- B-58**
BEAUFAT, WILLIAM; HARDY, C.; AND FISHER, W.
1975.
BROADCAST BURNING IN LARCH-FIR CLEARCUTS:
THE MILLER CREEK-NEWMAN RIDGE STUDY.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST
SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT.
53 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (MILLER CREEK DRAINAGE NEAR NEWMAN RIDGE).
THIS REPORT DESCRIBES A MAJOR STUDY OF
BROADCAST BURNING FOR HAZARD REDUCTION
AND SITE PREPARATION IN LARCH-FIR CLEARCUTS
AND THE EFFECTS OF SUCH PRESCRIBED FIRES ON
SOIL, AIR, WATER, WILDLIFE, AND TREE REGENERA-
TION. RESULTS OF ATTEMPTS TO QUANTITATIVELY
EVALUATE THE EXPERIMENTAL BURNS IN TERMS OF
DUFF REDUCTION AND FUEL LOSS AS WELL AS AT-
TEMPTS TO CHARACTERIZE FIRES ACCORDING TO
RELATIVE INTENSITY ARE GIVEN.
- B-59**
BEAUFAT, WILLIAM R.; MARSDEN, M.; AND NORUM,
R.
1974.
INVENTORY OF SLASH FUELS USING 3P SUBSAMPL-
ING.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST
SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT.
GEN TECH. REPT. INT-13. 17 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (FLATHEAD NATL. FOREST: MILLER CREEK
DRAINAGE NEAR OLN). THE NORTHERN REGION-
INTERMOUNTAIN STATION COOPERATIVE STUDIES
OF THE USE OF FIRE IN SILVICULTURE REQUIRED
THE DEVELOPMENT OF A SYSTEM TO INVENTORY
CLEARCUT LOGGING SLASH FUELS, BOTH BEFORE
AND AFTER TREATMENT, BY BROADCAST FIRES OF
VARYING INTENSITY. THIS PAPER DESCRIBES THE
THEORY, SAMPLING DESIGN, FIELD PROCEDURES,
AND DATA PROCESSING PROGRAMS FOR THE IN-
VENTORY SYSTEMS THAT WERE DEVELOPED AND
APPLIED ON 100 TWO AND A HALF ACRE PLOTS. THE
METHOD EMPLOYED IS A VARIATION ON THE LINE
TRANSECT TECHNIQUE WHICH UTILIZES LINE IN-
TERSECT COUNTS TO COMPUTE FUEL VOLUME,
WEIGHT AND SURFACE AREA.
- B-60**
BEAUMONT, GREG.
1978.
MANY STORIED MOUNTAINS—THE LIFE OF GLACIER
NATIONAL PARK. NATURAL HISTORY SERIES.
WASHINGTON, D.C.: U.S. DEPT. INTERIOR, NATIONAL
PARK SERVICE, DIV. PUBLICATIONS. 138 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
EXISTING DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). AN ACCOUNT OF THE
NATURAL HISTORY OF THE REGION PROVIDES AN
OVERVIEW OF THE ECOLOGY OF THE PARK. IT IS A
COLLECTION OF PHOTOGRAPHS AND ESSAYS,
ORGANIZED BY CYCLES AND SEASONS AND PLANT
AND ANIMAL COMMUNITIES. AN APPENDIX LISTS
MAMMALS, REPTILES/AMPHIBIANS, FISHES, AND
BIRDS FOUND IN THE PARK.
- B-61**
BEAVER, R. GARY.
1975.
LOGAN PASS WOODEN WALKWAY STUDY-EFFECTS
OF PENTACHLOROPHENOL ON ALPINE FIR.
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE,
ECOLOGICAL SERVICES. BULL. NO. 4. 21 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (GLACIER NATL. PARK). IN THE SPRING OF 1972
NEEDLES OF ABIES LASIOCARPA WERE OBSERVED
TO BE NECROTIC ON TREES ADJACENT TO THE NEW-
LY ESTABLISHED WOODEN WALKWAY LOCATED ON
THE HIDDEN LAKE TRAIL AT LOGAN PASS. THIS
STUDY WAS UNDERTAKEN TO LOCATE AND IDENTIFY
THE CAUSE OF DAMAGE TO THE SUBALPINE FIR AND
TO DETERMINE TO WHAT EXTENT THE SUBALPINE
ENVIRONMENT HAD BEEN AFFECTED. POSSIBLE
FUTURE PROBLEMS WERE EVALUATED.
- B-62**
BEAVERHEAD, PETE.
1978.
EAGLE FEATHERS THE HIGHEST HONOR.
ST. IGNATIUS, MT.: FLATHEAD CULTURE COMMITTEE.
- (FLATHEAD INDIAN RESERVATION). THIS BOOK
DESCRIBES THE ROLE OF EAGLE FEATHERS IN
SALISH CULTURE. READING LEVEL IS ABOUT 6TH
GRADE. SKCC.
- B-63**
BEAVERHEAD, PETE.
1978.
LEGENDS OF SCREWENE.
ST. IGNATIUS, MT.: FLATHEAD CULTURE COMMITTEE.
- (FLATHEAD INDIAN RESERVATION). TRADITIONAL
STORIES ABOUT BIGFOOT ADAPTED FOR A JUVENILE
READING LEVEL. SKCC.
- B-64**
BEAVERHEAD, PETE.
1978.
WILD HORSE ROUNDUP.
ST. IGNATIUS, MT.: FLATHEAD CULTURE COMMITTEE.
- (FLATHEAD INDIAN RESERVATION). BEAVERHEAD
DESCRIBES HIS MEMORIES OF SOME OF THE WILD
HORSE ROUNDUPS ON THE FLATHEAD DURING THE
EARLY YEARS OF THE TWENTIETH CENTURY BEFORE
THE RESERVATION WAS OPENED TO WHITE
HOMESTEADING. READING LEVEL IS ABOUT 6TH
GRADE. SKCC.
- B-65**
BECKER, BRUCE.
1972.
AN EVALUATION OF THE HORSE CONCESSIONER
OPERATION IN GLACIER NATIONAL PARK.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL
PARK SERVICE, GLACIER NATIONAL PARK. 39 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (GLACIER NATL. PARK). THE PURPOSE OF THIS
REPORT WAS TO PROVIDE THE MANAGEMENT PER-
SONNEL OF GLACIER NATIONAL PARK WITH BASIC
DATA AND EVALUATIONS RELATING TO THE HORSE
CONCESSION OPERATION IN THE PARK. IT CON-
SIDERS HISTORICAL TRENDS, THE PRESENT STATUS,
ECOLOGICAL EFFECTS OF HOLDING FACILITIES AND
USE OF THE TRAILS BY HORSES, RELATIONSHIPS TO
OTHER ACTIVITIES, AND CONFLICTS WITH NATURAL
AREA VALUES.
- B-66**
BEG, MIRZA A.
1970.
"MOVEMENT PATTERNS IN THE RED-TAILED CHIP-
MUNK EUTAMIAS RUFICAUDUS.
PAKISTAN J. ZOOLOGY 2:199-206.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (BOULDER CREEK). THE PATTERN OF MOVEMENT OF
EUTAMIAS RUFICAUDUS WAS STUDIED BY MEASUR-
ING THE DISTANCE BETWEEN POINTS OF CAPTURE
IN A GRID AREA. THE AVERAGE DISTANCES MOVED
BY ADULT MALES, ADULT FEMALES, AND JUVENILES
WERE RECORDED, AND DIFFERENCES BETWEEN THE
THREE GROUPS WERE NOTED. CORRELATIONS
WERE DRAWN WITH BREEDING CONDITION AND
POPULATION DENSITIES.
- B-67**
BEG, MIRZA A.
1971.
"POPULATION DYNAMICS OF THE RED-TAILED CHIP-
MUNK (EUTAMIAS RUFICAUDUS) IN WESTERN MON-
TANA."
PAKISTAN J. ZOOLOGY 3(133-145).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (MISSOULA & LAKE COUNTIES: BOULDER & POR-
CUPINE CREEKS). CHANGES IN SIZE AND STRUCTURE
OF TWO LOCAL POPULATIONS OF EUTAMIAS
RUFICAUDUS WERE STUDIED. POPULATION FLUC-
TUATIONS FROM SPRING EMERGENCE THROUGH
OCTOBER WERE RECORDED. SEX RATIOS AND YEAR-
TO-YEAR VARIATIONS IN POPULATION WERE ALSO
NOTED. LIFE TABLES WERE CONSTRUCTED FROM
THE AGE STRUCTURES OBSERVED. SURVIVAL RATES
AND AVERAGE NET REPRODUCTIVE RATES WERE
CALCULATED.

- B-66**
BEG, MIRZA A.
1971.
"REPRODUCTIVE CYCLE AND REPRODUCTION IN RED-TAILED CHIPMUNK, EUTAMIAS RUFICAUDUS." PAKISTAN J. ZOOLOGY 3:1-13.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (MISSOULA & LAKE COUNTIES: BOULDER & PORCUPINE CREEKS). REPRODUCTIVE ORGANS OF 376 MALES AND FEMALES WERE EXAMINED TO OBTAIN INFORMATION ABOUT REPRODUCTIVE CYCLE AND REPRODUCTION IN EUTAMIAS RUFICAUDUS.
- B-69**
BEG, MIRZA A.
1972.
"SEASONAL CHANGES IN BODY WEIGHT OF THE RED-TAILED CHIPMUNK, EUTAMIAS RUFICAUDUS." PAKISTAN J. ZOOLOGY 4:13-16.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (MISSOULA & LAKE COUNTIES: BOULDER & PORCUPINE CREEKS & THE MISSION MTS.). SEASONAL CHANGES IN BODY WEIGHTS OF THE RED-TAILED CHIPMUNK WERE STUDIED. THE WEIGHTS OF BREEDING FEMALES DURING PREGNANCY, LACTATION, AND AFTER LACTATION; NON-BREEDING FEMALES; AND ADULT MALES WERE RECORDED.
- B-70**
BEG, MIRZA A., AND HOFFMAN, R. S.
1977.
TITL "AGE DETERMINATION AND VARIATION IN THE RED TAILED CHIPMUNK, EUTAMIAS RUFICAUDUS." THE MURRELET 56(SUMMER 1977):26-36.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (MONTANA: MISSOULA & POLSON). IN CONNECTION WITH A POPULATION STUDY OF THE RED TAILED CHIPMUNK, THE PATTERNS OF DENTAL ERUPTION AND WEAR ON THE MAXILLARY MOLARIFORM TEETH OF KNOWN AGE ANIMALS WERE CORRELATED TO DETERMINE THE AGE CLASSES OF WILD SPECIMENS. CHANGES IN OTHER PHYSICAL CHARACTERS SUCH AS SKULL, FEMUR, BACULUM, AND BODY LENGTH AND WEIGHT WERE ALSO STUDIED IN A LARGE SERIES OF SPECIMENS AGED ON THE BASIS OF THEIR DENTAL CHARACTERS.
- B-71**
BEHAN, MARK J.
1968.
"FERTILIZATION IN WESTERN LARCH FORESTS." UNIV. MONTANA, MONTANA FOREST & CONSERVATION EXPR. STAT., MISSOULA. NOTE 6. 14 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD NATL. FOREST: CONDON & HUNGRY HORSE RANGER DISTRICTS & CORAM EXPR. FOREST). THIS REPORT DESCRIBES THE STATUS OF FERTILIZATION RESEARCH IN THE WESTERN LARCH TYPE FORESTS IN MONTANA, AND LISTS THE LOCATION OF ESTABLISHED EXPERIMENTAL FOREST FERTILIZATION PLOTS. THE OBJECTIVES OF THIS STUDY WERE TO: 1) STUDY THE EFFECTS OF FERTILIZATION ON HEIGHT AND DIAMETER GROWTH IN WESTERN LARCH, 2) STUDY THE EFFECT OF TREATMENTS ON THE SURVIVAL OF SUBDOMINANTS IN OVERSTOCKED STANDS, AND 3) CORRELATE FERTILIZER RESPONSE WITH MINERAL DEFICIENCY SYMPTOMS DEVELOPED IN GREENHOUSE AND LABORATORY STUDIES. FERTILIZERS USED WERE UREA, TREBLE SUPERPHOSPHATE, POTASSIUM CHLORIDE OR A COMBINATION OF THESE.
- B-72**
BEHAN, MARK J.
1968.
VISUAL DIAGNOSES OF MINERAL DEFICIENCY IN WESTERN LARCH.
- (MISSOULA, MT.: MONTANA FOREST & CONSERVATION EXPR. STAT., SCHOOL FORESTRY, UNIV. MONTANA. BULL. 34. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (WESTERN MONTANA). THIS REPORT DESCRIBES THE METHOD OF IDENTIFYING MINERAL DEFICIENCIES IN WESTERN LARCH (LARIX OCCIDENTALIS) BY VISUAL SYMPTOMS, THE ADVANTAGES AND LIMITATIONS OF THIS METHOD AND THE CURRENT STATUS OF THE DEVELOPMENT OF ALTERNATE METHODS OF DIAGNOSIS. A DESCRIPTION OF DEFICIENCY SYMPTOMS OF N, P, K, CA, AND MG IS INCLUDED.
- B-73**
BEHAN, MARK J., AND CHORD, W.
1970.
"THE EFFECT OF FERTILIZATION ON DIAMETER INCREMENT AND FOLIAR MINERAL CONTENT OF WESTERN LARCH." (ABSTRACTS OF PAPERS TO BE PRESENTED AT THE 1970 MEETING OF THE NORTHWEST SCIENTIFIC ASSOCIATION). NORTHWEST SCIENCE 44(1):59.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (NORTHWESTERN MONTANA: CORAM EXPR. FOREST). THIS ABSTRACT REPORTS ON A STUDY IN WHICH NITROGEN, POTASSIUM, AND PHOSPHORUS FERTILIZERS WERE APPLIED AS UREA, KCL, AND SUPERPHOSPHATE TO THIRTEEN STANDS OF WESTERN LARCH (LARIX OCCIDENTALIS). DIAMETER INCREMENTS WERE OBTAINED AND THE FOLIAGE ANALYZED FOR N, P, AND K.
- B-74**
BELL, BEV., ET. AL.
1972.
"YOU JUST CAME TO A MUDHOLE AND GO ON AROUND IT: AN INTERVIEW WITH GENE ALLARD ABOUT OLD STAGECOACH DAYS." DOVETAIL MAGAZINE, SUMMER 1972, PP. 15-26.
- (FLATHEAD VALLEY). THIS ARTICLE INCLUDES MUCH INFORMATION ABOUT THE STAGECOACH LINE OWNED BY CHARLES ALLARD, SR. SKCC.
- B-75**
BENGEYFIELD, PETER.
1975.
"NON POINT POLLUTION CONTROL REPORT FOR CLASSIFIED STATE FOREST LANDS." MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY, MISSOULA. (TYPEWRITTEN).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (STILLWATER & SWAN LAKE STATE FORESTS). THE DIVISION OF FORESTRY BEGAN A WATER QUALITY SAMPLING PROGRAM IN 1974 TO MONITOR THE NON POINT POLLUTION SOURCES ON STATE LANDS. THIS REPORT IS AN ANALYSIS OF THE 1974 DATA. TABLES LIST THE AMOUNT OF SUSPENDED SEDIMENT IN AREA STREAMS. WATER TEMPERATURE, SPECIFIC CONDUCTANCE, STAGE AND FLOW, PH, TOTAL ALKALINITY AND TURBIDITY ARE ALSO INCLUDED FOR SOME OF THE STREAMS. A LIST OF STRUCTURES AFFECTED BY THE RAPID SNOW MELT AND RESULTANT HIGH WATER EXPERIENCED ON THE STILLWATER FOREST IN 1974 IS INCLUDED.
- B-76**
BENGEYFIELD, PETER.
1976.
"ESTHETIC IMPACTS OF HARVESTING AND RESIDUE MANAGEMENT: MEASURES OF PUBLIC PREFERENCE." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS. MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.
- (STILLWATER STATE FOREST). THIS HYDROLOGY REPORT IS DESIGNED TO BE USED AS AN AID FOR RESOURCE ALLOCATION AND MANAGEMENT EMPHASIS, IT PROVIDES ENOUGH DATA TO MAKE SPECIFIC RECOMMENDATIONS AND DECISIONS AT THE PLANNING TEAM LEVEL BUT IS NOT DETAILED ENOUGH TO BE USED FOR INDIVIDUAL PROJECT PLANNING. AN ATTEMPT IS MADE TO GIVE AN OVERALL VIEW OF SOME OF THE RELATIONSHIPS IN WILDLAND HYDROLOGY, HENCE THE PARAMETERS AND PROCESSES ARE EXPLAINED. THE DESCRIPTION OF THE HYDROLOGIC RESOURCE INCLUDES PHYSICAL FEATURES, INFLUENCE OF FIRE AND MANAGEMENT ACTIVITIES, AND ANALYSIS OF INDIVIDUAL WATERSHEDS. THE WATER QUALITY SECTION COVERS THE WATER QUALITY BENCHMARK SYSTEM, AND SEDIMENT, TEMPERATURE, DISCHARGE, ALKALINITY AND HARDNESS, PH, AND SPECIFIC CONDUCTANCE.
- B-77**
BENGEYFIELD, PETER.
1977.
A SURVEY OF THE HYDROLOGIC RESOURCE ON THE STILLWATER STATE FOREST. KALISPELL, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, KALISPELL DIST. OFFICE. 112 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (STILLWATER STATE FOREST). THIS HYDROLOGY REPORT IS DESIGNED TO BE USED AS AN AID FOR RESOURCE ALLOCATION AND MANAGEMENT EMPHASIS, IT PROVIDES ENOUGH DATA TO MAKE SPECIFIC RECOMMENDATIONS AND DECISIONS AT THE PLANNING TEAM LEVEL BUT IS NOT DETAILED ENOUGH TO BE USED FOR INDIVIDUAL PROJECT PLANNING. AN ATTEMPT IS MADE TO GIVE AN OVERALL VIEW OF SOME OF THE RELATIONSHIPS IN WILDLAND HYDROLOGY, HENCE THE PARAMETERS AND PROCESSES ARE EXPLAINED. THE DESCRIPTION OF THE HYDROLOGIC RESOURCE INCLUDES PHYSICAL FEATURES, INFLUENCE OF FIRE AND MANAGEMENT ACTIVITIES, AND ANALYSIS OF INDIVIDUAL WATERSHEDS. THE WATER QUALITY SECTION COVERS THE WATER QUALITY BENCHMARK SYSTEM, AND SEDIMENT, TEMPERATURE, DISCHARGE, ALKALINITY AND HARDNESS, PH, AND SPECIFIC CONDUCTANCE.
- B-78**
BENGEYFIELD, PETER; FORD, G.; AND LUKES, A.
1976.
LANDTYPE SURVEY REPORT—SWAN RIVER STATE FOREST. MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY. 66 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (STILLWATER STATE FOREST). THIS LANDTYPE SURVEY WAS CONDUCTED BY EXAMINING GEOMORPHIC, GEOLOGIC, SOIL, VEGETATIVE, AND HYDROLOGIC CHARACTERISTICS AND THEN DELINEATING THOSE UNITS OF LAND WHICH WILL RESPOND SIMILARLY TO MANAGEMENT. DATA IS USED FOR BROAD RESOURCE ALLOCATION AND NOT FOR PROJECT WORK. THIS SURVEY YIELDS INFORMATION ON EROSION AND MASS FAILURE POTENTIAL AS WELL AS GENERAL STATEMENTS ON PRODUCTIVITY.
- B-79**
BENSON, ROBERT E.
1979.
"ESTHETIC IMPACTS OF HARVESTING AND RESIDUE MANAGEMENT: MEASURES OF PUBLIC PREFERENCE." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS. MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTS.: CORAM EXPR. FOREST). THIS STUDY MEASURED THE VISUAL IMPACT OF VARIOUS TIMBER HARVEST AND ROAD CONSTRUCTION ALTERNATIVES USING THE SCENIC BEAUTY ESTIMATION METHOD. A SUMMARY OF STUDY FINDINGS, AND POTENTIAL FOR APPLYING THEM TO MANAGEMENT ACTIVITIES, ARE DISCUSSED.

B-80
BENSON, ROBERT E.
1979.

"WOODY MATERIAL IN NORTHERN ROCKY MOUNTAIN FORESTS: VOLUME, CHARACTERISTICS, AND CHANGES IN HARVESTING." IN PROCEEDINGS OF ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTS.: CORAM EXPR. FOREST). THIS PAPER DESCRIBES THE TOTAL WOODY BIOMASS IN UNCUT STANDS FOR SEVERAL OF THE PRINCIPAL FOREST TYPES OF THE NORTHERN ROCKY MTS.. IT FURTHER COMPARES THE INFLUENCE OF ALTERNATIVE HARVESTING AND UTILIZATION PRACTICES ON THE AMOUNT AND CHARACTER OF WOODY MATERIAL REMAINING ON HARVEST SITES.

B-81
BENSON, ROBERT E., AND JOHNSON, C. M.
1976.

LOGGING RESIDUES UNDER DIFFERENT STAND AND HARVESTING CONDITIONS, ROCKY MOUNTAINS. OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RES. PAPER INT-181. 15 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: PORTIONS OF THE STUDY WERE CONDUCTED AT CORAM EXPERIMENTAL FOREST.

(ROCKY MTS.: CORAM EXPR. FOREST). VOLUME AND CHARACTERISTICS OF LOGGING RESIDUES ARE PRESENTED. THE FIGURES FROM CORAM EXPR. FOREST ARE ON DOUGLAS FIR-LARCH FORESTS: CLEAR CUTS AND PARTIAL CUTS LOGGED TO CONVENTIONAL UTILIZATION STANDARDS, AND CLEAR-CUTS AND PARTIAL CUTS LOGGED TO CLOSE UTILIZATION STANDARDS.

B-82
BENTZIN, DAVID A.
1980.

"GEOLOGY OF THE WEASEL CREEK AREA, NORTHERN WHITEFISH RANGE, FLATHEAD AND LINCOLN COUNTIES, MONTANA." M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 34 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: APPENDIX LISTS AND DESCRIBES MEASURED SECTIONS. A GEOLOGIC MAP NOTING STRATIGRAPHIC FORMATIONS, FAULTS, SYNCLINES, AND ANTICLINES IS INCLUDED.

(WHITEFISH RANGE: WEASEL CREEK AREA). THE DETERMINATION OF THE AREA'S STRUCTURE FOR CONSIDERATION OF PETROLEUM PRODUCING POSSIBILITIES WAS THE STUDY'S MAIN OBJECTIVE. AN ALLIED OBJECTIVE WAS A STUDY OF THE STRATIGRAPHY IN THE AREA. METHODOLOGY INVOLVED THE PLOTTING OF FIELD DATA ON USDA AIR PHOTOGRAPHS OF 1:20,000 SCALE; THE TRANSFER OF DATA TO A USGS TOPOGRAPHIC MAP OF THE STRYKER QUADRANGLE; THE ENLARGEMENT OF THAT MAP TO A SCALE OF ONE INCH EQUALS 2000 FEET AND THE CONTOUR INTERVAL CHANGED TO

200 FEET TO PROVIDE THE BASE FOR THE GEOLOGIC MAP OF THE THESIS. MOST OF THE GEOLOGICAL INFORMATION WAS GAINED FROM RIDGE CRESTS AND THEIR WEST OR SOUTH-FACING SLOPES. FORMATION CONTACTS, IMPORTANT INTRAFORMATIONAL UNITS, AND STRUCTURAL FEATURES WERE CORRELATED BETWEEN RIDGES WHERE DEEMED POSSIBLE. STRATIGRAPHIC THICKNESSES WERE OBTAINED FROM AERIAL PHOTOGRAPHS AND FROM MEASURED SECTIONS IN AND NEAR THE AREA. LITHOLOGICAL DESCRIPTIONS REPRESENT A COMPOSITE OF THE MEASURED SECTIONS AND DESCRIPTIONS FROM INDIVIDUAL FIELD STATIONS.

B-83
BERG, RICHARD B.
1971.

INDEX OF GRADUATE THESES ON MONTANA GEOLOGY.

BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY, COLL. MINERAL SCIENCE & TECH. SPEC. PUBL. 53. 48 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). COMPLETED GEOLOGIC THESES ARE LISTED THREE WAYS: 1) ALL ENTRIES ARRANGED ALPHABETICALLY BY AUTHOR; 2) SELECTED ENTRIES, MOST OF WHICH DO NOT LEND THEMSELVES TO BEING LOCATED ON A MAP, ARRANGED BY SUBJECT MATTER; AND 3) ALL ENTRIES ARRANGED BY THE INSTITUTION GRANTING THE DEGREE. LOCATIONS FOR MOST OF THE ENTRIES ARE SHOWN.

B-84
BERG, RICHARD B.
1979.

CURRENT GEOLOGICAL AND GEOPHYSICAL STUDIES IN MONTANA.

BUTTE, MT.: MONTANA COLL. MINERAL SCIENCE & TECH. SPEC. PUBL. 81. 25 PP.

FINAL, EXISTING DATA, GENERAL, TECHNICAL, STATEWIDE.

NOTE: INCLUDES STUDIES UNDERWAY IN THE FLATHEAD RIVER BASIN.

(MONTANA). THE ANNUAL LIST INCLUDES UNITED STATES GEOLOGICAL SURVEY, MONTANA BUREAU OF MINES AND GEOLOGY, AND UNIVERSITY STUDIES. STUDIES IN THE FLATHEAD BASIN INVOLVE AREAL GEOLOGY, SEDIMENTOLOGY, MINERAL AND NATURAL GAS RESOURCES, GEOTHERMAL INVESTIGATIONS, AND GLACIAL HISTORY.

B-85
BERGAN, K.W.
1961.

"A STUDY OF PROBLEMS ARISING FROM THE TRANSFER OF LAW AND ORDER JURISDICTION ON INDIAN RESERVATIONS TO THE STATE OF MONTANA."

MONTANA DEPT. INDIAN AFFAIRS, HELENA. (MIMEO).

(FLATHEAD INDIAN RESERVATION). THIS PAPER INCLUDES VARIOUS MATERIALS DEALING WITH JURISDICTION ON INDIAN RESERVATIONS IN MONTANA. SKCC.

B-86
BERGAN, K. W.
MONTANA INDIAN RESERVATIONS, 1965-1966.
HELENA, MT.: MONTANA DEPT. INDIAN AFFAIRS.

(FLATHEAD INDIAN RESERVATION). THIS DOCUMENT INCLUDES A SKETCH OF THE HISTORY AND AFFAIRS OF THE FLATHEAD RESERVATION. SKCC.

B-87
BERGANTINE, ROBERT N.
1978.

HYDROGEOLOGY OF THE FOY LAKE AREA, FLATHEAD COUNTY, MONTANA.

BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. OPEN FILE REPT. HY-78-1. 58 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FOY LAKE). THIS REPORT DESCRIBES: THE TOPOGRAPHY AND DRAINAGE AREA, THE VOLUME OF WATER IN THE LAKE, THE CLIMATE, THE GEOLOGIC AND CLIMATIC SETTINGS OF THE AREA, THE HYDROGEOLOGY OF THE AREA, FOY LAKE WATER LEVELS, AND WATER QUALITY. MANAGEMENT RECOMMENDATIONS ARE MADE.

B-88
BERKLEY, ANN B.; BERRYMAN, FERN L.; AND HOREJSI, CHARLES R., COMP.
1976.

A GUIDE TO SERVICES FOR PERSONS WHO ARE DEVELOPMENTALLY DISABLED, REGION V: FLATHEAD, LAKE LINCOLN, MINERAL, MISSOULA, RAVALLI, AND SANDERS COUNTIES.

MISSOULA, MT.: UNIV. MONTANA, DEPT. SOCIAL WORK. 102 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(FLATHEAD, LAKE, LINCOLN, MISSOULA, & SANDERS COUNTIES). CONCISE DESCRIPTIONS OF SERVICES FOR DEVELOPMENTALLY DISABLED PERSONS ARE PROVIDED IN THIS MANUAL, WHICH AIDS PARENTS AND OTHER CONSUMERS IN LOCATING SERVICES THEY HAVE NOT PREVIOUSLY USED AND REDUCES THE CONFUSION ASSOCIATED WITH APPLICATION AND ELIGIBILITY PROCEDURES. EACH SERVICE HAS BEEN CLASSIFIED ON THE BASIS OF WHETHER IT IS PROVIDED ON A STATE-WIDE BASIS, ON A REGION-WIDE BASIS OR ONLY AT THE COUNTY OR COMMUNITY LEVEL.

B-89
BERTHRONG, I. P.
1907.

MAP OF THE STATE OF MONTANA.

U. S. DEPT. INTERIOR, GENERAL LAND OFFICE.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). A GENERAL MAP, OUTLINING BOUNDARIES OF THE COUNTIES, NATIONAL FORESTS, AND INDIAN RESERVATIONS IN 1907.

B-90
BERTLE, FREDERICK A.
1949.

"HYDROMETEOROLOGICAL LOG OF THE UPPER COLUMBIA SNOW LABORATORY, 1945-46," IN PROCEEDINGS OF THE WESTERN SNOW CONFERENCE, RENO, NEVADA, APRIL 15, 16, AND 17, 1948. SIXTEENTH ANNUAL MEETING.

FT. COLLINS, CO.: WESTERN SNOW CONFERENCE, AND RENO, NEVADA: NEVADA AGRIC. EXPR. STAT. NOTE: A MAP OF THE LABORATORY AREA IS INCLUDED.

(MONTANA: MARIAS PASS). THE PAPER SUMMARIZES BRIEFLY THE HYDROMETEOROLOGICAL DATA OBTAINED DURING THE 1945-46 SNOW SEASON AT THE UPPER COLUMBIA SNOW LABORATORY. IT DESCRIBES THE LABORATORY'S SETTING AND ITS TYPES OF STATIONS: SNOW COURSES, METEOROLOGICAL STATIONS, AND PRECIPITATION STATIONS.

B-91
BERVEN, IRENE M. ALVSTAD.
1959.

"HISTORY OF INDIAN EDUCATION ON THE FLATHEAD RESERVATION."

M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 112 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA.

(FLATHEAD INDIAN RESERVATION). THE DEVELOPMENT OF INDIAN EDUCATION DURING THE TRIBAL TRANSITION FROM AN ABORIGINAL TO A MODERN CULTURE IS DESCRIBED. METHODOLOGY INVOLVED THE USE OF ETHNOGRAPHIC AND HISTORICAL LITERATURE, THE INTERVIEWING OF INDIANS, SETTLERS, STUDENTS, TEACHERS AND EDUCATIONAL SUPERVISORS, AND THE USE OF COUNTY, RESERVATION, AND BIA DOCUMENTS. CULTURAL DATA CONCERNING THE FLATHEAD, KOOTENAI, AND PEND D'OREILLE IS PRESENTED, ALONG WITH INFORMATION CONCERNING THE FUR TRADE, THE ARRIVAL AND MISSIONS OF JESUIT PRIESTS, THE TREATY OF 1855 NEGOTIATED BY ISAAC STEVENS, AND THE REMOVAL OF CHIEF CHARLOT'S BAND TO THE JOCKO VALLEY. THE INITIATION OF SCHOOLS BY THE JESUITS, THE SISTERS OF CHARITY OF PROVIDENCE, AND THE URSULINES IS DESCRIBED. ALSO DEPICTED ARE GOVERNMENT SCHOOLS ON THE RESERVATION AND GOVERNMENT NONRESERVATION BOARDING SCHOOLS. THE ESTABLISHMENT OF PUBLIC SCHOOLS, THE INTEGRATION OF INDIAN AND WHITE IN PUBLIC SCHOOLS, ENROLLMENT AND ATTENDANCE SCHOLASTIC ACHIEVEMENT, POLITICAL SUPERVISION, AND ADMINISTRATIVE PROBLEMS ARE TOPICS DISCUSSED.

B-92
BETTS, NORMAN W.
 1916.
"BIRDS SEEN IN THE VALLEY OF THE SOUTH FORK OF THE FLATHEAD RIVER, MONTANA."
THE CONDOR 18(JULY-AUGUST 1916):161-163.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER). THIS ARTICLE DESCRIBES BIRD OBSERVATIONS MADE ON A 75-MILE PACK TRIP UP THE SOUTH FORK OF THE FLATHEAD RIVER. THE BIRDS ARE LISTED BY THEIR SCIENTIFIC NAME. BRIEF NOTES DESCRIBE THE NUMBER OF BIRDS OBSERVED AND WHERE THE SITING OCCURRED.

B-93
BEVAN, ARTHUR.
 1929.
"ROCKY MOUNTAIN FRONT IN MONTANA."
BULL. GEOLOGICAL SOCIETY AMERICA 40(30 JUNE 1929):427-456.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA: BEARTOOTH MTNS., BRIDGER RANGE, LITTLE BELT MTNS., BIG SNOWY RANGE, LEWIS & CLARK RANGE, & LEWIS RANGE). THE SALIENT FEATURES OF THE GEOLOGY OF THE ROCKY MOUNTAIN FRONT RANGES ARE SUMMARIZED IN THIS PAPER. FOLLOWING A DISCUSSION OF INDIVIDUAL MOUNTAIN RANGES AND GENERAL TOPOGRAPHIC FEATURES, THE AREA'S STRATIGRAPHY AND STRUCTURE ARE OUTLINED. INCLUDED IN THE DESCRIPTION OF STRATIGRAPHY ARE THE ROCK FORMATIONS OF THE PRECAMBRIAN, PALEOZOIC, MESOZOIC AND CENOZOIC PERIODS AS WELL AS IGNEOUS ROCKS. FIVE STRUCTURAL ZONES ARE EXAMINED: 1) THE LEWIS OVERTHRUST ZONE, 2) THE LEWIS AND CLARK ZONE OF OVERTHRUST SLICE BLOCKS, 3) THE LITTLE BELT-BIG SNOWY ANTICLINORIUM, 4) THE BRIDGER ANTICLINE, AND 5) THE BEARTOOTH ANTICLINE AND OVERTHRUST. THE PAPER CONCLUDES WITH A BRIEF OUTLINE OF THE RANGE'S GEOLOGIC HISTORY.

B-94
BICK, GEORGE H., AND HORNUFF, L. E.
 1974.
"NEW RECORDS OF ODONATA FROM MONTANA AND COLORADO."
PROC. ENTOMOLOGICAL SOCIETY WASHINGTON 78:90-93.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: SEE MIMEO BY SAME AUTHORS LISTING ALL ODONATA COLLECTED IN MONTANA.

(COLORADO & MONTANA: FLATHEAD & LAKE COUNTIES). THIS TAXONOMIC LIST INCLUDES THE COUNTY WHERE THE SPECIMEN WAS LOCATED. THE TWENTY TAXA LISTED ARE RECORDED FOR THE FIRST TIME IN MONTANA.

B-95
BICK, GEORGE H., AND HORNUFF, L. E.
 1974.
"ODONATA COLLECTED IN MONTANA DURING SUMMER 1972."
ST. MARY'S COLLEGE, NOTRE DAME, IND. (MIMEO.) 2 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD & LAKE COUNTIES). A COMPLETE LISTING OF ODONATA COLLECTED DURING THE 1972 SUMMER SEASON. THE SCIENTIFIC NAME AND THE COUNTY THE SPECIMEN WAS LOCATED IN ARE GIVEN.

B-96
BIGART, ROBERT J.
 1970.
"AMERICAN INDIANS IN THE 'MELTING POT.'" IN INDIANS IN MONTANA, PP. 25-35
MISSOULA, MT.: UNIV. MONTANA, BUREAU BUSINESS & ECONOMIC RESEARCH.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD INDIAN RESERVATION). A STUDY OF THE ACCULTURATION PROCESS AND THE SURVIVAL OF INDIAN CULTURE AND THEIR IMPLICATIONS. THE INDIAN PERSONALITY TYPE AND PSYCHOLOGICAL TESTING OF FLATHEAD HIGH SCHOOL STUDENTS IS DISCUSSED.

B-97
BIGART, ROBERT J.
 1970.
"INDIAN CULTURE AND INDUSTRIALIZATION." IN INDIANS IN MONTANA, PP. 37-56.
MISSOULA, MT.: UNIV. MONTANA, BUREAU BUSINESS & ECONOMIC RESEARCH.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE STUDY DESCRIBES INDIAN CULTURAL TRAITS TO WHICH THE WESTERN FACTORY SYSTEM IS COMPARED. THE TRAITS ARE REWARDS, INDEPENDENCE, NATURE OF AUTHORITY, COMPETITION, ATTITUDE TOWARDS PROPERTY AND NATURE AND SENSE OF TIME. THE IMPLICATIONS FOR FACTORIES EMPLOYING INDIAN LABOR ARE DISCUSSED.

B-98
BIGART, ROBERT J.
 1971.
"PATTERNS OF CULTURAL CHANGE IN A SALISH FLATHEAD COMMUNITY."
HUMAN ORGANIZATION 30(FALL 1971):229-237.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). CULTURAL CHANGES WERE INVESTIGATED IN THIS STUDY, USING THE THEMATIC APPERCEPTION TEST AND THREE OTHER PSYCHOLOGICAL TESTS. SEVERAL ASPECTS OF THE MODAL PERSONALITY FORMS IN A CONTEMPORARY SALISH COMMUNITY WERE EXAMINED TO SEE IF THE FLATHEADS HAD ADOPTED WHITE PSYCHOLOGICAL PATTERNS ALONG WITH WESTERN TECHNOLOGY. THE SAMPLE INCLUDED ON/OFF-RESERVATION WHITES AND RESERVATION INDIANS DIVIDED ACCORDING TO DEGREE OF INDIAN BLOOD AND ECONOMIC STATUS.

B-99
BIGART, ROBERT J.
 1972.
"THE IDEAL PERSONALITY FORM SEEN IN TEN ANIMALS TALES OF THE SALISH FLATHEAD INDIANS OF MONTANA."
PLAINS ANTHROPOLOGIST 17:36-43.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE ARTICLE PRESENTS A PROJECTIVE PSYCHOLOGICAL ANALYSIS OF TEN SALISH FLATHEAD ANIMAL TALES TO TRY TO DEVELOP INFORMATION ON THE PRE-WHITE SALISH CONCEPTS OF AGGRESSION, ACHIEVEMENT, NATURE, TIME, THE SUPERNATURAL, AND APPROVED SOCIAL ORIENTATIONS.

B-100
BIGART, ROBERT J.
 1973.
"THE SALISH FLATHEAD INDIANS, 1850-1891."
IDAHO YESTERDAYS 17(FALL 1973):18-28.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE SALISH & FLATHEAD INDIANS). THE STUDY ANALYZES THE TRANSITION OF THE SALISH & FLATHEAD ECONOMIC BASE FROM THAT OF BUFFALO HUNTING TO AGRICULTURE. THROUGH HISTORICAL REPORTS, SOCIAL LIFE DURING THE LATE 19TH CENTURY IS DESCRIBED. TRIBAL HISTORY AND THE RELATIONSHIP OF THE FLATHEAD TO WHITES AND OTHER INDIANS IS OUTLINED.

B-101
BIGART, ROBERT J., AND WOODCOCK, CLARENCE.
 1975.
"PETER PETERSON TOFFT: PAINTER IN THE WILDERNESS."
MONTANA MAGAZINE OF WESTERN HISTORY 25(OCTOBER 1975):2-15.

(FLATHEAD INDIAN RESERVATION). TOFFT VISITED THE FLATHEAD RESERVATION IN 1885. WHILE FEW WRITTEN RECORDS OF THE VISIT WERE LOCATED BY THE AUTHORS, WATERCOLORS OF THE ST. IGNATIUS MISSION, THE FLATHEAD AGENCY, THE FLATHEAD AGENCY MILL, FORT CONNAH, FORT OWEN, AND HELLGATE ARE REPRODUCED WITH THE ARTICLE. THE PAINTINGS ARE HISTORICALLY ACCURATE AND ARE OFTEN THE EARLIEST DEPICTIONS OF THESE LANDMARKS IN SALISH HISTORY. POPULAR. SKCC.

B-102
BIGART, ROBERT J., AND WOODCOCK, CLARENCE.
 1979.
"THE RINEHART PHOTOGRAPHS: A PORTFOLIO."
MONTANA MAGAZINE OF WESTERN HISTORY 29(OCTOBER 1979):24-37.

(ABORIGINAL LANDS OF FLATHEAD & KALISPEL INDIANS). THE ARTICLE DISCUSSES THE BACKGROUND OF A FAMOUS GROUP OF PHOTOGRAPHS OF FLATHEAD & KALISPEL INDIANS AND BIOGRAPHICAL SKETCHES OF THE PEOPLE PICTURED. SKCC.

B-103
BIGART, ROBERT J., AND WOODCOCK, CLARENCE.
 1979.
"THE TRANS-MISSISSIPPI EXPOSITION AND THE FLATHEAD DELEGATION."
MONTANA MAGAZINE OF WESTERN HISTORY 29(OCTOBER 1979):14-23.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE TELLS THE STORY OF A GROUP OF FLATHEAD AND KALISPEL INDIANS WHO ATTENDED THE INDIAN CONGRESS HELD IN CONJUNCTION WITH THE 1898 TRANS-MISSISSIPPI EXPOSITION IN OMAHA, NEBRASKA. SKCC.

B-104
BIGGAR, HUGH J.
 1951.
"THE DEVELOPMENT OF THE LOWER FLATHEAD VALLEY."
 M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 166 PP.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY). THE AREA'S PREHISTORY AND HISTORY OF SETTLEMENT AND DEVELOPMENT IS PRESENTED. INFORMATION WAS OBTAINED FROM PUBLISHED PRIMARY AND SECONDARY SOURCES, INTERVIEWS, AND NEWSPAPER FILES. THE ACCOUNT INCLUDES THE FOLLOWING: THE OCCUPATION AND USE OF THE AREA BY INDIANS; EXPLORATION AND FUR TRADE, 1809-1871; WORK OF MISSIONARIES AND INDIAN AGENTS; STOCKRAISING, 1855-1948; LAND AND LAKE TRANSPORTATION, SETTLEMENT, 1883-1945; AND AGRICULTURAL DEVELOPMENT AND ITS PROBLEMS.

B-105
BIGGINS, DEAN E.
 1975.
"SEASONAL HABITAT SELECTION AND MOVEMENTS OF THE SPOTTED BEAR ELK HERD."
 M.A. THESIS, UNIV. MONTANA, MISSOULA. 90 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER: SPOTTED BEAR AREA). HABITAT USE AND MOVEMENTS OF AN ELK HERD WERE INVESTIGATED IN THIS STUDY. METHODOLOGY INVOLVED THE ACCUMULATION BY RADIOTELEMETRY OF A SAMPLE OF 738 RANDOM ELK LOCATIONS AND VEGETATIVE SAMPLING OF 113 OF THOSE LOCATIONS. ELK USE OF TOPOGRAPHIC ATTRIBUTES WAS COMPARED TO AVAILABILITY OF THESE ATTRIBUTES ESTABLISHED BY A RANDOM POINT SAMPLE OF THE STUDY AREA. SHRUB COVER, THE MOST ABUNDANT TREE SPECIES, GRAMINOID SPECIES AND OTHER UNIQUE CHARACTERISTICS OF THE HABITATS WERE EXAMINED. THE FIDELITY TO FORMER SEASONAL RANGES IS NOTED.

B-106
BIGLER, ROBERT L.
 1978.
AGE AND SIZE CLASS DISTRIBUTION IN THE ABIES LASIOCARPUS LAZULUS HITCHCOCKII-MENZIESIA FERUGINEA HABITAT TYPE IN NORTHWEST MONTANA.
 MOSCOW, ID.: UNIV. IDAHO. PROF. PAPER. 58 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN: WHITEFISH, FLATHEAD, SWAN & MISSION RANGES). THE OBJECTIVE OF THIS STUDY WAS TO IDENTIFY STAND STRUCTURE AND DEVELOPMENT IN THE SUBALPINE FIR-WOODRUSH-MENZIESIA HABITAT TYPE AND ATTEMPT TO DEVELOP MANAGEMENT IMPLICATIONS FROM THE FINDINGS. THE STAND ENVIRONMENT IS DESCRIBED AND THE FOLLOWING RELATIONSHIPS ARE EXAMINED: AGE CLASS-TREES PER ACRE AND AGE CLASS-BASAL AREA. VOLUME AND LEADER GROWTH ARE DETAILED.

B-107
BILLINGS GEOLOGICAL SOCIETY.
 1966.
SELECTED BIBLIOGRAPHY OF STRATIGRAPHY IN MONTANA AND ADJACENT AREAS.
 BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY, COLL. MINERAL SCIENCE & TECH. SPEC. PUBL. 38. 61 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). REFERENCES ARE LISTED ACCORDING TO THE GEOLOGIC PERIOD WHICH THEY COVER. GEOLOGIC PERIODS INCLUDED ARE: TERTIARY, QUATERNARY, CRETACEOUS,

JURASSIC, CAMBRIAN, TRIASSIC, PERMIAN, PENNSYLVANIAN, MISSISSIPPIAN, DEVONIAN, SILURIAN, ORDOVICIAN, AND PRECAMBRIAN.

B-108
BILLINGS, MARLAND.
 1938.
"PHYSIOGRAPHIC RELATIONS OF THE LEWIS OVERTHRUST IN NORTHERN MONTANA."
 AMERICAN J. SCIENCE, 5TH SERIES, 35(APRIL 1938).
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(LEWIS & LIVINGSTON RANGES). THE HYPOTHESIS THAT THE LEWIS OVERTHRUST IS A SUBSURFACE FAULT OF LARAMIDE AGE AND NOT AN "EROSION FAULT" IS PRESENTED IN THIS ARTICLE. EVIDENCE SUPPORTING SUCH A HYPOTHESIS IS INCLUDED IN DISCUSSIONS OF THE LEWIS OVERTHRUST'S STRUCTURE, THE AREA'S PHYSIOGRAPHY, THE RELATION BETWEEN PHYSIOGRAPHY AND STRUCTURE AND AGE OF THE LEWIS OVERTHRUST. IT IS SHOWN THAT THE LEWIS OVERTHRUST IS OLDER THAN THE EROSION SURFACES OF WHICH REMNANTS ARE STILL PRESERVED ON THE GREAT PLAINS AND THERE IS AN ABSENCE OF OVERRIDDEN TALUS AND GRAVELS ALONG THE THRUST PLANE.

B-109
BIRCH, R. O.
 1969.
GEOLOGIC REPORT-SLOAN BRIDGE DAMSITE, FLATHEAD RIVER PROJECT, MONTANA.
 SPOKANE, WA.: U.S. DEPT. INTERIOR, BUREAU RECLAMATION, REGION ONE, UPPER COLUMBIA DEVELOPMENT OFFICE. 25 + PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SANDERS COUNTY: SLOAN BRIDGE DAM SITE). IN ORDER THAT A MORE RELIABLE DESIGN AND COST ESTIMATE COULD BE MADE FOR A STRUCTURE AT SLOAN BRIDGE DAMSITE, A DRILL PROGRAM OF FOUR HOLES WAS CARRIED OUT. THIS REPORT PRESENTS THE DATA OBTAINED BY THE DRILLING AND MAPPING. THE REPORT INCLUDES MAPS, GEOLOGIC SECTIONS, SITE PHOTOGRAPHS, LOGS AND PHOTOGRAPHS OF DRILL CORE AND RESULTS OF PERCOLATION TESTS AND WATER TABLE MEASUREMENTS TAKEN DURING DRILLING. SEVERAL MAPS HAVE BEEN COPIED FROM A WATER SUPPLY PAPER FOR INCLUSION IN THE REPORT.

B-110
"BIRDS OF FLATHEAD COUNTY."
 4 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD COUNTY LIBRARY: MONTANA FILES.

(FLATHEAD COUNTY). LIST OF THE COMMON NAMES OF 136 BIRDS WHICH CAN BE SEEN IN FLATHEAD COUNTY.

B-111
BISHOP, MARCELLA M.
 1978.
"BREEDING-BIRD CENSUS BULRUSH AND CAT-TAIL MARSH IN CONIFER FOREST."
 POLSON, MT. 20 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WEST SHORE OF FLATHEAD LAKE). THIS STUDY WAS UNDERTAKEN FOR THE PURPOSE OF DOCUMENTING THE AVIFAUNA CONTINUITY OR CHANGE AS THE MARSH AND SURROUNDING SERAL FOREST PROGRESSED TOWARD CLIMAX. IT WAS ALSO INTENDED TO PROVIDE THE OWNERS WITH WILDLIFE RESOURCE DATA TO ENCOURAGE THEM TO MAINTAIN THE MARSH AS A SANCTUARY.

B-112
BISHOP, MARCELLA M.
 1978.
"IMPRINTING OF A RING-BILLED GULL."
 THE AUK 95 (JANUARY 1978):196-197.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE ARTICLE GIVES AN ACCOUNT OF OBSERVATIONS OF A RING-BILLED GULL'S IMPRINTING OR FIXATION BEHAVIOR. THE GULL WAS SEEN IN THE CONSTANT COMPANY OF A FLOCK OF FOUR FEMALE AND TWO MALE COMMON MERGANSERS (MERGUS MERGANSER). ITS ATTEMPTS TO SUBMERGE WITH THE MERGANSERS AND SWIMMING AND FLYING TO KEEP UP WITH THE FLOCK ARE DESCRIBED.

B-113
BISHOP, MARCELLA M.
 1978.
"DOUBLE-CRESTED CORMORANT: 1978 RESEARCH REPORT ON COLONY AT NINEPIPE NATIONAL WILDLIFE REFUGE."
 POLSON, MT. 15 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NINEPIPE NATL. WILDLIFE REFUGE). GOALS FOR THIS 1978 REPORT WERE TO: 1) RECORD NUMBERS AND NEST SUCCESS, 2) BAND AND COLOR MARK AS MANY YOUNG AS POSSIBLE, 3) STUDY AND PHOTOGRAPH COURTSHIP DISPLAYS AND THE COURTSHIP PHASE OF BREEDING BIOLOGY, 4) COMPARE DATA OBTAINED FROM HAND REARED YOUNG WITH WILD YOUNG, AND 5) OBTAIN FURTHER INFORMATION ON FEEDING SITES.

B-114
BISHOP, MARCELLA M., AND KELLY, LYNN E.
 1978.
"DOUBLE-CRESTED CORMORANT COLONIZATION OF NINEPIPE NATIONAL WILDLIFE REFUGE IN WESTERN MONTANA."
 POLSON, MT.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NINEPIPE NATL. WILDLIFE REFUGE). THE OBJECTIVES OF THIS RESEARCH PROJECT WERE 1) TO OBSERVE INTERACTIONS WITH GREAT BLUE HERONS, 2) TO DETERMINE IF COLONIES WOULD EXPAND TO OTHER LOCATIONS IN THE VALLEY, AND 3) TO DETERMINE THE EFFECTS OF CORMORANTS ON VEGETATION ON THE NESTING ISLANDS. ADDITIONAL OBJECTIVES IN ORDER WERE 1) TO DOCUMENT THE COLONY FORMATION AND GROWTH FROM ITS INCEPTION, 2) TO RECORD ASPECTS OF BREEDING BIOLOGY AND BEHAVIOR AS ARE COMMON TO TREE NESTING CORMORANTS, AND 3) TO DETERMINE, IF POSSIBLE THROUGH COLOR MARKING, THE SUBSPECIES AND ORIGINS OF THIS COLONIZING FLOCK.

B-115
BISHOP, R. S., CHAIRMAN.
 1946.
"DIXON-AGENCY MONTANA STUDY GROUP: NOTES OF MEETINGS."
 (MIMEO).

(FLATHEAD INDIAN RESERVATION). THE MEETINGS CONDUCTED UNDER THE MONTANA STUDY EXAMINED THE COMMUNITY OF DIXON AND ITS HISTORY. THESE NOTES INCLUDE MUCH OF THE MATERIAL ON DIXON AREA HISTORY PREPARED FOR THE MEETINGS. SKCC.

B-116
BIZEAU, E. G.
 1973-1974.
"FIRE ECOLOGY, SUCCESSIONAL PATTERNS AND UNGULATE RELATIONSHIPS IN THE NORTH FORK OF THE FLATHEAD RIVER."

UNIV. IDAHO, FOREST, WILDLIFE & RANGE EXPER. STAT., MOSCOW. (ABSTRACT).
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THE STUDY CONSIDERS FIRE BEHAVIOR RANGING FROM SURFACE FIRES IN GRASSLAND COMPLEX, LODGEPOLE SAVANNA AND DOUGLAS-FIR STANDS AT MEAN INTERVALS OF 10-38 YEARS TO CROWN FIRES IN ASPEN AND LODGEPOLE PINE/SUBALPINE FIR STANDS AT INTERVALS OF ABOUT 51 YEARS TO NEAR FIRE EXCLUSION FROM MESIC SPRUCE STANDS UNDISTURBED FOR 250-370 YEARS. SUCCESSIONAL CHANGES IN THE ABSENCE OF FIRE ARE EXAMINED. ELK OVERLAPPING WITH WHITE-TAILED DEER AND MOOSE, NICHE DISTINCTNESS AMONG THE THREE SPECIES RESULTING FROM A NUMBER OF FACTORS, AND THE CONTRIBUTION OF FIRE TO VEGETATIVE DIVERSITY AND, HENCE, NICHE DISTINCTNESS IS INVESTIGATED.

B-117
BJORK, CLARON D.
1967.

THE ZOOPLANKTON OF FLATHEAD LAKE, MONTANA.
M.S. THESIS, UNIV. UTAH, SALT LAKE CITY. 135 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE PURPOSE OF THIS RESEARCH WAS TO MAKE A QUANTITATIVE AND QUALITATIVE STUDY OF THE ZOOPLANKTON FOUND IN FLATHEAD LAKE, MAKE AN ILLUSTRATED KEY TO SPECIES, TO STUDY VERTICAL AND HORIZONTAL DISTRIBUTION, AND TO DETERMINE CHEMICAL AND PHYSICAL PARAMETERS. WATER QUALITY PARAMETERS ARE: TEMPERATURE, PH, DO, CO₂, CO₃, HCO₃.

B-118
BJORKLUND, RICHARD G.
1953.

"THE LAKE WHITEFISH COREGONUS CLUPEAFORMIS (MITCHELL) IN FLATHEAD LAKE, MONTANA."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 144 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS INVESTIGATION EXAMINES THE NATURAL HISTORY OF THE WHITEFISH IN FLATHEAD LAKE—PARTICULARLY IN YELLOW AND POLSON BAYS. AGE, CONDITION, FOOD TAKING, DEPTH DISTRIBUTION, AND MOVEMENTS ARE STUDIED. SPECIAL TOPICS SUCH AS SEXUAL MATURITY, SEX RATIOS, THE EFFECTS OF TEMPERATURE ARE TREATED IN AS FAR AS THE DATA PERMITS. EXTENSIVE TABLES LISTING STOMACH ANALYSIS RESULTS ARE INCLUDED.

B-119
BLACK, JEFFERY H.
1970.

"AMPHIBIANS OF MONTANA." EDITED BY VERNON CRAIG.
MONTANA WILDLIFE, JANUARY 1970, P. 32.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: GLACIER NATL. PARK). THIS PUBLICATION DISCUSSES NINETEEN AMPHIBIANS AS POSSIBLY OCCURRING IN MONTANA. INCLUDED ARE THE TAILED FROGS (ASCAPHUS TRUEI), SPADEFOOT TOADS (GENUS SCAPHIOPUS), TOADS, TREE FROGS AND CHORUS FROGS, TRUE FROGS, AND SALAMANDERS. IT DESCRIBES THE ANIMAL'S DISTRIBUTION, PHYSICAL APPEARANCE, HABITAT, BREEDING, AND BEHAVIOR. SPECIES ARE LISTED AND A KEY TO TOADS OF MONTANA IS INCLUDED. IT ALSO LISTS THREE SPECIES OF SALAMANDERS AND SIX SPECIES OF FROGS AND TOADS FOUND IN GLACIER NATIONAL PARK.

B-120
BLACK, JEFFERY H.
1970.

"SOME ASPECTS OF THE DISTRIBUTION, NATURAL HISTORY AND ZOOGEOGRAPHY OF THE TOAD GENUS BUFO IN MONTANA."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 70 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE OCCURRENCE AND DISTRIBUTION OF SPECIES BUFO AND SOME ASPECTS OF THEIR NATURAL HISTORY WERE INVESTIGATED. DATA PERTAINING TO THE FOLLOWING SPECIES WAS OBTAINED: BUFO BOREAS, BUFO COGNATUS, BUFO HEMIOPHYRS, BUFO WOODHOUSEI. INCLUDED IN DISCUSSIONS OF EACH TOAD SPECIES IS INFORMATION CONCERNING ITS RANGE, SEXES, SIZES, DISTINGUISHING PHYSICAL CHARACTERISTICS, PHYSIOGRAPHIC HABITAT, VEGETATIONAL TYPES OF HABITAT, BREEDING AREAS, POND LOCATIONS AND CHARACTERISTICS, AND REPRODUCTIVE BEHAVIOR. EXPLANATIONS OF BUFONID DISTRIBUTION ARE OFFERED.

B-121
BLACKFEET NATIONAL FOREST.
1914 & 1917.

INTENSIVE LAND CLASSIFICATION REPORT - NORTH FORK AND FORTINE PROJECT.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE. 60 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BLACKFEET NATL. FOREST: NORTH FORK OF THE FLATHEAD RIVER & FORTINE). TOPICS COVERED IN THIS ORIGINAL LAND CLASSIFICATION REPORT INCLUDE: LOCATION, SETTLEMENT, CLIMATE, TOPOGRAPHY, AGRICULTURE AND FOREST VALUES, LAND CLASSES, TOWNS, ROADS, WATER REQUIREMENT, CLEARING AND PREPARATION OF STUMP LAND FOR AGRICULTURAL PURPOSES, PUBLIC USES, PROTECTION OF WATERSHED, TRANSPORTATION OF TIMBER, FARM UNITS, DESCRIPTION OF LEGAL SUBDIVISIONS, CHRONOLOGICAL RECORD OF AMENDMENTS AND CORRECTIONS OF CLASSIFICATION AND STATUS. MAPS ILLUSTRATE BOTH SOIL AND LAND CLASSIFICATIONS.

B-122
BLACKFEET NATIONAL FOREST.
1915.

FLATHEAD NATIONAL FOREST ATLAS.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 50 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BLACKFEET NATL. FOREST: NOW FLATHEAD NATL. FOREST). A COLLECTION OF EARLY TOPOGRAPHIC MAPS OF THE FOREST, ALONG WITH FORMS CONCERNED WITH THE FILING OF TOWNSHIP PLATS, INCLUDING THE NAME OF CLAIMANT, TYPE OF CLAIM, NUMBER OF ACRES, AND PATENT DATE.

B-123
BLACKFEET NATIONAL FOREST.
1917.

EXTENSIVE LAND CLASSIFICATION FOR BLACKFEET NATIONAL FOREST.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 50 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BLACKFEET NATL. FOREST: NOW FLATHEAD NATL. FOREST). THIS ORIGINAL EXTENSIVE LAND CLASSIFICATION REPORT DESCRIBES THE TOPOGRAPHY, CLIMATE, SOIL, AGRICULTURAL AND FOREST VALUES FOR EACH OF THE TOWNSHIP AND RANGE DIVISIONS.

B-124
BLACKFEET NATIONAL FOREST.
1921.

INTENSIVE LAND CLASSIFICATION FOR BLACKFEET NATIONAL FOREST.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 50 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BLACKFEET NATL. FOREST: NOW FLATHEAD NATL. FOREST: OLNEY & NORTH FORK FLATHEAD RIVER). INCLUDED IN THIS ORIGINAL LAND CLASSIFICATION REPORT ARE: SOIL TYPES AND CLASSES, MAPS AND DESCRIPTIONS, RECOMMENDATIONS FOR LISTABLE AGRICULTURAL LANDS, PRESENTLY NON-LISTABLE AND PERMANENTLY NON-LISTABLE LANDS, DETAILED DESCRIPTIONS OF THE AREAS BY TOWNSHIP AND RANGE WITH SOIL AND TIMBER MAPS. AGRICULTURAL AND FOREST VALUES WERE EVALUATED FOR EACH AREA.

B-125
BLACKFORD, JOHN L.
1953.

"BIRD RECORDS FROM NORTHWESTERN MONTANA."
THE CONDOR 55(SEPTEMBER-OCTOBER 1953):277-278.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTHEASTERN LINCOLN COUNTY: ISLAND LAKE). THIS BRIEF ARTICLE DESCRIBES THE OBSERVATION OF A RING-NECKED DUCK, AYTHYA COLLARIS, AND HER BROOD OF 7 OR 8 DUCKLINGS. THE SITING IS THE FIRST OBSERVATION OF THE BREEDING OF THIS SPECIES IN WESTERN MONTANA. THE SITING OF A BLACK-POLL WARBLER (DENDROICA STRIATA) NEAR LIBBY, MONTANA, IS ALSO REPORTED.

B-126
BLACKISTON, CAPT. THOMAS.
1859.

"REPORT ON THE EXPLORATION OF THE KOOTANEI AND BOUNDARY PASSES OF THE ROCKY MOUNTAINS IN 1858."
OCCASIONAL PAPERS OF THE ROYAL ARTILLERY INSTITUTION 12(MAY 1859):237-254.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(SOUTHEASTERN BRITISH COLUMBIA & NORTHWESTERN MONTANA: NORTH FORK OF THE FLATHEAD RIVER & GLACIER NATL. PARK). THIS ARTICLE RECOUNTS THE EXPLORATIONS OF CAPT. THOMAS BLACKISTON THROUGH THE AREA DIRECTLY NORTH AND WEST OF THE PRESENT GLACIER NATIONAL PARK. THIS NARRATIVE BY BLACKISTON HIMSELF DESCRIBES THE GEOGRAPHY OF THE AREA AND INDIAN CONTACTS IN GENERAL TERMS. IT DISCUSSES THE FEASIBILITY OF RAILROAD ROUTES THROUGH THE AREA EMPHASIZING THE SUITABILITY OF THE MOUNTAIN PASSES.

B-127
BLAIR, HILDA KNOWLES.
1925.

"SHINY SHOES."
THE FRONTIER, MARCH 1925, PP. 5-8.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE TELLS THE STORY OF LONE BEAVER, AN INDIAN IN THE ST. IGNATIUS AREA, WHO WANTED TO GET SHINY STORE-BOUGHT SHOES. THE STORY IS PROBABLY AT LEAST PARTLY FICTION, BUT GIVES NO INDICATION OF WHAT IT IS BASED ON. SKCC.

B-128
BLANKENSHIP, J. W.
1901.

WEEDS OF MONTANA.
BOZEMAN, MT.: MONTANA COLL. AGRICULTURE, MONTANA AGRIC. EXPER. STAT. BULL. NO. 30. 86 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). IT WAS THE OBJECT OF THIS PAPER TO PRESENT A SUMMARY OF THE PRESENT KNOWLEDGE OF THE WEEDS OF THE STATE, TO INDICATE THE MOST DANGEROUS INTRODUCTIONS AND SUGGEST MEANS FOR THEIR RESTRAINT OR ERADICATION. THE ANNOTATED LIST GIVES THE SCIENTIFIC AND COMMON NAMES OF WEEDS, DESCRIBES WHERE THEY HAVE BEEN FOUND AND WHAT TYPE OF SITE THEY WOULD MOST LIKELY BE FOUND IN.

B-129

BLANKENSHIP, J. W.
1904.

"A CENTURY OF BOTANICAL EXPLORATION IN MONTANA, 1805-1905: COLLECTORS, HERBARIA AND BIBLIOGRAPHY."

MONTANA AGRICULTURAL COLL. SCIENCE STUDIES 1(NOVEMBER 1904):31-62.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE PAPER ATTEMPTS TO SUMMARIZE THE STATE'S FIRST CENTURY OF BOTANICAL EFFORT. REPORTED ARE BOTANICAL COLLECTIONS MADE BY: MERIWEATHER LEWIS OF THE LEWIS AND CLARK EXPEDITION, DAVID DOUGLAS, ALEXANDER PHILLIPP MAXIMILIAN, NATHANIEL J. WYETH, CHARLES A. GEYER, T. A. CULBERTSON, J. G. COOPER, F. V. HAYDEN, AND OTHERS. THE BIBLIOGRAPHIC LIST INCLUDES PUBLICATIONS DEALING WITH THE BOTANY OF THE STATE, ARRANGED ALPHABETICALLY BY AUTHORS, WITH BRIEF NOTES AS TO THEIR NATURE AND IMPORTANCE.

B-130

BLANKENSHIP, J. W.
1905.

NATIVE ECONOMIC PLANTS OF MONTANA.

BOZEMAN, MT.: MONTANA AGRICULTURAL COLL., MONTANA AGRIC. EXPER. STAT. BULL. NO. 56. 36 PP. FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE OBJECTIVE OF THIS PAPER WAS TO LIST THE NATIVE PLANTS OF THE STATE UTILIZED BY THE INDIANS, THE EARLY EXPLORERS, TRAPPERS, AND SETTLERS, AS WELL AS TO LIST THE CHIEF SPECIES EMPLOYED IN CURRENT INDUSTRIAL LIFE.

B-131

BLENKARN, WALTER A.
1957.

"DISCUSSION OF GLACIER RESEARCH IN GLACIER NATIONAL PARK: MEMORANDUM OF MEETING AT HELENA, MONTANA, MARCH 12, 1957."

(MIMEO). 7 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: U.S. DEPT. INTERIOR, NATIONAL PARK SERV., GLACIER NATIONAL PARK LIBRARY, WEST GLACIER, MT.

(GLACIER NATL. PARK). THE MEMORANDUM GIVES A REVIEW OF WHAT RESEARCH HAS BEEN DONE IN THE PAST ON THE PARK'S GLACIERS AND THE PURPOSE BEHIND EACH OF THESE PROJECTS, A DEFINITION OF LONG-RANGE OBJECTIVES, DISCUSSION OF HOW TO WORK TOWARD THESE OBJECTIVES, A RESUME OF RESEARCH BY THE USGS AND THE PARK SERVICE INVOLVING OBSERVATIONS AND MEASUREMENTS OF SPERRY, JACKSON, GRINNELL, AND AGASSIZ GLACIERS IS INCLUDED. SNOW SURVEYS, RUNOFF, AND PRECIPITATION STORAGE GAGING, HYGRO-THERMOGRAPH AND TEMPERATURE RECORDS ARE THE METHODS OF DATA COLLECTION OUTLINED IN THE MEMO.

B-132

BLOCH, IVAN, AND MOMENT, SAMUEL.
1967.

THE ALUMINUM INDUSTRY OF THE PACIFIC NORTHWEST.

PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION. 285 PP.

PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: COLUMBIA FALLS). THE STUDY IS A COMPONENT IN BPA'S ECONOMIC BASE STUDY OF FUTURE INDUSTRIAL DEVELOPMENT TO ESTIMATE FUTURE POWER MARKETS. IT EXAMINES POSSIBLE LEVELS OF FURTHER DEVELOPMENT OF THE ALUMINUM INDUSTRY BETWEEN THE YEARS 1965 AND 1985 AND THE ASSOCIATED REQUIREMENTS FOR ELECTRIC POWER AND OTHER PRODUCTION FACTORS. THE PRESENT STATUS OF THE INDUSTRY AS WELL AS ITS FUTURE PRODUCTION OPPORTUNITIES ARE DISCUSSED.

B-133

BLOCK, DANIEL G.
1955.

"TROUT MIGRATION AND SPAWNING STUDIES ON THE NORTH FORK DRAINAGE OF THE FLATHEAD RIVER."

M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 83 PP.

FINAL, ORIGINAL DATA, SPECIFIC, TECHNICAL, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). A POPULATION AND MIGRATION STUDY OF SALMO CLARKII AND SALVELINUS MALMA. A CREEL CENSUS STUDY DESCRIBES POPULATIONS, SIZE AND AGE CLASSES OF DOLLY VARDEN, RAINBOW AND CUTTHROAT TROUT AND ROCKY MOUNTAIN WHITEFISH. DATA ON MIGRATION AND ON SPAWNING DATES, LOCATIONS, AND HABITS IS INCLUDED.

B-134

BOARD, JOHN C.
1968.

"MORTON J. ELROD AND THE UNIVERSITY OF MONTANA BIOLOGICAL STATION."

PAPER PREPARED FOR HISTORY 598, UNIV. MONTANA, MISSOULA. 30 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: UNIV. MONTANA, MISSOULA OR YELLOW BAY BIOL. STAT., BIGFORK, MT.

(YELLOW BAY BIOL. STAT., UNIV. MONTANA). AN HISTORICAL ACCOUNT OF THE DEVELOPMENT OF YELLOW BAY BIOLOGICAL STATION AND ITS FOUNDER, MORTON J. ELROD. DIFFICULTIES WITH FUNDING AND SUPPORT FROM THE UNIVERSITY ADMINISTRATION ARE RELATED.

B-135

BOAS, FRANZ, ED.
1917.

FOLK-TALES OF SALISHAN AND SAHAPTIN TRIBES. LANCASTER, PA. AND NEW YORK: AMERICAN FOLKLORE SOCIETY. 201 + PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

AVAILABLE FROM: KRAUS REPRINT CO., NEW YORK. 1969.

(INTERIOR COLUMBIA RIVER BASIN). THE BOOK IS A COLLECTION OF TRIBAL MYTHS AND TALES CONCERNED ABOUT ORIGINS, THE MYTH FIGURE OF "COYOTE," OTHER ANIMALS, THE WEATHER, THE SUN, MOON, AND STARS, ETC.

B-136

BOAZ, FRANZ, AND CHAMBERLAIN, ALEXANDER F.
1918.

KUTENAI TALES.

WASHINGTON, D.C.: SMITHSONIAN INSTITUTION. BUREAU AMERICAN ETHNOLOGY BULL. 59. 387 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ABORIGINAL LANDS OF THE KOOTENAI INDIANS). THIS COLLECTION OF UPPER KUTENAI TALES INCLUDES 44 SHORT STORIES COLLECTED BY CHAMBERLAIN IN 1891 AND 32 BY BOAZ. PRESENTED IN ENGLISH AND KUTENAI, THE STORIES INCLUDE SUCH CHARACTERS AS COYOTE, THE SUN, "YA.UKUE";K.A.M.", AND OTHER ANIMALS AND DISCUSS THE SUNDANCE, HUNTING, GAMBLING, THE ORIGIN OF DEATH, THE MOTHER-IN-LAW TABOO, ETC. THE KUTENAI ALPHABET IS PRESENTED ALONG WITH COMPARATIVE NOTES AND VOCABULARIES (KUTENAI-ENGLISH AND ENGLISH-KUTENAI).

B-137

BODHAINE, G. L., AND THOMAS, D. M.
1964.

MAGNITUDE AND FREQUENCY OF FLOODS IN THE UNITED STATES: PART 12. PACIFIC SLOPE BASINS IN WASHINGTON AND UPPER COLUMBIA RIVER BASIN. WASHINGTON, D.C.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. WATER-SUPPLY PAPER 1687. 337 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WASHINGTON & UPPER COLUMBIA RIVER BASIN). THE FLOOD RECORDS FOR ALL STREAM-GAGING STATIONS WITH 5 OR MORE YEARS OF ANNUAL PEAK RECORD ARE PRESENTED IN THIS REPORT. THESE FLOOD DATA WERE ANALYZED TO PROVIDE A MEANS OF EVALUATING THE FLOOD PROBABILITY OF SITES IN THE STUDY AREA. BY USING A REGIONAL ANALYSIS, THE REPORT AREA WAS DIVIDED INTO 8 REGIONS, EACH CONSIDERED TO HAVE HOMOGENEOUS FLOOD CHARACTERISTICS. FREQUENCY CURVES FOR EACH GAGING-STATION AND COMPOSITE FLOOD-FREQUENCY CURVES WERE PRODUCED.

B-138

BODHAINE, G. L.; FOXWORTHY, B. L.; SANTOS, J. F.; AND CUMMANS, J. E.
1963.

THE ROLE OF WATER IN SHAPING THE ECONOMY OF THE PACIFIC NORTHWEST.

TACOMA, WA.: U. S. DEPT. INTERIOR, GEOLOGICAL SURVEY. 317 PP.

PRELIMINARY, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: FLATHEAD RIVER BASIN IS INCLUDED IN DISCUSSIONS OF NORTHERN ROCKY MTNS. PROVINCE AND POWER SUPPLY AREA 30.

(PACIFIC NORTHWEST). THE STUDY, PART OF THE BONNEVILLE POWER ADMINISTRATION ECONOMIC BASE STUDY, FORECASTS THE INFLUENCE WATER WILL HAVE UPON THE REGION'S ECONOMIC DEVELOPMENT. THE ANALYSIS AND FORECASTS ARE MADE BY REGIONAL SUB-AREAS FOR FIVE-YEAR INTERVALS TO 1985, WITH A PROJECTION OF TRENDS TO 2010. EMPHASIS IS PLACED UPON THE ADEQUACY OF THE QUANTITY AND QUALITY OF WATER TO SUPPORT INDUSTRIAL EXPANSION AND ECONOMIC DEVELOPMENT IN THE REGION AND THE ECONOMIC IMPACT ON THE REGION OF COMPARATIVE WATER DEFICIENCIES IN OTHER REGIONS. DEPENDABLE STREAMFLOW, REQUIREMENTS AND USES, GROUNDWATER AVAILABILITY, WATER QUALITY, WATER LAWS, AND TECHNOLOGICAL ADVANCEMENTS IN FINDING, DEVELOPING, USING OR CREATING WATER SUPPLIES ARE DISCUSSED.

B-139

BODHOLT, FREDERICK B.
1976.

"RELATION OF THE SHALE PETROLOGY TO VARIATIONS IN PHYSICAL PROPERTIES OF CLASTIC SEDIMENT ACROSS THE MONTANA DISTURBED BELT."

PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 94 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SAWTOOTH RANGE). THIS STUDY WAS CONCERNED WITH THE ROLE COMPACTION, DIAGENESIS, AND DEFORMATION PLAY IN ALTERING THE PHYSICAL PROPERTIES OF MUDSTONES AND SHALES OUTCROPPING IN THE DISTURBED BELT ADJACENT TO THE RANGE. OBJECTIVES INCLUDED: 1) DELINEATION OF THE AERIAL VARIABILITY OF SHALE AND MUDSTONE PHYSICAL PROPERTIES IN AND JUST EAST OF THE BELT; 2) DETERMINATION OF WHETHER VARIATIONS IN PHYSICAL PROPERTIES ARE REFLECTED IN THE MINERALOGY AND PETROLOGY OF MUDSTONES AND SHALES; AND 3) EVALUATION OF THE MECHANISM AND AMOUNT OF COMPACTION WITH RESPECT TO THE BELT'S GEOLOGY RESULTS SHOW RELATIONSHIPS AND SIMILARITIES BETWEEN PHYSICAL PROPERTIES AND DISTRIBUTION OF PERCENTAGE OF EXPANDABLE LAYERS IN ILLITE AND MONTMORILLONITE RICH MUDSTONES AND SHALES. DEPARTURES FROM MAIN TREND ARE NOTED.

B-140
BOE, KENNETH N.
1953.
WESTERN LARCH AND DOUGLAS FIR SEED DISPERSAL.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, NORTHERN ROCKY MTN. FOREST & RANGE EXPR. STAT. PAPER NO. 129. 3 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: CORAM EXPR. FOREST). THIS PAPER REPORTS ON A SEED DISPERSAL STUDY CONDUCTED ON CORAM EXPERIMENTAL FOREST. SEEDS WERE COUNTED IN TRAPS PLACED AT REGULAR INTERVALS ALONG TWO LINES LOCATED CROSSWISE IN EACH SQUARE CUTTING UNIT AND EXTENDING INTO AN UNCUT TIMBER RESERVE. GRAPHS ILLUSTRATE THE QUANTITY AND DISPERSAL PATTERN OF THE STUDY AREA.

B-141
BOE, KENNETH N.
1954.
"PERIODICITY OF CONE CROPS FOR FIVE MONTANA CONIFERS."
PROC. MONTANA ACADEMY SCIENCES 14:5-9.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: CORAM EXPR. FOREST). IN THIS PAPER DATA ON PERIODICITY WAS DISCUSSED IN REFERENCE TO GOOD, FAIR AND POOR CONE CROPS FOR LARIX OCCIDENTALIS, PINUS PONDEROSA, PINUS CONTORTA, PICEA ENGELMANNI, AND PSEUDOTSUGA MENZIESII. A TABLE PRESENTS DATA ON THE CHARACTER OF CONE CROPS IN MONTANA FROM 1908 TO 1953.

B-142
BOE, KENNETH N.
1965.
"WESTERN LARCH (LARIX OCCIDENTALIS NUTT.)" IN SILVICS OF FOREST TREES OF THE UNITED STATES. AGRICULTURAL HANDBOOK NO 271, PP. 235-241.
WASHINGTON, D.C.: U.S. DEPT. AGRICULTURE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(UPPER COLUMBIA RIVER BASIN: CORAM). THE FOLLOWING ASPECTS OF LARIX OCCIDENTALIS ARE EXAMINED: CLIMATE, SOILS AND TOPOGRAPHY, ASSOCIATED TREES AND SHRUBS, REPRODUCTION AND EARLY GROWTH, SAPLING STAGE TO MATURITY, AND SPECIAL FEATURES. A MAP ILLUSTRATING THE RANGE OF THE SPECIES IS INCLUDED.

B-143
BOETTCHER, ARNOLD J.
1973.
EVALUATION OF THE GROUND WATER SUPPLY AT EIGHT SITES IN GLACIER NATIONAL PARK, NORTHWESTERN MONTANA.

HELENA, MT.: U. S. DEPT. INTERIOR, GEOLOGICAL SURVEY. 30 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT DESCRIBES THE RESULTS OF TEST DRILLING AND AQUIFER TESTS AT FIVE CAMPGROUNDS AND THREE RANGER STATIONS IN THE PARK. THE STUDY CONSISTED OF GEOLOGIC MAPPING, SELECTING TEST DRILLING LOCATIONS, SUPERVISION OF TEST DRILLING, AQUIFER TESTING AND ANALYZING THE CHEMICAL QUALITY OF THE WATER.

B-144
BOETTCHER, ARNOLD J.
IN PROGRESS.
GROUND WATER RESOURCES OF THE SOUTHERN FLATHEAD VALLEY AREA, MONTANA.
BUTTE, MT.: MONTANA BUREAU OF MINES & GEOLOGY.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTHERN FLATHEAD VALLEY). THE OBJECTIVES OF THIS STUDY WERE TO DETERMINE: 1) THE LOCATION AND HYDROLOGIC CHARACTERISTICS OF WELLS AND SPRINGS, 2) TYPES OF ROCKS BENEATH THE AREA AND THE CAPACITY OF THE ROCKS TO YIELD WATER TO WELLS, 3) AREAS WHERE GROUND WATER IS RECHARGED AND DISCHARGED, 4) AREAS WHERE WELLS MIGHT BE EXPECTED TO YIELD LARGE QUANTITIES OF WATER, 5) AREAS WHERE GROUND WATER QUALITY MAY HAVE DETERIORATED OWING TO NATURAL OR MAN-CAUSED REASONS, AND 6) EFFECTS OF VARIOUS DEVELOPMENT SCHEMES ON THE GROUND WATER SYSTEM BASED ON EXISTING OR PROPOSED USES OF THE WATER.

B-145
BOETTCHER, "PACKRAT ARTHUR."
1974.
"A PROSPECTOR'S PERSPECTIVE ON THE KOOTENAI-FLATHEAD AREA." IN ROCK MECHANICS, PP. 220-221.
UNIV. PARK, PA.: PENNSYLVANIA STATE UNIV. PRESS.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(KOOTENAI-FLATHEAD AREA). THIS ARTICLE CONTAINS BRIEF DESCRIPTIONS OF THE KOOTENAI INDIANS AND EARLY PROSPECTORS IN THE LIBBY-TROY-FLATHEAD AREA.

B-146
BOLLE, ARNOLD W.
1959.
"THE BASIS FOR MULTIPLE USE MANAGEMENT OF PUBLIC LANDS IN THE NORTH FORK OF FLATHEAD RIVER, MONTANA."
PH.D. DISSERTATION, HARVARD UNIV. 267 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THIS STUDY WAS CONCERNED WITH ESTABLISHING A BASIS FOR DETERMINING THE OPTIMUM MULTIPLE USE OF PUBLIC LANDS WHERE TIMBER AND RECREATION ARE THE PRIMARY PRODUCTS DEMANDED BY SOCIETY. THE ANALYSIS CONSIDERS FIRST THE PHYSICAL AND BIOLOGICAL CONDITIONS NOT AS DETERMINANTS OF WHAT SHOULD BE DONE BUT AS PRESCRIBING THE LIMITS OF WHAT IS POSSIBLE. WITHIN THESE LIMITS IT THEN TRYs TO DETERMINE WHAT IS DESIRABLE FROM THE STANDPOINT OF SOCIETY FOR THE PRESENT AND FORESEEABLE FUTURE. THE FOLLOWING CHAPTER HEADINGS ARE INCLUDED: THE TIMBER SUPPLY, DEVELOPMENT OF THE SAWMILL INDUSTRY, THE PRIVATE INDUSTRY PROBLEM, ADMINISTRATION OF THE FOREST RESOURCE, RECREATION, DECISION MAKING PROCESS AND COOPERATION IN ADMINISTRATION.

B-147
BOLLE, ARNOLD W.
1960.
"THE COOPERATIVE STUDY OF MULTIPLE USE OF NATURAL RESOURCES OF THE NORTH FORK OF THE FLATHEAD VALLEY."
MONTANA STATE UNIV., SCHOOL FORESTRY, MONTANA FOREST & CONSERVATION EXPR. STAT., MISSOULA. 8 PP.
PRELIMINARY, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: REPRINT FROM MONTANA BUSINESS REVIEW, MARCH 1960.

(NORTH FORK OF THE FLATHEAD RIVER). THE COOPERATIVE RESEARCH STUDY WAS UNDERTAKEN TO DEVELOP A MODEL WHICH COULD BE USED IN ANALYZING THE PROBLEMS OF MULTIPLE LAND USE ON COMPLICATED PUBLIC-PRIVATE OWNERSHIP PATTERNS. THE REPORT OUTLINES THE BASIS FOR DETERMINING MULTIPLE USE.

B-148
BOLLE, ARNOLD W.
1960.
THE TIMBER INDUSTRY AND THE MARKET FOR WOODLOT PRODUCTS IN THE UPPER FLATHEAD VALLEY.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, MONTANA FOREST & CONSERVATION EXPR. STAT. BULL. NO. 16. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(UPPER FLATHEAD VALLEY). AN OVERVIEW OF SITUATIONS FACING SMALL WOODLOT OWNERS WHO WISH TO SELL THEIR TIMBER. THE REPORT EXAMINES CYCLICAL INFLUENCES AND VARIATIONS WITHIN THE INDUSTRY; THE OPERATION AND SUPPLY AREA OF LARGE AND SMALL SAWMILLS; THE REACTION OF THE SAWMILLS TO THE RECESSION OF 1956-58; ECONOMIES OF SCALE; INSTABILITY OF THE WOODLOT MARKET; AND THE EFFECT OF MARKET ON WOODLOT MANAGEMENT. POSSIBLE SOLUTIONS ARE OFFERED.

B-149
BOLLE, ARNOLD W.
1966.
"HISTORY AND DEVELOPMENT OF THE FOREST PRODUCTS INDUSTRY IN MONTANA."
MONTANA BUSINESS QUARTERLY 4(SUMMER 1966):13-24.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE HISTORY AND DEVELOPMENT OF THE FOREST PRODUCTS INDUSTRY IS DESCRIBED. THE BIRTH OF THE INDUSTRY IN 1882 WITH THE DISCOVERY OF GOLD, THE BUILDING OF THE FIRST STEAM-POWERED SAWMILL AT FORT BENTON IN THE 1880'S, THE NEED FOR TRANSCONTINENTAL RAILROADS TO OPEN THE FIRST NATIONAL MARKETS, AND TIMBER EXPLOITATION BY THE MONTANA IMPROVEMENT COMPANY ARE DISCUSSED. INCLUDED IN THE PRESENTATION OF TWENTIETH-CENTURY DEVELOPMENT ARE: THE 1900-1930 PERIOD OF MONOPOLY OF THE STATE'S ECONOMY, INCLUDING THE TIMBER INDUSTRY, BY THE MINES AND RAILROADS; THE 1920'S, THE TIME OF THE TIMBER BOOM; THE DEPRESSION OF THE 1930'S; THE PERIOD OF SIGNIFICANT GROWTH IN 1948; AND THE PRESENT DIVERSIFIED PATTERN OF SAWMILLS, PLYWOOD MILLS, AND PULP MILLS OF THE POSTWAR BOOM.

B-150
BOLLE, ARNOLD W.
1978.
"WILDHORSE ISLAND."
MONTANA MAGAZINE OF THE NORTHERN ROCKIES, SEPTEMBER-OCTOBER 1978, PP. 46-48.

(FLATHEAD LAKE: WILDHORSE ISLAND). THIS ARTICLE DISCUSSES THE GAME POSSIBILITIES ON WILDHORSE ISLAND IN FLATHEAD LAKE. SKCC.

B-151
**BOLLE, ARNOLD W.; GIBSON, WILLIAM K.; AND HAN-
 NUM, E.**
 1966.

THE FOREST PRODUCTS INDUSTRY IN MONTANA.
 MISSOULA, MT.: UNIV. MONTANA, SCHOOL
 FORESTRY, MONTANA FOREST & CONSERVATION
 EXPR. STAT. BULL. NO. 30. 20 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
 STATEWIDE.

(MONTANA). THE STUDY OFFERS A GENERAL
 OUTLINE OF THE DYNAMICS OF THE MAJOR
 ELEMENTS OF THE INDUSTRY: THE FOREST
 RESOURCE, THE MILLS, AND MARKETS. THE IN-
 DUSTRY'S ROLE IN STATE ECONOMY AND IN-
 DUSTRIAL PROJECTIONS BASED ON CYCLIC IN-
 FLUENCES ARE ALSO DISCUSSED.

B-152
**BOLLE, ARNOLD W.; HARING, ROBERT C.; AND GIB-
 SON, WILLIAM K.**
 1964.
**THE ECONOMICS OF THE MONTANA FOREST PRO-
 DUCTS INDUSTRY.**
 MISSOULA, MT.: MONTANA STATE UNIV., MIDWEST
 ECONOMIC STUDY. 81 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EX-
 ISTING DATA, STATEWIDE.

(MONTANA). A COMPREHENSIVE TREATMENT OF THE
 FOREST PRODUCTS INDUSTRY AND ITS RELATION TO
 THE STATE'S ECONOMY IS PROVIDED IN ORDER TO
 DEVELOP A FACTUAL BASIS FOR THE ENCOURAGE-
 MENT OF THAT INDUSTRY. STUDY FOCUSES WERE: 1)
 A DETAILED AND QUALITATIVE ANALYSIS OF HOW
 AND WHY THE INDUSTRY EXPANDED AS IT DID; 2) AN
 ANALYSIS OF THE MAJOR INFLUENCES WHICH
 CAUSED THE INCREASED EMPLOYMENT IN THE IN-
 DUSTRY; 3) AN EXAMINATION OF THE CHANGING
 CONDITIONS OF RAW MATERIAL SUPPLIES; AND 4)
 AN EXPLORATION OF THE EXTENT TO WHICH IN-
 DIVIDUAL FIRMS MIGHT BENEFIT BY NEW TECHNI-
 QUES OF PRODUCING, FINANCING, AND MARKETING
 FOREST PRODUCTS.

B-153
BOLSTER, H. G., ET. AL.
 1937.
**PLANNING AN AGRICULTURAL PROGRAM FOR
 FLATHEAD COUNTY.**
 BOZEMAN, MT.: U. S. DEPT. AGRICULTURE, AND MON-
 TANA STATE UNIV., MONTANA EXTEN. SERVICE. 59
 PP.
 FINAL, SPECIFIC, TECHNICAL, WITHIN THE BASIN.

(FLATHEAD COUNTY). HANDBOOK CONTAINS BASIC
 AGRICULTURAL INFORMATION UPON WHICH PLANN-
 ING PROGRAMS CAN BE DEVELOPED. SOILS AND
 SOIL LOSSES, CLIMATE, LAND OWNERSHIP, CROP
 AND LIVESTOCK PRODUCTION, FARM PRICES AND
 INCOME TAXES AND MORTGAGING, AND LAND USE
 REPRESENT THE KINDS OF FACTS PRESENTED.

B-154
BOND, ROWLAND.
 1970-1971.
**THE ORIGINAL NORTHWESTERNER: DAVID THOMP-
 SON AND THE NATIVE TRIBES OF NORTH AMERICA.**
 NINE MILE FALLS, WA.: SPOKANE HOUSE ENTER-
 PRISES. 203 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
 REGIONAL.

(NORTHWESTERN NORTH AMERICA). DAVID THOMP-
 SON'S ADVENTURES AMONG THE NORTH AMERICAN
 NATIVE PEOPLES ARE DESCRIBED, BASED UPON J.B.
 TYRRELL'S EDITION OF "DAVID THOMPSON'S NAR-
 RATIVE OF HIS EXPLORATIONS IN WESTERN

AMERICA" (1916). THE MORES, SEXUAL CUSTOMS,
 AND PHILOSOPHIES INVOLVING FIFTY AMERICAN IN-
 DIAN TRIBES ARE ADDRESSED. INCLUDED IN THE
 DISCUSSION IS THE ESTABLISHMENT OF SALISH
 HOUSE AND THOMPSON'S DESCRIPTION OF THE
 KALISPEL, KOOTENAY, AND FLATHEAD PEOPLES.

B-155
BONER, F. C., AND STERMITZ, FRANK.
 1967.
**FLOODS OF JUNE 1964 IN NORTHWESTERN MON-
 TANA.**
 WASHINGTON, D.C.: U. S. DEPT. INTERIOR,
 GEOLOGICAL SURVEY. USGS WATER SUPPLY PAPER
 1840-B. 242 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 STATEWIDE.

(NORTHWESTERN MONTANA: FLATHEAD RIVER
 BASIN: GLACIER NATL. PARK). THIS REPORT WAS
 PREPARED TO FURNISH HYDROLOGIC DATA FOR
 DETAILED PLANNING. INCLUDED ARE: DISCUSSIONS
 OF ANTECEDENT HYDROLOGY AND THE
 METEOROLOGY OF THE STORM; A DESCRIPTION OF
 THE FLOODS; INFORMATION ON FLOOD DAMAGE;
 MAPS OF PRINCIPLE URBAN (INUNDATION; FLOOD
 PROFILES; DISCUSSIONS OF STORAGE REGULATION,
 PREVIOUS FLOODS, FLOOD FREQUENCY, DEPOSI-
 TION AND DEGRADATION OF STREAM CHANNELS;
 AND DETAILED INFORMATION OF STAGE,
 DISCHARGE, AND RESERVOIR CONTENTS FOR THE
 MAY-JUNE PERIOD. PHOTOGRAPHS ARE INCLUDED.

B-156
BONNEVILLE REGIONAL ADVISORY COUNCIL.
 ANNUAL
 ANNUAL MEETING.
 PORTLAND, ORE.: BONNEVILLE POWER ADMINISTRA-
 TION.
 PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL
 DATA, REGIONAL.

(PACIFIC NORTHWEST). THE REPORTS CONTAIN
 TRANSCRIPTS OF TALKS AND PANEL DISCUSSIONS
 INVOLVING A NUMBER OF TOPICS OF WATER
 RESOURCE USE AND DEVELOPMENT. INCLUDED ARE
 DISCUSSIONS OF ENERGY CONSERVATION PRO-
 GRAMS, FUTURE OF BPA RATES, ENERGY AND THE
 ENVIRONMENT, LAND AND RESOURCE FORECASTS,
 HYDROTHERMAL POWER PROGRAMS, SURPLUS
 SALES, INTERUTILITY COOPERATION, STREAMFLOW
 REGULATION, REGIONAL POWER SUPPLY PLANNING
 AND NUCLEAR SAFEGUARDS LEGISLATION. PAR-
 TICIPANTS REPRESENT UTILITIES, GOVERNMENT
 AGENCIES, CITIZEN AND ENVIRONMENTAL
 ORGANIZATIONS.

B-157
BOOTH, W. E., AND WRIGHT, J. C.
 1966.
FLORA OF MONTANA, PART II: DICOTYLEDONS.
 BOZEMAN, MT.: MONTANA STATE UNIV. 305 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 STATEWIDE.

(MONTANA: ALL COUNTIES WITHIN THE BASIN). A
 TAXONOMIC KEY TO THE DICOTYLEDONS OF MON-
 TANA. MAPS OF THOSE COUNTIES IN WHICH
 SPECIMENS ARE ON RECORD IN THE HERBARIUM AT
 MONTANA STATE UNIVERSITY ARE INCLUDED.

B-158
BORDER GRIZZLY TECHNICAL COMMITTEE.
 1977.
**CRITERIA FOR THE RELOCATION OF PROBLEM
 GRIZZLY BEARS.**
 MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV.
 MONTANA. WORKING PAPER NO. 3. 11 PP.
 PART OF A SERIES, PRELIMINARY, SPECIFIC,
 TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHWEST U.S.). WORKING PAPERS PREPARED BY
 THE BORDER GRIZZLY TECHNICAL COMMITTEE ARE
 INTERIM VEHICLES INTENDED TO SUMMARIZE THE

BEST CURRENT INFORMATION USEFUL TO
 RESEARCH OR MANAGEMENT. LONG TERM CON-
 siderations IN THE RELOCATION OF PROBLEM
 GRIZZLY BEARS ARE DISCUSSED; SHORT TERM CON-
 siderations ARE OUTLINED. TABLES LIST THE
 DETAILS OF SHORT-RANGE GRIZZLY BEAR RELOCA-
 TIONS.

B-159
BOTZ, MAXWELL K., AND BOND, ERNEST W.
 1966.
**INDEX MAP AND BIBLIOGRAPHY OF GROUNDWATER
 STUDIES IN MONTANA.**
 BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY,
 MONTANA COLL. MINERAL SCIENCE & TECH., AND
 MONTANA UNIV. JOINT WATER RESOURCES
 RESEARCH CENTER. SPEC. PUBL. 37.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
 STATEWIDE.

(MONTANA). FORTY-FIVE PUBLICATIONS, THESES,
 AND MAPS ARE LISTED CHRONOLOGICALLY. THE
 STUDY AREA COVERED BY EACH OF THE STUDIES
 LISTED IS OUTLINED ON A MAP AND KEYED BACK TO
 THE LIST.

B-160
BOUGIS, S. J.
 1886.
"LETTER FROM MR. BOUGIS."
 WOODSTOCK LETTERS 15(1886):77-80.

(FLATHEAD INDIAN RESERVATION). FATHER BOUGIS'
 LETTER INCLUDES A DESCRIPTION OF ST. IGNATIUS
 MISSION AND HIS EXPERIENCES ON FLATHEAD.
 SKCC.

B-161
BOURKE, RICHARD, AND BOURKE, ROY E.
 1971.
**HEALTH RESOURCES: PROGRAMS, RESOURCES,
 ELIGIBILITY.**
 HELENA, MT.: MONTANA STATE COMPREHENSIVE
 HEALTH PLANNING DEPT. 111 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 STATEWIDE.

(MONTANA). SECTION A OF THIS REPORT DEALS
 WITH STATE AND FEDERAL LAWS AND RESOURCES
 IMPORTANT TO THE HEALTH CARE DELIVERY
 SYSTEM: HOSPITALS AND MEDICAL FACILITIES (MILL-
 BURTON), HOUSING, MEDICAL ETHICS, AND MEDICAL
 INDIGENTS AND THE COUNTY POOR FUND. SPECIFIC
 PROGRAM AREAS SUCH AS CHILD HEALTH SER-
 VICES AND ALCOHOL AND DRUG ABUSE ARE EX-
 AMINED.

B-162
BOUSEFIELD, WAYNE E.
 1972.
**EVALUATION OF FOREST INSECT CONDITIONS ON
 THE NATIONAL BISON RANGE, MOIESE, MONTANA.**
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST
 SERVICE, REGION ONE, STATE & PRIVATE FORESTRY.
 REPT. NO. 1-72-6. 2 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 WITHIN THE BASIN.

(NATL. BISON RANGE). THIS BRIEF ARTICLE REPORTS
 ON THE STATUS OF WESTERN SPRUCE BUDWORM,
 FALL WEBWORM, AND PINE BUTTERFLY INFESTA-
 TIONS. A MAP INDICATES THE AREA OF VISIBLE
 DEFOLIATION CAUSED BY THE PINE BUTTERFLY.

B-163
BOUSEFIELD, WAYNE E.
 1972.
**POTENTIAL FOR LARCH CASEBEARER DEFOLIATION
 IN THE NORTHERN REGION - 1972.**
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST
 SERVICE, REGION ONE, STATE & PRIVATE FORESTRY.
 REPT. NO. 72-6. 4 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 REGIONAL.

(MONTANA: FLATHEAD NATL. FOREST, POLSON, BIGFORK, WHITEFISH, & COLUMBIA FALLS). THE PURPOSE OF THIS EVALUATION WAS TO ESTABLISH THE RELATIONSHIP BETWEEN THE OVERWINTERING POPULATION AND SUBSEQUENT DEFOLIATION FOR PREDICTION PURPOSES. A TABLE ILLUSTRATES THE 1971 OVERWINTER LARCH CASEBEARER POPULATION DENSITY AND PREDICTS THE AMOUNT OF DEFOLIATION TO BE EXPECTED IN 1972.

B-164
BOUSEFIELD, WAYNE E.
1972.

POTENTIAL FOR THE PINE BUTTERFLY DEFOLIATION ON THE FLATHEAD INDIAN RESERVATION IN 1973.
MISSOULA, MT.: U. S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. INSECT & DISEASE REPT. NO. 1-72-9. 3 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE PINE BUTTERFLY NEOPHASMIA MENAPIA FELD. HAD BEEN AT EPIDEMIC LEVELS IN AREAS CLOSE TO THE FLATHEAD BASIN SINCE 1971. SEVERAL REPORTS OF CONSPICUOUS PINE BUTTERFLY FLIGHTS ON THE FLATHEAD INDIAN RESERVATION PROMPTED AN EVALUATION OF THE POTENTIAL FOR DEFOLIATION IN 1973. SAMPLING OF BRANCH TIPS ESTABLISHED THE NUMBER OF VIABLE AND NON-VIABLE EGGS PRESENT. THE NUMBER OF EGGS PER 5 INCH BRANCH SAMPLE ARE TABULATED AND A MAP SHOWING THE LOCATION OF SAMPLING STATIONS IS INCLUDED.

B-165
BOUSEFIELD, WAYNE E.; TUNNOCK, SCOTT; PETTINGER, LEON; AND ROSS, DOUGLAS.
1974.

ESTABLISHMENT AND DISTRIBUTION OF THE LARCH CASEBEARER PARASITE AGATHIS PUMILA IN IDAHO, MONTANA, WASHINGTON, OREGON, AND BRITISH COLUMBIA.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, NORTHERN REGION. STATE & PRIVATE FORESTRY REPT. NO. 74-3. 40 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(IDAHO, MONTANA, WASHINGTON, OREGON, & BRITISH COLUMBIA). THIS PAPER REPORTS ON BIOLOGICAL CONTROL OF THE LARCH CASEBEARER, COLEOPHORA LARIELLA. AGATHA PUMILA IS CONSIDERED A HOST SPECIFIC PARASITE OF THE LARCH CASEBEARER AND IS NATIVE TO EUROPE. THE SUCCESS OF A AGATHA PUMELA RELEASE PROGRAM IS EVALUATED AND ESTIMATES OF THE PERCENT OF SUCCESSFUL ESTABLISHED ADULTS ARE GIVEN. MAPS SHOWING RELEASE SITES AND SITE SPECIFIC DATA IN TABULAR FORM ACCOMPANY THE BRIEF REPORT.

B-166
BOUSEFIELD, WAYNE E., ET. AL.
1973.

OBSERVATIONS ON THE IMPACT OF WESTERN SPRUCE BUDWORM IN THE VALLEY CREEK DRAINAGE, FLATHEAD INDIAN RESERVATION, MONTANA.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. INSECT & DISEASE REPT. NO. 73-17. 8 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT WAS DESIGNED TO MEASURE BOTH THE VISIBLE DAMAGE CAUSED BY CHORISTONEURA OCCIDENTALIS (FREE.) SUCH AS BRANCH DIE BACK AND TOP KILL, AND ACTUAL GROWTH LOSS EXPRESSED IN TERMS OF BOARD AND CUBIC FEET. METHODS USED IN A VARIABLE PLOT CRUISE ARE DESCRIBED, MAPS DELINEATING THE EXTENT OF VISIBLE DEFOLIATION ARE INCLUDED, AND THE NUMBER OF TREES PER ACRE BY SPECIES AND DAMAGE CLASS ARE TABULATED.

B-167
BOWE, RICHARD J., ED.
1957.

HISTORICAL ALBUM OF MONTANA FEATURING GLACIER NATIONAL PARK.

LOS ANGELES: THE OLD WEST PUBL. CO. 24 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: GLACIER NATL. PARK). THIS BOOKLET PRESENTS A ONE-PAGE HISTORICAL REVIEW OF THE STATE AND BRIEF ACCOUNTS OF THE HISTORY OF SUCH AREAS AS GLACIER NATIONAL PARK, ANACONDA, HELENA, GREAT FALLS, MISSOULA, MILES CITY, BILLINGS, BUTTE, AND BOZEMAN. EARLY EXPLORATIONS, RAILROAD DEVELOPMENT, THE CREATION OF THE PARK AND THE SEARCH FOR OIL AT KINTLA LAKE, ARE TOPICS DISCUSSED.

B-168
BOWERS, MARGARET C.

"GLACIER NATIONAL PARK: ITS ORIGIN, DEVELOPMENT, AND ADMINISTRATION."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 175 PP.

DRAFT, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). CHAPTERS IN THIS BOOK COVER THE FOLLOWING TOPICS: DISCOVERY AND EXPLORATION (GEOGRAPHICAL SIGNIFICANCE, TERRITORIAL CLAIMS AND OWNERSHIP, EARLY APPROACH TO THE AREA, EXPLORATION AND SURVEY, THE COMING OF THE RAILROADS, THE MINING AND OIL PERIOD); NATIONAL PARK MOVEMENT (EARLY LAND WITHDRAWALS, ESTABLISHMENT OF THE PARK), HISTORY AS A NATIONAL PARK (THE ADMINISTRATIVE STORY, VISITOR USE OF THE AREA, NOTABLE FOREST FIRES, ROADS AND TRAILS, INTERNATIONAL PEACE PARK, CIVILIAN PUBLIC WORKS PROGRAM, THREATS TO THE UNITY OF THE PARK, MISSION 66); AND HISTORIC PLACE NAMES. AN EXTENSIVE BIBLIOGRAPHY IS INCLUDED.

B-169
BOWMAN, HOWARD, AND SHAW, ARTHUR F.
1977.

OAT VARIETY PERFORMANCE SUMMARY FOR MONTANA.

BOZEMAN, MT.: MONTANA STATE UNIV., COOP. EXTEN. SERVICE. BULL. 1095, REV. 26 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE REPORT BRIEFLY DESCRIBES AGRONOMIC AND QUALITY CHARACTERISTICS FOR OAT VARIETIES. A SHORT PARAGRAPH ON EACH VARIETY GIVES INFORMATION ON ITS DEVELOPMENT, PRIMARY USES, STRENGTHS OR WEAKNESSES OF THE VARIETY, SPECIFIC AREAS OF ADAPTATION ON CERTAIN QUALITY CHARACTERISTICS. VARIETIES RECOMMENDED FOR PRODUCTION IN THE RESPECTIVE DISTRICTS ARE DESIGNATED. ACTUAL DRYLAND YIELDS AND TEST WEIGHTS ARE SHOWN FOR EACH VARIETY AT EACH RESPECTIVE LOCATION FOR THE LAST SIX-YEAR PERIOD WITH A COMPARABLE AVERAGE AND METRIC MEASUREMENT.

B-170
BOWMAN, HOWARD, AND SHAW, ARTHUR F.
1978.

SPRING WHEAT VARIETY: PERFORMANCE SUMMARY FOR MONTANA.

BOZEMAN, MT.: MONTANA STATE UNIV., COOP. EXTEN. SERVICE. BULL. 1093, REV. 34 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: YIELD DATA FOR DRYLAND PRODUCED WHEAT IS GIVEN FOR THE KALISPELL AREA RESEARCH CENTER.

(MONTANA). MOST AGRONOMIC AND QUALITY CHARACTERISTICS FOR VARIETIES ARE DESCRIBED HERE IN ABBREVIATED FORM. A SHORT PARAGRAPH ON EACH VARIETY FOLLOWS THE SUMMARY, GIVING INFORMATION ON DEVELOPMENT, PRIMARY STRENGTHS AND WEAKNESSES OF THE VARIETY, SPECIFIC AREAS OF ADAPTATION AND QUALITY CHARACTERISTICS.

B-171
BOWMAN, MARK, ET. AL.
1972.

"IT TAKES BRAINS TO TAN HIDES: AGNES AULD SHOWS US HER OWN SPECIAL METHOD." DOVETAIL MAGAZINE, SUMMER 1972, PP. 4-14.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE DESCRIBES AGNES AULD'S METHOD OF TANNING HIDES. SKCC.

B-172
BRADY, WILLIAM C.
1965.

"A SURVEY OF THE USERS OF THE BOB MARSHALL WILDERNESS AREA, MONTANA, IN 1964."

M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 131 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). WILDERNESS USE WAS THE SUBJECT OF THIS STUDY WHICH INVOLVED THE FOLLOWING OBJECTIVES: 1) TO DETERMINE THROUGH USER ANALYSIS SOME OF THE BASIC REASONS FOR AND COMPONENTS OF WILDERNESS RECREATION IN 1964; 2) TO RECORD THE CHARACTERISTICS OF THE USERS; AND 3) TO USE THIS DATA TOGETHER WITH PERSONAL NOTES AND EXPERIENCE TO OUTLINE SOME POSSIBLE WILDERNESS MANAGEMENT APPROACHES. METHODOLOGY INCLUDED THE USE OF TWO QUESTIONNAIRES: ONE APPLIED PRIOR TO THE TRIP AND ONE POST-TRIP.

B-173
BRADY, VERL P.
1965.

SUPPLEMENT AND REVIEW TO THE HOT SPRINGS CORPORATE STUDY.

BILLINGS, MT.: U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS. 19 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CAMAS HOT SPRINGS). THIS REVIEW AND SUPPLEMENT RE-EMPHASIZES THE MAIN POINTS BROUGHT OUT IN THE MARCH 1965 UNIVERSITY OF MONTANA, SCHOOL OF BUSINESS ADMINISTRATION STUDY OF THE HOT SPRINGS. REGIONAL DATA ON THE BATHHOUSE INDUSTRY IS ADDED TO SHOW COMPARABILITY OF THE CAMAS BATHHOUSE WITH OTHER BATHHOUSES IN THE REGION. CONCLUSIONS ARE INCLUDED.

B-174
BRANDES, CHARLES E.
1974.

MONTANA LAND USE POLICY STUDY.

HELENA, MT.: MONTANA ENVIRONMENTAL QUALITY COUNCIL. 206 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA.) FIVE ASPECTS OF THE LAND USE ISSUE WERE INVESTIGATED: 1) AN OVERVIEW OF THE PAST AND PRESENT USE OF LAND, THE CHANGES OCCURRING IN USE, THE FORCES BEHIND THE CHANGES, AND SOME OF THE EFFECTS OF THESE CHANGES ON THE LIVES OF MONTANANS; 2) THE IMPLICIT LAND USE POLICY OF TODAY AND HOW THE IMPLEMENTATION OF THAT POLICY IS DISTRIBUTED AMONG STATE GOVERNMENTAL ENTITIES; 3) WAYS TO ORDER GOVERNMENT LAND USE DECISION-MAKING

AND THE DEVELOPMENT OF A RECOMMENDED PROGRAM AND POLICY; AND 5) ISSUES THAT LIE BEYOND THE SCOPE OF THIS STUDY BUT WHICH GREATLY AFFECT THE USE OF LAND IN THE STATE. THIS STUDY BRINGS THESE ASPECTS TOGETHER AND ENDORSES A PROGRAM FOR CONSIDERATION BY THE LEGISLATURE AND THE GOVERNOR.

B-175
BRAUN, ANNETTE F.
 1921.
 "TWO WEEKS COLLECTING IN GLACIER NATIONAL PARK."
 PROC. ACADEMY NATURAL SCIENCES OF PHILADELPHIA 23:1-23.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER PRESENTS THE RESULTS OF A TWO-WEEK LONG COLLECTING TRIP IN JULY. THE INVESTIGATORS ATTENTION WAS DIRECTED PRINCIPALLY TOWARD SECURING AN ADEQUATE REPRESENTATION OF MICROLEPIDOPTERA. SPECIMENS IN OTHER GROUPS OF LEPIDOPTERA WERE COLLECTED WHEN POSSIBLE. IN ADDITION A FEW GENERAL OBSERVATIONS ON THE ABUNDANCE AND DISTRIBUTION OF OTHER ORDERS OF INSECTS WERE MADE. SPECIES COLLECTED ARE DESCRIBED.

B-176
BRAUN, CLAIT E.
 1966.
 "A SURVEY OF THE LAND VALUES DIRECTLY ATTRIBUTED TO WATERFOWL WITHIN THE CONTIGUOUS UNITED STATES."
 M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 132 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL

NOTE: APPENDICES INCLUDE TABLES OF TRENDS IN DUCK POPULATIONS, MIGRATORY BIRD HUNTING STAMP SALES, DAILY BAG AND POSSESSION LIMITS, LIST OF RESPONDENTS, LETTERS USED IN THE SURVEY.

(UNITED STATES). THE STUDY WAS INITIATED TO DETERMINE LAND VALUES ON A PER ACRE BASIS WHICH ARE DIRECTLY ATTRIBUTABLE TO THE PRESENCE OF WATERFOWL. LAND VALUES WERE DETERMINED FROM RECORDS OF FEDERAL LAND ASSESSORS AND FROM THE INITIATION AND ANNUAL COSTS OF WATERFOWL CLUB MEMBERS. THE STUDY SERVES TO SHOW FARMERS THE MONETARY VALUE OF INCLUDING WILDLIFE IN THEIR PLANS.

B-177
BRAUNBERGER, A. BERRY, AND WHITE, T.
 1964.
 HOWSE'S HOUSE, AN EXAMINATION OF THE HISTORICAL AND ARCHAEOLOGICAL EVIDENCE.
 WASHINGTON ARCHAEOLOGIST 8(APRIL & JULY 1964):54-108.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH SHORE FLATHEAD LAKE). THIS INVESTIGATION CONCERNS THE LIFE AND TRAVELS OF JOSEPH HOWSE, AN EMPLOYEE OF THE HUDSON BAY COMPANY. THE PRIMARY INTENT OF THIS STUDY WAS TO LOCATE, OR AT LEAST APPROXIMATE, THE SITE OF THE WINTER CAMP ESTABLISHED BY HOWSE DURING THE WINTER OF 1810-11 AND REFERRED TO AS HOWSE HOUSE, THE FIRST HUDSON'S BAY POST WEST OF THE ROCKY MOUNTAINS. AN ARCHAEOLOGICAL SURVEY OF THE DELTA REGION OF THE FLATHEAD RIVER WAS UNDERTAKEN; NINE OF THE SITES ARE DESCRIBED AND ILLUSTRATED.

B-178
BRETZ, J. H.
 1968.
 "CHANNELED SCABLAND OF WASHINGTON, NEW DATA AND INTERPRETATION."

GEOLOGICAL SOCIETY AMERICA BULL. 67:957-1049.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(EASTERN WASHINGTON, NORTHERN IDAHO, & WESTERN MONTANA: GLACIAL LAKE MISSOULA). THE AUTHORS REVIEW AND REVISE BRETZ' LONGSTANDING INTERPRETATION OF THE ORIGIN OF SCABLAND FEATURES, PLACING EMPHASIS ON CONSTRUCTIONAL LANDFORMS DISCLOSED BY AERIAL PHOTOGRAPHS AND BY NUMEROUS EXCAVATIONS FOR IRRIGATION WORKS. OF MAJOR PRESENT INTEREST, HOWEVER, IS A MAP SHOWING THE MAXIMUM EXTENT OF PLEISTOCENE LAKES LEWIS AND MISSOULA.

B-179
BRICKELL, JAMES E.
 1966.
 SITE INDEX CURVES FOR ENGELMANN SPRUCE IN THE NORTHERN AND CENTRAL ROCKY MOUNTAINS.
 OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH NOTE INT-42. 8 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN & CENTRAL ROCKY MTNS.). THIS PAPER PRESENTS IN GRAPHIC AND TABULAR FORM A SET OF POLYMORPHIC SITE INDEX CURVES FOR ENGELMANN SPRUCE. THE CURVES ARE BASED ON A GENERALIZATION OF THE OSBORNE-SCHUMACHER METHOD OF SITE CURVE CONSTRUCTION. THE DATA UPON WHICH THE CONSTRUCTION OF THESE CURVES WAS BASED ARE MEASUREMENTS OF TOTAL AGE AND TOTAL HEIGHT FOR 1,928 DOMINANT AND CODOMINANT SPRUCE TREES.

B-180
BRIETKRIETZ, ALEX.
 1966.
 BASIC WATER DATA REPORT NO. 3: KALISPELL VALLEY, MONTANA.
 BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. BULL. 53. 25 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL AREA). WATER RECORDS COLLECTED AND COMPILED FOR THE PERIOD FROM 1963 TO 1965 DURING THE STUDY OF WATER RESOURCES OF THE AREA ARE CONTAINED IN THIS REPORT. AN OBJECTIVE OF THE REPORT WAS TO MAKE AVAILABLE TO THE GENERAL PUBLIC BASIC GROUND WATER DATA USEFUL IN PLANNING THE DEVELOPMENT AND MANAGEMENT OF THE RESOURCES. DATA IS REPORTED FOR WELLS, SPRINGS, AND POT HOLE LAKE MEASUREMENT SITES AND INCLUDES TABLES ON: RECORDS OF WELLS AND SPRINGS (OWNER, YEAR DRILLED, TYPE OF WELL, DEPTH, DIAMETER, USE OF WATER, OTHER REMARKS); DRILLERS' LOGS OF WELLS; WATER LEVELS IN OBSERVATION WELLS; WATER LEVEL MEASUREMENTS IN POT HOLE LAKES.

B-181
BRIGGLE, WILLIAM J.
 "POSITION STATEMENT ON PROPOSED WEATHER MODIFICATION IN THE SOUTH FORK FLATHEAD RIVER DRAINAGE."
 U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 2 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PARK SUPERINTENDENT DESCRIBES THE PARK'S MANAGEMENT POLICY TO ASSURE RETENTION OF NATURAL SYSTEMS AND POINTS OUT THAT FACTORS INFLUENCING THESE SYSTEMS INCLUDE EFFECTS FROM ACTIVITIES OCCURRING OUTSIDE THE PARK. HIS STATEMENT ARGUES THAT PROPOSED WINTER WEATHER MODIFICATION IN THE SOUTH FORK FLATHEAD RIVER HAS SERIOUS POTENTIAL FOR CAUSING CHANGE IN THE NATURAL INTEGRITY OF PARK ECOSYSTEMS.

B-182
BRIMLOW, GEORGE F., ED.
 1953.
 "MARIAS PASS EXPLORER: JOHN F. STEVENS."
 MONTANA MAGAZINE OF HISTORY (SUMMER 1953):39-44.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MARIAS PASS AREA). THE ARTICLE SKETCHES A BIOGRAPHY OF JOHN F. STEVENS WHO LOCATED MARIAS PASS. A LETTER BY STEVENS DESCRIBING HIS EXPLORATION IN THE AREA IS INCLUDED.

B-183
BRITISH NORTH AMERICAN BOUNDARY COMMISSION.
 1875.
 REPORT ON THE GEOLOGY AND RESOURCES OF THE REGION IN THE VICINITY OF THE FORTY-NINTH PARALLEL, FROM THE LAKE OF THE WOODS TO THE ROCKY MOUNTAINS.
 MONTREAL, CAN.: DAWSON BROTHERS, ST. JAMES STREET. 379 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(CANADA - UNITED STATES INTERNATIONAL BORDER AREA). THE GEOLOGIC STRUCTURE OF THE AREA IS THE FOCUS OF THIS REPORT, ALTHOUGH LISTS OF PLANTS AND ANIMALS COLLECTED AND NOTES ON THE FOSSILS ARE PROVIDED. THE DESCRIPTION OF THE BORDER AREA'S GENERAL PHYSICAL GEOGRAPHY CONSIDERS SLOPE OF THE REGION, PRAIRIE LEVELS, AND TRANSVERSE WATERSHEDS AND OUTLINES VARIOUS GEOLOGIC SERIES AND FORMATIONS. STRUCTURE OF THE ROCKY MOUNTAINS IS DISCUSSED IN CHAPTER 3, NOTING THE ROCK SERIES IN SUCH AREAS AS WATERTON LAKES AND BOUNDARY MONUMENT. GLACIATION IN THE ROCKY MOUNTAINS IS EXAMINED IN CHAPTER 10. THE CONCLUDING CHAPTERS CONSIDER CAPABILITIES OF THE REGION WITH REFERENCE TO SETTLEMENT.

B-184
BRITTON, M. R.
 1953.
 "A NOTE CONCERNING WOLVES IN GLACIER NATIONAL PARK, MONTANA."
 J. MAMMALOGY 34:2-4.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER). A BRIEF PAPER COVERING REPORTED WOLF SIGHTINGS AND INFORMATION ABOUT WOLVES KILLED IN THE GLACIER PARK AREA UP TO THE EARLY 1950'S.

B-185
BROCKMAN, C. THOMAS.
 1968.
 "THE MODERN SOCIAL AND ECONOMIC ORGANIZATION OF THE FLATHEAD RESERVATION."
 PH.D. DISSERTATION, UNIV. OREGON, EUGENE. UNIV. MICROFILMS 69-6616.

(FLATHEAD INDIAN RESERVATION). BROCKMAN'S SURVEY OF THE HISTORY AND PRESENT CULTURAL LIFE OF THE FLATHEAD RESERVATION HAS CONVINCED HIM THAT THE FLATHEAD AND KOOTENAI OF THE FLATHEAD RESERVATION HAVE SUBSTANTIALLY ACCULTURATED TO WHITE SOCIETY IN THE UNITED STATES.

B-186
BROCKMAN, C. THOMAS.
 1970.
 "SOCIAL CLASS AND EDUCATIONAL LEVEL ON THE FLATHEAD RESERVATION."
 J. AMERICAN INDIAN EDUCATION 10(OCTOBER 1970):23-31.

(FLATHEAD INDIAN RESERVATION). THIS DISCUSSION OF THE RELATION BETWEEN CLASS AND EDUCATION LEVELS ON THE FLATHEAD INCLUDES AN EVALUATION OF THE IMPACT OF WHITE DISCRIMINATION ON FLATHEAD STUDENTS. SKCC.

B-187
BROCKMAN, C. THOMAS.

1971.
"CORRELATION OF SOCIAL CLASS AND EDUCATION ON THE FLATHEAD INDIAN RESERVATION."
ROCKY MOUNTAIN SOCIAL SCIENCE JOURNAL 8:11-17.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). ON A PROGRESSIVE AND HIGHLY ACCULTURATED INDIAN RESERVATION THE EXPECTATION IS THAT THERE WILL BE A SIGNIFICANT CORRELATION BETWEEN THE EDUCATIONAL LEVEL OF HOUSEHOLD HEADS AND THEIR SOCIAL CLASS STANDING. HOWEVER, THIS IS NOT THE CASE ON THE FLATHEAD INDIAN RESERVATION, AND THIS PAPER EXAMINES THE REASONS FOR THE UNEXPECTED SITUATION. SOME FEATURES OF THE HISTORICAL CIRCUMSTANCES AND CONTEMPORARY SETTING ARE NOTED.

B-188
BROCKMAN, C. THOMAS.

1971.
"RECIPROCITY AND MARKET EXCHANGE ON THE FLATHEAD RESERVATION."
NORTHWEST ANTHROPOLOGICAL RESEARCH NOTES 5:77-96.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE ARTICLE DESCRIBES THE TWO BASIC APPROACHES TO ECONOMIC DISTRIBUTION AMONG THE INDIANS: 1) THE PARTICIPATION IN RECIPROCAL TRANSACTIONS, AND 2) THE ORIENTATION TOWARDS AMASSING GOODS INDIVIDUALLY. WITH THESE APPROACHES, ALTERNATIVE KINDS OF ECONOMIC SECURITY AND SOCIAL POSITION ARE POSSIBLE. THE POSITION OF SOCIAL CLASSES IN THE ECONOMY IS MEASURED BY SUCH CRITERIA AS THE AMOUNT OF YEARS EMPLOYED, JOB TURNOVER, AND INCOME.

B-189
BROCKMAN, C. THOMAS.

"SOCIAL CLASSES OF THE MODERN FLATHEAD INDIAN RESERVATION."
PROC. EIGHTH INTERNATIONAL CONGRESS OF ANTHROPOLOGICAL & ETHNOLOGICAL SCIENCES, TOKYO, VOL. 2, PP. 188-190.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE OUTLINES THE SOCIAL CLASSES WHICH THE AUTHOR SEES AMONG THE INDIAN POPULATION OF FLATHEAD RESERVATION. SKCC.

B-190
BRODERICK, THERESE.

1909.
THE BRAND: A TALE OF THE FLATHEAD RESERVATION.
SEATTLE: THE ALICE HARRIMAN CO. 268 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: POLSON & ST. IGNATIUS; FLATHEAD LAKE). THE NONFICTION STORY OF BESS FLETCHER'S LIFE DESCRIBES WHITE SETTLEMENT. TOWNS ARE DEPICTED; A TRIP UP FLATHEAD LAKE ACCOUNTED.

B-191
BROMBERG, ERIK.

1949.
"A BIBLIOGRAPHY OF THESES AND DISSERTATIONS CONCERNING THE PACIFIC NORTHWEST AND ALASKA."

PACIFIC NORTHWEST QUARTERLY 40(JULY 1949):203-252.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE BIBLIOGRAPHY LISTS THESES ALPHABETICALLY BY AUTHOR UNDER THE SUBJECTS OF HISTORY, ECONOMICS, BUSINESS ADMINISTRATION, AGRICULTURAL ECONOMICS, SOCIOLOGY, SOCIAL WORK, ANTHROPOLOGY, POLITICAL SCIENCE, GEOGRAPHY, EDUCATION, AND MISCELLANEOUS. UNDERGRADUATE THESES FROM REED COLLEGE ARE ALSO INCLUDED. THESES ARE INDEXED BY SUBJECT.

B-192
BROMLEY, PETER T.

1967.
"PREGNANCY, BIRTH, BEHAVIORAL DEVELOPMENT OF THE FAWN, AND TERRITORIALITY OF THE PRONGHORN (ANTILOCAPRA AMERICANA) ON THE NATIONAL BISON RANGE, MOIESE, MONTANA."
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE OBJECTIVE OF THIS STUDY WAS TO DESCRIBE THE SOCIAL DEVELOPMENT OF THE PRONGHORN FAWN; INCLUDED ARE BEHAVIOR OF PREGNANCY AND BIRTH, HERD STRUCTURE, AND DISTRIBUTION OF MATURE BUCKS DURING THE RUT.

B-193
BROMLEY, PETER T.

1969.
"TERRITORIALITY IN PRONGHORN BUCKS ON THE NATIONAL BISON RANGE, MOIESE, MONTANA."
J. MAMMALOGY 50(1):9.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE BEHAVIOR OF SEVEN MATURE MALE ANTILOCAPRA AMERICANA WAS STUDIED DURING THE RUT SEASON. THE PURPOSE OF THE STUDY WAS TO TEST THE HYPOTHESIS THAT MATURE BUCKS WERE TERRITORIAL.

B-194
BROMLEY, PETER T., AND KITCHEN, DAVID W.
1971.
"COURTSHIP IN THE PRONGHORN (ANTILOCAPRA AMERICANA)."
UNIV. CALGARY, CALGARY, ALBERTA. 19 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: COPIES ARE NOT AVAILABLE FOR DISTRIBUTION BUT ONE NOTE: COPY IS DEPOSITED AND MAY BE REVIEWED AT THE NATIONAL BISON RANGE.

(NATL. BISON RANGE). COURTSHIP BEHAVIOR IN THE PRONGHORN IS DESCRIBED. QUALITATIVE OBSERVATIONS WERE MADE DURING FIVE RUTTING SEASONS AND QUANTITATIVE DATA WAS GATHERED DURING THREE RUTTING SEASONS.

B-195
BROMLEY, PETER T., AND O'GARA, BART W.
1967.
"ORPHANED PRONGHORNS SURVIVE."
J. WILDLIFE MANAGEMENT 31(OCTOBER 1967):843.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE ARTICLE REPORTS ON THE SURVIVAL OF TWO MARKED SIBLING PRONGHORN (ANTILOCAPRA AMERICANA) KIDS ORPHANED AT THE AGE OF SEVEN WEEKS.

B-196
BROSIUS, S. M.

1927.
"FLATHEAD IRRIGATION AND POWER DEVELOPMENT." IN REPORT OF WASHINGTON AGENCY: FORTY-FIFTH ANNUAL REPORT OF THE BOARD OF DIRECTORS OF THE INDIAN RIGHTS ASSOCIATION, INC., FOR THE YEAR ENDING DECEMBER 15, 1927.
PHILADELPHIA, PA.: INDIAN RIGHTS ASSOC.

(FLATHEAD INDIAN RESERVATION). THIS SUMMARY OF THE SITUATION ON FLATHEAD REGARDING THE IRRIGATION SYSTEM AND THE POWER SITE DESCRIBES THE THEN CURRENT OFFER BY THE ROCKY MOUNTAIN POWER COMPANY FOR THE DEVELOPMENT OF THE SITE. SKCC.

B-197
BROWDER, W. GORDON, AND HOFLICH, H. J.
1953.
POPULATION AND INCOME IN MONTANA.
MISSOULA, MT.: MONTANA STATE UNIV., BUREAU BUSINESS & ECONOMIC RESEARCH. REGIONAL STUDY NO. 5. 71 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(FLATHEAD, LAKE, MISSOULA, SANDERS, POWELL, & LEWIS & CLARK COUNTIES). A BRIEF ANALYSIS OF THE FACTORS WHICH INFLUENCE MONTANA'S POPULATION AND ECONOMIC TRENDS. USING U.S. CENSUS DATA FROM 1930 TO 1950, THE STUDY EXAMINES POPULATION CHANGES BY COUNTIES, POPULATION DISTRIBUTION IN WATER DEVELOPMENT AREAS, INCOME SOURCES AND TRENDS. PROBABLE TRENDS IN POPULATION AND ECONOMIC GROWTH ARE EXAMINED.

B-198
BROWER, LINCOLN P.
1973.
CLIMATIC CONTROL OF FOREST GROWTH, RANGE, AND ADAPTATION.
WASHINGTON, D.C.: NATIONAL SCIENCE FOUNDATION. GRANT B28447. 4 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(EASTERN NORTH AMERICA: GLACIER NATL. PARK). THIS PAPER REPORTS ON RESEARCH CONDUCTED ON THE GEOGRAPHIC, HABITAT, AND CLIMATIC DETERMINANTS OF THE DISTRIBUTION AND COMMUNITY CHARACTERISTICS OF SELECTED CONIFEROUS TREE SPECIES IN NORTH AMERICA. THE SECOND AND THIRD YEARS OF THE PROJECT WERE DEVOTED TO DEVELOPING A HABITAT-NICHE MODEL OF THE FORESTS OF GLACIER NATIONAL PARK, AND EXPLORING THE APPLICATION OF THIS MODEL TO REAL-TIME WILDFIRE SIMULATION PROBLEMS.

B-199
BROWMAN, LUDVIG G.
1973.
DETERMINATION OF THE MICROLEVEL TEMPERATURES DURING LAKE COOLING, ICE FORMATION, ICE MELTING AND THE BREAK-UP OF THE ICE COVER OF A MOUNTAIN LAKE.
BOZEMAN, MT.: MONTANA STATE UNIV., WATER RESOURCES RESEARCH CENTER. REPT. NO. 40. 17 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HOLLAND LAKE). THE GENERAL LIMNOLOGY OF THE LAKE AND SURROUNDING VEGETATION ARE DESCRIBED.

B-200
BROWMAN, LUDVIG G., AND HUDSON, PAUL.
1957.
"OBSERVATIONS ON THE BEHAVIOR OF PENNED MULE DEER."
J. MAMMALOGY 38:247-253.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE BEHAVIOR OF A SMALL HERD OF ROCKY MOUNTAIN MULE DEER (*ODOCOILEUS HEMOINUS*) KEPT IN AN ENCLOSURE DURING THE FALL IS DESCRIBED IN THIS PAPER. THE PURPOSE WAS TO PROVIDE INFORMATION THAT MAY BE USEFUL IN THE FUTURE HANDLING OF MULE DEER. THE PAPER NOTES SUCH THINGS AS: USE OF WATER, FEEDING, SOCIAL ORDER, GROOMING BY MAGPIES, SICKNESS, PRELIMINARY BREEDING HABITS, EXPLORATORY ACTIVITIES, "RUNNING" OF DOES AND MATING BEHAVIOR.

B-201
BROWMAN, LUDVIG G., AND SEARS, H. S.
1955.
"ERYTHROCYTE VALUES AND ALIMENTARY CANAL PH VALUES IN THE MULE DEER."
J. MAMMALOGY 36(AUGUST 1955):474-476.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). BLOOD SAMPLES AND PH DATA WERE COLLECTED FROM MULE DEER THAT WERE SHOT AT MONTHLY INTERVALS. SPECIFIC GRAVITY OF THE BLOOD, HEMOGLOBIN DETERMINATIONS, ERYTHROCYTE AND TOTAL WHITE CELLS, AND PACKED RED CELLS WERE ANALYZED. THE INTACT DIGESTIVE TRACT WAS REMOVED AND PH READINGS WERE MADE OF ITS CONTENTS AT SELECTED POINTS.

B-202
BROWMAN, LUDVIG G., AND SEARS, H. S.
1955.
"MULE DEER MILK."
J. MAMMALOGY 36(AUGUST 1955):473-474.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS BRIEF ARTICLE COMPARES THE MILK OF THREE MULE DEER DOES (*ODOCOILEUS HEMOINUS*) TO VARIOUS OTHER MAMMALS' MILK, WITH RESPECT TO PERCENT OF TOTAL SOLIDS, FAT, AND ASH.

B-203
BROWMAN, LUDVIG G., AND SEARS, H. S.
1956.
"CYCLIC VARIATION IN THE MULE DEER THYMUS."
PROC. SOCIETY FOR EXPERIMENTAL BIOLOGY & MEDICINE 93:161-162.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). A SERIES OF FAWN, YEARLING, AND ADULT FEMALE MULE DEER (*ODOCOILEUS HEMOINUS*) WERE COLLECTED FOR PURPOSES OF STUDYING THE REPRODUCTIVE CYCLE OF THE FEMALE MULE DEER. SPECIMENS OF EACH AGE GROUP WERE KILLED EACH MONTH BETWEEN AUGUST 1953 AND SEPTEMBER 1954. MEASUREMENTS, TISSUE WEIGHTS, AND TISSUE PRESERVATION WERE MADE IN THE FIELD. ONE OF THE TISSUES ROUTINELY MEASURED AND PRESERVED WAS THE BILOBED THYMUS GLAND. METHODS, RESULTS, AND A SUMMARY ARE INCLUDED.

B-204
BROWN, ELLSWORTH H.
1975.
"THE HISTORY OF THE FLATHEAD INDIANS IN THE NINETEENTH CENTURY."
PH.D. DISSERTATION, MICHIGAN STATE UNIV., EAST LANSING. 445 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS DISSERTATION SETS FORTH THE HISTORY OF THE FLATHEAD INDIAN TRIBE, EMPHASIZING THE RELATIONSHIP BETWEEN THE INDIANS AND THE WHITE MAN. CLOSELY EXAMINED ARE THE ROLES OF THE TRADERS, MISSIONARIES, AND SETTLERS PROMI-

NENT IN FLATHEAD HISTORY. THE PAPER EXAMINES THE TRIBES' MOVE TO THE JOCKO VALLEY AND THE CONDITIONS ON THE RESERVATION.

B-205
BROWN, JAMES K.
1970.
"VERTICAL DISTRIBUTION OF FUEL IN SPRUCE-FIR LOGGING SLASH."
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMOUNTAIN FOREST & RANGE EXPER. STAT. RESEARCH PAPER INT-81. 9 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: MILLER CREEK DRAINAGE NEAR OLNEY). ABOUT 70 PERCENT OF THE VOLUME AND SURFACE AREA OF SPRUCE-FIR LOGGING SLASH LIES BELOW THE MID-DEPTH OF THE SLASH. MATERIAL 0 TO 1 CENTIMETER IN DIAMETER WAS DISTRIBUTED VERTICALLY IN THE SAME PROPORTIONS AS ALL OTHER MATERIAL OLD SLASH IN THE FIRST 20 CENTIMETERS ABOVE THE GROUND CONTAINED A HIGHER PROPORTION OF LARGE MATERIAL THAN NEW SLASH. QUANTITY OF SLASH AVERAGED 26.5 KG/M (118 TONS/ACRE) DRY WEIGHT WITH 0.57 KG/M COMPOSED OF MATERIAL 0 TO 1 CENTIMETERS IN DIAMETER. BULK DENSITY OF SLASH DECREASED VERTICALLY AND AVERAGED 0.03 G/CC FOR NEW SLASH AND 0.05 FOR OLD SLASH. NEEDLE MATS SUSPENDED IN THE SLASH OCCURRED WITH A 40 PERCENT FREQUENCY.

B-206
BROWN, JOHN MASON.
1950.
"A TRIP TO THE NORTHWEST IN 1891."
FILSON CLUB HISTORY QUARTERLY 24(APRIL & JUNE 1950):103-106, 250-262.

(FLATHEAD VALLEY). BROWN GIVES A DETAILED DESCRIPTION OF HIS EXPERIENCES AND ACQUAINTANCES AT THE ST. IGNATIUS MISSION, JOCKO AGENCY, AND FORT OWEN. HE MET A NUMBER OF INDIAN LEADERS AS WELL AS THE MISSIONARIES AND AGENCY EMPLOYEES. SKCC.

B-207
BROWN, MARGERY H., AND GRIFFING, V. G.
1971.
"MONTANA: A STUDENT'S GUIDE TO LOCALIZED HISTORY. LOCALIZED HISTORY SERIES."
NEW YORK: COLUMBIA UNIV., TEACHERS COLLEGE PRESS. 45 PP.
PART OF A SERIES, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: MENTION OF FLATHEAD AREA HISTORY IS MADE.

(MONTANA). THE BOOK DESCRIBES INDIAN TRIBES, THE EXPLORATION OF LEWIS AND CLARK AND OTHERS, THE FUR TRADE, CATHOLIC MISSIONS, AND THE GOLD RUSH. IT DISCUSSES THE TRANSITIONS TO TERRITORIAL GOVERNMENT, AGRICULTURAL AND COMMERCIAL DEVELOPMENT, AND THE CONFLICTS WITH INDIANS. STATEHOOD, THE PROMOTION OF HOMESTEAD SETTLEMENT, THE 1930'S DEPRESSION, AND MONTANA TODAY CONCLUDE THE CHAPTERS.

B-208
BROWN, PHILLIP A.
1970.
"PROPOSED TANNERY FLATHEAD INDIAN RESERVATION."
BOZEMAN, MT.: CENTER FOR INDUSTRIAL DEVELOPMENT. 17 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN

(FLATHEAD INDIAN RESERVATION). THE PURPOSE OF THIS STUDY WAS TO DETERMINE THE FEASIBILITY

OF A TANNERY, UTILIZING AN "INDIAN TAN" PROCESS OF TANNING, ON THE FLATHEAD INDIAN RESERVATION. THE OBJECTIVES OF THE STUDY WERE TO: 1) ESTABLISH THE SIZE OF THE MARKET FOR TANNED DEER SKINS; 2) DEFINE THE MAGNITUDE OF THE TANNERY OPERATION; 3) DEFINE THE "INDIAN TAN" PROCESS AND INCORPORATE THE PROCESS INTO A MASS PRODUCTION OPERATION; 4) DETERMINE THE COSTS ASSOCIATED WITH THE PROPOSED TANNERY; AND 5) EVALUATE THE TANNERY ON THE BASIS OF ECONOMICS.

B-209
BROWNELL, BAKER; HOWARD, JOSEPH K.; AND MEADOWS, PAUL.
"LIFE IN MONTANA AS SEEN IN LONEPINE, A SMALL COMMUNITY."
MISSOULA, MT.: UNIV. MONTANA, THE MONTANA STUDY.
PART OF A SERIES, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: THIS IS SERIES I OF A GROUP-STUDY PROGRAM CALLED LIFE IN MONTANA.

(MONTANA). THIS PART OF THE SERIES DISCUSSES THE REGIONAL ECONOMIC, SOCIAL, AND CULTURAL PROBLEMS THAT UNDERLIE LIFE IN THE SMALL COMMUNITIES OF THE STATE. IT IS A GROUP-STUDY GUIDE TO FACILITATE DISCUSSION AMONG COMMUNITY MEMBERS ON A VARIETY OF TOPICS: 1) WHY WE ARE HERE; 2) OUR TOWN AND ITS PEOPLE; 3) OUR TOWN AND OUR WORK; 4) OUR TOWN AND OUR STATE; 5) MONTANA, A PLACE TO LIVE; 6) MONTANA AND OUR NATION; 7) THE FUTURE OF MONTANA; 8) THE FUTURE OF OUR TOWN IN RELATION TO ITS PEOPLE; 9) HOW TO MAKE LIFE BETTER IN OUR TOWN; AND 10) WHAT WE HAVE ACCOMPLISHED.

B-210
BRUCE, CLINTON, AND COLUMBIA FALLS ELEMENTARY SCHOOL, CLASS 8B.
"THE HISTORY OF COLUMBIA FALLS: A STORY OF OUR PIONEERS."
COLUMBIA FALLS, MT.: BY THE AUTHOR. 26 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD COUNTY LIBRARY, KALISPELL.

(COLUMBIA FALLS). THE NARRATIVE, THE RESULT OF INTERVIEWS WITH PIONEERS, DESCRIBES GROWTH AND DEVELOPMENT: THE CITY'S BEGINNING WITH THE LUMBER AND COAL MINING INDUSTRIES TO HYDROPOWER DEVELOPMENT AT HUNGRY HORSE. PRESENTS A PICTURE OF THE SETTLEMENT IN 1889, THE TOWN IN 1891, AND THE WAY OF LIFE AND LIFE HISTORIES OF THE PIONEERS THEMSELVES.

B-211
BRUNSON, ROYAL B.
1962.
"RECENT COLLECTIONS OF BUFO BOREAS BOREAS FROM WESTERN MONTANA."
PROC. MONTANA ACADEMY SCIENCES 11:17-19.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(GLACIER NATL. PARK, MISSION & SWAN MTN. RANGES). THIS PAPER'S INTENT WAS TO SHOW INCIDENTAL COLLECTIONS OF BUFO B. BOREAS MADE DURING FIELD TRIPS. SPECIMENS WERE COLLECTED IN THE SWAN RIVER DRAINAGE AND GLACIER NATIONAL PARK.

B-212
BRUNSON, ROYAL B.
1965.
"CHECKLIST OF THE AMPHIBIANS AND REPTILES OF MONTANA."
PROC. MONTANA ACADEMY SCIENCES 15:27-29.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). THE CHECKLIST PROVIDES SCIENTIFIC AND COMMON NOMENCLATURE FOR 15 SPECIES OF AMPHIBIA AND 19 SPECIES OF REPTILIA.

B-213
BRUNSON, ROYAL B., AND BLOCK, DANIEL G.
1957.

"THE FIRST REPORT OF THE WHITE STURGEON FROM FLATHEAD LAKE, MONTANA." IN PROCEEDINGS OF MONTANA ACADEMY OF SCIENCES, VOL. 17, PP. 61-62.

MISSOULA, MT.: MOUNTAIN PRESS.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS PAPER REPORTS ON THE AUTOPSY OF A 92-INCH WHITE STURGEON, ACIPENSER TRANSMONTANUS, CAUGHT FROM FLATHEAD LAKE. THE REPORT INCLUDES DETAILED MEASUREMENTS AS WELL AS THE SPECIMEN'S SEX, NUMBER OF PLATES, AGE, SEXUAL MATURITY, AND STOMACH CONTENTS.

B-214
BRUNSON, ROYAL B., AND DEMAREE, H. A.
1951.

"THE HERPETOLOGY OF THE MISSION MOUNTAINS, MONTANA."

COPEIA (28 DECEMBER 1951):306-308.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION RANGE). THE COLLECTION OF SPECIMENS BELONGING TO 11 DIFFERENT SPECIES IS REPORTED IN THIS PAPER ON A 4-YEAR STUDY OF THE AREA'S HERPETOLOGY. THE DISCUSSION OF INDIVIDUAL SPECIES INCLUDES GENERAL NOTES ON HABITAT, ALTITUDE RANGE, AND LOCALITY RECORDS, WHICH DESIGNATE COLLECTION LOCATION BY COUNTY, POND, AND MAP LOCATION.

B-215
BRUNSON, ROYAL B., AND NELSON, HOWARD E.
1952.

"A LIMNOLOGICAL RECONNAISSANCE OF THREE WESTERN MONTANA LAKES." IN PROCEEDINGS MONTANA ACADEMY OF SCIENCE, VOL. 12, PP. 45-61.
BOZEMAN, MT.: MONTANA STATE COLL.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: RED MEADOW LAKE). THE PAPER SUMMARIZES THE FINAL ANALYSES OF DATA OBTAINED IN LIMNOLOGICAL SURVEYS OF HOWARD LAKE, LAKE ROGERS, AND RED MEADOW LAKE DURING 1949, 1950, AND 1951. THE SUMMARY OF RED MEADOW INCLUDES A DESCRIPTION OF THE GEOGRAPHIC SETTING, ELEVATION, POSSIBLE GLACIAL ORIGIN, PRIMARY VEGETATION COVER, PRESENCE OF MARSHES AND OTHER SOURCES OF WATER, MORPHOMETRIC STATISTICS, AND PHYSICAL AND CHEMICAL ANALYSES.

B-216
BRUNSON, ROYAL B.; CASTLE, GORDON B.; AND PIRTLER, RALF.
1952.

"STUDIES OF SOCKEYE SALMON, ONCORHYNCHUS NERKA, FROM FLATHEAD LAKE, MONTANA." IN PROCEEDINGS MONTANA ACADEMY OF SCIENCE, VOL. 12, PP. 35-45.

BOZEMAN, MT.: MONTANA STATE COLL.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS PAPER PRESENTS THE RESULTS OF A STUDY INITIATED IN 1947 TO DETERMINE IF ONCORHYNCHUS NERKA WERE DECLINING IN SIZE. LENGTH AND WEIGHTS OF MALES WERE USED AS A BASIS FOR PRIMARY COMPARISON. FISH WERE COLLECTED FROM 1947-1951. TWO FISH OF RECORD SIZE DURING 1936 AND 1941 WERE COLLECTED. INFORMATION ON EGG COUNTS AND SEX RATIO IS ALSO INCLUDED.

B-217
BRUNSON, ROYAL B.; PENNINGTON, RICHARD E.; AND BJORKLUND, RICHARD G.
1952.

"ON A FALL COLLECTION OF NATIVE TROUT (SALMO CLARKII) FROM FLATHEAD LAKE, MONTANA." IN PROCEEDINGS MONTANA ACADEMY OF SCIENCE, VOL. 12, PP. 63-67.

BOZEMAN, MT.: MONTANA STATE COLL.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS PAPER REPORTS ON A COLLECTION OF NATIVE TROUT, SALMO CLARKII, MADE DURING SPRING AND WINTER IN THE VICINITY OF YELLOW BAY. THE DATA OBTAINED FROM A TOTAL OF 48 TROUT INCLUDES THE LOCATION AND DEPTH THE FISH WERE CAUGHT AT, STOMACH CONTENTS, AGE, STANDARD LENGTHS AND WEIGHTS, AND CONDITION FACTOR.

B-218
BRUNTON, BILL.
1974.

"THE STICK GAME IN KUTENAI CULTURE."
PH.D. DISSERTATION, WASHINGTON STATE UNIV., PULLMAN. UNIV. MICROFILM 74-16,355.

(FLATHEAD INDIAN RESERVATION). THIS STUDY OF THE ROLE OF THE STICK GAME IN THE CULTURE OF THE FLATHEAD RESERVATION KOOTENAI PAYS SPECIAL ATTENTION TO THE ROLE OF THE STICK GAME IN INTERGROUP RELATIONS AND RITUAL NUMBERING PATTERNS. SKCC.

B-219
BRUSH, EMILY, AND BROWN, CAMMIE.
1975.

"SWEAT LODGE."
DOVETAIL MAGAZINE, FALL 1975, PP. 55-60.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS ARTICLE DESCRIBES THE USE OF THE SWEAT LODGE AND GIVES A FICTIONAL STORY OF THE USE OF THE SWEAT LODGE. SKCC.

B-220
BRUTON, ORVAL W.
1978.

THE FUTURE OF PUMPED-STORAGE IN THE PACIFIC NORTHWEST.

PORTLAND, ORE.: U.S. DEPT. AGRICULTURE, ARMY CORPS OF ENGINEERS, NORTH PACIFIC DIV. 15 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THE PAPER DISCUSSES THE PUMPED-STORAGE FORM OF HYDRO-GENERATION. DESCRIBES ITS DEVELOPMENT IN THE U.S. AND ITS FUTURE IN THIS AREA. OPERATING CYCLES, ON STREAM VERSUS OFFSTREAM OPERATION, AND RESERVOIR STAGE ARE THE ELEMENTS IN THE SYSTEM DISCUSSED. ADVANTAGES AND DISADVANTAGES ARE OUTLINED.

B-221
BUCHER, SUSAN J.
1977.

"COMPILATION OF RANGER STATION PERSONNEL."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 38 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATL. PARK HISTORICAL FILES.

(GLACIER NATL. PARK). A LISTING OF NATIONAL PARK SERVICE PERSONNEL MANNING THE FOLLOWING RANGER STATIONS FROM 1918 TO 1977: BELLY RIVER, CUT BANK, EAST GLACIER, FISH CREEK, GOATHAUNT (WATERTON), KENNEDY CREEK,

KINTLA, KISHENEHN, LAKE MCDONALD, LOGGING CREEK, LUBEC, MANY GLACIER, NORTH FORK, NYACK, PAOLA, POLEBRIDGE, ST. MARY, TWO MEDICINE, AND WATERTON.

B-222
BUCHER, SUSAN J.
1977.

"THE SUPERINTENDENTS OF GLACIER NATIONAL PARK, 1910-1977."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). INFORMATION ON EACH OF THE SUPERINTENDENTS' CAREERS WAS COLLECTED FROM OFFICIAL PERSONNEL FILES OF THE PERSONNEL FEDERAL RECORDS CENTER, ST. LOUIS, MISSOURI, AND SUMMARIZED. PHOTOGRAPHS WERE INCLUDED WHEN AVAILABLE.

B-223
BUCHER, SUSAN J.
1978.

"THE APGAR SCHOOL - A BRIEF HISTORY."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 2 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS TYPEWRITTEN MANUSCRIPT IS AN EXAMINATION OF THE HISTORY OF THE APGAR SCHOOL. BEGUN IN 1914 WITH SIX STUDENTS, THE SCHOOL CONTINUED UNTIL 1957. THE BUILDING IS PRESENTLY LEASED TO THE GLACIER NATURAL HISTORY ASSOCIATION FOR THE PURPOSE OF PROVIDING HOUSING FOR PARK ENVIRONMENTAL EDUCATION PROGRAMS.

B-224
BUCHER, ROBERT F., AND LYDA, MERLE.
1970.

ENTERPRISE COST CORN SILAGE IN FLATHEAD COUNTY.

BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE, AND MONTANA STATE UNIV., COOP. EXTEN. SERVICE. CIRC. 1112. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THROUGH GROUP MEETINGS AND INTERVIEWS WITH FARMERS, INFORMATION WAS OBTAINED ABOUT THE OPERATIONS INVOLVED IN PRODUCING CORN SILAGE. INFORMATION WAS ALSO SECURED ABOUT THE MACHINERY USED AND THE COSTS OF SEED AND MATERIAL USED. THE INFORMATION WAS THEN PROCESSED BY A COMPUTER AND THE TABLES WERE PREPARED AND PRESENTED ACCORDING TO STANDARD ECONOMIC PROCEDURES. COST PER ACRE OF CORN SILAGE, REAL ESTATE COSTS PER ACRE AND MACHINERY DATA ARE OUTLINED.

B-225
BUCHER, ROBERT F., AND LYDA, MERLE.
1970.

ENTERPRISE COST DRYLAND ALFALFA-GRASS HAY IN FLATHEAD COUNTY.

BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, COOP. EXTEN. SERVICE, AND SOIL CONSERVATION SERVICE, MONTANA STATE UNIV. CIRC. 1113.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THROUGH GROUP MEETINGS AND INTERVIEWS WITH FARMERS, INFORMATION WAS OBTAINED ABOUT THE OPERATION INVOLVED IN PRODUCING DRYLAND ALFALFA GRASS HAY. INFORMATION WAS ALSO SECURED ABOUT THE MACHINERY USED AND THE COST OF SEED AND MATERIALS. THE INFORMATION WAS THEN PRO-

CESSSED BY COMPUTER AND THE TABLES WERE PREPARED AND PRESENTED ACCORDING TO STANDARD ECONOMIC PROCEDURES. ESTABLISHMENT COSTS PER ACRE, REAL ESTATE COSTS PER ACRE, AND HARVESTING COSTS PER ACRE ARE OUTLINED.

B-226

BUCHER, ROBERT F., AND LYDA, MERLE.
1970.

ENTERPRISE COST DRYLAND GRAIN IN FLATHEAD COUNTY.

BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, COOP. EXTEN. SERVICE, AND SOIL CONSERVATION SERVICE, MONTANA STATE UNIV. CIRC. 1111. 8 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THROUGH GROUP MEETINGS AND INTERVIEWS WITH FARMERS, INFORMATION WAS OBTAINED ABOUT THE OPERATION INVOLVED IN PRODUCING DRYLAND SMALL GRAIN. INFORMATION WAS ALSO SECURED ABOUT THE MACHINERY USED AND THE COSTS OF SEED AND MATERIALS. THE INFORMATION WAS THEN PROCESSED BY A COMPUTER AND THE TABLES WERE PREPARED AND PRESENTED ACCORDING TO STANDARD ECONOMIC PROCEDURES. COST PER ACRE OF FALLOW FOR DRYLAND GRAIN, REAL ESTATE COSTS PER ACRE, AND COSTS PER ACRE OF DRYLAND WINTER WHEAT AFTER FALLOW ARE OUTLINED.

B-227

BUCHER, ROBERT F., AND LYDA, MERLE.
1970.

ENTERPRISE COST IRRIGATED SMALL GRAIN IN FLATHEAD COUNTY.

BOZEMAN, MT.: COOP. EXTEN. SERVICE, U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE, AND MONTANA STATE UNIV. CIRC. 1109. 8 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THROUGH GROUP MEETINGS AND INTERVIEWS WITH FARMERS, INFORMATION WAS OBTAINED ABOUT THE OPERATION INVOLVED IN PRODUCING IRRIGATED SPRING WHEAT, BARLEY, AND WINTER WHEAT. ALSO, INFORMATION WAS SECURED ABOUT THE MACHINERY USED AND THE COST OF SEED AND MATERIALS USED. THE INFORMATION WAS THEN PROCESSED BY A COMPUTER AND THE TABLES WERE PREPARED AND PRESENTED ACCORDING TO STANDARD ECONOMIC PROCEDURES.

B-228

BUCHER, ROBERT F., AND LYDA, MERLE.
1970.

ENTERPRISE COST NATIVE CHRISTMAS TREES IN FLATHEAD COUNTY.

BOZEMAN, MT.: COOP. EXTEN. SERVICE, MONTANA STATE UNIV., AND U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE. 7 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS REPORT WAS PREPARED FROM DATA AND ASSUMPTIONS PROVIDED BY FARMERS. THROUGH GROUP MEETINGS AND INTERVIEWS, INFORMATION WAS OBTAINED ABOUT THE OPERATIONS INVOLVED IN PRODUCING NATIVE CHRISTMAS TREES. INFORMATION WAS ALSO SECURED ABOUT THE MACHINERY USED AND THE COSTS OF SEED AND MATERIAL USED. THE INFORMATION WAS THEN PROCESSED BY COMPUTER AND TABLES PREPARED AND PRESENTED ACCORDING TO STANDARD ECONOMIC PROCEDURES.

B-229

BUCHOLTZ, CURTIS W.

1969.

"THE HISTORICAL DICHOTOMY OF USE AND PRESERVATION IN GLACIER NATIONAL PARK."

M.A. THESIS, UNIV. MONTANA, MISSOULA. 128 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OBJECT OF THIS STUDY WAS TO SHOW THAT FOUR INTERACTING FACTORS: CONCESSIONAIRES, PARK SERVICE, THE PUBLIC AND PRIVATE LAND OWNERS, OPERATING EITHER SINGLY OR IN CONCERT, HAVE BEEN RESPONSIBLE HISTORICALLY FOR PROMOTING EITHER USE OR PRESERVATION OR A BALANCE OF BOTH IN GLACIER NATIONAL PARK.

B-230

BUCHOLTZ, CURTIS W.

1969.

"W. R. LOGAN AND GLACIER NATIONAL PARK."

MONTANA 19:3-17. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE PARK'S FIRST SUPERINTENDENT'S ADMINISTRATION WHICH DEALT WITH THE PROBLEM OF DECIDING TO WHAT DEGREE SHOULD NATURE BE PRESERVED AND RESOURCES UTILIZED. LOGAN'S ACTIVITIES IN MAKING THE PARK MORE ACCESSIBLE—ROAD AND TRAILBUILDING—AND HIS POLICY OF RECREATION AT THE EXPENSE OF TOTAL PRESERVATION, ARE DISCUSSED.

B-231

BUCHOLTZ, CURTIS W.

1976.

THE LAST SUMMER AT LAKE MCDONALD.

MONTANA MAGAZINE OF WESTERN HISTORY 26(AUTUMN 1976):22-24. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(LAKE MCDONALD). THE ARTICLE GIVES AN ACCOUNT OF FRANK LIEBIG'S LAST SUMMER (1910) AS A RANGER FOR THE U.S. FOREST SERVICE SERVING AN AREA SOON TO BECOME A NATIONAL PARK. THE ACCOUNT IS BASED ON LIEBIG'S OWN PERSONAL RECORD OF HIS DAILY ACTIVITIES DURING A CRITICAL YEAR OF FIRE DANGER AND THE TRANSITION OF THE AREA FROM A NATIONAL FOREST TO GLACIER NATIONAL PARK.

B-232

BUCHOLTZ, CURTIS W.

1976.

MAN IN GLACIER.

WEST GLACIER, MT.: GLACIER NATURAL HISTORY ASSOC., INC. 87 PP. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE BOOK PRESENTS HISTORIC ACCOUNTS OF THE PARK: ITS INITIAL USE AND OCCUPATION BY INDIANS, THE ADVENT OF FUR TRADERS, EXPLORERS, MINERS, AND SETTLERS, THE INDIVIDUALS WHO EXPLORED THE PARK FOR PLEASURE AND SCIENTIFIC KNOWLEDGE, THE MOVEMENT TO INCLUDE IT WITHIN THE NATIONAL PARK SYSTEM, AND ITS ADMINISTRATION AS A PARK.

B-233

BUCHOLTZ, CURTIS W.

1976.

"THE NATIONAL PARK AS A PLAYGROUND."

J. SPORT HISTORY 5(WINTER 1978):21-36. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE IS CONCERNED WITH THE PARK'S RECREATIONAL DEVELOPMENT AND TRACES THE PAST TRENDS OF RECREATIONAL USES TO THE PRESENT TREND DOMINATED BY AUTOMOBILE RECREATION AND TRAVEL. THE ACTIVITIES OF JAMES HILL, RAILROAD EXECUTIVE, TO DEVELOP THE PARK INTO A "PLAYGROUND" AND OF WILLIAM R. LOGAN TO PROMOTE THE PARK ARE NOTED. EARLY FORMS OF TRANSPORTATION, THE RAILROAD, TOUR BUSES, LAKE LAUNCHES, AND HORSEBACK RIDING ARE DESCRIBED.

B-234

BUECHNER, HELMUT K.

1960.

THE BIGHORN SHEEP IN THE UNITED STATES, ITS PAST, PRESENT, AND FUTURE. WILDLIFE MONOGRAPHS, NO. 4.

WASHINGTON, D.C.: WILDLIFE SOCIETY. FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(THE PAST & CURRENT RANGE OF BIGHORN SHEEP, GLACIER NATL. PARK, WILDHORSE ISLAND). THIS STUDY EXAMINES THE NOW EXTINCT SPECIES OVIS CANADENSIS AUDUBONI MERRIAM, AND BRIEFLY OUTLINES PRESENT POPULATION ESTIMATES OF OVIS CANADENSIS HERDS IN THE STATE, INCLUDING THOSE IN GLACIER NATIONAL PARK AND WILDHORSE ISLAND.

B-235

BUFTON, PETER.

1976.

TAN DEER HIDES, INDIAN STYLE.

BIG ARM, MT.: BY THE AUTHOR.

(FLATHEAD INDIAN RESERVATION). BUFTON'S KOOTENAI WIFE TAUGHT HIM THIS METHOD OF TANNING HIDES. SKCC.

B-236

BUMSTEAD, ROGER.

1971.

SHRUB RESPONSE TO STRIP THINNING OF LODGEPOLE PINE.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. COMPLETION REPT. 10 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE STUDY CONCERNED AN ABIES GRANDIS PACHISTIMA (DAUBENMIRE) HABITAT TYPE, BELIEVED TO BE POTENTIAL WINTER RANGE FOR MOOSE AND FALL-SPRING RANGE FOR WHITE-TAILED DEER. THE AREA WAS THINNED IN STRIPS BY A BULLDOZER WITH A BRUSH CHOPPER ATTACHED. TABLES LIST THE RESULTS. MANAGEMENT RECOMMENDATIONS ARE MADE. A SPECIES LIST IS INCLUDED.

B-237

BUNKER, PAGE S.

1909.

REPORT FOR FOREST ATLAS: FLATHEAD NATIONAL FOREST, MONTANA.

KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 26 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATIONAL FOREST). AN EARLY ACCOUNT OF THE GEOGRAPHY, THE FOREST TYPES, THE DRAINAGES, THE RANGE RESOURCE, AND THE HISTORY OF THE SETTLEMENT OF THE NATIONAL FOREST. THIS REPORT ACCOMPANIES THE FOREST ATLAS.

B-237

BUMSTEAD, ROGER.

1971.

SHRUB RESPONSE TO STRIP THINNING OF LODGEPOLE PINE.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. COMPLETION REPT. 10 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE STUDY CONCERNED AN ABIES GRANDIS PACHISTIMA (DAUBENMIRE) HABITAT TYPE, BELIEVED TO BE POTENTIAL WINTER RANGE FOR MOOSE AND FALL-SPRING RANGE FOR WHITE-TAILED DEER. THE AREA WAS THINNED IN

STRIPS BY A BULLDOZER WITH A BRUSH CHOPPER ATTACHED. TABLES LIST THE RESULTS. MANAGEMENT RECOMMENDATIONS ARE MADE. A SPECIES LIST IS INCLUDED.

B-238

BURDSALL, HAROLD H., JR., AND LOMBARD, F. F. 1976.

"THE GENUS GLOEODONTIA IN NORTH AMERICA." MEMOIRS NEW YORK BOTANICAL GARDEN 28:16-31. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL

(NORTH AMERICA: YELLOW BAY BIOL. STAT., & GLACIER NATL. PARK). STUDIES OF A SPECIES VERY CLOSELY RELATED TO GLOEODONTIA DISCOLOR INDICATED THAT THE PREVIOUS CONCEPT OF GLOEODONTIA, CONTAINING ONLY SPECIES WITH BASIDIOMYCELES COMPOSED OF DIMITIC HYPHAL SYSTEMS, WAS TOO NARROW. GLOEODONTIA COLUMBIENSIS, A NEW SPECIES FOUND WITHIN THE BASIN, HAVING BASIDIOMYCELES WITH A MONOMITIC HYPHAL SYSTEM, IS DESCRIBED AND THE GENERIC DESCRIPTION OF THE GENUS IS AMENDED TO INCLUDE SPECIES WITH BASIDIOMYCELES WITH EITHER MONOMITIC OR A DIMITIC HYPHAL SYSTEM. PHOTOGRAPHS ARE INCLUDED.

B-239

BURGIEN, NIVA; GONE, MABEL; AND REDHORN, MABLE.

1919.

"STUDENT'S CHAPTER."

INDIAN SENTINEL 1(OCTOBER 1919):41-44.

(ST. IGNATIUS MISSION). THIS ARTICLE CONTAINS THREE LETTERS OF INDIAN STUDENTS ABOUT THE URSULINE SCHOOL AT ST. IGNATIUS MISSION. SKCC.

B-240

BURK, DALE A.

1977.

GREAT BEAR, WILD RIVER.

EUREKA, MT.: STONEYDALE PRESS. 157 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GREAT BEAR WILDERNESS: MIDDLE FORK OF THE FLATHEAD RIVER). THE BOOK IS CONCERNED WITH THE ESTABLISHMENT OF THE GREAT BEAR WILDERNESS AND THE WILD QUALITIES OF THE MIDDLE FORK OF THE FLATHEAD RIVER, WHICH RUNS THROUGH IT.

B-241

BURLING, LANCASTER D.

1918.

ELLIPSOIDAL LAVAS IN GLACIER NATIONAL PARK, MONTANA.

J. GEOLOGY 25(FEBRUARY-MARCH 1918):3-8.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). AN OUTCROP OF LAVA OCCURRING ON THE RIDGE (SHEPARD MOUNTAIN) NORTHEAST OF FLATTOP MOUNTAIN OVERLOOKING THE SHEPARD GLACIER IS DESCRIBED.

B-242

BURLINGAME, MERRILL G.

1979.

"VERNE DUSENBERRY: 1906-1986." IN LIFEWAYS OF INTERMONTANE AND PLAINS MONTANA INDIANS, EDITED BY LESLIE B. DAVIS. OCCASIONAL PAPERS OF THE MUSEUM OF THE ROCKIES, NO. 1. BOZEMAN, MT.: MUSEUM OF THE ROCKIES, MONTANA STATE UNIV.

(FLATHEAD INDIAN RESERVATION: RONAN). THIS CHAPTER IS A BIOGRAPHICAL SKETCH OF VERNE DUSENBERRY, WHO WORKED AS A BUSINESSMAN IN RONAN FROM 1935 THROUGH 1942 AND LATER DID ANTHROPOLOGICAL RESEARCH ON THE FLATHEAD RESERVATION. SKCC.

B-243

BURLINGAME, MERRILL G., AND TOOLE, K. ROSS.

1957.

A HISTORY OF MONTANA. 3 VOLS.

NEW YORK: LEWIS HISTORICAL PUBL. CO., INC. VOL.

1: 410 PP.; VOL. 2: 437 PP.; VOL. 3: 550 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). VOLUME ONE DISCUSSES THE COMING OF THE WHITE MAN TO THE STATE, CATHOLIC INDIAN MISSIONS, AGRICULTURE, METALS AND MINERALS, COMMERCE AND INDUSTRY, AND THE HISTORY OF BANKING. VOLUME TWO COVERS FOREST INDUSTRY, THE HISTORY OF OIL AND GAS, NORTHWESTERN MONTANA, RELIGION AND EDUCATION. VOLUME THREE CONTAINS FAMILY AND PERSONAL HISTORIES OF PROMINENT MONTANA CITIZENS.

B-244

BUTLER, B. ROBERT.

1971.

"THE ORIGIN OF THE UPPER SNAKE COUNTRY BUFFALO."

TEBIWA 14:1-20.

(NORTHERN ROCKY MTS.). THIS ARTICLE DISCUSSES EVIDENCE THAT HERDS OF BUFFALO ONCE ROAMED NORTHERN ROCKY MOUNTAIN VALLEYS. SKCC.

B-245

BUTLER, DAVID R.

1976.

"AN ANALYSIS OF SLOPES AFFECTED BY SNOW AVALANCHES AND RELATED MASS WASTING FEATURES IN A PORTION OF GLACIER NATIONAL PARK."

M.S. THESIS, UNIV. NEBRASKA, OMAHA. 156 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS STUDY PRESENTS THE RESULTS OF FIELD WORK; A LITERATURE REVIEW, AND EXTENSIVE AERIAL PHOTO INTERPRETATIONS AND MAPPING THAT WAS DONE IN ORDER TO UNDERSTAND THE GEOGRAPHIC NATURE OF SLOPES AFFECTED BY SNOW AVALANCHES IN THE PARK.

B-246

BUTLER, DAVID R.

1976.

"DENDROGEOMORPHIC AND BIOGEOGRAPHIC STUDIES OF SNOW AVALANCHE SLOPES, GLACIER NATIONAL PARK."

PROC. NEBRASKA ACADEMY SCIENCE AFFILIATED SOCIETY 86:71-72.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). FIFTEEN AVALANCHE SLOPES WERE STUDIED IN THIS REPORT. VEGETATIVE SAMPLING TRANSECTS, USING THE POINT-QUARTER METHOD, WERE APPLIED TO THE SLOPES, IN CONJUNCTION WITH SLOPE ANGLE MEASUREMENTS. THE DOMINANT SHRUB AND TREE SPECIES WERE ESTABLISHED. EVIDENCE OF PAST SNOW AVALANCHE ACTIVITY WAS COLLECTED; TREE RING CROSS CUTS WERE TAKEN FROM AFFECTED TREES TO DETERMINE IF A DIFFERENCE IN MANNER OF RESPONSE OCCURRED BETWEEN THE SPECIES (ABIES LASIOCARPA AND PSEUDOTSUGA MENZIESII) EXAMINED.

B-247

BUTLER, DAVID R.

1979.

"SNOW AVALANCHE PATH TERRAIN AND VEGETATION, GLACIER NATIONAL PARK, MONTANA."

ARCTIC AND ALPINE RESEARCH 11:17-32.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PURPOSE OF THIS STUDY WAS TO EXAMINE THE SITE DISTRIBUTION AND MORPHOLOGY, VEGETATION, AND CHRONOLOGY OF SNOW AVALANCHE PATHS IN THE CENTRAL ONE THIRD OF THE PARK. TWELVE AVALANCHE PATHS WERE STUDIED IN DETAIL; MAP/AERIAL PHOTO INTERPRETATIONS WERE CARRIED OUT; TABLES LIST THE VEGETATION OF THE SAMPLED AVALANCHE PATHS AND SLOPE ANGLE VALUES FOR THE TWELVE SAMPLED PATHS. MANAGEMENT RECOMMENDATIONS ARE MADE.

B-248

BUTTERFIELD, PHILLIP W.

1977.

FACILITIES PLAN FOR THE IMPROVEMENT OF THE ST. IGNATIUS WASTE WATER TREATMENT FACILITIES.

HELENA, MT.: STAHL ENGINEERING & ASSOC.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ST. IGNATIUS). THIS REPORT OUTLINES SEVERAL TREATMENT ALTERNATIVES, COST ANALYSES OF THE DIFFERENT ALTERNATIVES, PRIMARY AND SECONDARY ENVIRONMENTAL IMPACTS, AND SELECTS A FINAL FACILITIES PLAN. THE EXISTING SYSTEM AND FUTURE CONDITIONS ARE DESCRIBED.

B-249

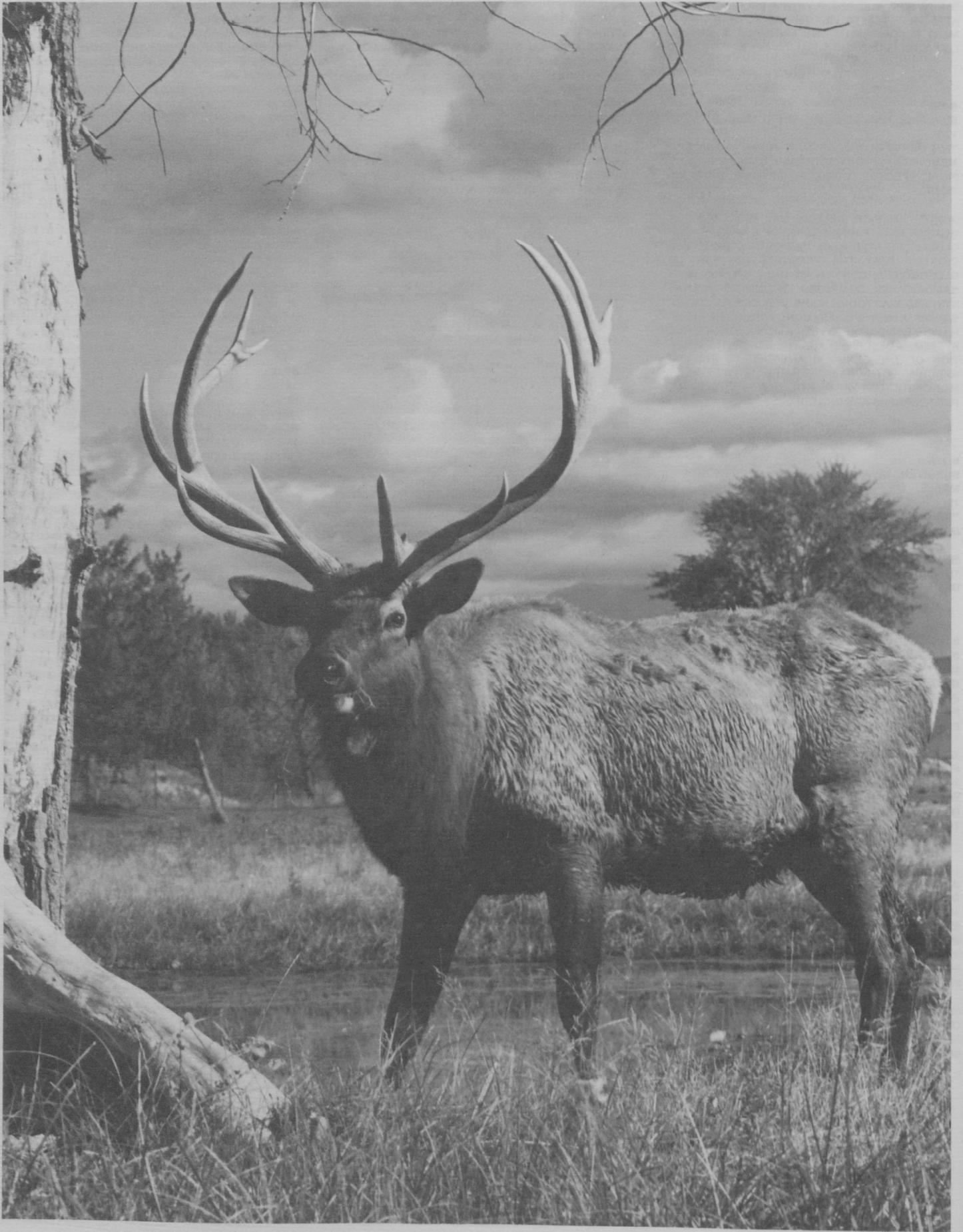
BYRNE, C. E., S. J.

1957.

"WIDE-AWAKE INDIAN CONGREGATION."

INDIAN SENTINEL 37(NOVEMBER-DECEMBER 1957):93-94.

(JOCKO). THIS ARTICLE IS A DESCRIPTION OF CHURCH WORK AT JOCKO. SKCC.



C-1

CADY, R. C.
1941.

EFFECT UPON GROUND-WATER LEVELS OF PROPOSED SURFACE-WATER STORAGE IN FLATHEAD LAKE, MONTANA.

WASHINGTON, D.C.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. WATER SUPPLY PAPER 849-B. 22 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: HYDROGRAPHS AND MAPS ARE INCLUDED.

(FLATHEAD LAKE). THIS GROUND WATER STUDY WAS DESIGNED TO PROVIDE A BASIS FOR ESTIMATING THE DAMAGE TO CROPS TO BE EXPECTED FROM THE PROPOSED REGULATION OF THE OUTFLOW OF THE LAKE AT ITS SOUTH END FOR THE PRODUCTION OF ELECTRIC POWER.

C-2

CAHALANE, VICTOR H.
1939.

"THE EVOLUTION OF PREDATOR CONTROL POLICY IN THE NATIONAL PARKS."

J. WILDLIFE MANAGEMENT 3(JULY 1939):229-237.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, NATIONAL.

(U.S. NATL. PARKS). THE HISTORY OF PREDATOR CONTROL IN NATIONAL PARKS AND THE DEVELOPMENT OF THE THEN CURRENT POLICY OF MANAGING PREDATORY ANIMALS IS DESCRIBED. THE USE OF POISON, TRAPS, SHOOTING, TRAILING WITH DOGS, AND EVEN DYNAMITING IN CONTROLLING BEAR, COYOTE, WOLF, COUGAR, AND MARTEN IS DISCUSSED. THE DEVELOPMENT OF PARK POLICY FROM ONE OF EXTERMINATION OR REDUCTION OF PREDATORS TO ONE OF PROTECTION AND RECOGNITION OF THE ANIMALS' PLACE IN NATURE IS OUTLINED.

C-3

CALHOUN, FRED H.
1906.

MONTANA LOBE OF THE KEEWATIN ICE SHEET.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROF. PAPER 50. 62 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS PAPER INVESTIGATES THE EASTERN DRIFT, THE MOUNTAIN DRIFT, THE DEPOSITS ON THE INTERVENING AREA, AND THE RELATIONS OF THESE THREE SURFACE FORMATIONS TO EACH OTHER.

C-4

"THE CALISPEL (SIC) VALLEY."

NORTHWEST MAGAZINE, DECEMBER 1885, P. 11.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY). THE TWO-PARAGRAPH ARTICLE DESCRIBES THE VALLEY AND ITS ATTRACTIONS TO SETTLERS. THE FERTILE LANDS, THE WATER RESOURCES, AND THE AREA'S ACCESSIBILITY ARE NOTED.

C-5

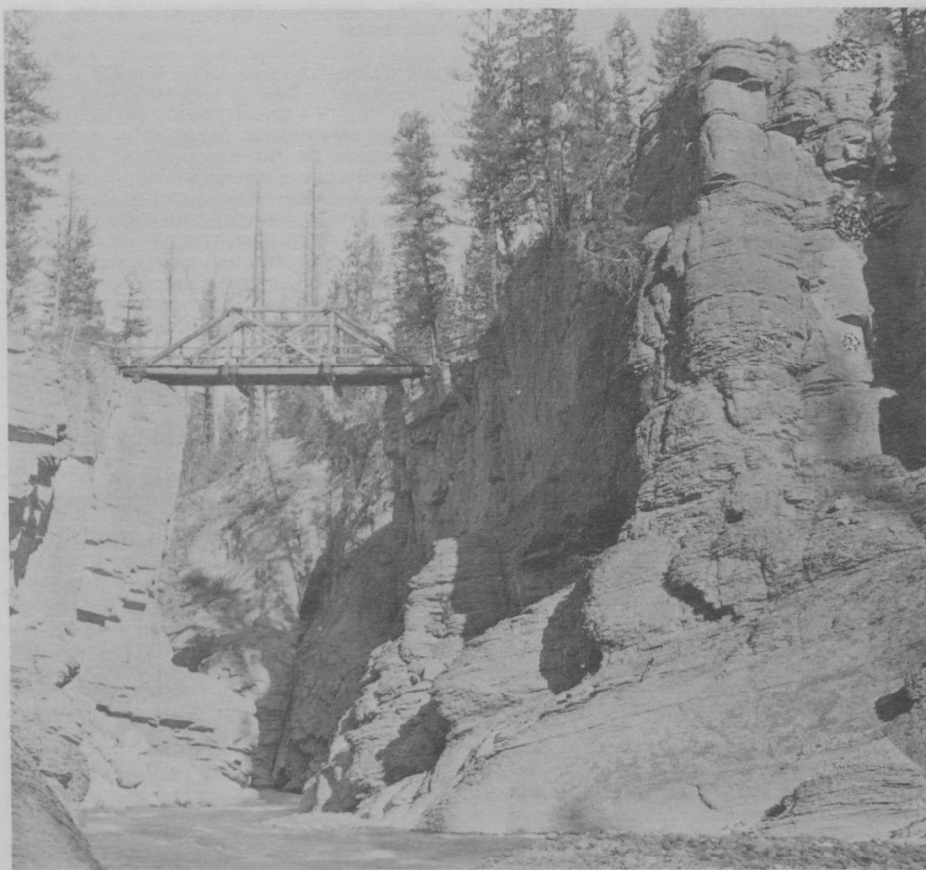
CALKINS, F. C., AND MACDONALD, D. F.
1909.

A GEOLOGICAL RECONNAISSANCE IN NORTHERN IDAHO AND NORTHWESTERN MONTANA.

WASHINGTON, D.C.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. BULL. 384. 112 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN IDAHO & NORTHWESTERN MONTANA). THIS GEOLOGIC RECONNAISSANCE STUDY DESCRIBES PRINCIPAL TOPOGRAPHIC FEATURES



SUCH AS THE CABINET RANGE AND THE CLARK FORK-FLATHEAD VALLEY. THE DISCUSSION OF THE AREA'S STRATIGRAPHY INCLUDES: PRICHARD FORMATION, RAVALLI GROUP, NEWLAND FORMATION, STRIPED PEAK FORMATION, THE CORRELATIONS BETWEEN THE SECTIONS OF THE BELT SERIES, AND IGNEOUS ROCKS. PRINCIPAL FAULTS AND THE EXPRESSION OF FAULTS IN TOPOGRAPHY ARE DESCRIBED. DETAILS REGARDING LOCAL STRATIGRAPHY AND STRUCTURE ARE DISCUSSED IN AN ACCOUNT OF AREA GEOLOGY. NOTES ON THE ECONOMIC GEOLOGY CONSIDER MINERAL RESOURCES OF THE AREA, DEPOSITS AND CURRENT MINING.

C-6

CAMPBELL, MARIUS R.
1914.

THE GLACIER NATIONAL PARK: A POPULAR GUIDE TO ITS GEOLOGY AND SCENERY.

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. BULL. 600. 54 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: SOME HISTORIC INFORMATION CONCERNING TRAILS, PROSPECTING, AND OIL WELLS AT KINTLA LAKE IS INCLUDED.

(GLACIER NATL. PARK). THIS BOOKLET BRIEFLY DISCUSSES THE ORIGINS OF THE PARK'S TOPOGRAPHIC FORMS AND DESCRIBES CONDITIONS WHEN THE ROCKS WERE LAID DOWN, FAULTING, FOLDING, AND EROSION BY WATER AND GLACIERS. IT DESCRIBES THE SURFACE FEATURES OF THE MCDONALD, NYACK, CAMUS, LOGGING, QUARTZ, AND KINTLA VALLEYS; CHARACTERISTICS OF THE VALLEYS' MOUNTAINS, GLACIERS, CIRQUES; LAKES, MORAINES, AND BEDROCK; AND FORMER MINING AND PROSPECTING ACTIVITIES.

C-7

CAMPBELL, MARIUS R.

1914.

ORIGIN OF THE SCENIC FEATURES OF THE GLACIER NATIONAL PARK.

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 42 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PAPER DESCRIBES THE FEATURES OF THE PARK AND THEIR ORIGIN. IT DISCUSSES THE MOVEMENTS OF UPLIFT AND OVERTHRUST, WEATHERING, AND EROSION BY WATER AND GLACIERS. LAKES, U-SHAPED VALLEYS, AND CIRQUES ARE DESCRIBED.

C-8

CAMPBELL, MARIUS R., ET. AL.

1916.

GUIDEBOOK OF THE WESTERN UNITED STATES. PART A: THE NORTHERN PACIFIC ROUTE WITH A SIDE TRIP TO YELLOWSTONE PARK.

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. 218 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

NOTE: ONE IN A SERIES OF GUIDEBOOKS COVERING FOUR OF THE OLDER RAILROAD ROUTES WEST OF THE MISSISSIPPI. MAPS ACCOMPANYING THE GUIDE DESCRIPTIONS ARE INCLUDED.

(PACIFIC NORTHWEST: NORTHERN PACIFIC ROUTE). THE GUIDE PRESENTS A GEOLOGIC AND GEOGRAPHIC DESCRIPTION OF THE COUNTRY TRAVERSED BY THE RAILWAY ROUTE. ITS DESCRIPTION OF THE LOWER FLATHEAD VALLEY INCLUDES: TERTIARY LAKE BEDS; THE BELT SERIES, A TERMINAL MORaine, BEACH LINES, A TERRACE OF LAKE DEPOSITS, TERRACES OF THE BELT SERIES, ROCK FLOUR, IGNEOUS DIKES AND SILLS NEAR PERMA, ETC.

C-9
CAMPBELL, NEWELL.
 1975.
"SUMMARY OF GLACIER NATIONAL PARK CAVE STUDY, SEPTEMBER 3-7."
 U. S. DEPT. INTERIOR, GLACIER NATL. PARK, WEST GLACIER, MT. UNPUBL. REPT. J. 18+ PP.
 PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT DESCRIBES POIA LAKE CAVE AND WEST TUNNEL CAVE. THE HYDROLOGY, BIOLOGY, ENVIRONMENTAL IMPACT, AND HAZARDS ARE EXAMINED; RECOMMENDATIONS ARE PRESENTED.

C-10
CAMPBELL, NEWELL.
 1977.
"CAVES: GLACIER NATIONAL PARK."
ALPINE KARST (SUMMER 1977):1.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS IS A BRIEF DESCRIPTION OF THE POIA LAKE AND ALGAL (WEST TUNNEL) CAVES IN GLACIER NATIONAL PARK. IT INCLUDES A DESCRIPTION OF WHERE THE CAVES ARE LOCATED AND A PHYSICAL DESCRIPTION.

C-11
CAMPBELL, NEWELL.
 1977.
"GLACIER PARK CAVE STUDY, PART III."
GLACIER NATIONAL PARK, MT. 20+ PP.
 PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). EXPLORATION AND MAPPING OF ALGAL (WEST TUNNEL) CAVE WAS COMPLETED. ZOO CAVE WAS EXAMINED FOR EVIDENCE OF EARLY MAN AND WAS COMPLETELY EXPLORED. A GEOLOGICAL AND BIOLOGICAL INVESTIGATION WAS COMPLETED. A SMALL NEW CAVE, JENS CAVE, WAS EXPLORED AND TWO OTHER SMALL CAVES WERE FOUND TO BE ROCK SHELTERS.

C-12
CAMPBELL, NEWELL.
 1977.
"POSSIBLE EXHUMED FOSSIL CAVERNS IN THE MADISON GROUP (MISSISSIPPIAN) OF THE NORTHERN ROCKY MOUNTAINS: A DISCUSSION."
NATIONAL SPELEOLOGICAL SOCIETY BULL. 39(APRIL 1977):43-54.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(MONTANA, WYOMING, & SOUTH DAKOTA: FLATHEAD MTN. RANGE). A FOSSIL KARST ON THE UPPER SURFACE OF THE MISSION CANYON FORMATION OF THE MADISON GROUP WAS INFILLED BY LATE MISSISSIPPIAN OR EARLY PENNSYLVANIAN SEDIMENTS OF THE AMSDEN AND KIBBEY FORMATIONS. THIS ARTICLE DISCUSSES THE FOLLOWING EVIDENCE SUBSTANTIATING EXHUMED FOSSIL CAVERNS OF MISSISSIPPIAN AGE: 1) CLOSED, SEDIMENT-FILLED CAVES INTERSECTED BY DRILL HOLES DOWN TO A DEPTH OF SEVERAL HUNDRED FEET THAT HAVE NOT BEEN EXHUMED; 2) REMNANTS OF A FOSSIL SEDIMENT FILL (FILLED BLIND LEADS) IN CAVES OPEN TO THE SURFACE; AND 3) LARGE CAVES WITH THEIR PASSAGES ORIENTED DOWN DIP IN STEEPLY DIPPING LIMESTONE, BUT SHOWING FEATURES COMMON TO PHREATIC CAVERNS.

C-13
CAMPBELL, NEWELL.
 1978.
CAVES OF MONTANA.
BUTTE: MONTANA BUREAU MINES & GEOLOGY, AND MONTANA COLL. MINERAL SCIENCE & TECH. BULL. 105. 169 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, & LEWIS & CLARK COUNTIES). THE GOAL OF THIS PAPER WAS TO MAKE AVAILABLE IN A SINGLE SOURCE DETAILED INFORMATION ON MONTANA CAVES. AFTER A GENERAL DISCUSSION OF THE GEOLOGY AND ORIGIN OF LIMESTONE CAVES, A CURRENT MASTER LIST OF ALL MONTANA CAVES IS PROVIDED. MAPS, GENERAL LOCATIONS, AND A BRIEF DESCRIPTION OF EACH OF THE CAVES ACCOMPANY THIS REPORT. ALTHOUGH SOME ROCK SHELTERS AND SHALLOW CAVES—"INDIAN CAVES"—ARE MENTIONED, NO ATTEMPT WAS MADE TO DESCRIBE ALL OF THE NUMEROUS SANDSTONE CAVES FOUND IN MONTANA.

C-14
CAMPBELL, NEWELL; CHESTER, J.; AND MUNTHE, J.
 1976.
"GLACIER PARK CAVE STUDY, PART II."
GLACIER NATIONAL PARK, WEST GLACIER, MT. 10+ PP.
 PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). POIA LAKE CAVE WAS COMPLETELY EXPLORED AND MAPPED. THE STREAM PASSAGE ENDED IN AN IMPASSIBLE SIPHON, AND THE INVESTIGATORS WERE UNABLE TO LOCATE THE STREAM SOURCE. INSECTS WERE COLLECTED FROM THE ENTRANCE PASSAGE AND A PHOTOGRAPHIC RECORD MADE. THREE NEW CAVES WERE FOUND NEAR POIA LAKE. ALGAL CAVE (WEST TUNNEL CAVE) WAS MAPPED UPSTREAM TO A KNOWN LENGTH OF 2080 FEET. THE DOWNSTREAM PASSAGE WAS FOLLOWED FOR 300 FEET TO A TERMINAL SIPHON.

C-15
CANHAM, RAYMOND P., AND DAUGHERTY, CHARLES H.
 1975.
"AN ISLAND POPULATION OF PEROMYSCUS MANICULATUS: II. GENETIC CHANGES." ABSTRACT OF PAPER PRESENTED TO THE 55TH ANNUAL MEETING OF THE AMERICAN SOCIETY OF MAMMALOGISTS.
UNIV. MONTANA, MISSOULA.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). TRAPPING PERFORMED ON AN ISLAND IN FLATHEAD LAKE REVEALED A POPULATION OF DEER MICE WITH A VERY HIGH DENSITY. BY THE FOLLOWING SPRING THE DENSITY HAD DECLINED DRASTICALLY, BUT RECOVERED TO MODERATE DENSITIES DURING THE SUBSEQUENT TWO SUMMERS. DEER MICE CAPTURED WERE BLED AND THEIR SERUM PROTEINS EXAMINED BY MEANS OF ELECTROPHORESIS IN ORDER TO DETERMINE WHETHER NUMERICAL CHANGES IN THE POPULATION WERE ACCOMPANIED BY GENETIC CHANGES. THE RESULTS OF THOSE TESTS ARE NOTED.

C-16
CANNADAY, SHERI, AND LITTLE, CHERI.
 1972.
"WHEN STEAMERS PLIED THE WATERS OF FLATHEAD LAKE."
MONTANA HISTORIAN 2(WINTER 1972):14-17.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). STEAMBOAT TRANSPORTATION WHICH RESULTED IN THE SETTLEMENT OF THE UPPER FLATHEAD VALLEY IS DESCRIBED. THE APPEARANCE OF THE FIRST BOAT IN 1883, THE PRESENCE OF THE GREATEST NUMBER OF BOATS, AND THE DECLINE OF STEAMBOAT TRAVEL BY 1925 ARE TOPICS DISCUSSED.

C-17
CARDOT, J., AND THERIOT, I.
 1900.
"NEW OR UNRECORDED MOSSES OF NORTH AMERICA."
BOTANICAL GAZETTE 30(JULY-DECEMBER 1900):12-24.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(NORTH AMERICA). THE ARTICLE LISTS NEW MOSSES, NOTING SCIENTIFIC NOMENCLATURE, LOCALE, LEAF AND CELLULAR CHARACTERISTICS, ETC. WEBERA CARINATA AND HYPNUM MOLLE WERE SPECIES COLLECTED IN THE VICINITY OF LAKE MCDONALD.

C-18
CARLSON, CLINTON E.
 1985.
"INTERSPECIFIC HYBRIDIZATION OF CARIX OCCIDENTALIS AND LARIX LYALLII."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 60 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THE OBJECTIVES OF THIS STUDY WERE: TO PRODUCE, BY ARTIFICIAL MEANS, HYBRIDS BETWEEN WESTERN LARCH AND SUBALPINE LARCH; TO STUDY THE MORPHOLOGY OF BOTH SPECIES; AND TO LOCATE PUTATIVE NATURAL HYBRIDS BETWEEN THE SPECIES.

C-19
CARLSON, CLINTON E.
 1970.
INTERIM REPORT OF FLUORIDE POLLUTION IN GLACIER NATIONAL PARK.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY. 11 PP.
 IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT PRESENTS DATA AND INFERENCES PERTINENT TO GLACIER NATIONAL PARK DRAWN FROM VEGETATION COLLECTED IN JULY 1970 AND ANALYZED FOR INJURY AND TOTAL FLUORIDE CONTENT.

C-20
CARLSON, CLINTON E.
 1972.
MONITORING FLUORIDE POLLUTION IN FLATHEAD NATIONAL FOREST AND GLACIER NATIONAL PARK.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY, INSECT & DISEASE BRANCH. 25 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST, GLACIER NATL. PARK, & COLUMBIA FALLS). BECAUSE OF REDUCTIONS IN FLUORIDE EMISSIONS BY THE ANACONDA ALUMINUM PLANT; THIS STUDY WAS INITIATED TO DETERMINE IF FLUORIDE CONCENTRATIONS IN VEGETATION AND INSECTS WERE REDUCED, AND IF VEGETATIVE INJURY DUE TO FLUORIDES WAS LESSENED.

C-21
CARLSON, CLINTON E.
 1974.
MONITORING FLUORIDE POLLUTION IN FLATHEAD NATIONAL FOREST AND GLACIER NATIONAL PARK.
MISSOULA, MT.: U. S. DEPT. AGRICULTURE, FOREST SERVICE, NORTHERN REGION, DIV. STATE & PRIVATE FORESTRY, INSECT & DISEASE REPT. NO. 74-5. 7 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS AREA, NEAR ANACONDA ALUMINUM PLANT). THE REPORT DISCUSSES THE

RESAMPLING OF 15 VEGETATION PLOTS INITIALLY MONITORED FOR FOLIAR FLUORIDE CONCENTRATIONS IN 1971. RESULTS OF STATISTICAL ANALYSIS OF THE FLUORIDE TAKEN IN BY CONIFERS, SHRUBS, AND GRASSES IN 1972 ARE COMPARED TO 1971 DATA RESULTS TO SHOW CONTINUED FLUORIDE INJURY AND ACCUMULATION.

C-22
CARLSON, CLINTON E.
1978.
"FLUORIDE INDUCED IMPACT ON A CONIFEROUS FOREST NEAR THE ANACONDA ALUMINUM PLANT IN NORTHWESTERN MONTANA."
PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 165 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS AREA). THIS STUDY INVESTIGATES THE EFFECT OF FLUORIDES EMITTED BY THE ANACONDA ALUMINUM PLANT ON FOLIAR SYMPTOMS AND RADIAL GROWTH OF *PSEUDOTSUGA MENZIESII*, *PINUS CONTORTA*, AND *PINUS MONTICOLA*. FOLIAGE SAMPLES AND INCREMENT CORES WERE COLLECTED FROM DOMINANT AND CODOMINANT TREES IN 28 RANDOMLY SELECTED POLLUTED AND CONTROL STANDS OF VARYING SIZE AND CONIFEROUS COMPOSITION. THE STUDY MEASURED TOTAL FLUORIDE AND FOLIAR SYMPTOMS. ANALYSES OF TOTAL FLUORIDE AND SULFUR FOR A SMALL SAMPLE OF FOREST VEGETATION AND ANALYSES OF TOTAL FLUORIDE IN WILDLIFE FORAGE WERE ALSO CONDUCTED.

C-23
CARLSON, CLINTON E., AND BLAKE, GEORGE M.
1969.
HYBRIDIZATION OF WESTERN AND SUBALPINE LARCH.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, MONTANA FOREST & CONSERVATION EXPR. STAT. BULL. 37. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA: LUBRECHT EXPR. FOREST, CARLTON CREEK, LOLO PEAK, & MISSION MTS.). THE STUDY EXAMINES THE MORPHOLOGY OF THE SPECIES, *LARIX OCCIDENTALIS* NUTT. AND *L. LYALLII* PARL. AND THEIR CROSSING UNDER ARTIFICIAL CONDITIONS. THREE MORPHOLOGICAL CHARACTERISTICS WERE USED TO DETECT NATURAL HYBRIDS.

C-24
CARLSON, CLINTON E., AND DEWEY, J. E.
1971.
ENVIRONMENTAL POLLUTION BY FLUORIDES IN FLATHEAD NATIONAL FOREST AND GLACIER NATIONAL PARK.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY, FOREST INSECT & DISEASE BRANCH. 62 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OBJECTIVES OF THIS STUDY WERE TO IDENTIFY THE MAJOR CAUSE OF VEGETATIONAL INJURY TO PLANTS IN THE AREA, IDENTIFY THE SOURCE OF THE CAUSE, DETERMINE THE AREA AFFECTED, IF INSECTS ACCUMULATE FLUORIDES AND IF THEIR POPULATIONS WERE FLUCTUATING. THE MATERIAL COVERED INCLUDES A LITERATURE REVIEW, METHODS AND RESULTS FROM THE PATHOLOGICAL AND ENTOMOLOGICAL PHASES, AND CONCLUSIONS.

C-25
CARLSON, CLINTON E., AND HAMMER, WILLIAM P.
1974.
IMPACT OF FLUORIDES AND INSECTS ON RADIAL GROWTH OF LODGEPOLE PINE NEAR AN ALUMINUM

SMELTER IN NORTHWESTERN MONTANA: A PRELIMINARY INQUIRY.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, FOREST ENVIRONMENTAL PROTECTION, DIV. STATE & PRIVATE FORESTRY. 13 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS AREA). THE STUDY ASSESSES THE IMPACT OF FLUORIDE-INSECT DAMAGE ON RADIAL GROWTH OF LODGEPOLE PINE (*PINUS CONTORTA*) NEAR THE ANACONDA ALUMINUM COMPANY. IT REPORTS ON THE EFFECTS FOUND IN 14 OF 17 UNMANAGED STANDS FOR THE PERIOD 1968-1973. RADIAL GROWTH REDUCTIONS, ITS TRANSLATION INTO BOARD FEET, AND THE RESPONSE OF HAND-THINNED STANDS IN WHICH GROWTH ACCELERATION SHOULD HAVE OCCURRED ARE CONSIDERED.

C-26
CARLSON, CLINTON E.; BOUSFIELD, WAYNE E.; AND MCGREGOR, MARK.
1974.
THE RELATIONSHIP OF AN INSECT INFESTATION ON LODGEPOLE PINE TO FLUORIDES EMITTED FROM A NEARBY ALUMINUM PLANT IN MONTANA.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, DIV. STATE & PRIVATE FORESTRY. INSECT & DISEASE REPT. NO. 74-14. 21 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). STEPWISE MULTIPLE REGRESSION TECHNIQUES WERE USED TO STATISTICALLY ANALYZE THE RELATIONSHIPS BETWEEN DAMAGE CAUSED BY THE PINE NEEDLE SHEATH MINER (*ZELLARIA HAIMBACHI*); A NEEDLE MINER, (*OCNEROSTOMA STROBIVORUM*); SUGAR PINE TORTRIX (*CHARISTONEURA LAMBERTIANA*) AND BIENT A FOLIAR CONCENTRATIONS OF FLUORIDE IN LODGEPOLE PINE (*PINUS CONTORTA* V. *LATIFOLIA*) NEAR THE ANACONDA ALUMINUM COMPANY AT COLUMBIA FALLS, MONTANA. MATERIALS AND METHODS ARE DESCRIBED, THE RESULTS TABULATED, AND CONCLUSIONS DISCUSSED. THE APPENDIX CONTAINS DATA ENTERED FOR THE MULTIPLE REGRESSION ANALYSIS, AS WELL AS CORRELATION COEFFICIENTS FOR THE REGRESSION.

C-27
CARLSON, CLINTON E.; GORDON, CLANCEY C.; AND GILLIGAN, C. J.
1979.
"THE RELATIONSHIP OF FLUORIDE TO VISIBLE GROWTH/HEALTH CHARACTERISTICS OF *PINUS MONTICOLA*, *PINUS CONTORTA* AND *PSEUDOTSUGA MENZIESII*."
FLUORIDE 12(JANUARY 1979):9-17.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THE PURPOSE OF THIS STUDY WAS TO ASSESS THE STATISTICAL RELATIONSHIPS BETWEEN FOLIAR-ACCUMULATED FLUORIDE AND VARIOUS FOLIAR GROWTH/HEALTH CHARACTERISTICS ON THREE TEMPERATE CONIFER TREE SPECIES. REGRESSION TECHNIQUES WERE USED TO ANALYZE DATA OBTAINED FROM 110,000 NEEDLES. THE METHODS ARE DESCRIBED, THE RESULTS DETAILED, AND A DISCUSSION IS INCLUDED.

C-28
CARLSON, KEN.
1975.
AN ANALYSIS OF INFORMATION HANDLING FOR BEAR MANAGEMENT.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 9 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER GIVES THE RESULTS OF A STUDY ON HOW INFORMATION RELE-

VANT TO BEAR MANAGEMENT IS CURRENTLY BEING HANDLED IN GLACIER NATIONAL PARK. SOME GENERAL COMMENTS ON INFORMATION SYSTEMS ARE INCLUDED; AS WELL AS A PROPOSAL TO IMPROVE INFORMATION HANDLING. THE USE OF AUTOMATIC DATA PROCESSING EQUIPMENT IS DISCUSSED.

C-29
CARRINGTON, HENRY B.
"THE EXODUS OF THE FLATHEAD INDIANS FROM THEIR ANCESTRAL HOME IN THE GARDEN VALLEY, MONTANA TO THE JOCKO RESERVATION."
NEW HAVEN, CONN. YALE UNIV. LIBRARY. CARRINGTON FAMILY PAPERS. 200 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE AUTHOR, A FORMER SPECIAL COMMISSIONER FROM 1889 TO 1890, DESCRIBES THE OLD HOME OF THE FLATHEADS, THE ADVENT OF THE WHITES, STEVENSVILLE AND TREATY ADJUSTMENTS, ORGANIZED SETTLEMENT OF THE VALLEY, A NEW COMMISSION, NEGOTIATIONS WITH CHARLO'S BAND, THE FLATHEADS UNITE UNDER CHARLO, LEGAL ADJUSTMENTS, THE EXODUS BEGUN, AND REACHING THE PROMISED LAND.

C-30
CARRINGTON, HENRY B.
"REPORT OF SERVICE AMONG THE FLATHEAD INDIANS 1889-1890."
NEW HAVEN, CONN. YALE UNIV. LIBRARY. CARRINGTON FAMILY PAPERS.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT COVERS: THE BITTERROOT LANDS CARELESS ALLOTMENTS, THE PATENTS, SETTLERS' CLAIMS AND CONFLICTS; CONSENTS (SPECIFIC, STATEMENT OF LEGAL EXHIBITS, INTERPRETERS' CERTIFICATES, CHIEF CHARLO'S AGREEMENT); APPRAISEMENTS PRINCIPAL, SPECIFIC, ITEMIZED VALUES; SALE OF INDIAN LANDS (REMOVAL OF INDIANS, PREPARATIONS FOR UN-ADJUDICATED INDIAN CLAIMS, MISCELLANEOUS SUGGESTIONS).

C-31
CARRINGTON, HENRY B.
"REPORT OF SPECIAL AGENT H. B. CARRINGTON, FLATHEAD MONTANA."
NEW HAVEN, CONN. YALE UNIV. LIBRARY. CARRINGTON FAMILY PAPERS.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). AN ORIGINAL MANUSCRIPT WHICH OUTLINES THE HISTORY OF ASSOCIATION BETWEEN THE FLATHEAD INDIANS AND WHITES. THE AUTHOR DESCRIBES MORALS, EDUCATION, AND THE TYPICAL INDIAN HOME DURING THE LATE 1880'S.

C-32
CARROLL, JAMES W.
1959.
"FLATHEAD AND WHITES: A STUDY OF CONFLICT."
PH.D. DISSERTATION, UNIV. CALIFORNIA, BERKELEY. 150 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). RACIAL CONFLICT IS THE SUBJECT OF THIS INVESTIGATION WHICH ATTEMPTED TO FIND OUT IF IT IS POSSIBLE, THROUGH DEDUCTIVE REASONING FROM CONSTRUCTED TYPES OF SOCIAL PROCESSES, TO EXPLAIN WHITE PREJUDICE. THE DISSERTATION DEFINES THE PROBLEM, OUTLINES THE HISTORY OF THE AREA, EXAMINES FACTORS THAT MAY HAVE PRODUCED ANTAGONISM, AND EXPLORES THE CAUSES OF WHITE AGITATION AGAINST THE INDIAN.

C-33

CARTER, RICHARD L.

1951.

"AN ENVIRONMENTAL ANALYSIS OF WINTER GAME RANGE IN WESTERN MONTANA."

M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 104 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: NATL. BISON RANGE). THIS THESIS REPORTS ON A STUDY OF ENVIRONMENTAL FACTORS ASSOCIATED WITH THE OBSERVED DISTRIBUTION OF *ODOCOILEUS VIRGINIANUS*, *ODOCOILEUS HEMIONUS*, AND *CERVUS CANADENSIS*. IN ADDITION TO THE INVESTIGATION OF ENVIRONMENTAL CHARACTERISTICS, A TECHNIQUE FOR CLASSIFYING FACTORS OF THE ENVIRONMENT IS PRESENTED.

C-34

CASEBEER, ROBERT L.

1948.

"A STUDY OF THE FOOD HABITS OF THE MOUNTAIN GOAT (*Oreamnos americanus*) IN WESTERN MONTANA."

M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 82 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: BOB MARSHALL & MISSION MTN. WILDERNESS AREAS). THIS PAPER REPORTS ON AN INVESTIGATION OF THE FOOD HABITS OF THE MOUNTAIN GOAT ON TWO REPRESENTATIVE RANGES. MEASUREMENTS WERE MADE OF RANGE FORAGE USE WHICH WOULD PERMIT EVALUATIONS AND COMPARISONS OF FOOD HABITS. THE POSSIBLE RELATIONSHIP BETWEEN FOOD HABITS AND SEASON OF USE OR VEGETATIVE COMPOSITION IS AN IMPORTANT PART OF THIS STUDY.

C-35

CAUBLE, CHRISTOPHER.

1979.

"GLACIER'S BELEAGUERED GRIZZLIES."

NATIONAL PARKS & CONSERVATION MAGAZINE (AUGUST 1979):4-8.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE EXAMINES THE RECORD OF GRIZZLY-MAN CONTACTS IN GLACIER NATIONAL PARK AND REPORTS ON WHAT AUTHORITIES ATTRIBUTE THE INCREASE OF MAN-CONDITIONED BEARS TO. ALTERNATIVES AVAILABLE TO PARK ADMINISTRATORS TO REDUCE BEAR-MAN INTERACTIONS INCLUDE THE CLOSING OF INDIVIDUAL TRAILS AND CAMPGROUNDS TO AFFORD THE BEAR POPULATION MORE SPACE.

C-36

CAWLFIELD, GEORGE, AND SMITH, G.

1976.

THE POTENTIAL INCREASE IN IRRIGATED ACREAGE IN MONTANA DUE TO INCREASED RED MEAT PRODUCTION.

HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, WATER RESOURCES DIV. 24 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE PROJECTIONS OF IRRIGATION AND RED MEAT PRODUCTION MADE BY THE OFFICE OF BUSINESS AND ECONOMIC RESEARCH SERVICE FOR THE YEAR 2020 WERE ALREADY EXCEEDED BY 1974. THIS REPORT PRESENTS ALTERNATIVE IRRIGATION AND RED MEAT PRODUCTION PROJECTIONS DEVELOPED SINCE 1972 BY THE MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION IN CONJUNCTION WITH OTHER STATE AND FEDERAL AGENCIES.

C-37

CHADBOURNE, HORACE.

1943.

WINTER STUDY OF WHITE-TAILED DEER AND MOOSE IN THE LOGGING AREA, GLACIER NATIONAL PARK, 1942-1943.

WEST GLACIER, MT.: U. S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 10 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER: LOGGING CREEK AREA). THE REPORT DISCUSSES THE WINTER CONDITIONS OF MOOSE (*ALCES ALCES*) AND WHITE-TAILED DEER (*ODOCOILEUS VIRGINIANUS*). THE DEER'S LIMITED AND UNUSED WINTER RANGE; PREDATION BY WOLVES, MOUNTAIN LIONS, AND COYOTES; AND CENSUS TRENDS ARE DESCRIBED. THE ANIMALS' REGARD FOR SAFETY IS VIEWED AS A DETERMINING FACTOR IN CHOICE OF WINTER RANGE. THE WOLF IS CONSIDERED A DISRUPTIVE ANIMAL IN THE NATURAL BALANCE. THE MOOSE'S DISTRIBUTION, WINTER RANGE, USE OF FORAGE, NUMBER, AND PHYSICAL CONDITION IS NOTED.

C-38

CHADWICK, DOUGLAS H.

1973.

"MOUNTAIN GOAT ECOLOGY—LOGGING RELATIONSHIPS IN THE BUNKER CREEK DRAINAGE OF WESTERN MONTANA."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 261 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN VALLEY: BUNKER CREEK AREA). THIS REPORT DESCRIBES A STUDY OF THE ECOLOGY OF THE MOUNTAIN GOAT (*Oreamnos americanus*) AND ITS RESPONSE TO ROADBUILDING AND LOGGING OPERATIONS. THE DAILY LIFE OF A HERD THROUGHOUT THE YEAR WAS OBSERVED; PERIODIC CENSUSES IN NEARBY DRAINAGES WERE CONDUCTED. VEGETATION TYPES; FOOD AND HABITAT ANALYSIS; AND OBSERVATIONS OF ACTIVITY PATTERNS, BEDDING AND FEEDING BEHAVIOR, DAILY AND SEASONAL MOVEMENTS, RANGE, WEATHER, SHEDDING AND PELAGE, RUMINATION, RELATIONSHIPS WITH OTHER ANIMALS, POPULATION CHARACTERISTICS (SOCIETY, GROUPING, PRODUCTIVITY) ARE TOPICS DISCUSSED.

C-39

CHADWICK, DOUGLAS H.

1974.

"GRIZZLY BEAR SURVEY IN BUNKER CREEK."

(TYPEWRITTEN). 25 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK LIBRARY.

(SWAN RANGE: BUNKER CREEK). THIS REPORT CONTAINS OBSERVATIONS OF GRIZZLY BEARS MADE IN THE BUNKER CREEK DRAINAGE OF THE SWAN RANGE. MAPS INDICATE THE LOCATION OF POSITIVELY IDENTIFIED AND PROBABLE GRIZZLY SIGN, AS WELL AS THE LOCATION OF KNOWN LEGAL AND ILLEGAL GRIZZLY BEAR KILL SITES. TABLES LIST ANNUAL KNOWN MORTALITY OF GRIZZLY FROM 1967-1973 BY HUNTING AREA. THE EFFECTS OF DISTURBANCE ON THE GRIZZLY POPULATION ARE DISCUSSED.

C-40

CHADWICK, DOUGLAS H.

1974.

POPULATION CHARACTERISTICS AND HABITAT RELATIONSHIPS OF ROCKY MOUNTAIN GOATS IN GLACIER NATIONAL PARK, 1974 ANNUAL REPORT.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 37 PP.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A STUDY OF ROCKY MOUNTAIN GOATS (*Oreamnos americanus*) WAS INITIATED WITH THE FOLLOWING OBJECTIVES: 1) TO GATHER QUANTITATIVE DATA ON POPULATION STRUCTURE AND SPATIAL RELATIONSHIPS WITH REPRESENTATIVE HABITATS; 2) TO DETERMINE VEGETATIONAL, CLIMATIC, AND GEOMORPHIC FEATURES OF MOUNTAIN GOAT HABITATS AND RELATE THESE TO FOOD HABITS AND RANGE RELATIONSHIPS; 3) TO INVESTIGATE THE EFFECTS OF SOCIAL BEHAVIOR ON SIZE, COMPOSITION, AND DISTRIBUTION OF POPULATION SUBGROUPS; AND 4) TO DEVELOP HYPOTHESES CONCERNING POPULATION REGULATION AND EVOLUTION IN THE MOUNTAIN GOAT. THIS REPORT PRESENTS RESULTS FROM THE FIRST SEASON OF FIELD WORK.

C-41

CHADWICK, DOUGLAS H.

1975.

"COMEBACK OR FINAL EXIT - THE TIMBER WOLF'S LAST CHANCE IN MONTANA."

WILDLIFE DEFENDERS (OCTOBER 1975):3-8.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MONTANA: NORTH FORK OF THE FLATHEAD RIVER). THIS ARTICLE IS AN OUTLINE OF THE HISTORY OF THE WOLF POPULATION IN THE NORTH FORK OF THE FLATHEAD. INTERVIEWS WITH RESEARCHERS CURRENTLY STUDYING THE WOLF ARE INCLUDED.

C-42

CHADWICK, DOUGLAS H.

1976.

ECOLOGICAL RELATIONSHIPS OF MOUNTAIN GOATS (*Oreamnos americanus*) IN GLACIER NATIONAL PARK.

NEW ORLEANS: PROC. NATIONAL PARK SERVICE & AIBS, FIRST CONFERENCE ON SCIENTIFIC RESEARCH IN THE NATIONAL PARKS. 21 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). COMPLETE SURVEYS OF GOAT POPULATIONS WERE CONDUCTED MONTHLY IN EACH OF THE TEN MAJOR VALLEYS COMPRISING THE STUDY AREA FROM MAY THROUGH SEPTEMBER DURING 1974 AND 1975, AND THE AREA WAS COMPREHENSIVELY SURVEYED ONCE DURING THE 1976 MAY-OCTOBER PERIOD. THE POPULATION CHARACTERISTICS, HABITAT CONSIDERATIONS, AND DISTRIBUTIONS WITHIN HABITAT ARE DISCUSSED. TABLES OUTLINE THE POPULATION STRUCTURE, SLOPE UTILIZATION, ELEVATION UTILIZATION, HABITAT TYPE UTILIZATION, HABITAT UTILIZATION ALONG A SOIL SUCCESSION GRADIENT, HABITAT UTILIZATION ALONG A TOPOGRAPHIC MOISTURE GRADIENT, MONTHLY MEAN GROUP SIZE, RELATIONSHIP OF GROUP SIZE TO FREQUENCY OF AGONISTIC BEHAVIOR AND DEGREE OF DISPERSION OF MOUNTAIN GOAT GROUPS IN THE STUDY AREA.

C-43

CHADWICK, DOUGLAS H.

1977.

ECOLOGY OF THE ROCKY MOUNTAIN GOAT IN GLACIER NATIONAL PARK AND THE SWAN MOUNTAINS, MONTANA.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 54 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK, & SWAN MTS. NEAR SWAN LAKE). THIS PAPER DEFINES ECOLOGICAL PARAMETERS AND EXAMINES THE NATURAL REGULATION OF (*Oreamnos americanus*) POPULATIONS. HABITAT RELATIONSHIPS (HABITAT SELECTION, FOOD HABITS AND RANGE); POPULATION CHARACTERISTICS (PRODUCTIVITY, MORTALITY, GROUPING AND DISTRIBUTION); AND SOCIAL ORGANIZATION (LEADERSHIP, AGONISTIC AND SEXUAL RELATIONSHIPS) ARE DISCUSSED.

C-44

CHADWICK, DOUGLAS H.
1977.

"THE FLATHEAD." IN "RIVERS WILD AND PURE."
NATIONAL GEOGRAPHIC, JULY 1977, PP. 12-19.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). A GENERAL
ARTICLE ABOUT THE NORTH FORK OF THE
FLATHEAD RIVER. A BRIEF HISTORY, INTERVIEWS
WITH RESIDENTS, AND A DESCRIPTION OF THE PRO-
POSED CANADIAN COAL DEVELOPMENT AT CABIN
CREEK ARE INCLUDED.

C-45

CHADWICK, DOUGLAS H.
1977.

"THE INFLUENCE OF MOUNTAIN GOAT SOCIAL RE-
LATIONSHIPS ON POPULATION SIZE AND DISTRIBU-
TION." IN PROCEEDINGS OF THE FIRST INTERNA-
TIONAL MOUNTAIN GOAT SYMPOSIUM, FEBRUARY
19, 1977, PP. 74-113.
KALISPELL, MT.: THE NORTHWEST SECTION OF THE
WILDLIFE SOCIETY.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(SWAN MTNS. & GLACIER NATL. PARK). THE PAPER
DISCUSSES STUDIES FROM 1971 THROUGH 1976 OF
SEXUAL, AGONISTIC AND LEADERSHIP RELATION-
SHIPS OF THE MOUNTAIN GOAT (OREAMNOS
AMERICANUS) POPULATIONS IN TWO WESTERN
MONTANA LOCATIONS. SPECIAL ATTENTION WAS
PAID TO THE POSSIBLE ROLE OF SOCIAL
MECHANISMS IN REGULATING POPULATION SIZE
AND DISTRIBUTION WITHIN RANGES. INCLUDED IN
THE DISCUSSION ARE THE ROLES OF ADULT
FEMALES WITH AND WITHOUT YOUNG, SUBADULTS
AND MATURING MALES, JUVENILE MORTALITY,
SOCIAL INSTABILITY, DISPERSION OF HERDS, GROUP
COHESION, SOCIAL HIERARCHY, AND BEHAVIOR
DURING THE RUTTING PERIOD.

C-46

CHADWICK, DOUGLAS H.
1978.

"MOUNTAIN GOATS: DARING GUARDIANS OF THE
HEIGHTS."
NATIONAL GEOGRAPHIC, AUGUST 1978, PP. 284
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK: FLATHEAD AREA). THE ARTI-
CLE DESCRIBES THE RESEARCHER'S EXPERIENCES
OBSERVING THE MOUNTAIN GOAT (OREAMNOS
AMERICANUS). IT DISCUSSES THE GOAT'S WINTER
EXISTENCE: ITS DOUBLE COAT, CLIMBING SKILLS,
AND DIET. PREDATORS, MORTALITY LOSS BY
AVALANCHES AND ROCKFALLS, KIDS, SOCIAL
BONDS AND ENCOUNTERS, A GOAT'S LIFE HISTORY,
THE EFFECT OF HUNTING, AND A MANAGEMENT
PROPOSAL ARE INCLUDED.

C-47

CHALFANT, STUART A., ET. AL.
1974.

INTERIOR SALISH AND EASTERN WASHINGTON IN-
DIANS, VOL. 2.
NEW YORK: GARLAND PUBL., INC.

(ABORIGINAL LANDS OF THE SALISH INDIANS). THIS
VOLUME INCLUDES THREE RESEARCH PAPERS COM-
PILED IN THE COURSE OF THE CASES OF THE TRIBES
OF THIS AREA BEFORE THE INDIAN CLAIMS COM-
MISSION. INCLUDED IN THIS VOLUME ARE STUART A.
CHALFANT, "ABORIGINAL TERRITORIES"; CARLING
MALOUF, "ECONOMY AND LAND USE BY THE IN-
DIANS OF WESTERN MONTANA"; AND MERRILL G.
BURLINGAME, "REPORT CONCERNING LANDS CED-
ED TO THE U.S.". SKCC.

C-48

CHAMBERLAIN, A. F.
"MYTHOLOGY AND FOLKLORE."

AMERICAN ANTIQUARIAN 17:68-72.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE KOOTENAI INDIANS).
COSMOGONY, ORIGIN OF SUN AND MOON, CLOUDS,
MEN AND ANIMALS ARE INCLUDED IN THIS ARTICLE
ON MYTHOLOGY. IN THE ANIMAL STORIES THE
COYOTE IS THE CHIEF FIGURE. THE THUNDERBIRD,
THE ARROW-CHAIN TO THE SKY, AND THE ORIGIN OF
INSECTS FROM THE ASHES OF A WITCH, ARE OTHER
INCIDENTS OF FOLKLORE CONSIDERED.

C-49

CHAMBERS, EDWARD J.
1960.

PERSONAL INCOME ESTIMATES FOR MONTANA
COUNTIES: SELECTED YEARS, 1930-1956.
MISSOULA, MT.: MONTANA STATE UNIV., SCHOOL
BUSINESS ADMINISTRATION, BUREAU BUSINESS &
ECONOMIC RESEARCH. REG. STUDY NO. 13. 56 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA ECONOMIC REGIONS & COUNTIES). THE
STUDY ANALYZES AGGREGATE PERSONAL INCOME
BY STATE ECONOMIC AREA. IT FOCUSES ON AG-
GREGATE AND PER CAPITA PERSONAL INCOME
CLASSIFIED ACCORDING TO COUNTY. THE SOURCES
OF INCOME, WAGES AND SALARIES, PROPRIETORS,
FARM INCOME, NONFARM AND PROPERTY INCOME,
ARE ALSO INCLUDED.

C-50

CHAMBERS, EDWARD J., AND GOLD, RAYMOND L.
1963.

A PILOT STUDY OF SUCCESSFUL AND UNSUC-
CESSFUL SMALL BUSINESS ENTERPRISES WITHIN
MONTANA.
MISSOULA, MT.: MONTANA STATE UNIV., BUREAU
BUSINESS & ECONOMIC RESEARCH. 76 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA). THE OBJECTIVE OF THIS STUDY WAS TO
DETERMINE WHAT FACTORS, BOTH PROCEDURAL
AND ATTITUDINAL, MAY BE ESPECIALLY RELEVANT
TO BUSINESS SUCCESS AND FAILURE IN THE NOR-
THERN ROCKY MOUNTAIN AREA. DATA WAS OBTAIN-
ED THROUGH INTERVIEWS; THE QUESTIONS ASKED
IN THOSE INTERVIEWS ARE INCLUDED IN THE AP-
PENDIX.

C-51

CHAMBERS, RICHARD L.
1971.

"SEDIMENTATION IN GLACIAL LAKE MISSOULA."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 100 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(MONTANA: FLATHEAD RIVER BASIN). THE OBJEC-
TIVE OF THIS STUDY WAS: TO DETERMINE THE
NUMBER OF TIMES LAKE MISSOULA DRAINED AND
FILLED, TO DETERMINE THE NUMBER OF YEARS BE-
TWEEN EACH DRAIN AND FILL, TO INTERPRET THE
SEDIMENTATION IN THE LAKE, AND TO CONSTRUCT
A CHRONOLOGIC SEQUENCE OF EVENTS IN LAKE
MISSOULA.

C-52

CHANCE, DAVID H.
1973.

INFLUENCES OF THE HUDSON'S BAY COMPANY ON
THE NATIVE CULTURES OF THE GOLWILLE DISTRICT.
NORTHWEST ANTHROPOLOGICAL RESEARCH
NOTES. MEMOIR NO. 2.

(COLUMBIA RIVER BASIN). THIS DETAILED STUDY OF
THE INFLUENCE OF THE FUR TRADE ON THE INDIANS

OF THE UPPER COLUMBIA RIVER BASIN INCLUDES
THE FLATHEAD, KALISPELL, AND KUTENAI INDIANS.
THE AUTHOR NOTES A NUMBER OF INFLUENCES THE
FUR TRADE HAD ON THE TRIBES, BUT ALSO NOTES
THE LIMITS TO THE CHANGES INTRODUCED BY THE
FUR TRADE. IN MANY WAYS IT WAS IN THE IN-
TERESTS OF THE TRADERS TO SUPPORT THE
AUTHORITY AND PROSPERITY OF THE TRIBES IN
ORDER TO FOSTER TRADE. SKCC.

C-53

CHANEY, LUCIEN W., JR.
1895.

"A GLACIER IN THE MONTANA ROCKIES."
SCIENCE 2(13 DECEMBER 1895):792-796.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK: McDONALD CREEK & CHANEY
GLACIER). THIS PAPER DESCRIBES IN DETAIL A TRIP
CHANEY MADE IN JULY OF 1894 WITH DR. LYMAN B.
SPERRY FROM THE LAKE McDONALD REGION
THROUGH KOOTENAI PASS TO CHANEY GLACIER.
GENERAL GEOGRAPHICAL AND GEOLOGICAL
OBSERVATIONS ARE MADE. THE LOCATIONS OF MIN-
ING CAMPS ARE BRIEFLY NOTED.

C-54

CHANEY, LUCIEN W., JR.
1896.

"GLACIERS IN THE MONTANA ROCKIES."
SCIENCE 4(20 NOVEMBER 1896):761-762.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: SPERRY & CHANEY
GLACIERS). THIS SHORT PAPER DESCRIBES IN BRIEF
THE OBSERVATION OF CULVER AND SPERRY
GLACIERS MADE BY G. C. CULVER AND L. B. SPERRY.

C-55

CHAPMAN, JOHN A.; ROMER, JOHN I.; AND STARK,
JOHN.
1955.

"LADYBIRD BEETLES AND ARMY CUTWORM ADULTS
AS FOOD FOR GRIZZLY BEARS IN MONTANA."
ECOLOGY 36(JANUARY 1955):156-158.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MISSION MTN. RANGE). THE REPORT DESCRIBES
TWO INSTANCES OF THE USE OF INSECTS AS FOOD
BY GRIZZLY BEARS: 1) MOUNTAIN AGGREGATIONS
OF LADYBIRD BEETLES, AND 2) THE ARMY CUT-
WORM. LADYBIRD BEETLE SPECIMENS WERE COL-
LECTED AND IDENTIFIED. A CLUE TO THE ADULT
BEHAVIOR OF THE ARMY CUTWORM IS PROVIDED.

C-56

CHAPMAN, ROBERT H.
1899.

"NOTES ON THE STRUCTURE OF THE ROCKY MOUN-
TAINS IN LEWIS AND CLARKE TIMBER RESERVE,
MONTANA."
TRANS. AMERICAN INSTITUTE MINING ENGINEERS
22:163-166.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

NOTE: A MAP OF LEWIS AND CLARK RESERVE, DEPIC-
TING WAGON ROUTES, TRAILS AND PACK ROUTES,
HOUSES AND CABINS, IS INCLUDED.

(LEWIS & CLARK TIMBER RESERVE). THIS PAPER
DESCRIBES THE PHYSICAL SETTING OF THE
RESERVE IN THE MISSION AND SWAN MOUNTAINS
AND THE BLACKFOOT AND FLATHEAD RIVER
DRAINAGES; THE SERIES OF LIMESTONES, DIPPING
BEDS, FAULTED STRATA, GLACIATION, AND INDICA-
TIONS OF GOLD AND COPPER.

C-57
CHARLTON, WAVE.
1978.

CRY OF THE HOMESTEAD.
ST. IGNATIUS, MT.: MISSION VALLEY NEWS. 106 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
EXISTING DATA, WITHIN THE BASIN.

(CAMAS PRAIRIE). THIS IS A FACTUAL STORY, BEGIN-
NING APPROXIMATELY 100 YEARS AGO IN ENGLAND,
ABOUT A MEMBER OF THE CHARLTON FAMILY THAT
HOMESTEADED IN THE CAMAS PRAIRIE. IT
DESCRIBES THE LIFE OF THE HOMESTEADER IN
WESTERN MONTANA.

C-58
CHASE, SAMUEL B., JR., ET. AL.
1970.

**PART I: THE MONTANA ECONOMY, MONTANA'S
POPULATION, EMPLOYMENT AND INCOME, 1950-1968,
WITH PROJECTIONS FOR 1980. VOL. 2.**

MISSOULA, MT.: UNIV. MONTANA, SCHOOL BUSINESS
ADMINISTRATION, BUREAU BUSINESS & ECONOMIC
RESEARCH. MONTANA ECONOMIC STUDY, RES.
REPT. 155 PP.

PART OF A SERIES, GENERAL, TECHNICAL, EXISTING
DATA, STATEWIDE.

(MONTANA). MIGRATION AND GROWTH IN POPULA-
TION, EMPLOYMENT, AND PERSONAL INCOME DURING
THE YEARS 1950-1968 ARE CHARACTERIZED IN
THIS REPORT. PROJECTIONS OF EMPLOYMENT AND
INCOME FOR 1980 ARE ATTEMPTED. OUTMIGRATION
AND THE JOB GAP ARE TWO PROBLEMS CON-
SIDERED.

C-59
CHASE, SAMUEL B., JR., ET. AL.
1970.

**PART I: THE MONTANA ECONOMY, MONTANA'S
REGIONS AND SELECTED FEATURES OF THE STATE'S
ECONOMY. MONTANA ECONOMIC STUDY, VOL. 3.**

UNIV. MONTANA, SCHOOL BUSINESS ADMINISTRATION,
BUREAU BUSINESS & ECONOMIC RESEARCH.
RES. REPT. 168 PP.

PART OF A SERIES, GENERAL, TECHNICAL, EXISTING
DATA, STATEWIDE.

(MONTANA: ECONOMIC REGIONS). THE REPORT
PRESENTS AN OVERVIEW AND A DETAILED AC-
COUNT OF THE SIX ECONOMIC REGIONS OF THE
STATE FOR 1950-1968. REGIONAL DETAILS OF
POPULATION, EMPLOYMENT, AND INCOME ARE
DISCUSSED; PROJECTIONS OF POPULATION AND
EMPLOYMENT FOR 1980 ARE MADE. POVERTY,
UNEMPLOYMENT, AND INVESTMENT CAPITAL ARE
CONSIDERED IN ANOTHER CHAPTER, AS WELL AS:
POLLUTION AND THE ECONOMICS OF ENVIRONMEN-
TAL QUALITY CONTROL, THE NATURAL SET-
TING—CLIMATE, RECREATION, AND THE PROBLEMS
OF SPARSE POPULATIONS.

C-60
CHASE, SAMUEL B., JR., ET. AL.
1970.

**PART I: THE MONTANA ECONOMY, SUMMARY OF FIN-
DINGS AND A CONSIDERATION OF THEIR IMPLICA-
TIONS. MONTANA ECONOMIC STUDY, VOL. 1.**

MISSOULA, MT.: UNIV. MONTANA, SCHOOL BUSINESS
ADMINISTRATION, BUREAU BUSINESS & ECONOMIC
RESEARCH. RES. REPT. 90 PP.

PART OF A SERIES, GENERAL, TECHNICAL, EXISTING
DATA, STATEWIDE.

(MONTANA: COUNTIES & ECONOMIC REGIONS). THE
REPORT SUMMARIZES INFORMATION PERTAINING
TO POPULATION, EMPLOYMENT, AND INCOME.
CHANGES IN POPULATION AND CIVILIAN EMPLOY-
MENT ARE ASSESSED FOR MONTANA COUNTIES AND
THE SIX ECONOMIC REGIONS CLASSIFIED BY THIS
REPORT. THE STUDY DISCUSSES POVERTY,
UNEMPLOYMENT, GROWTH, ENVIRONMENTAL
QUALITY, WAY OF LIFE, STATE POLICIES, AND TAXES;
IT ALSO MAKES PROJECTIONS.

C-61
CHELINI, J. M.
1965.

**INDEX OF UNPUBLISHED GEOLOGIC STUDIES IN
MONTANA.**

BUTTE, MT.: U. S. DEPT. INTERIOR, GEOLOGIC
SURVEY. SPEC. PUBL. 34. 87 PP
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA). THIS BIBLIOGRAPHY IS COMPOSED OF
UNPUBLISHED THESIS AND DISSERTATIONS. PART I
LISTS STUDIES THAT ARE INDEXED TO MAPS INCLU-
DED IN THE REPORT, AND INCLUDES ALL STUDIES FOR
WHICH SPECIFIC LOCATIONS WERE GIVEN. PART II
LISTS STUDIES THAT BECAUSE OF THEIR REGIONAL
NATURE ARE NOT PLOTTED ON MAPS. THESE
STUDIES HAVE BEEN GROUPED UNDER THE
FOLLOWING MAJOR FIELDS OF INTEREST: GENERAL
GEOLOGY, GEOPHYSICS, MINERALOGY,
PETROLOGY, MINING DISTRICTS, STRATIGRAPHY,
AND PALEONTOLOGY. PART III LISTS STUDIES THAT
WERE IDENTIFIED THROUGH THE BIBLIOGRAPHY OF
THESES WRITTEN FOR ADVANCED DEGREES IN
GEOLOGY AND RELATED SCIENCES AT UNIVERSITIES
IN THE UNITED STATES AND CANADA THROUGH 1957.
PART IV IS AN AUTHOR INDEX.

C-62
"CHIEF MATHIAS OF THE KOOTENAI"
INDIAN SENTINEL 2(OCTOBER 1922):538.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE
PICTURES CHIEF MATHIAS AND DESCRIBES HIS
DUTIES TO THE COMMUNITY AS CHURCH-CHIEF.
SKCC.

C-63
CHILDERS, MILTON O.
1960.

**"STRUCTURE AND STRATIGRAPHY OF THE
SOUTHWEST MARIAS PASS AREA, FLATHEAD COUN-
TY, MONTANA."**

PH.D. DISSERTATION, PRINCETON UNIV. 181 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MARIAS PASS). THIS STUDY REPORTS ON THE
STRATIGRAPHY OF THE FOLLOWING FORMATIONS
OF THE PRE-CAMBRIAN-BELT TERRAIN: APEKUNNY,
GRINNELL, SIYEH, SNOWSLIP, SHEPPARD, SHIELDS,
AND THE KINTLA GROUP AND RED PLUME QUART-
ZITE. THE SECTION ON STRUCTURAL GEOLOGY
DETAILS THE LEWIS THRUST FAULT, THE FOLDS
SOUTHWEST OF THE LEWIS FAULT, THE STRUC-
TURES NORTHEAST OF THE LEWIS FAULT, AND NOR-
MAL FAULTS. MAPS AND PHOTOGRAPHS ARE IN-
CLUDED.

C-64
CHILDERS, MILTON O.
1963.

**"STRUCTURE AND STRATIGRAPHY OF THE
SOUTHWEST MARIAS PASS AREA, FLATHEAD COUN-
TY."**

GEOLOGICAL SOCIETY AMERICA BULL. 74(FEBRUARY
1963):141-164.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MARIAS PASS). THE STRATIGRAPHY AND STRUC-
TURAL GEOLOGY OF THE PASS IS DESCRIBED IN
THIS STUDY. THE OBJECTIVES WERE TO DETERMINE
THE FOLLOWING: 1) CHARACTERISTICS OF THE
LEWIS THRUST SOUTH OF THE CLARKE RANGE
SALIENT, 2) CHARACTERISTICS OF THE HIGH ANGLE
FAULTS, 3) RELATIONSHIPS BETWEEN THE BELT
STRATA OF THE CLARKE RANGE SALIENT AND THE
BELT STRATA EXPOSED SOUTH OF THE SALIENT,
AND 4) GEOMETRIC AND GENETIC RELATIONSHIPS
BETWEEN THE LEWIS OVERTHRUST AND THE IM-
BRICATE STRUCTURES OF THE SAWTOOTH RANGE.

C-65
CHILTON, CARROL.
1973.

"FLATHEAD'S LAST DEATH (BY INVITATION ONLY)."
MONTANA HISTORIAN 3(Spring 1973):10-13.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD COUNTY). THE EXECUTION OF
FREDERICK LEBEAU BY ROPE IN 1909 IS THE SUB-
JECT OF THIS ARTICLE. THE CRIME OF MURDER,
WHICH LEBEAU WAS CONVICTED OF COMMITTING, IS
DESCRIBED, ALONG WITH HIS ARREST, TRIAL, AND
SENTENCING.

C-66
CHITTENDEN, HIRAM M.
1935.

THE AMERICAN FUR TRADE OF THE FAR WEST.
NEW YORK: THE PRESS OF THE PIONEERS, INC.

(PIONEER WEST). THIS IS ONLY ONE OF SEVERAL
REPRINTS OF THIS CLASSIC STUDY. THIS IS THE
CLASSIC STUDY DONE EARLY IN THIS CENTURY OF
THE FUR TRADE IN THE WEST. INCLUDES MUCH
BACKGROUND AND INFORMATION ABOUT THE FUR
TRADE IN WESTERN MONTANA. SKCC.

C-67
CHOATE, CHARLES M., AND CHOATE, JAMES R.
1967.

**ALPINE PLANT COMMUNITIES AT LOGAN PASS,
GLACIER NATIONAL PARK.**

PROC. MONTANA ACADEMY SCIENCES 27:19-38.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). THE MAJOR
OBJECTIVES OF THIS STUDY WERE TO DEVELOP A
QUANTITATIVE DESCRIPTION OF THE AREA'S
VEGETATION, AND TO ESTABLISH AND DESCRIBE
THE INTERRELATIONSHIPS OF SPECIES AND COM-
MUNITY DISTRIBUTION WITH VARIOUS ENVIRONMEN-
TAL FACTORS. A GENERAL DESCRIPTION OF COM-
MUNITY TYPES, ANALYSIS TECHNIQUES, AND A
DISCUSSION OF THE RESULTS ARE INCLUDED.

C-68
CHOATE, CHARLU.
1963.

**"ORDINATION OF THE ALPINE PLANT COMMUNITIES
AT LOGAN PASS, GLACIER NATIONAL PARK, MON-
TANA."**

M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 106
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PRIMARY OBJECTIVE OF
THIS STUDY WAS TO DEVELOP A QUANTITATIVE
DESCRIPTION OF THE ALPINE VEGETATION OF THE
AREA. SECONDARY OBJECTIVES INCLUDED
FAMILIARIZATION WITH THE FLORA OF LOGAN PASS,
COLLECTION OF PLANT SPECIMENS AND SOIL
SAMPLES, AND DEVELOPMENT OF A VEGETATION
MAP OF THE AREA.

C-69
CHOATE, THOMAS S.
1960.

**"NOTES ON THE MORPHOLOGY OF WHITE-TAILED
PTARMIGAN (LAGOPUS LEUCURUS) IN GLACIER NA-
TIONAL PARK, MONTANA."**

PROC. MONTANA ACADEMY SCIENCES 20:27-32.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). MOR-
PHOLOGICAL MEASUREMENTS ON LIVE ADULTS AND
CHICKS IN A WHITE TAILED PTARMIGAN POPULA-
TION ARE GIVEN IN THIS STUDY, ALONG WITH
REMEASUREMENTS WHICH CONSTITUTE GROWTH
DATA ON YOUNG AND WEIGHT CHANGES OF

ADULTS. WHEN 116 PTARMIGAN WERE BANDED, CERTAIN MORPHOLOGICAL CHARACTERISTICS WERE RECORDED. THESE INCLUDED SIX MEASUREMENTS OF BODY CHARACTERS, THE WEIGHT, AND THE PLUMAGE STAGE. MOST OF THE BIRDS WERE MEASURED AT LEAST TWICE BY THE END OF THE STUDY.

C-70
CHOATE, THOMAS S.
1960.

"OBSERVATIONS ON THE REPRODUCTIVE ACTIVITIES OF WHITE-TAILED PTARMIGAN (*LAGOPUS LEUCURUS*) IN GLACIER PARK, MONTANA." M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 120 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PURPOSE OF THIS PAPER IS TO DESCRIBE REPRODUCTIVE BEHAVIOR OF THE WHITE-TAILED PTARMIGAN FROM SPRING COURTSHIP THROUGH INDEPENDENCE OF THE GROWN CHICKS IN SEPTEMBER.

C-71
CHOATE, THOMAS S.
1962.

"ECOLOGY AND POPULATION DYNAMICS OF WHITE-TAILED PTARMIGAN (*LAGOPUS LEUCURUS*) IN GLACIER NATIONAL PARK." PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 205 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: APPENDICES INCLUDE WEATHER DATA AND LIST OF PLANT SPECIES AT LOGAN PASS.

(GLACIER NATL. PARK: LOGAN PASS). THE PURPOSE OF THIS STUDY WAS TO DESCRIBE THE ECOLOGY AND STRUCTURE OF A POPULATION OF PTARMIGAN AND TO DEPICT CHANGES IN THE POPULATION'S STRUCTURE OVER A 4-YEAR PERIOD. THE STUDY LOOKED AT THE INFLUENCE OF WEATHER ON THE POPULATION; PLANT HABITAT RELATIONSHIPS; FOOD HABITS; ASSOCIATION WITH SNOW AND WATER; AND HOURLY, DAILY, WEEKLY, AND MONTHLY MOVEMENTS. INFORMATION PERTAINING TO POPULATION DYNAMICS REGARDING DENSITY, SPACING, NATALITY, AND MORTALITY IS ALSO GIVEN.

C-72
CHOATE, THOMAS S.
1963.

"REPRODUCTION AND TURNOVER IN AN UNHUNTED WHITE-TAILED PTARMIGAN POPULATION." IN TRANSACTIONS OF THE 6TH CONGRESS OF INTERNATIONAL UNION GAME BIOLOGISTS. LONDON: NATURE CONSERVANCY. 2 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). THIS PAPER REPORTS ON OBSERVATIONS AND A CENSUS CONDUCTED OVER A FOUR-YEAR STUDY PERIOD. THE STUDY WAS CONDUCTED ON A POPULATION OF *LAGOPUS LEUCURUS* IN GLACIER NATIONAL PARK.

C-73
CHOATE, THOMAS S., AND CHARLU, MENAID.
LIFE ABOVE THE TIMBERLINE: A LOOK AT GLACIER PARK'S ALPINE ZONE. NATURALIST 14(2):20-32.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE STUDY DISCUSSES THE FACTORS CAUSING THE ALPINE ENVIRONMENT: TEMPERATURE, MOISTURE, FROST ACTION AND SNOW, SOIL CONDITIONS. IT DESCRIBES THE PARK'S COMPLEX VEGETATION, ALPINE MAMMALS, AND BIRDS.

C-74
CHOTOE, MOSE (BLIND MOSE).
1966.

"MSS 563, AMERICAN INDIAN RESEARCH PROJECT. INTERVIEWED BY ROBERT C. CARRIKER AND THOMAS CONNALLY ON THE FLATHEAD RESERVATION, WINTER, 1966." UNIV. SOUTH DAKOTA, VERMILLION.

(FLATHEAD INDIAN RESERVATION). THE TRANSCRIPT OF THIS RECORDED INTERVIEW CONTAINS THE FOLLOWING SUBJECTS: CHILDHOOD MEMORIES, FISHING FOR SALMON AND WHITEFISH AND PREPARING THEM, FALLING INTO THE RIVER AND CATCHING SALMON, MAKING TRAIL THROUGH SNOW, ACCIDENT ON RIVER WITH PROVISIONS LOST—SURVIVES BY SWIMMING RIVER, AND A STORY ABOUT A YOUNG WOMAN KILLED IN A CAVE. SKCC.

C-75
CHRISTOPHERSON, EDMUND.
1966.

ADVENTURE AMONG THE GLACIERS. MISSOULA, MT.: EARTHQUAKE PRESS. 88 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE DESCRIBES ATTRACTIONS OF THE PARK SUCH AS SCENERY, WILDLIFE, AND RECREATIONAL HIKING. VARIOUS CHAPTERS CONSIDER DIFFERENT AREAS OF THE PARK, INCLUDING THE GOING-TO-THE-SUN HIGHWAY, MANY GLACIER, WATERTON, TWO MEDICINE LAKE, AND THE NORTH FORK OF THE FLATHEAD RIVER. PARK FACILITIES AND SOME OF THE PARK'S HISTORY ARE DESCRIBED.

C-76
CHURCH, TIM.
1975.
"THE FLATHEAD LAKE MONSTER." PURSUIT (OCTOBER 1975):89-92.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MONTANA: FLATHEAD LAKE). THE ARTICLE IS A SURVEY OF REPORTS OF UNIDENTIFIED MARINE "MONSTERS." INDIAN MYTHOLOGIES AND A CHRONOLOGICAL SUMMARY OF "MONSTER" SIGHTINGS ARE PRESENTED.

C-77
CIESLA, W. M., AND BOUSEFIELD, WAYNE E.
1974.
"FORECASTING POTENTIAL DEFOLIATION BY LARCH CASEBEARER IN THE NORTHERN ROCKY MOUNTAINS." J. ECONOMIC ENTOMOLOGY 67:47-51.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.). THIS PAPER DESCRIBES A QUADRATIC REGRESSION MODEL FOR FORECASTING DEFOLIATION POTENTIAL BY LARCH CASEBEARER ON WESTERN LARCH 63 SAMPLE PLOTS WERE ESTABLISHED AT LOCATIONS THROUGHOUT THE NATURAL RANGE OF WESTERN LARCH IN WASHINGTON, IDAHO, AND WESTERN MONTANA. DATA FROM THESE PLOTS IS USED TO FORECAST INTENSITY OF FEEDING INJURY. THE MODEL PERMITS PREDICTION OF POTENTIAL FEEDING INJURY TO WITHIN ONE OF FOUR BROAD DAMAGE CLASSES 98 OUT OF 100 TIMES.

C-78
CIESLA, W. M.; MEYER, H. E.; AND MCGREGOR, M. D.
1971.
FOREST INSECT AND DISEASE DETECTION SURVEY OF THE FLATHEAD NATIONAL FOREST. MISSOULA, MT.: U. S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY. INSECT & DISEASE REPT. NO. 71-26. 4 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). AN AERIAL FOREST INSECT AND DISEASE DETECTION SURVEY OF THE FLATHEAD NATIONAL FOREST WAS CONDUCTED DURING AUGUST 1971. GROUND CHECKS WERE MADE DURING EARLY OCTOBER, THIS REPORT PRESENTS A BRIEF REVIEW OF THE POPULATION CONDITIONS OF WESTERN SPRUCE BUDWORM, MOUNTAIN PINE BEETLE, DOUGLAS FIR BEETLE, PINE ENGRAVER, WHITE PINE WEEVIL, AND FIR ENGRAVER BEETLES. MAPS DELINEATING THE EXTENT OF INFESTATION ARE INCLUDED.

C-79
CLACK, JOHN H.
1923.

"LETTER TO L.G. HORNBY, FOREST SUPERVISOR, MISSOULA NATIONAL FOREST." U. S. DEPT. AGRICULTURE, FOREST SERVICE, MISSOULA NATIONAL FOREST, MISSOULA. LETTER, (TYPEWRITTEN). 5 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: NATIONAL ARCHIVES & RECORDS CENTER, SEATTLE, WASHINGTON.

(MISSOULA NATL. FOREST). THE LETTER DESCRIBES EARLY FIRE ORGANIZATION, WHICH INVOLVED THE HIRING OF GUARD PATROLS, AND THE DEVELOPMENT OF LOOKOUT STATIONS AND COMMUNICATION SYSTEMS. THE TIME PERIOD COVERED IS 1907-1914.

C-80
CLACK, THEODORE, JR.
1976.
MONTANA ENERGY POSITION PAPER-A MONTANA ENERGY ADVISORY COUNCIL STAFF REPORT. HELENA, MT.: MONTANA ENERGY ADVISORY COUNCIL. 56 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). THE MONTANA ENERGY POSITION PAPER IS NOT A STATE ENERGY POLICY, RATHER IT DISTILLS INFORMATION FROM A VARIETY OF SOURCES ON MONTANA'S ENERGY SITUATION, IDENTIFIES THE ISSUES AND IMPACTS OF ENERGY DEVELOPMENT IN THE STATE, AND SUGGESTS A NUMBER OF OPTIONS THE STATE SHOULD EXAMINE. TOPICS COVERED INCLUDE: ENERGY RESERVES, PRODUCTION AND CONSUMPTION, ENERGY DEVELOPMENT PROJECTS, CONSTRAINTS ON ENERGY DEVELOPMENT IN MONTANA; TECHNOLOGICAL ALTERNATIVES AVAILABLE TO MONTANA, SOME EFFECTS OF ENERGY DEVELOPMENT, AND A MONTANA ALTERNATIVE.

C-81
CLAPP, C. H.
1929.
FLATHEAD LAKE—MILLIONS OF DEWDROPS. MONTANA WILDLIFE, 1929, PP. 4-5.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE ARTICLE DESCRIBES THE LAKE: ITS DIMENSIONS (LENGTH, WIDTH, DEPTH), ISLANDS, TYPE OF SURROUNDING COUNTRY, STREAMS, ANNUAL RISE/FALL, AND CHARACTER OF THE BOTTOM. A MAP DEPICTING BIOLOGICAL SOUNDING AND WATER ANALYSIS SITES IS INCLUDED.

C-82
CLAPP, C. H.
1932.
GEOLOGY OF A PORTION OF THE ROCKY MOUNTAINS OF NORTHWESTERN MONTANA. BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY, MONTANA COLLEGE MINERAL SCIENCE & TECH. MEMOIR NO. 4. 30 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: AN EXTENSIVE BIBLIOGRAPHY IS INCLUDED.

(NORTHWESTERN MONTANA). THIS REPORT INCLUDES A STRUCTURAL MAP OF THE GEOLOGY OF THE ROCKY MOUNTAINS OF NORTHWESTERN MONTANA. IT IS ACCOMPANIED BY A TEXT WHICH COVERS SURFACE FEATURES, REGIONAL FEATURES, STRUCTURAL GEOLOGY, FOLDING AND FAULTING, AND HISTORICAL GEOLOGY.

C-83

CLAPP, C. H., AND DEISS, C. F.
1932.

"STRUCTURE OF A PORTION OF THE ROCKY MOUNTAINS OF NORTHWESTERN MONTANA."
NORTHWEST SCIENCE 6:65-66.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA). THE COMPOSITION OF THE RANGE, FOLDING, FAULTING, AND IGNEOUS INTRUSIONS ARE OUTLINED. LONGITUDINAL, REVERSE, AND OVERTHRUST FAULTS ARE CONSIDERED TO FORM THE MOST CHARACTERISTIC GEOLOGIC FEATURE OF THE REGION. NORTHEASTERLY DIPPING LONGITUDINAL FAULTS OF THE WESTERN MOUNTAINS AND SOUTHWESTERLY DIPPING FAULTS OF THE AREA EAST OF THE LEWIS OVERTHRUST ARE DISCUSSED ALONG WITH TWO SERIES OF YOUNGER TRANSVERSE FAULTS, ONE HAVING A NEARLY EAST-WEST TREND AND THE OTHER A NORTH-SOUTH TREND.

C-84

CLARK, ELLA E.
1955.

"MISSION IN THE WILDERNESS."
MONTANA MAGAZINE OF WESTERN HISTORY (WINTER 1955):51-55.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE RELATES THE HISTORY OF THE FOUNDING OF THE ST. IGNATIUS MISSION. IT CONTAINS EXCERPTS FROM LETTERS WRITTEN BY FATHER HOEKEN, AND DESCRIBES THE ACTIVITIES OF THE SISTERS OF PROVIDENCE AND URSULINE SISTERS. PHOTOGRAPHS ARE INCLUDED.

C-85

CLARK, ELLA E.
1930.

"INDIAN THANKSGIVING IN THE PACIFIC NORTHWEST."
OREGON HISTORICAL QUARTERLY 61(DECEMBER 1930):437-456.

(PACIFIC NORTHWEST). THIS SURVEY OF THE CEREMONIES OF THANKSGIVING AMONG INDIAN TRIBES OF THE PACIFIC NORTHWEST INCLUDES THE FLATHEAD FIRST ROOT CELEBRATION. SKCC.

C-86

CLARK, ELLA E.
1973.

INDIAN LEGENDS FROM THE NORTHERN ROCKIES. THE CIVILIZATION OF THE AMERICAN INDIAN SERIES.
NORMAN, OK.: UNIV. OKLAHOMA PRESS. 389 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(ABORIGINAL LANDS OF THE SALISH & KUTENAI TRIBES). THE STORIES IN THE COLLECTION COME FROM TWELVE TRIBES AND INCLUDE MYTHS, LEGENDS, PERSONAL NARRATIVES, AND HISTORICAL TRADITIONS, REVEALING MUCH ABOUT THE LIVES AND BELIEFS OF THE EARLY INDIANS. THE SECTIONS OF THE BOOK ARE ARRANGED TO REPRESENT

INDIANS OF SIX LINGUISTIC GROUPS: NEZ PERCES; FLATHEADS, KALISPELS (OR PEND OREILLES), AND COEUR D'ALENES (OR SKITSWISH); KUTENAI; SHOSHONIS AND BANNOCKS; ARAPAHOES, GROS VENTRES, AND BLACKFEET; CROWS AND ASSINIBORNES.

C-87

CLARK, ELLA E.
1974.

GUARDIAN SPIRIT QUEST.
BILLINGS, MT.: MONTANA INDIAN PUBL.

(FLATHEAD INDIAN RESERVATION). PIERRE PICHETTE TELLS HOW HIS GRANDMOTHER RECEIVED HER HEALING POWER, AND CHARLIE GABE RELATES HIS MEDICINE EXPERIENCE IN THIS BOOK, WHICH IS ABOUT A 6TH GRADE READING LEVEL. SKCC.

C-88

CLARK, ELLA E.
1977.

IN THE BEGINNING: INDIAN LEGENDS OF CREATION.
BILLINGS, MT.: MONTANA COUNCIL FOR INDIAN EDUCATION.

(FLATHEAD INDIAN RESERVATION). THIS BOOK INCLUDES "CREATION OF THE RED AND WHITE RACES," RECORDED ON THE FLATHEAD RESERVATION BY BON WHEALDON MANY YEARS AGO. SKCC.

C-89

CLARK, LOIS, AND FRYE, T. C.
1930.

"HEPATICA NEW TO SOME NORTHWESTERN STATES."
BRYOLOGIST 34:54-55.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: GLACIER NATL. PARK). THE ARTICLE LISTS NEW HEPATIC FLORA, NOTING SCIENTIFIC NOMENCLATURE AND WHERE THE LIVERWORTS WERE LOCATED. FIVE ADDITIONAL MONTANA SPECIES WERE FOUND WITHIN SEVEN MILES OF LOGAN PASS; FOUR OTHERS WERE FOUND ON A TRIP ABOUT FOUR MILES UP AVALANCHE CREEK.

C-90

CLARK, LOIS, AND FRYE, T. C.
1937.

"EXTENSION OF RANGES AMONG NORTHWESTERN HEPATICA."
BRYOLOGIST 40(JANUARY-FEBRUARY 1937):13-16.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: GLACIER NATL. PARK). THIS ARTICLE UPDATES THE DISTRIBUTION OF LIVERWORTS, HEPATICA, BY REPORTING OCCURRENCES OF VARIOUS SPECIES THROUGHOUT THE REGION, INCLUDING OBSERVATIONS AT BLACKFOOT GLACIER, LOGAN PASS, AND AVALANCHE CREEK. COMMENTS DESCRIBING THE RANGE OF A SPECIES ARE INCLUDED.

C-91

CLARK, WILLIAM A.
1885.

INDIAN SIGN LANGUAGE.
PHILADELPHIA: L. R. HAMERSLY & CO.

(FLATHEAD INDIAN RESERVATION). CLARK'S ENTRIES FOR THE FLATHEAD, KUTENAI, AND PEND D'OREILLES INCLUDE INFORMATION AND DESCRIPTIONS WHICH HE GATHERED ON THE RESERVATION. CLARK INTERVIEWED FATHER RAVALLI AND CHIEF MICHELLE OF THE PEND D'OREILLES. SKCC.

C-92

"CLASSIFICATION OF MOUNTAIN CLIMBS IN GLACIER NATIONAL PARK."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 48 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK, HISTORICAL FILES.

(GLACIER NATL. PARK). VARIOUS CLIMBS ARE DESCRIBED AND CLASSIFIED FOR MAJOR PEAKS WITHIN THE PARK.

C-93

CLOTHIER, RONALD, R.
1950.

"CONTRIBUTION TO THE TAXONOMY AND LIFE HISTORY OF SOREX VAGRANS MONTICOLA AND SOREX OBSCURUS OBSCURUS."
M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 72 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: MISSOULA, YELLOW BAY ON FLATHEAD LAKE, & GLACIER NATL. PARK). THIS PAPER IS BASED UPON A STUDY OF 219 SPECIMENS OF SOREX VAGRANS MONTICOLA AND SOREX OBSCURUS OBSCURUS, THE MAJORITY COLLECTED IN THE GIVEN AREAS. EXTERNAL MEASUREMENTS, BODY WEIGHTS, SKULL MEASUREMENTS, AND LIFE HISTORY DATA WERE RECORDED.

C-94

CLYDE, NORMAN.

"ASCENT OF MOUNT MERRITT."
SIERRA CLUB BULL. 12:165-167.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A DESCRIPTION OF THE ROUTE TAKEN BY THE AUTHOR DURING THE FIRST RECORDED ASCENT OF MOUNT MERRITT.

C-95

COAN, C. F.
1922.

"THE ADOPTION OF THE RESERVATION POLICY IN PACIFIC NORTHWEST, 1853-1855."
OREGON HISTORICAL QUARTERLY 23(MARCH 1922):1-38.

(PACIFIC NORTHWEST). THIS GENERAL INTRODUCTION TO THE BACKGROUND OF THE RESERVATION POLICY IN THE NORTHWEST INCLUDES THE FLATHEAD RESERVATION. SKCC.

C-96

COBBAN, W. A.
1906.

CRETACEOUS ROCKS OF NORTHWESTERN MONTANA. BILLINGS GEOLOGICAL SOCIETY GUIDEBOOK, SIXTH ANNUAL FIELD CONFERENCE.
BILLINGS, MT.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE CRETACEOUS ROCKS AND THE STRATIGRAPHY OF THEIR FORMATIONS ARE DISCUSSED HERE. THE CHARACTERISTICS, BOUNDARIES, ZONES OF THE UPPER AND LOWER MEMBERS, AND FOSSILS OF THE KOOTENAI FORMATION ARE DESCRIBED.

C-97

COBBAN, W. A.
1955.

"SOME FOSSILS FROM THE COLORADO SHALE AND TELEGRAPH CREEK FORMATION, NORTHEASTERN

MONTANA." SIXTH ANNUAL FIELD CONFERENCE, PP. 199-207.

BILLINGS, MT.: BILLINGS GEOLOGICAL SOCIETY. FINAL, SPECIFIC; TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA). THE PURPOSE OF THIS REPORT IS TO BRIEFLY DESCRIBE AND ILLUSTRATE SOME OF THE MORE COMMON MACROFOSSILS, SHOW THEIR STRATIGRAPHIC ARRANGEMENT, AND DRAW ATTENTION TO CERTAIN OF THE TRENDS IN EVOLUTION. SCAPHITES, BACULITES, AND OTHER FOSSILS ARE LISTED; PHOTOGRAPHS ARE INCLUDED.

C-98

COBBAN, W. A.; ERDMANN, C. E.; LEMKE, R. W.; AND MAUGHAN, E. K. 1976.

TYPE SECTIONS AND STRATIGRAPHY OF THE MEMBERS OF THE BLACKLEAF AND MARIAS RIVER FORMATIONS (CRETACEOUS) OF THE SWEETGRASS ARCH, MONTANA.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROF. PAPER 974. 66 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,

(SWEETGRASS ARCH OF NORTHCENTRAL MONTANA AND SURROUNDING AREAS: MARIAS PASS). IN THIS PAPER ROCKS THAT WERE FORMERLY ASSIGNED TO THE COLORADO SHALE ARE DIVIDED INTO AN OLDER BLACKLEAF FORMATION AND A YOUNGER MARIAS RIVER SHALE. THE BLACKLEAF FORMATION IS ASSIGNED TO THE LOWER CRETACEOUS AND IS SUBDIVIDED INTO FOUR MEMBERS. THE MARIAS RIVER SHALE OF LATE CRETACEOUS AGE IS ALSO SUBDIVIDED INTO FOUR MEMBERS. FOR EACH MEMBER TYPE SECTION, FOSSIL LISTS, AND REGIONAL STRATIGRAPHY ARE GIVEN.

C-99

COCHRANE, H. H.

1938.

"NEW CAPACITY FOR MONTANA."

ELECTRICAL WEST 81(SEPTEMBER 1938):40-41.

(MONTANA). THIS ARTICLE IS A TECHNICAL DESCRIPTION OF THE NEW KERR DAM ON THE FLATHEAD RESERVATION. SKCC.

C-100

COCKHILL, BRIAN.

1977.

"A LISTING OF MASTERS THESES AND DOCTORAL DISSERTATIONS OF A HISTORICAL NATURE DONE FOR VARIOUS DEPARTMENTS OF THE UNIVERSITY OF MONTANA."

UNIV. MONTANA LIBRARY, MISSOULA. (TYPEWRITTEN). 19 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(UNITED STATES: THE WEST: MONTANA). A BIBLIOGRAPHY OF AVAILABLE HISTORICAL WORK DONE BY MASTERS AND DOCTORAL CANDIDATES. WORK PERTINENT TO THE FLATHEAD RIVER BASIN IS FOUND UNDER THE MONTANA HEADING.

C-101

COCKHILL, BRIAN, AND JOHNSON, DALE L.

1973.

GUIDE TO MANUSCRIPTS IN MONTANA REPOSITORIES.

MISSOULA, MT.: UNIV. MONTANA LIBRARY. 150 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS GUIDE WAS PUBLISHED TO MAKE AVAILABLE A TOOL THAT WOULD ENABLE RESEARCHERS TO BETTER UTILIZE THE PRIMARY SOURCE MATERIALS HELD BY THE FOUR COOPERATING ARCHIVAL REPOSITORIES OF THE STATE. THE GUIDE IS ORGANIZED ALPHABETICALLY.

C-102

CODER, GEORGE D.

1975.

"THE NATIONAL MOVEMENT TO PRESERVE THE AMERICAN BUFFALO IN THE UNITED STATES AND CANADA BETWEEN 1880 AND 1920."

PH.D. DISSERTATION, OHIO STATE UNIV., COLUMBUS. UNIV. MICROFILMS 75-26,558.

(FLATHEAD INDIAN RESERVATION). THE MOVEMENT TO PRESERVE THE AMERICAN BUFFALO INCLUDED THE WORK OF THE PEND D'OREILLE WALKING COYOTE WHO IMPORTED THE BASIC STOCK FOR THE PABLO-ALLARD HERD TO THE FLATHEAD RESERVATION. CODER DISCUSSES IN DETAIL THE PURCHASE OF THE MICHEL PABLO HERD BY THE CANADIAN GOVERNMENT AND ITS REMOVAL FROM THE FLATHEAD RESERVATION DURING THE FIRST DECADE OF THE TWENTIETH CENTURY. SKCC.

C-103

COFFIN, D. L.; BRIETKRIETZ, ALEX; AND MCMURTREY, DALE.

1971.

SURFICIAL GEOLOGY AND WATER RESOURCES OF THE TOBACCO AND UPPER STILLWATER RIVER VALLEYS, NORTHWESTERN MONTANA.

BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. BULL. 81. 48 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(TOBACCO & UPPER STILLWATER RIVER VALLEYS). THE PURPOSE OF THE STUDY WAS TO DETERMINE THE OCCURRENCE OF GROUND WATER, THE EXTENT OF GROUND WATER DEVELOPMENT, THE CHEMICAL QUALITY OF WATER AS RELATED TO USE, AND THE EFFECTS OF THE PROPOSED LIBBY RESERVOIR ON THE GROUND-WATER SYSTEM. COLLECTED WERE BASIC DATA CONSISTING OF THE RECORD OF SELECTED WELLS AND SPRINGS, DRILLERS' LOGS, WATER-LEVEL MEASUREMENTS, CHEMICAL ANALYSES OF WATER, AND DISCHARGE MEASUREMENTS. THESE DATA WERE RELATED TO THE GEOLOGIC FRAMEWORK OF THE AREA TO DEFINE THE OCCURRENCE OF GROUND WATER. ANALOG MODELS WERE CONSTRUCTED TO HELP IN UNDERSTANDING THE GROUND-WATER SYSTEM AND IN ESTIMATING THE EFFECTS OF LIBBY RESERVOIR.

C-104

COFFMAN, JERRY L., AND STOVER, CARL W., ED.

ANNUAL.

UNITED STATES EARTHQUAKES.

U.S. DEPT. COMMERCE, NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION, AND U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. 136 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

NOTE: ALL FLATHEAD AREA EARTHQUAKES ARE RECORDED AND DESCRIBED IN THIS SERIES—INCLUDING THE KALISPELL QUAKE OF 1975.

(UNITED STATES). THIS ANNUAL PUBLICATION CONTAINS DESCRIPTIONS OF ALL EARTHQUAKES THAT OCCURRED IN THE UNITED STATES AND NEARBY TERRITORIES DURING THE YEAR OF PUBLICATION. ITS PURPOSE IS TO PROVIDE A CONTINUOUS HISTORY OF U.S. EARTHQUAKES. EACH DESCRIPTION INCLUDES DATE, ORIGIN TIME, EPICENTER AND EPICENTER SOURCE, MAXIMUM INTENSITY, AND MACROSEISMIC EFFECTS REPORTED IN THE AREA.

C-105

COFFMAN, JERRY L., AND VON HAKE, CARL A., EDS. EARTHQUAKE HISTORY OF THE UNITED STATES, REV. ED.

BOULDER, CO.: U.S. DEPT. COMMERCE, NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION, ENVIRONMENTAL DATA SERVICE. PUBL. 41-1. 208 PP. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, NATIONAL.

(UNITED STATES). THE PUBLICATION IS A HISTORY OF THE PROMINENT EARTHQUAKES FROM HISTORICAL TIMES THROUGH 1970. THE EARTHQUAKES ARE LISTED AND DESCRIBED BY NINE REGIONS. INCLUDED ARE A RESUME OF EARTHQUAKE ACTIVITY; A TABLE LISTING YEAR AND DATE OF EARTHQUAKE OCCURRENCE, ITS LOCALITY, AREA, AND INTENSITY; DETAILED DESCRIPTIONS OF MAJOR EARTHQUAKES NOTING WHERE SHOCKS WERE FELT, LOCATIONS OF FAULTS, DAMAGE TO PROPERTY, EFFECT ON DRAINAGE, GEOLOGIC FEATURES, ETC.; AND LESSER DETAILED DESCRIPTIONS OF INTERMEDIATE AND MINOR EARTHQUAKES WHICH NOTE TIME AND PLACE OF THE QUAKES AND THE EFFECTS ON PEOPLE AND PROPERTY.

C-106

COHEN, STAN, AND MILLER, DON.

1978.

THE BIG BURN: THE NORTHWEST'S FOREST FIRE OF 1910.

MISSOULA, MT.: PICTORIAL HISTORIES PUBL. CO. 88 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: HISTORICAL PHOTOGRAPHS INCLUDED.

(PACIFIC NORTHWEST). THIS BOOK DESCRIBES THE SERIES OF 1,736 FOREST FIRES DURING THE SUMMER OF 1910 THAT INVOLVED THREE MILLION ACRES AND CAUSED 85 DEATHS. WEATHER CONDITIONS PRECEDING THE FIRES, INITIAL FIRES OCCURRING IN JUNE OF 1910, THE DESTRUCTIVE AUGUST FIRES, AND THE EXPERIENCES OF THE FIRE CREWS' EFFORTS TO CONTAIN THE BLAZES ARE DISCUSSED. THE BOOK ALSO CONSIDERS THE EFFECT OF THE FIRES ON CIVILIANS, THEIR POSSESSIONS, AND THEIR TOWN.

C-107

COLE, DENNIS M.

1978.

"FEASIBILITY OF SILVICULTURAL PRACTICES FOR REDUCING LOSSES TO THE MOUNTAIN PINE BEETLE IN LODGEPOLE PINE FORESTS." IN PROCEEDINGS OF THEORY AND PRACTICE OF MOUNTAIN PINE BEETLE MANAGEMENT IN LODGEPOLE PINE FORESTS. MOSCOW, ID.: UNIV. IDAHO, FOREST WILDLIFE & RANGE EXPR. STAT.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN U.S.). THIS PAPER OUTLINES SILVICULTURAL PRACTICES DEEMED APPLICABLE FOR A VARIETY OF LODGEPOLE PINE (PINUS CONORTA) STAND DESCRIPTIONS AND MANAGEMENT SITUATIONS. IT ALSO DISCUSSES FACTORS THAT LIMIT APPLICATION AND SOME CONSEQUENCES OF MISAPPLICATION. THE NECESSITY THAT SILVICULTURAL PRACTICES BE COMPATIBLE WITH THE REQUIREMENTS OF FOREST GROWTH REGULATION AND WITH MANAGEMENT FOR OTHER RESOURCE VALUES IS STRESSED, AND AN EXAMPLE IS GIVEN OF THE ROLE OF SILVICULTURAL PRACTICES IN AN INTEGRATED LONG-RANGE PROGRAM FOR REDUCING LOSSES.

C-108

COLEMAN, JOHN R.

1970.

"MONTANA STATE AGENCIES AND DOCUMENTS, 1884-1970."

M.A. THESIS, UNIV. MONTANA, MISSOULA. 204 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS THESIS HAS TWO PURPOSES: 1) TO TRACE THE DEVELOPMENT OF THE NUMEROUS AGENCIES, AND 2) TO LIST THE OFFICIAL PUBLICATIONS OF THOSE AGENCIES. HISTORICAL DATA FOR THE VARIOUS AGENCIES SHOWS DATES OF OPERATION, METHOD OF CREATION, MEMBERSHIP, PUR-

POSES, CONTROLLING CODE PROVISIONS, AND REASON FOR ITS DEMISE, IF APPLICABLE. ALL STATE AGENCIES EXISTING FROM 1864 TO MARCH 1970 ARE INCLUDED. HISTORICAL ENTRIES ARE FOLLOWED BY A LISTING OF AGENCY PUBLICATIONS. THE REPORT OF EACH GOVERNMENTAL UNIT IS LISTED AND FOLLOWED BY THE OTHER SERIAL PUBLICATIONS IN ALPHABETICAL ORDER. SEPARATE PUBLICATIONS ARE LISTED FOLLOWING THE SERIALS IN CHRONOLOGICAL ORDER.

C-109

COLLIER, JOHN.
1930.

"THE FLATHEAD WATER-POWER LEASE."
NEW REPUBLIC, AUGUST 20, 1930, PP. 20-21.

(FLATHEAD INDIAN RESERVATION). COLLIER ARGUES THAT IF THE LICENSE FOR THE FLATHEAD WATER POWER SITE HAD BEEN GIVEN TO MONTANA POWER COMPANY INSTEAD OF THE DUMMY ROCKY MOUNTAIN POWER COMPANY THEN THE FEDERAL GOVERNMENT WOULD HAVE MORE EFFECTIVE REGULATION OF MONTANA ELECTRICAL PRICING. SKCC.

C-110

COLLIER, JOHN.
1930.

"MONOPOLY IN MONTANA."
THE NEW FREEMAN 1(3 MAY 1930):178-180.

(FLATHEAD INDIAN RESERVATION). COLLIER ARGUES AGAINST GIVING THE POWER TRUST (OR MONTANA POWER) CONTROL OVER THE KERR DAM SITE. HE ALSO SKETCHES THE HISTORY OF THE CONTROVERSY OVER ALLOWING MONTANA POWER OR WALTER WHEELER TO RENT THE SITE. SKCC.

C-111

COLLINS, JUNE M.
1952.

"THE MYTHOLOGICAL BASIS FOR ATTITUDES TOWARD ANIMALS AMONG SALISH-SPEAKING INDIANS."
J. AMERICAN FOLKLORE 65(258):353-360.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: INCLUDES A FLATHEAD INDIAN TALE, COLLECTED BY GEORGE F. WEISEL, UNIV. MONTANA, MISSOULA.

(FLATHEAD INDIAN RESERVATION). THE PAPER EXPLORES THE RELATIONSHIP BETWEEN MAN AND ANIMAL AS CONCEIVED BY SALISH-SPEAKING INDIANS. THE MYTHOLOGY AS WELL AS THE OBSERVED BEHAVIOR AND STATEMENTS OF INFORMANTS PROVIDE EVIDENCE OF BELIEFS ABOUT ANIMALS. ANIMALS AS EQUALS AND AT TIMES POSSESSING HUMAN FORMS, RESPECT FOR ANIMALS WHILE HUNTING AND AS GUARDIAN SPIRITS ARE DISCUSSED.

C-112

COLSON, D.
1957.

THUNDER STORM ANALYSIS IN THE NORTHERN ROCKY MOUNTAINS. PROJECT SKYFIRE.
ODGEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. 30 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD NATL. FOREST). PROJECT SKYFIRE WAS PLANNED AND ORGANIZED TO STUDY THE CAUSES AND CHARACTERISTICS OF LIGHTNING STORMS AND TO SEE WHAT STEPS COULD BE TAKEN TO DECREASE THE GREAT LOSSES CAUSED BY LIGHTNING FIRES. THIS PAPER COVERS THE CASE HISTORY OF STORMS OF THE 1955 SEASON, EXAMINING THE JET STREAM AND THE COLD FLOW ALOFT. THE METHOD OF DATA ANALYSIS IS EXPLAINED; EXTENSIVE TABLES AND CHARTS ILLUSTRATE THE FINDINGS.

C-113
COLUMBIA BASIN INTER-AGENCY COMMITTEE.
1962.

INVENTORY HYDROLOGIC INVESTIGATIONS AND RELATED STUDIES, PACIFIC NORTHWEST.
PORTLAND ORE. 27 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: INCLUDES STUDIES WITHIN THE FLATHEAD BASIN.

(PACIFIC NORTHWEST). THE REPORT IS A PARTIAL INVENTORY OF HYDROLOGIC INVESTIGATIONS AND RELATED STUDIES CONDUCTED DURING 1961 AND 1962. THE INVENTORY IS DIVIDED INTO THREE MAIN PARTS UNDER THE HEADINGS OF ATMOSPHERE, SURFACE, AND SUBSURFACE. IT IS RESTRICTED TO PRO-RESEARCH ACTIVITIES WHOSE OBJECT IS TO PROVIDE A BETTER UNDERSTANDING OF THE NATURAL HYDROLOGIC PROCESSES AND THE IMPACT OF MAN'S ACTIVITIES UPON THEM. PUBLISHED REPORTS AND PROPOSED INVESTIGATIONS ARE NOT INCLUDED.

C-114

COLUMBIA BASIN INTER-AGENCY COMMITTEE.
PLAN FOR THE DEVELOPMENT OF NATURAL RESOURCES OF THE PACIFIC NORTHWEST.
PORTLAND, ORE.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THE PLAN IS THE RESULT OF COOPERATION BETWEEN COLUMBIA BASIN STATES AND FEDERAL AGENCIES TO WORK OUT A COMPREHENSIVE PLAN TO DEVELOP THE AREA'S RESOURCES AND ENSURE CONSERVATION. LONG-TERM AND IMMEDIATE PROGRAMS OUTLINED INCLUDE: 1) DEVELOPMENT OF WATER RESOURCES FOR FLOOD CONTROL, IRRIGATION, POWER, DOMESTIC AND INDUSTRIAL SUPPLIES, AND POLLUTION ABATEMENT; 2) PRESERVATION OF FISH AND WILDLIFE; 3) DEVELOPMENT AND CONSERVATION OF LAND RESOURCES (CROP, RANGE, AND FOREST LANDS, WATERSHEDS, ETC.); 4) PROTECTION OF SCENIC AND RECREATION AREAS, AND IMPROVEMENT OF FACILITIES; AND 5) DEVELOPMENT OF MINERAL RESOURCES.

C-115

COLUMBIA BASIN INTER-AGENCY COMMITTEE.
ADHOC SUBCOMMITTEE ON POWER TRANSMISSION LINES IN FORESTED AREAS.
1963.

A REPORT ON THE IMPACTS OF POWER TRANSMISSION LINES IN FORESTED AREAS OF THE COLUMBIA BASIN.
PORTLAND, ORE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE REPORT STATES THE MAGNITUDE OF THE PROBLEM OF POWER TRANSMISSION LINES THROUGH FORESTED AREAS AND THE PROBABLE FUTURE IMPACTS OF POWER TRANSMISSION LINES ON FOREST LANDS. IT INCLUDES A LIMITED INVENTORY OF THE AMOUNT OF LANDS OCCUPIED BY POWER LINE RIGHTS-OF-WAY. OPPORTUNITIES TO REDUCE RIGHT-OF-WAY NEEDS; TO MAKE BETTER ROUTE SELECTIONS; TO MAKE MULTIPLE USE OF EXISTING AND FUTURE RIGHTS-OF-WAY; AND TO CONSIDER FOREST LAND MANAGEMENT ASPECTS OF POWER LINE CONSTRUCTION, OPERATION, AND MAINTENANCE ARE DISCUSSED.

C-116

COLUMBIA BASIN INTER-AGENCY COMMITTEE.
ALLUVIAL MINING SUBCOMMITTEE.
1961.

ALLUVIAL MINING IN THE PACIFIC NORTHWEST.
PORTLAND, ORE. 18+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: REPORT INCLUDES INFORMATION FROM MONTANA.

(PACIFIC NORTHWEST). THE REPORT INVESTIGATES THE EXTENT OF DREDGING, HYDRAULIC, SAND AND GRAVEL OPERATIONS, AND THE CONTROL MEASURES GOVERNING SUCH MINING OPERATIONS. CONTROL MEASURES TO PROTECT BENEFICIAL WATER AND LAND USES FROM UNWARRANTED DAMAGE ARE RECOMMENDED. ALSO INCLUDED ARE STATE REGULATIONS (INCLUDING MONTANA) GOVERNING ALLUVIAL MINING.

C-117

COLUMBIA BASIN INTER-AGENCY COMMITTEE.
ECONOMIC STUDIES SUBCOMMITTEE.
1967.

INVENTORY OF ECONOMIC STUDIES FOR THE PACIFIC NORTHWEST, 1966: A BIBLIOGRAPHY.
PORTLAND, ORE. 102 PP.
PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: INCLUDES STUDIES WITHIN THE FLATHEAD BASIN.

(PACIFIC NORTHWEST). THE REPORT IS CONCERNED WITH THE CURRENT ECONOMIC EVALUATION OF RESOURCE DEVELOPMENT AND ENCOMPASSES STUDIES SUBSEQUENT TO A 1963 INVENTORY. IT INCLUDES AN ANNOTATED BIBLIOGRAPHY AND A SUBJECT INDEX (AGRICULTURE, AREA STUDIES, EMPLOYMENT AND LABOR FORCE, FISHERIES, FORESTRY, GOVERNMENT AND TAXATION, INCOME, LAND, MANUFACTURING, MINERALS, POPULATION, RECREATION, TRANSPORTATION, AND TRADE).

C-118

COLUMBIA BASIN INTER-AGENCY COMMITTEE.
ECONOMICS SUBCOMMITTEE.
1963.

INVENTORY OF ECONOMIC STUDIES AND DATA SOURCES FOR THE PACIFIC NORTHWEST.
PORTLAND, ORE.
PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: INCLUDES STUDIES WITHIN THE FLATHEAD BASIN.

(PACIFIC NORTHWEST). THIS INVENTORY DESCRIBES ECONOMIC STUDIES RELATING TO THE ECONOMIC DEVELOPMENT OF THE AREA. IT IS LIMITED TO THOSE STUDIES COMPLETED BETWEEN 1961 AND 1963 AND THOSE UNDERWAY IN 1963 OR SCHEDULED FOR COMPLETION. FULL DESCRIPTIONS OF EACH OF THE STUDIES ARE GIVEN. STUDIES ARE GROUPED BY THE FOLLOWING SUBJECT HEADINGS: AGRICULTURE, AREA STUDIES, EMPLOYMENT AND LABOR FORCE, FORESTRY, GOVERNMENT, INCOME, LAND, MANUFACTURING, MINERALS, POPULATION, POWER, RECREATION, TRADE, TRANSPORTATION, AND WATER.

C-119

COLUMBIA BASIN INTER-AGENCY COMMITTEE.
FISHERY STEERING COMMITTEE.
1957.

COLUMBIA RIVER BASIN FISHERY PROGRAM. PART I: COMPREHENSIVE RESEARCH PROGRAM FOR DEVELOPMENT OF THE FISHERY RESOURCES.
PORTLAND, ORE. 55 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(COLUMBIA RIVER BASIN). THE REPORT DEFINES RESEARCH REQUIREMENTS IN FISHERIES, OUTLINES RESEARCH OBJECTIVES, AND SUGGESTS METHODS. BY PRESENTING A MEANS OF ADVANCING THE KNOWLEDGE OF FISHERIES, AN INCREASE IN FISHERIES RESOURCES IS EXPECTED. THE INVESTIGATION OF FACTORS LIMITING PRODUCTION OF FISH IN STREAMS, PLANNING STUDIES FOR CONTROL OF INJURY BY POLLUTION, STUDIES FOR IN-

CREASING HATCHERY PRODUCTION, EVALUATION OF SPORT FISHERIES, DEVELOPMENT OF METHODS OF IMPROVING FISH PASSAGE AT BARRIERS AND SECURING HIGH FISHERIES PRODUCTION IN IMPOUNDMENTS ARE TOPICS DISCUSSED.

C-120
COLUMBIA BASIN INTER-AGENCY COMMITTEE. FISHERY STEERING COMMITTEE.
INVENTORY OF STREAMS AND PROPOSED IMPROVEMENTS FOR DEVELOPMENT OF THE FISHERY RESOURCES OF THE UPPER COLUMBIA RIVER BASIN: LIMITED TO TRIBUTARIES ABOVE McNARY DAM. PORTLAND, ORE. 98 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(UPPER COLUMBIA RIVER BASIN: FLATHEAD RIVER BASIN: MIDDLE, NORTH, & SOUTH FORKS & MAINSTEM OF THE FLATHEAD RIVER, & THE SWAN RIVER.) THE REPORT LISTS THE MAJOR TRIBUTARIES OF THE AREA WITH DESCRIPTIONS OF ADDITIONAL STUDIES AND WORK NEEDED TO INCREASE THE PRODUCTION AND UTILIZATION OF THE FISHERY RESOURCE. DRAINAGE DESCRIPTION, SETTING, RESERVOIRS AND LAKES, POTENTIAL FISH HATCHERIES, AND THE EFFECT OF DAMS ON FISHES ARE TOPICS DISCUSSED.

C-121
COLUMBIA BASIN INTER-AGENCY COMMITTEE. HYDROLOGY SUBCOMMITTEE.
1966.
PACIFIC NORTHWEST HYDROLOGIC DATA COLLECTION PROGRAM. STREAM GAUGING CHANGES FROM 1958-1966.
PORTLAND, ORE. 16 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE THREE MAJOR PURPOSES OF THIS REPORT WERE: 1) TO COMBINE THE 13 LISTS PREVIOUSLY DISTRIBUTED INTO ONE LIST WHICH SHOWS STATIONS ESTABLISHED OR DISCONTINUED FROM JULY 1, 1958 THROUGH DECEMBER 31, 1965; 2) TO APPRAISE THE PROGRESS MADE TOWARD ACHIEVING STREAM GAGING GOALS SET IN THE 1963 REPORT; AND 3) AND TO PROVIDE INFORMATION FOR THE UPDATING OF MAPS SHOWING HYDROLOGIC STATIONS.

C-122
COLUMBIA BASIN INTER-AGENCY COMMITTEE. POWER PLANNING SUBCOMMITTEE.
1959.
COLUMBIA RIVER POWER REGULATION PRACTICES—1960-2010.
PORTLAND, ORE. 17+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE REPORT IS CONCERNED WITH THE OPERATION OF FEDERAL HYDROELECTRIC PLANTS. IT CONSIDERS HYDROELECTRIC CAPABILITIES MEETING LOADS FORECASTED FOR 1968, 1985, AND 2010. THE TRANSITION AND CHANGE IN OPERATING PROCEDURES AS THE SYSTEM PROGRESSES FROM THE CURRENT HYDRO SYSTEM TO AN INTEGRATED HYDROTHERMAL SYSTEM ARE DESCRIBED.

C-123
COLUMBIA BASIN INTER-AGENCY COMMITTEE. POWER PLANNING SUBCOMMITTEE.
1982.
POWER AREAS IN THE PACIFIC NORTHWEST.
PORTLAND, ORE. 29+ PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE REPORT IDENTIFIES POWER SUPPLY AREAS AND INDICATES THE PURPOSES FOR WHICH THEY ARE USED. IT INCLUDES

THE JURISDICTIONAL AREAS OF THE FOLLOWING: THE FEDERAL POWER COMMISSION, REGION 7; THE NORTHWEST POWER POOL; THE BONNEVILLE POWER ADMINISTRATION; PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE AND EAST AREA UTILITIES; AND THE U.S. ARMY CORPS OF ENGINEERS, NORTHWEST POWER AREA.

C-124
COLUMBIA BASIN INTER-AGENCY COMMITTEE. RECREATION COMMITTEE.
1964.
RECREATION SURVEY OF THE PACIFIC NORTHWEST REGION. PART TWO: RECREATION REPORT.
PORTLAND, ORE. 80+ PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: PART ONE INVENTORIES ACTIVELY-USED RECREATION AREAS. THE APPENDICES PROVIDE DESCRIPTIVE INFORMATION ON THE STATUS OF RECREATION PLANNING IN FOUR STATES, INCLUDING MONTANA.

(PACIFIC NORTHWEST). THE REPORT INVENTORIES THE POTENTIAL RECREATION AREAS OF THE AREA AND SUMMARIZES THE STATUS OF CURRENT RECREATIONAL PLANNING. FUTURE PUBLIC NEEDS FOR RECREATION, FUTURE DEMAND FOR RECREATIONAL FACILITIES, THE ECONOMIC IMPACT OF RECREATIONAL ACTIVITIES, AND THE RECREATION-TOURISM INDUSTRY ARE DISCUSSED. PLANNING PROBLEMS ARE CONSIDERED: LACK OF INFORMATION, RESEARCH AND TRAINING, RECREATION ACCESS, WATER QUALITY, OVER-USED AREAS, VANDALISM AND OTHER MAN-CAUSED PROBLEMS. GOALS ARE PRESENTED.

C-125
COLUMBIA BASIN INTER-AGENCY COMMITTEE. RECREATION SUBCOMMITTEE.
1966.
INTERIM REPORT: RECREATION AREAS AND FACILITIES, PACIFIC NORTHWEST REGION.
PORTLAND, ORE. 26 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS INTERIM REPORT IS THE FIRST PHASE OF A COMPREHENSIVE RECREATION SURVEY OF THE PACIFIC NORTHWEST. IT PRESENTS AN INVENTORY OF PUBLIC AND COMMERCIAL RECREATION AREAS AND FACILITIES. IT CONSIDERS THE INVESTMENT IN PUBLIC RECREATION AREAS, TRENDS IN THE USE OF RECREATIONAL AREAS, THE ADEQUACY OF PUBLIC FACILITIES, THE ECONOMIC IMPORTANCE OF THE RECREATION INDUSTRY, AND AN OUTLOOK FOR PRIVATE ENTERPRISE IN RECREATION.

C-126
COLUMBIA BASIN INTER-AGENCY COMMITTEE. RECREATION SUBCOMMITTEE.
1961.
RECREATION SURVEY OF THE PACIFIC NORTHWEST REGION. PART ONE: EXISTING RECREATION AREAS.
PORTLAND, ORE. 58 PP.
PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: CHAPTER 6 SUMMARIZES WESTERN MONTANA'S RECREATION AREAS: GLACIER NATIONAL PARK, SEVEN NATIONAL FORESTS, HUNGRY HORSE RESERVOIR, NATIONAL BISON RANGE, NINE PIPE AND PABLO BIRD REFUGES. PRESENTS DESCRIPTION OF THE AREA'S TOPOGRAPHY, CLIMATE, POPULATION, MAJOR INDUSTRIES, LAND OWNERSHIP, AND THE MONTANA STATE PARK SYSTEM.

(PACIFIC NORTHWEST). THE REPORT IS AN INVENTORY OF OUTDOOR RECREATION RESOURCES, AREAS, AND FACILITIES. RECREATION HERE INCLUDES NOT ONLY ACTIVITIES BUT ALSO THE SCENIC, SCIENTIFIC, AND CULTURAL RESOURCES,

PROVIDING RECREATION AND ENJOYMENT. DATA OBTAINED FROM GOVERNMENTAL AGENCIES AND PRIVATE INDUSTRY IS SUMMARIZED.

C-127
COLUMBIA BASIN INTER-AGENCY COMMITTEE. SUBCOMMITTEE ON COMPREHENSIVE PLANNING.
1961.
REPORT ON ORGANIZATIONS RESPONSIBLE FOR WATER RESOURCE PLANNING IN THE COLUMBIA BASIN AND CURRENT STATUS OF PLANNING.
PORTLAND, ORE. 10+ PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: NUMEROUS APPENDICES CONTAINING INFORMATION ON FEDERAL AND INDIVIDUAL INVESTIGATIONS.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE REPORT REVIEWS PLANNING ACTIVITIES OF VARIOUS FEDERAL AND STATE AGENCIES. THE STATUS OF PLANNING INVOLVING PROJECT CONSTRUCTION, NON-CONSTRUCTION PROGRAMS, INTERNATIONAL COOPERATION, AND THE REVIEW AND LICENSING FOR CONSTRUCTION OF NON-FEDERAL PROJECTS IS DISCUSSED. VARIOUS STATE PLANNING ACTIVITIES ARE REVIEWED.

C-128
COLUMBIA BASIN INTER-AGENCY COMMITTEE. WATER MANAGEMENT SUBCOMMITTEE.
1956.
REPORT ON DETERMINATION OF HISTORICAL FLOWS AT SELECTED POWER SITES, COLUMBIA RIVER BASIN.
PORTLAND, ORE. 64 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: INCLUDES SITES LOCATED IN FLATHEAD BASIN.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE REPORT ATTEMPTS TO RESOLVE DIFFERENCES IN STREAM FLOW DATA USED BY VARIOUS GOVERNMENT AGENCIES AND PRESENTS VALUES OF STREAMFLOWS FOR USE IN POWER PRODUCTION STUDIES. DETERMINATIONS OF STREAMFLOW DATA FOR 1928-1948 FOR 56 POWER PROJECTS ARE INCLUDED IN TABULAR FORM. THE TABLES GIVE THE LOCATION OF THE SITE, THE DRAINAGE AREA, AND MEAN MONTHLY FLOWS FOR EACH YEAR. A TABLE LISTING AND A MAP LOCATING THE SITES FOR WHICH DISCHARGE DATA IS AVAILABLE ARE INCLUDED.

C-129
COLUMBIA BASIN INTER-AGENCY COMMITTEE. WATER MANAGEMENT SUBCOMMITTEE.
1957.
APPENDIX TO REPORT ON STREAM FLOW DEPLETION, COLUMBIA RIVER BASIN.
PORTLAND, ORE. 150 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: INCLUDES SITES IN THE FLATHEAD BASIN.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE APPENDIX PRESENTS THE METHODS AND BASIC DATA USED IN DERIVING ADJUSTMENTS TO BE APPLIED TO OBSERVED DISCHARGES TO OBTAIN THE FLOW WHICH WOULD OCCUR UNDER TWO LEVELS OF IRRIGATION DEVELOPMENT, ESTIMATED FOR 1960 AND 2010. THE ADJUSTMENTS ARE IN THE FORM OF MONTHLY MEAN DISCHARGE IN CUBIC FEET PER SECOND OR IN ACRE-Feet PER MONTH, COMPUTED FOR 1928-1948. DATA IS PRESENTED IN TABULAR FORM.

C-130
COLUMBIA BASIN INTER-AGENCY COMMITTEE.
WATER MANAGEMENT SUBCOMMITTEE.
1957.

REPORT ON MODIFIED FLOWS AT SELECTED POWER
SITES, COLUMBIA RIVER BASIN.
PORTLAND, ORE. 120 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING
DATA, REGIONAL.

NOTE: INCLUDES PRESENT AND PROPOSED PRO-
JECTS IN THE FLATHEAD BASIN.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE
REPORT COMBINES THE RESULTS OF TWO PREVIOUS
REPORTS (THE "TASK FORCE ON COLUMBIA RIVER
STREAMFLOW DEPLETION" AND THE "TASK FORCE
TO RESOLVE STREAMFLOW DETERMINATIONS AT
UNGAGED KEY SITES IN THE COLUMBIA RIVER
BASIN"), AND INCLUDES THE CHANGE IN STORAGE
IN NATURAL LAKES AND EXISTING POWER RESER-
VOIRS. IT DEVELOPS MODIFIED STREAMFLOWS AT
POWER SITES FOR 1928-1948 UNDER 1960 AND 2010
LEVELS OF IRRIGATION DEVELOPMENT. DATA IS
PRESENTED IN TABULAR FORM.

C-131
COLUMBIA BASIN INTER-AGENCY COMMITTEE.
WATER MANAGEMENT SUBCOMMITTEE.
1957.

REPORT ON STREAMFLOW DEPLETION, COLUMBIA
RIVER BASIN.
PORTLAND, ORE. 99 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
REGIONAL.

(COLUMBIA RIVER BASIN, FLATHEAD RIVER BASIN).
THE REPORT PRESENTS A HISTORY OF IRRIGATION
DEVELOPMENT AND INVESTIGATES WATER DEPLE-
TIONS RESULTING FROM EXISTING AND FUTURE IR-
RIGATION DEVELOPMENT. THE EFFECT OF IRRIGA-
TION USE ON THE AMOUNT OF POWER WHICH
COULD BE GENERATED IS NOTED.

C-132
COLUMBIA BASIN INTER-AGENCY COMMITTEE.
WATER MANAGEMENT SUBCOMMITTEE.
1960.
EXTENSION OF MODIFIED FLOWS THROUGH 1958,
COLUMBIA RIVER BASIN.
PORTLAND, ORE. 140 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING
DATA, REGIONAL.

NOTE: INCLUDES PRESENT AND PROPOSED PRO-
JECTS IN THE FLATHEAD BASIN.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE
REPORT EXTENDS A PREVIOUS REPORT ("REPORT
ON MODIFIED FLOWS AT SELECTED POWER SITES,
COLUMBIA RIVER BASIN, JUNE 1957") TO INCLUDE
MODIFIED STREAMFLOWS AT POWER SITES FROM
1948 THROUGH 1958. THE FLOWS REFLECT DEPLE-
TIONS FOR 1960 AND 2010 LEVELS OF IRRIGATION
DEVELOPMENT CONSISTENT WITH THE FORMER
STUDY. DATA IS PRESENTED IN TABULAR FORM AND
A MAP LOCATING THE SITES FOR WHICH DISCHARGE
DATA IS AVAILABLE IS INCLUDED.

C-133
COLUMBIA BASIN INTER-AGENCY COMMITTEE.
WATER MANAGEMENT SUBCOMMITTEE.
1961.
EXTENSION OF HISTORICAL FLOWS THROUGH 1958,
COLUMBIA RIVER BASIN.
PORTLAND, ORE. 75 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING
DATA, REGIONAL.

NOTE: INCLUDES SITES LOCATED IN FLATHEAD
BASIN.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE
REPORT EXTENDS THROUGH 1958 THE "REPORT ON

DETERMINATION OF HISTORICAL FLOWS AT
SELECTED POWER SITES, COLUMBIA RIVER BASIN,
NOVEMBER 9, 1956." THE REPORT PRESENTS
TABULATIONS OF HISTORICAL STREAMFLOWS FOR
THE 56 SELECTED POWER SITES GIVEN IN THE 1956
REPORT, 8 ADDITIONAL SITES PRESENTED IN AN AD-
DENDUM TO THE 1956 REPORT, AND 19 NEW SITES.
EACH TABLE LISTS THE LOCATION OF THE SITE,
DRAINAGE AREA AND STREAM FLOW FOR EACH
MONTH OF THE YEAR FROM 1928 TO 1958. A TABLE
LISTING AND A MAP LOCATING THE SITES FOR
WHICH DISCHARGE DATA IS AVAILABLE ARE INCLUD-
ED.

C-134
COLUMBIA BASIN INTER-AGENCY COMMITTEE.
WATER MANAGEMENT SUBCOMMITTEE.
1961.

REPORT ON EXTENSION OF HISTORICAL FLOWS
THROUGH 1958, COLUMBIA RIVER BASIN.
PORTLAND, ORE. 9 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
REGIONAL.

NOTE: INCLUDES DATA DERIVED FROM POWER SITES
AND THEIR GAGING STATION ON RIVERS IN THE
FLATHEAD BASIN.

(COLUMBIA RIVER BASIN). THE REPORT PRESENTS
DATA FOR THE SITES STUDIED IN A 1956 REPORT
(WHICH PRESENTED OBSERVED OR ESTIMATED
HISTORICAL FLOWS FOR 56 POWER SITES) AND FOR
19 ADDITIONAL SITES CONSIDERED IN RECENT
SYSTEM POWER STUDIES. PROCEDURES FOR
ESTIMATING DISCHARGES ARE DESCRIBED.

C-135
COLUMBIA BASIN INTER-AGENCY COMMITTEE.
WATER MANAGEMENT SUBCOMMITTEE.
1962.
APPENDUM TO APPENDIX TO REPORT ON
STREAMFLOW DEPLETION, COLUMBIA RIVER BASIN.
PORTLAND, ORE. 50 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING
DATA, REGIONAL.

NOTE: INCLUDES SITES IN THE FLATHEAD BASIN.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE
APPENDUM IS AN EXTENSION OF THE REPORT, "AP-
PENDIX TO REPORT ON STREAMFLOW DEPLETION,
COLUMBIA RIVER BASIN." IT PRESENTS DATA USED
IN DERIVING ADJUSTMENTS TO BE APPLIED TO
OBSERVED DISCHARGES TO OBTAIN THE FLOW
WHICH WOULD OCCUR UNDER 1960 AND 2010
LEVELS OF IRRIGATION DEVELOPMENT--FOR
1948-1958. DATA IS PRESENTED IN TABULAR FORM.

C-136
COLUMBIA BASIN INTER-AGENCY COMMITTEE.
WATER MANAGEMENT SUBCOMMITTEE.
1964.
DERIVATION OF PROCEDURE FOR FORECASTING IN-
FLOW TO HUNGRY HORSE RESERVOIR, MONTANA.
PORTLAND, ORE. 63 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

NOTE: CONTAINS TABLES OF SNOW WATER
VARIABLES, PRECIPITATION DATA, TEMPERATURE,
RUNOFF, FORECASTS AND CHARTS DEPICTING
ELEVATION, HYDROLOGIC FEATURES, SNOW INDEX,
RUNOFF.

(HUNGRY HORSE RESERVOIR). THE REPORT CON-
SIDERS THE EFFICIENT OPERATION OF THE RESER-
VOIR AS DEPENDENT ON THE USE OF SEASONAL
FORECASTS OF RUNOFF. IT ATTEMPTS TO REVISE
PAST FORECASTING FORMULAS OF THE OPERATING
AGREEMENT OF 1954. A SINGLE FORECAST FOR-
MULA USEFUL FOR THE ENTIRE SEASON IS DISCUSS-
ED; ITS ELEMENTS (FORECAST PERIOD, AD-
JUSTMENTS TO BE APPLIED TO DISCHARGES
OBSERVED SINCE DAM CONSTRUCTION, WINTER IN-

DEX, SPRING PRECIPITATION, EVAPO-
TRANSPIRATION LOSS, ANTECEDENT AND SUBSE-
QUENT CONDITIONS) ARE DETAILED.

C-137
COLUMBIA FALLS CITY-COUNTY PLANNING BOARD.
1964.

MASTER PLAN 1963-1964.
COLUMBIA FALLS, MT. 54 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(COLUMBIA FALLS). THIS PLAN CONTAINS THE FIRST
DRAFT OF PROPOSED ZONING ORDINANCES FOR
COLUMBIA FALLS. ITS MAKES RECOMMENDATIONS
FOR AN AREA REDEVELOPMENT PROGRAM AND
DISCUSSES THE LEGAL STATUS OF ZONING. COM-
MUNITY RECREATIONAL FACILITIES ARE DESCRIBED
AND PROPOSED. STREET DESIGN STANDARDS ARE
OUTLINED.

C-138
COLUMBIA RIVER WATER MANAGEMENT GROUP.
1974.

PROVISIONAL REPORT ON MODIFIED FLOWS AT
SELECTED SITES 1928-1968 FOR THE 2020 LEVEL OF
DEVELOPMENT: COLUMBIA RIVER AND COASTAL
BASINS.
VANCOUVER, WA. 118 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL
DATA, REGIONAL.

NOTE: THIS IS THE SECOND IN THE SERIES OF PROVI-
SIONAL REPORTS ON MODIFIED FLOWS FOR
SELECTED SITES. THE FIRST WAS DATED FEBRUARY
1973.

(PACIFIC NORTHWEST: COLUMBIA RIVER & COASTAL
BASINS). THE REPORT CONTAINS A LISTING OF THE
MEAN MONTHLY FLOWS FOR SELECTED SITES, JULY
1928 THROUGH JUNE 1968, MODIFIED TO A COMMON
LEVEL OF FUTURE DEVELOPMENT. THE AD-
JUSTMENTS NEEDED TO COMPUTE THESE MODIFIED
FLOWS WERE BASED ON THE PROJECTED INCREASE
IN IRRIGATED AREA IN VARIOUS PARTS OF THE
REGION. THE BULK OF THE REPORT CONSISTS OF
TABLES WHICH INCLUDE MONTHLY AND ANNUAL
MEAN FLOWS IN CFS FOR EACH SITE.

C-139
COMMISSIONER OF HIGHER EDUCATION.
1976.
COMMUNITY COLLEGES IN MONTANA.
HELENA, MT.: MONTANA UNIVERSITY SYSTEM. 8+
PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA: KALISPELL: FLATHEAD VALLEY COM-
MUNITY COLL.). INCLUDED IN THIS REVIEW OF MON-
TANA'S THREE COMMUNITY COLLEGES ARE
CHAPTERS ON GOVERNANCE, CURRICULUM, AND
FINANCING. APPENDIXES CONTAIN STATUTES RCM
1947, CURRENT BOARD OF REGENTS POLICIES, AND
RECENT LEGISLATION.

C-140
COMMUNITY SERVICES CENTER.
1968.
FINAL REPORT - SCHOOL DISTRICT NO. 6. CONSUL-
TANT COUNCIL.
COLUMBIA FALLS, MT.: DISTRICT CONSULTANT
COUNCIL, SCHOOL DISTRICT NO. 6. 38 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(SCHOOL DISTRICT NO. 6: COLUMBIA FALLS, CORAM,
HUNGRY HORSE, & WEST GLACIER). THIS REPORT
DESCRIBES THE SOCIAL AND POLITICAL STRUCTURE
OF THE MIDDLE FORK COMMUNITIES, THE
GEOGRAPHICAL BOUNDARIES, THE PATTERNS OF
SETTLEMENT, COUNTY LEVIES FOR 1967, AND
GENERAL POPULATION INFORMATION.

C-141
CONAWAY, CLINTON H.
1949.
"A CONTRIBUTION TO THE LIFE HISTORY OF THE WATER SHREW (*Sorex palustris navigator* Baird)." M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 57 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD BASIN). THIS STUDY WAS BASED UPON 82 WATER SHREWS TAKEN IN WESTERN MONTANA. A SYSTEM OF AGE DETERMINATION BASED UPON MEASUREMENTS OF INDIVIDUAL TEETH TO DETERMINE TOOTHWEAR WAS DEVELOPED. SEXUAL ACTIVITY WAS RECORDED AND REPRODUCTION CHARACTERISTICS WERE NOTED. FOOD HABITS AND DIET COMPOSITION ARE DESCRIBED AS ARE PARASITES FOUND. MOLTING IS ALSO DESCRIBED.

C-142
CONAWAY, CLINTON H.
1952.
"LIFE HISTORY OF THE WATER SHREW. (*Sorex palustris navigator*)."
AMERICAN MIDLAND NATURALIST 48:219-247.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THIS PAPER IS BASED UPON A COMBINATION OF FIELD AND LABORATORY STUDIES. SPECIMENS WERE COLLECTED, WEIGHED, MEASURED, AND EXAMINED FOR ECTOPARASITES. THE AMOUNT OF TOOTHWEAR WAS STUDIED TO ESTABLISH AGE, MALE AND FEMALE REPRODUCTIVE TRACTS WERE EXAMINED, STOMACH CONTENTS WERE ANALYZED, AND THE CONDITION OF MOLT NOTED IN SOME OF THE SPECIMENS. GENERAL HABITS, BEHAVIOR IN CAPTIVITY, AND HABITAT REQUIREMENTS ARE DISCUSSED.

C-143
CONFEDERATED SALISH AND KOOTENAI TRIBES.
1934.
CORPORATE CHARTER OF THE CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD RESERVATION: A FEDERAL CORPORATION CHARTERED UNDER THE ACT OF JUNE 18, 1894. RATIFIED APRIL 28, 1936.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
(FLATHEAD INDIAN RESERVATION). THIS DOCUMENT REGULATES THE CORPORATE LIFE OF THE CONFEDERATED TRIBES. SKCC.

C-144
CONFEDERATED SALISH AND KOOTENAI TRIBES.
1978.
ELK HABITAT - TIMBER MANAGEMENT RELATIONSHIPS, CENTRAL ZONE, REGION ONE.
PABLO, MT.: CONFEDERATED SALISH & KOOTENAI TRIBES, MONTANA DEPT. FISH & GAME, AND U.S. DEPT. AGRICULTURE, FOREST SERVICE. 20 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(BITTERROOT, LOLO, KOOTENAI, & FLATHEAD NATL. FORESTS, & FLATHEAD INDIAN RESERVATION). THIS PAPER PRESENTS THE FINDINGS OF TEN WILDLIFE BIOLOGISTS WITHIN THE CENTRAL ZONE OF MONTANA. IT IS INTENDED AS A WORKING TOOL IN THE ANALYSIS AND MANAGEMENT OF ELK SUMMER/FALL HABITAT IN A FORESTED ENVIRONMENT.

C-145
CONFEDERATED SALISH AND KOOTENAI TRIBES.
ANNUAL.
OVERALL ECONOMIC DEVELOPMENT PROGRAM - FLATHEAD RESERVATION REDEVELOPMENT AREA - AND REVISED PLAN.
PABLO, MT. 30 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). IT IS THE PURPOSE OF THE PRELIMINARY OVERALL ECONOMIC DEVELOPMENT PLAN FOR THE FLATHEAD RESERVATION REDEVELOPMENT AREA TO PRESENT INFORMATION ON THE OPPORTUNITIES THAT EXIST FOR THE ECONOMIC ADVANCEMENT OF THE AREA, AND TO OUTLINE SPECIFIC PROPOSALS FOR ACHIEVING THOSE GOALS. THE PROGRAM DESCRIBES THE GENERAL ECONOMIC SITUATION OF THE RESERVATION AREA, THE BASIC PROBLEMS AND NEEDS OF THE AREA, AND THE OPPORTUNITIES AT HAND FOR THE DEVELOPMENT OF NEW OR EXPANDED ENTERPRISES IN THE FORESTRY, AGRICULTURE AND TOURIST INDUSTRIES. IN ADDITION, THE REVISED PLAN ATTEMPTS TO PROMOTE A HIGHER DEGREE OF SOCIAL AND CULTURAL DEVELOPMENT WHILE RETAINING THE HISTORICAL TRADITIONS AND HERITAGES OF THE INDIAN PEOPLE.

C-146
CONFEDERATED SALISH AND KOOTENAI TRIBES.
A TALE OF THE SHINING MOUNTAINS (SKOL-LOOMTS SKA-KEL SHOO).
ST. IGNATIUS, MT.: FORT CONNAH BUSINESS & PROFESSIONAL WOMEN'S CLUB. 9 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: FLATHEAD INDIAN RESERVATION). THIS SOUVENIR PROGRAM OF A PAGEANT-DRAMA CONTAINS 5 HISTORIC EPISODES: THE FOUNDING OF FORT CONNAH, 1847; INDIAN OPEN COURT, ST. IGNATIUS, 1855; THE ARRIVAL OF CHARLOT'S BAND AT JOCKO RESERVATION, 1891; DIXON, 1910; POST CREEK CELEBRATION, 1947.

C-147
CONFEDERATED SALISH AND KOOTENAI TRIBES OF FLATHEAD INDIAN RESERVATION. EDUCATION COMMITTEE.
1975.
FLATHEAD SCHOOL HEALTH AND NUTRITION PROGRAM.
DIXON, MT. 83 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: EXTENSIVE APPENDICES INCLUDE TABLES OF MORTALITY STATISTICS, A FOOD QUESTIONNAIRE, ASSESSMENT METHODOLOGY, AND LETTERS OF SUPPORT.

(FLATHEAD INDIAN RESERVATION). A PROPOSAL FOR FEDERAL GRANTS FOR DEMONSTRATION PROJECTS TO IMPROVE SCHOOL HEALTH AND NUTRITION SERVICES OF CHILDREN FROM LOW-INCOME FAMILIES IS PRESENTED. IT INCLUDES: NARRATIVES EXPLAINING PROPOSED PARTICIPANTS, COMMUNITY PARTICIPATION; SPECIFIC PROBLEMS, OBJECTIVES, AND METHODS; AN EVALUATION OF THE PROGRAM'S POSSIBLE ACHIEVEMENTS; THE PROPOSAL OF AN ACADEMIC COURSE; AND THE SCHEDULE OF THE PROGRAM.

C-148
CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD RESERVATION.
"A STUDY OF FLATHEAD HYDROELECTRIC DEVELOPMENT."
DIXON, MT. (TYPEWRITTEN). 31 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). HYDROELECTRIC DEVELOPMENT, PART OF THE RESERVATION'S OVERALL ECONOMIC DEVELOPMENT STUDY, IS DISCUSSED IN THIS DOCUMENT. IT CONTAINS TRIBAL TESTIMONY AT THE FEDERAL HEARING CONCERNING THE KNOWLES PROPOSAL IN SEPTEMBER 1962. ALSO INCLUDED IS HISTORICAL MATERIAL ON TREATY RIGHTS AND LAND RIGHTS, INDIAN LAWS, AND COURT CASES.

C-149
CONFEDERATED SALISH AND KOOTENAI TRIBES OF MONTANA.
FLATHEAD RESERVATION RECREATION SITE SURVEY.
PABLO, MT. 24 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE RESERVATION'S RECREATION POTENTIAL WAS SURVEYED IN THIS STUDY. THE STUDY DID NOT ATTEMPT TO INVENTORY EVERY RECREATION SITE ON THE RESERVATION BUT CONSIDERED ONLY THOSE RECEIVING UNSUPERVISED USE AND THE MORE ACCESSIBLE SITES. THE PRIMARY OBJECTIVE WAS TO DISCOVER SITES WHICH COULD BE DEVELOPED WITHOUT A GREAT INITIAL EXPENSE. OTHER STEPS IN THE SURVEY INCLUDED: 1) FINDING AREAS NOW IN USE WHERE A FEW MEMBERS OF THE TRIBE COULD BE EMPLOYED, WHO WOULD INSTRUCT OTHER MEMBERS IN SPECIFIC DUTIES AS TO THEIR PART IN THE RECREATION PROGRAM, 2) CLASSIFYING AREAS WHICH COULD BE WORKED ON BY A SMALL CREW IN ORDER TO REALIZE PROFITS ON LANDS SUBDIVIDED FOR SUMMER HOMES; AND 3) PROJECTING LONG-RANGE ESTIMATED RECREATION VALUES.

C-150
"CONFISCATION OF INDIAN WATER POWERS PREVENTED."
AMERICAN INDIAN LIFE, BULL. NO. 11(DECEMBER 1927-FEBRUARY 1928):1-16.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE NOTES THE DEFEAT OF EARLIER ATTEMPTS TO DIVERT INCOME FROM THE FLATHEAD POWER SITE TO WHITE IRRIGATION USERS ON THE FLATHEAD RESERVATION. SKCC.

C-151
CONKLING, INC.
1966.
THE POTENTIAL FOR THE PETROLEUM INDUSTRY IN THE PACIFIC NORTHWEST.
PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION. 182 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE STUDY, PART OF THE BPA'S COMPREHENSIVE PACIFIC NORTHWEST ECONOMIC BASE STUDY, DESCRIBES AND ANALYZES HISTORIC AND PRESENT CHARACTERISTICS OF THE PETROLEUM INDUSTRY AND ASSESSES ITS PRESENT ECONOMIC SIGNIFICANCE. FUTURE DEVELOPMENT TO 1985 (WITH PROJECTIONS 1985-2010) ARE FORECASTED; FUTURE ECONOMIC IMPACT, BY SUBAREAS, TO 1985 ARE ASSESSED. THE USE OF PETROLEUM PRODUCTS AS A COMPETING AND COMPLEMENTARY ENERGY SOURCE TO ELECTRICITY IS EVALUATED, AND THE USE OF OIL AS A FUEL FOR STEAM GENERATION OF ELECTRIC ENERGY IS ANALYZED.

C-152
CONKLING, INC.
1967.
THE POTENTIAL FOR THE NATURAL GAS INDUSTRY IN THE PACIFIC NORTHWEST.
PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION. 230 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE STUDY IS PART OF THE BPA'S COMPREHENSIVE PACIFIC NORTHWEST ECONOMIC BASE STUDY. IT DISCUSSES HISTORIC CHARACTERISTICS OF THE NATURAL GAS INDUSTRY BY STATE DURING THE YEARS FROM 1850 TO 1962. IT ASSESSES THE INDUSTRY'S ROLE IN THE NATIONAL ECONOMY AND ENERGY CONSUMPTION, PIPELINE AND DISTRIBUTION SERVICE TO OREGON, WASHINGTON, AND IDAHO, AND THE MONTANA

POWER COMPANY SYSTEM IS DESCRIBED. THE OUTLOOK FOR NATURAL GAS DEMANDS FOR THE YEARS 1960-1985 AND PROJECTED NATURAL GAS DEMANDS FOR THE YEARS 1985-2010 ARE PRESENTED. NATIONAL AND WORLD NATURAL GAS SUPPLY IS NOTED. THE INVESTMENT, EMPLOYMENT, AND PAYROLLS OF THE REGION'S GAS INDUSTRY ARE ESTIMATED FOR THE YEARS 1960-1985.

C-153
CONN, RICHARD G.
1967.

"THE RAREST TYPE OF BLUE JAY."

THE BLUE JAY 25:2-5.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). A BRIEF ARTICLE DESCRIBING THE SALISHAN BLUE JAY TRADITION AND FOLKLORE.

C-154
CONNOLLY, HUGH H., ET AL.
1962.

COMPREHENSIVE ENVIRONMENTAL SANITATION REPORT, FLATHEAD INDIAN RESERVATION.

BILLINGS, MT.: U.S. DEPT. HEALTH, EDUCATION & WELFARE, PUBLIC HEALTH SERVICE, BUREAU MEDICAL SERVICES, DIV. INDIAN HEALTH.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT IS INTENDED TO GIVE AN ACCURATE PICTURE OF THE ENVIRONMENTAL SANITATION CONDITIONS FOUND ON THE FLATHEAD RESERVATION. BASIC DATA WAS OBTAINED IN A HOUSE-TO-HOUSE COMPREHENSIVE ENVIRONMENTAL SANITATION SURVEY OF THE OCCUPIED INDIAN DWELLINGS ON THE RESERVATION. DATA WAS COLLECTED OVER A PERIOD OF SEVERAL YEARS AND INCLUDES INFORMATION ON COMMUNICABLE DISEASES, HOUSING, WATER, SANITATION FACILITIES, AND REFRIGERATION.

C-155
CONNOLLY, THOMAS E., S. J., ED.
1958.

QUAY-LEM U EN-CHOW-MEIN: A COLLECTION OF HYMNS AND PRAYERS IN THE FLATHEAD-KALISPELL-SPOKANE INDIAN LANGUAGE.

SPOKANE, WA.: ACCURATE LETTER SHOP.

AVAILABLE FROM: MITCH MICHAEL, COEUR D'ALENE TRIBE, WORLEY, IDAHO.

(PACIFIC NORTHWEST). INDIAN HYMNS AND PRAYERS. SKCC.

C-166
CONRAD, RALPH M.
1964.

"RECREATIONAL USE AND THE 'RENEWABLE' RESOURCES, SWAN RIVER STATE FOREST, MONTANA."

M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 139 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER STATE FOREST). THIS PAPER EXAMINES A SINGLE USE LAND AREA, THE MANAGED RESOURCE AND THE RESOURCES WHICH ARE IN DEMAND BUT NOT UNDER MANAGEMENT. SPECIAL ATTENTION IS GIVEN TO THE TIMBER RESOURCE AND RECREATION USE OF THE AREA UNDER STUDY. WATER, FORAGE PRODUCTION, AND WILDLIFE ARE TREATED MORE GENERALLY.

C-157
COOKE, WILLIAM BRIDGE.
1975.

"FUNGI OF MONTANA, ESPECIALLY IN THE VICINITY OF FLATHEAD LAKE AND GLACIER NATIONAL PARK."

GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 21 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(GLACIER NATL. PARK & FLATHEAD LAKE). THIS INCOMPLETE LIST OF FUNGI HAS BEEN DERIVED FROM A LIST PREPARED BY O.K. MILLER AND ASSOCIATES, FROM CULTURES PREPARED BY W.B. COOK, AND FROM REPORTS CITED IN THE BIBLIOGRAPHY. THE LIST IS ARRANGED ACCORDING TO AINSWORTH, SPARROW, AND SUSSMAN, VOL. IV, A AND B.

C-158
COOKE, WILLIAM BRIDGE.
1977.

FUNGI IN STREAMS, LAKES, ADJACENT SOILS AND SEWAGE TREATMENT SYSTEMS IN THE FLATHEAD RIVER BASIN, MONTANA.

NORTHWEST SCIENCE 51(3):172-182.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN;

(FLATHEAD RIVER BASIN). IN THIS STUDY OF FUNGAL POPULATIONS, 89 SPECIES AND OTHER CATEGORIES OF FUNGI WERE RECOVERED. SAMPLES WERE DRAWN FROM WATERS, BOTTOM SEDIMENTS AND SHORE LINES OF STREAMS, LAKES, AND SEWAGE TREATMENT FACILITIES IN THE FLATHEAD RIVER BASIN AND ADJACENT AREAS. A SPECIES LIST AND COLLECTION LOCATIONS ARE INCLUDED.

C-159
COON, SHIRLEY J.
1926.

"THE ECONOMIC DEVELOPMENT OF MISSOULA, MONTANA."

PH.D. DISSERTATION, UNIV. CHICAGO.

(MISSOULA). THIS DESCRIPTIVE OUTLINE OF THE GROWTH OF THE MISSOULA AREA INCLUDES SOME DISCUSSION OF EVENTS ON THE FLATHEAD AND HOW THEY AFFECTED THE MISSOULA AREA. SKCC.

C-160
COONEY, ROBERT F.
1964.

"JEWEL BASIN."

LIVING WILDERNESS, WINTER SPRING 1964, PP. 15-26.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(JEWEL BASIN HIKING AREA). THIS IS A DESCRIPTION OF JEWEL BASIN, AN AREA WITHIN THE SWAN RANGE OF MORE THAN 30 MOUNTAIN LAKES. THE AUTHOR POINTS OUT THE ATTRIBUTES THAT CONTRIBUTE TO THE AREA'S POTENTIAL FOR WILDERNESS STATUS.

C-161
COOPER, C. S.; DITTERLINE, R. L.; AND WELTY, L. E.
1979.
"SEED SIZE AND SEEDING RATE EFFECTS UPON STAND DENSITY AND YIELD OF ALFALFA."
AGRONOMY J. 71(1):83-85.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: THE REPORT INCLUDES A STUDY AT CRESTON TO EVALUATE EFFECT OF SEEDING RATE UPON PERCENT EMERGENCE AND YIELD.

(BOZEMAN & CRESTON). THE STUDY INVOLVED THE SEEDING OF VARIABLE RATES OF SMALL, MEDIUM, AND LARGE-SIZED SEED OF ALFALFA (MEDICAGO SATIVA L.) TO DETERMINE THE EFFECT OF COMPETITION ON SEEDING RATE. SEEDLING EMERGENCE, SURVIVAL, AND YIELD FOR TWO YEARS IS NOTED. CONCLUSIONS CONSIDER THE ADVANTAGE/DISADVANTAGE FROM SIZING SEED FOR SEEDLING DENSITY.

C-162
COOPER, C. S., ET AL.
1978.

EVALUATION OF REGAR MEADOW BROMEGRASS IN MONTANA.

BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. BULL. 702. 12 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: BOZEMAN, HUNTLEY, CRESTON). THE STUDY INVESTIGATES REGAR MEADOW BROMEGRASS (BROMUS BIEBERSTEINII). OPTIMUM SEEDING RATES UNDER DRYLAND AND IRRIGATED CONDITIONS ARE DETERMINED. SEED PRODUCTION POTENTIAL IS EVALUATED. THE REGAR MEADOW BROMEGRASS WAS COMPARED WITH MANCHAN SMOOTH BROMEGRASS (BROMUS INERMUS) WHEN EACH SPECIES WAS GROWN IN IRRIGATED GRASS-LEGUME PASTURE MIXTURES.

C-163
COOPER, CHALMER L.
1936.

"GEOLOGY OF GLACIER NATIONAL PARK."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 115 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT COVERS: THE HISTORY OF GLACIER NATIONAL PARK AND ITS SCENIC FEATURES; THE PHYSIOGRAPHY; STRATIGRAPHY (ALGONKIAN, ARCHEOZOIC MESOZOIC INTERVAL, CRETACEOUS, AND TERTIARY); IGNEOUS ROCKS; STRUCTURE (FOLDS AND FAULTS); GEOLOGIC HISTORY (ALGONKIAN, PALEOZOIC, MESOZOIC, CENOZOIC, ILLINOIAN STAGE OF GLACIATION); GLACIERS; PALEONTOLOGY (ALGONKIAN AND CRETACEOUS); AND GENERAL RECOMMENDATIONS. NUMEROUS PHOTOGRAPHS, DIAGRAMS AND MAPS ACCOMPANY THE TEXT.

C-164
COOPER, J. G., AND GRAY, ASA.
1860.

"NARRATIVE AND FINAL REPORT OF EXPLORATIONS FOR A ROUTE FOR A PACIFIC RAILROAD, NEAR THE FORTH-SEVENTH AND FORTH-NINTH PARALLELS OF NORTH LATITUDE, FROM ST. PAUL TO PUGET SOUND: BOTANICAL REPORT." IN EXPLORATIONS AND SURVEYS FOR A RAILROAD ROUTE FROM THE MISSISSIPPI RIVER TO THE PACIFIC OCEAN, VOL. 12, BOOK 2.

WASHINGTON, D.C.: U.S. WAR DEPT. 76 PP.

PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THE VOLUME INCLUDES THREE REPORTS: J.G. COOPER'S "REPORT UPON THE BOTANY OF THE ROUTE," ASA GRAY'S "CATALOGUE OF PLANTS COLLECTED EAST OF THE ROCKY MOUNTAINS," AND J.G. COOPER'S "CATALOGUE OF PLANTS COLLECTED IN WASHINGTON TERRITORY."

C-165
"COPY OF RADIO SCRIPT - LEAD STORY: WHY DEMERSVILLE IS IN THE PAST." 1948.

4 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD COUNTY LIBRARY, KALISPELL, MONTANA FILES.

(KALISPELL & SURROUNDING VALLEY). THE TEXT PRESENTS NUMEROUS HISTORIC ACCOUNTS OF DEMERSVILLE, CHURCHES, SAWMILLS, ORIGIN OF KALISPELL NAME, THE SILVER SPIKE, THE FIRST 4TH OF JULY CELEBRATION, AND THE KALISPELL POLICE FORCE.

C-166
CORDIER, RICK.
1973.
"MY SON, MY SON—ANGUS MACDONALD AND FORT CONNAH."
THE DOVETAIL MAGAZINE, SPRING 1973, PP. 18-29.

(FORT CONNAH). THIS SKETCH OF ANGUS MACDONALD AND FORT CONNAH INCLUDES SOME NEW LOCAL INFORMATION. SKCC.

C-167
CORPLAN ASSOCIATES.
1986.
ECONOMIC EVALUATION OF TOURISM AND RECREATION POTENTIAL OF PORTIONS OF FLATHEAD AND LAKE COUNTIES, MONTANA.
WASHINGTON, D.C.: U.S. DEPT. COMMERCE, ECONOMIC DEVELOPMENT ADMINISTRATION. VOL. 1,2,3.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD & LAKE COUNTIES). THE OBJECTIVE OF THIS STUDY WAS TO DEVELOP AN EFFECTIVE AND REALISTIC PROGRAM FOR REALIZING THE FULL ECONOMIC POTENTIAL OF THE TOURISM AND RECREATION INDUSTRY IN THE FLATHEAD LAKE AREA. STUDY FINDINGS ARE BASED ON AN ON-SITE SURVEY OF THE AREA, PERSONAL INTERVIEWS, AND PUBLISHED DATA ON TOURIST ACTIVITIES.

C-168
COTTER, JAMES A.
1976.
"THESE FIVE VALLEYS."
THE MISSOULIAN, 2 JULY 1976.

(MONTANA: MISSOULA & FLATHEAD INDIAN RESERVATION). THIS BOOK LENGTH HISTORY OF THE MISSOULA AREA INCLUDES MUCH SECONDARY MATERIAL ABOUT THE CONFEDERATED TRIBES AND THE FLATHEAD RESERVATION. SKCC.

C-169
COUES, ELLIOTT, ED.
1897; REPRINT ED., 1985.
NEW LIGHT ON THE EARLY HISTORY OF THE GREATER NORTHWEST: THE MANUSCRIPT JOURNALS OF ALEXANDER HENRY AND DAVID THOMPSON, 1799-1814. 2 VOLS.
MINNEAPOLIS: ROSS & HAINES, INC. 1027 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(RED, SASKATCHEWAN, MISSOURI, & COLUMBIA RIVERS). THIS WORK CONTAINS THE JOURNALS OF TWO FUR TRADERS AND COVERS THE PERIOD FROM 1799-1814. THE WRITINGS OF ALEXANDER HENRY DEALING WITH TRADING ENTERPRISES IN THE RED RIVER BASIN ARE PRESENTED IN THE FIRST VOLUME. VOLUME TWO CONTAINS THE JOURNALS OF DAVID THOMPSON, DESCRIBING HIS TRADING ACTIVITIES WITH THE FLATHEAD AND KUTENAI PEOPLE AND HIS JOURNEYS IN THE COLUMBIA AND FLATHEAD RIVER BASINS.

C-170
COURTNEY, EDWARD, REV.
1954.
ST. IGNATIUS' MISSION.
THE HARVESTER 16(3):72-73.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ST. IGNATIUS). THE ARTICLE DISCUSSES THE 100TH ANNIVERSARY OF THE FOUNDING OF THE ST. IGNATIUS MISSION. IT DESCRIBES THE CELEBRATION COMMEMORATING THE EVENT. THE PAST AND PRESENT EDUCATION OF INDIANS BY THE MISSION IS NOTED.

C-171
COWLIN, R.W.
1964.
POTENTIAL INCOME AND EMPLOYMENT FROM TIMBER RESOURCES OF THE FLATHEAD INDIAN RESERVATION.
PORTLAND, ORE.: U.S. DEPT. AGRICULTURE, PACIFIC NORTHWEST FOREST & RANGE EXPER. STAT., DIV. FOREST ECONOMICS & MARKETING RESEARCH. PREPARED FOR U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS. 43 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE PURPOSE OF THIS STUDY WAS TO MAKE AN ECONOMIC ANALYSIS OF THE EMPLOYMENT POTENTIAL THAT MIGHT DEVELOP AS A RESULT OF AN INCREASE IN THE ALLOWABLE CUT ON THE FLATHEAD INDIAN RESERVATION. THE STUDY INCLUDES FOREST PRODUCT INFORMATION ON THE SPECIES THAT COULD BE HARVESTED, ALTERNATIVE MARKETS, TYPES AND INVESTMENT COSTS OF PROCESSING PLANTS, LABOR REQUIREMENTS OF THOSE PLANTS, AND POTENTIAL EMPLOYMENT OPPORTUNITIES FOR TRIBAL MEMBERS.

C-172
COX, GENE S.
1957.
"THE ALTITUDINAL DISTRIBUTION OF SOILS IN WESTERN MONTANA."
PROC. MONTANA ACADEMY SCIENCES 17:8.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). INFORMATION OBTAINED FROM FIELD EXAMINATIONS OF SEVERAL HUNDRED SOIL PROFILES IS SUMMARIZED. SIX GREAT SOIL GROUPS ARE RECOGNIZED AS OCCURRING IN THIS AREA: BROWN, CHESTNUT, AND CHERNOZEM IN GRASSLAND AREAS; GRAY WOODED, BROWN PODZOLIC, AND PODZOL IN THE FORESTED AREAS. THE ALTITUDINAL DISTRIBUTION OF THESE GROUPS, THE CONTROL OF THE DISTRIBUTION BY THE INTERACTION OF ELEVATION, PRECIPITATION AND TEMPERATURE, AND THE GENERAL RELATIONSHIPS BETWEEN GREAT SOIL GROUPS, ELEVATION, PRECIPITATION, AND VEGETATION ARE OUTLINED. EACH SOIL GROUP IS DESCRIBED; ITS MORPHOLOGICAL CHARACTERISTICS, DEVELOPMENT, ETC. ARE NOTED.

C-173
COX, GENE S.
1959.
ROOT DISTRIBUTION IN PONDEROSA PINE STANDS GROWING ON THREE SOILS.
MISSOULA, MT.: MONTANA STATE UNIV., SCHOOL FORESTRY, FOREST & CONSERVATION EXPER. STAT. BULL. NO. 18. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD & LAKE COUNTIES). THE DISTRIBUTION OF ROOTS IN PONDEROSA PINE (PINUS PONDEROSA) STANDS IN DIFFERENT SOIL HORIZONS WAS DETERMINED IN THIS STUDY, WHICH ALSO ATTEMPTED TO RELATE DISTRIBUTION TO SOIL TEXTURE. EVEN-AGED STANDS ON THREE SOIL TYPES WERE SELECTED.

C-174
COX, GENE S.; MCCONNELL, R. C.; AND MATTHEWS, L. M.
1980.
"PONDEROSA PINE PRODUCTIVITY IN RELATION TO SOIL AND LANDFORM IN WESTERN MONTANA."
PROC. SOIL SCIENCE SOCIETY AMERICA 24(MARCH-APRIL 1980):139-142.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD & LAKE COUNTIES). FOREST SOIL PRODUCTIVITY FOR GROWTH OF PINUS PONDEROSA IN MONTANA WEST OF THE CONTINENTAL DIVIDE IS EXAMINED IN THIS REPORT. THE BASIC DATA WAS OBTAINED FROM 259 PLOTS LOCATED IN PONDEROSA STANDS ON 27 SOIL SERIES AND 9 LANDFORM TYPES. STUDY AREAS WERE CONFINED TO MEDIUM TO WELL STOCKED, EVEN AGED STANDS, 30 YEARS OF AGE OR OLDER. TOTAL HEIGHT, DIAMETER, AND AGE MEASUREMENTS WERE MADE ON FIVE DOMINANT AND CODOMINANT TREES ON EACH PLOT. THE SITE INDEX WAS DETERMINED. THE SPECIES OF GRASSES, FORBS, AND SHRUBS PRESENT WERE RECORDED.

C-175
CRAIG, VERN, AND MCLUCAS, JIM.
1962.
"MONTANA'S ELK HERDS THROUGH THE YEARS."
MONTANA WILDLIFE (JANUARY 1962):15-21.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). A BRIEF HISTORY OF ELK NUMBERS AND MANAGEMENT OF THE ANIMAL IS PRESENTED. INCLUDED ARE DESCRIPTIONS OF THE EARLY ABUNDANCE OF GAME WITNESSED BY EARLY EXPLORERS, THE GREAT SLAUGHTER OF WILD HERDS AFTER 1876, THE PASSING OF FISH AND GAME LEGISLATION, THE FIRST GAME WARDENS, PLANS TO REDISTRIBUTE ELK THROUGH TRANSPLANTING PROGRAMS, THE ESTABLISHMENT OF GAME PRESERVES, AND THE PROBLEM OF OVER-ABUNDANCE AND OVER-GRAZING.

C-176
CRAIGHEAD, JOHN J.
1957.
"ASSETS OF UPSTREAM WILDERNESS AREAS: HOW STORAGE RESERVOIRS AFFECT THEM." IN PROCEEDINGS OF SECOND ANNUAL WATER RESOURCES CONFERENCE: HIGH DAMS AND UPSTREAM STORAGE, PP. 137-147.
MISSOULA, MT.: MONTANA STATE UNIV.
FINAL, SPECIFIC, TEC;ORIGINAL DATA, REGIONAL.

(NORTHWEST UNITED STATES: MIDDLE FORK OF THE FLATHEAD RIVER). THIS ARTICLE DEFENDS THE NEED FOR UNHARNESSED AND UNDEVELOPED WATERS FOR HIGH QUALITY OUTDOOR RECREATION. THE MIDDLE FORK OF THE FLATHEAD IS USED AS AN ILLUSTRATION.

C-177
CRAIGHEAD, JOHN J.
1958.
"WILD RIVER."
MONTANA WILDLIFE. PP. 15-20.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MIDDLE FORK OF THE FLATHEAD RIVER). THIS ARTICLE IS AN EXCERPT FROM A LETTER WRITTEN BY THE LEADER OF THE MONTANA COOPERATIVE WILDLIFE RESEARCH UNIT ABOUT THE PROPOSED IMPOUNDING OF THE MIDDLE FORK OF THE FLATHEAD RIVER AT SPRUCE PARK. IT BRIEFLY DESCRIBES THE HISTORY OF IMPOUNDMENT IN THE NORTHWEST, AND SOME OF THE REASONS WHY THE AUTHOR BELIEVES THE MIDDLE FORK SHOULD REMAIN A WILD RIVER.

C-178
CRAIGHEAD, JOHN J.
1964.
"WILDERNESS IN MONTANA...A REPORT."
LIVING WILDERNESS, WINTER-SPRING 1964, PP. 5-10.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: MIDDLE FORK OF THE FLATHEAD RIVER & JEWEL BASIN). THE AUTHOR, PRESIDENT OF THE

MONTANA WILDERNESS ASSOCIATION, DESCRIBES THE CURRENT STATUS OF ATTEMPTS TO HAVE THE MIDDLE FORK OF THE FLATHEAD RIVER AND THE JEWEL BASIN CLASSIFIED AS A WILD RIVER AND A WILD AREA, RESPECTIVELY.

C-179

CRAIGHEAD, JOHN J., AND CRAIGHEAD, FRANK.
1957.
"BRIGHT DYES REVEAL SECRETS OF CANADA GEESE."
NATIONAL GEOGRAPHIC, DECEMBER 1957, PP. 817-832.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & LOWER FLATHEAD RIVER). THE ARTICLE DESCRIBES THE RESEARCH CONCERNING BRANTA CANADENSIS MOFFITTI. IT DISCUSSES MARKING BIRDS WITH COLORED NECKBANDS OR DYING GOSLINGS TO FOLLOW THE DAILY, SEASONAL, AND ANNUAL BEHAVIOR. FLATHEAD RESEARCH INVOLVED: AIR AND GROUND CENSUS, GOSLING DYEING, OBSERVING NESTING/REARING OF YOUNG, COLLECTING BIRDS FOR POPULATION DATA, AND LEG AND NECK BANDING. HUNTING AND BIRD MANAGEMENT ARE CONSIDERED.

C-180

CRAIGHEAD, JOHN J., AND STOCKSTAD, D. S.
1958.
"A COLORED NECKBAND FOR MARKING BIRDS."
J. WILDLIFE MANAGEMENT 20(3):2.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY). A COLORED NECKBAND WAS DEVELOPED TO FACILITATE DETERMINATION OF BREEDING AGE OF BRANTA CANADENSIS MOFFITTI, WHICH SEX BECOMES SEXUALLY MATURE FIRST, WHETHER GOSLINGS PRODUCED IN THE FLATHEAD VALLEY NEST THERE LATER AND WHETHER SOME OF THE GEESE SETTLE AS NESTING PAIRS IN OTHER AREAS. IT WAS ALSO NECESSARY TO DETERMINE PRECISELY THE RELATIONSHIP OF SUBADULT BIRDS TO ADULT BIRDS IN THE POPULATION AND TO RECORD MOVEMENTS AND ACTIVITY OF SUBADULT GEESE.

C-181

CRAIGHEAD, JOHN J., AND STOCKSTAD, D. S.
1956.
MEASURING HUNTING PRESSURE ON CANADA GEESE IN THE FLATHEAD VALLEY.
NEW ORLEANS: 21ST NORTH AMERICAN WILDLIFE CONFERENCE. 39 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY: PABLO & NINEPIPE WILDLIFE REFUGES). THIS PAPER DISCUSSES SOME FACTORS AFFECTING THE HARVEST OF BRANTA CANADENSIS MOFFITTI. IT EXAMINES THE RELATIONSHIPS BETWEEN GOOSE NUMBERS, GOOSE MOVEMENT, HUNTING PRESSURE AND GOOSE KILL. IT ATTEMPTS TO EVALUATE HUMAN PREDATORY PRESSURE ON THE SPECIES.

C-182

CRAIGHEAD, JOHN J., AND STOCKSTAD, D. S.
1958.
"GOSLINGS DESCEND FROM AERIAL NEST."
J. WILDLIFE MANAGEMENT 22(2):2.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY: NINEPIPE NATL. WILDLIFE REFUGE). THIS REPORT PRESENTS A DETAILED DESCRIPTION OF HOW GOSLINGS GET DOWN FROM AERIAL NESTS AND THE LOSS SUSTAINED.

C-183

CRAIGHEAD, JOHN J., AND STOCKSTAD, D. S.
1960.
"COLOR MARKER FOR BIG GAME."
J. WILDLIFE MANAGEMENT 24(OCTOBER 1960):435-438.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). COLOR MARKING OF BIG GAME BY EAR SLITTING AND INSERTING COLORED PLASTICIZED POLYVINYL CHLORIDE TAPE IS DESCRIBED AND THE RESULTS EVALUATED.

C-184

CRAIGHEAD, JOHN J., AND STOCKSTAD, D. S.
1961.
"EVALUATING THE USE OF AERIAL NESTING PLATFORMS BY CANADA GEESE."
J. WILDLIFE MANAGEMENT 25(4):9-18.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY: NINEPIPE NATL. WILDLIFE REFUGE). THE PURPOSE OF THIS PAPER IS TO PRESENT AN EVALUATION OF AERIAL PLATFORMS AS A MANAGEMENT PRACTICE TO INCREASE THE NESTING POPULATION OF BRANTA CANADENSIS MOFFITTI. MANAGEMENT SUGGESTIONS ARE OFFERED.

C-185

CRAIGHEAD, JOHN J., AND STOCKSTAD, D. S.
1964.
"BREEDING AGE OF CANADA GEESE."
J. WILDLIFE MANAGEMENT 28(1):7-14.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY: NATL. BISON RANGE). THIS STUDY WAS DESIGNED TO DETERMINE WHAT PERCENT OF 1, 2, AND 3-YEAR-OLD BRANTA CANADENSIS MOFFITTI NEST IN A POPULATION OF LIMITED SIZE; TO COMPARE RESULTS WITH SIMILAR INFORMATION FROM CAPTIVE FLOCKS; AND, BY APPLYING THE BREEDING AGE DATA OBTAINED, TO DETERMINE THE PERCENT OF BREEDING GEESE IN THE FLATHEAD VALLEY POPULATION.

C-186

CRAIGHEAD, JOHN J.; SCAGGS, G. B.; AND SIMNER, JAY S.
(IN PRESS).
GRIZZLY HABITAT ANALYSIS: SECTIONS I, II AND III.
MISSOULA, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS & LINCOLN SCAPEGOAT WILDERNESS). FROM 1972 THROUGH 1979 A STUDY OF GRIZZLY BEAR HABITAT WAS CONDUCTED IN THE SCAPEGOAT AND BOB MARSHALL WILDERNESS AREAS TO BOTANICALLY DESCRIBE THE HABITAT, ANALYZE THE FEEDING HABITS OF GRIZZLIES, EVALUATE HABITAT IN TERMS OF BEAR FOOD PLANTS AND THEN INTEGRATE THAT INFORMATION INTO A MULTISPECTRAL, COMPUTER-ASSISTED IMAGERY ANALYSIS THAT COULD BE COMPUTER EXTRAPOLATED TO THE ENTIRE WILDERNESS ECOSYSTEM. THE OBJECTIVE OF SECTION ONE WAS TO PRESENT A HOLISTIC DESCRIPTION OF THE VEGETATION COMPOSING GRIZZLY BEAR HABITAT AND THEN IN SECTIONS II AND III TO DESCRIBE AND EMPHASIZE THOSE COMPONENTS MOST ESSENTIAL TO THE BEAR TO ACCOMPLISH THAT, ONE PRIMARY AND TWO SECONDARY STUDY AREAS WERE TYPE MAPPED AND QUANTITATIVELY DESCRIBED IN TERMS OF VEGETATION/LAND SYSTEMS FOR ALPINE, SUBALPINE AND TEMPERATE CLIMATIC ZONES. FORESTS WERE CLASSIFIED AND MAPPED ACCORDING TO THE FOREST HABITAT TYPES OF DAUBENMIRE AND DAUBENMIRE (1968).

C-187

CRANE, FLORENCE R.
1909.
THE FAITHFUL INDIANS OF ST. IGNATIUS.
AVAILABLE FROM: NEWBERRY LIBRARY, CHICAGO.

(FLATHEAD INDIAN RESERVATION). THIS INACCURATE DESCRIPTION OF THE FLATHEAD RESERVATION INDIAN AFFAIRS SEEMS TO BE PARTLY DRAWN FROM A VISIT TO THE RESERVATION ABOUT 1907, BUT THE AUTHOR HAS ELABORATED FROM WHAT SHE SAW. SKCC.

C-188

CROOKSTON, NICHOLAS.
1978.
"PREDICTING THE OUTCOME OF MANAGEMENT ACTIVITIES IN MOUNTAIN PINE BEETLE SUSCEPTIBLE LODGEPOLE PINE STANDS" IN SOCIETY OF AMERICAN FORESTERS 1978 PROCEEDINGS.
MOSCOW, ID.: UNIV. IDAHO, FORESTRY WILDLIFE & RANGE EXPR. STAT. 5 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MNTNS.: FLATHEAD NATL. FOREST). THE PROGNOSIS MODEL FOR STAND DEVELOPMENT USED BY TIMBER MANAGERS TO PREDICT GROWTH OF STANDS UNDER VARIOUS MANAGEMENT REGIMES FAILS TO TAKE INTO ACCOUNT CATASTROPHIC MORTALITY FACTORS. THE MOUNTAIN PINE BEETLE POPULATION DYNAMIC SIMULATION PROGRAM COUPLED TO THE STAND-PROGNOSIS MODEL PROVIDES THE INGREDIENT NECESSARY TO MAKE PREDICTIONS OF LODGEPOLE PINE STAND GROWTH AND DEVELOPMENT WHICH ALLOW FOR THE EFFECTS OF MOUNTAIN PINE BEETLE EPIDEMICS. THE INCORPORATION OF BOTH MODELS IS DESCRIBED, AND THE DATA OBTAINED FROM THE SYSTEM INCLUDES: EXPECTED DYNAMICS OF THE INTERACTION BETWEEN MOUNTAIN PINE BEETLE AND LODGEPOLE PINE; CUMULATIVE TREE MORTALITY AND NUMBERS OF SURVIVING AND DEAD TREES PER ACRE; THE NUMBER OF BEETLES PER ACRE EMERGING FROM PREVIOUSLY ATTACKED TREES, THE NUMBER LEAVING THE STAND, AND THE NUMBER DYING FROM UNIDENTIFIED CAUSES. AN EXAMPLE OF THE USE OF THIS SYSTEM IS OUTLINED.

C-189

CROSSBY, GARY W.
1972.
"GEOPHYSICAL SURVEY OF SWAN VALLEY, MONTANA."
GEOLOGICAL SOCIETY AMERICA, ABSTRACTS WITH PROGRAMS, ROCKY MTN. SEC., 25TH ANNUAL MEETING 4(MARCH 1972):372.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN VALLEY). RESULTS OF A DETAILED GRAVITY SURVEY, ALONG WITH SUPPLEMENTARY SEISMIC, MAGNETIC, AND RESISTIVITY SURVEYS, ARE SUMMARIZED IN THIS ABSTRACT. THE AREA IS CONSIDERED AN INTERMONTANE VALLEY WITH AN EXTENSIONAL STRUCTURAL MOTIF. DATA SHOWS THAT MAJOR FAULTING OCCURS AT THE VALLEY'S BOUNDARY WITH THE MISSIONS AND ANCILLARY FAULTING FURTHER SEGMENTS THE VALLEY BLOCK BENEATH THE VALLEY FILL. THE BEDROCK VALLEY FILL BOUNDARY AND MAXIMUM THICKNESS OF VALLEY FILL WAS DETERMINED.

C-190

CROWLEY, F. A.
1963.
MINES AND MINERAL DEPOSITS (EXCEPT FUELS) SANDERS COUNTY, MONTANA.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. BULL. 34. 58 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(SANDERS COUNTY). THE PURPOSE OF THIS BULLETIN IS TO COORDINATE THE MANY AND SCAT-

TERED WORKS OF EARLY INVESTIGATORS AND TO UPDATE THE EARLIER DESCRIPTIONS BY FIELD EXAMINATION. FOLLOWING A GENERAL GEOLOGIC DESCRIPTION OF ROCK FORMATIONS AND STRUCTURAL FEATURES, INDIVIDUAL ACCOUNTS OF MINES, PROSPECTS AND MINING COMPANIES FOR THIRTEEN DISTRICTS ARE PRESENTED. INCLUDED IN THESE DISCUSSIONS IS INFORMATION ON THE EXTENT OF DEVELOPMENT; ROCK FORMATIONS, FAULTS, AND OTHER GEOLOGIC DATA; CURRENT OWNERS; PRODUCTION; VEIN CHARACTERISTICS; LOCATION; AND UNDERGROUND AND SURFACE GEOLOGICAL MAPS.

C-191
CROWLEY, JOHN M.
1978.
BIBLIOGRAPHY - GEOGRAPHY OF MONTANA - GEO 368.
MISSOULA, MT.: UNIV. MONTANA, GEOGRAPHY DEPT., MISSOULA.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). A COMPILATION OF PUBLISHED MATERIALS PERTINENT TO THE STUDY OF MONTANA; TOPICS COVERED INCLUDE MAPS, THE LAND, ENVIRONMENTAL QUALITY, HISTORICAL BACKGROUND, AND THE ECONOMIC-RESOURCE STRUCTURE. IN ADDITION, MAPS OF: LAND USE IN THE MAJOR CITIES IN THE STATE, WATER AND POWER, BIOCLIMATIC ALTITUDINAL ZONES, VEGETATION AND LAND OWNERSHIP ARE INCLUDED.

C-192
CULVER, G. E.
1891.
"NOTES ON A LITTLE KNOWN REGION IN NORTHWESTERN MONTANA."
TRANS. WISCONSIN ACADEMY SCIENCES, ARTS & LETTERS 8:187-205.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA: FORT SHAW TO CUT BANK CREEK TO THE BELLY RIVER TO THE NORTH FORK OF THE FLATHEAD TO FLATHEAD LAKE). THE REPORT GIVES AN ACCOUNT OF AN EXPEDITION IN 1890, HEADED BY LIEUTENANT GEORGE P. AHERN, WITH THE OBJECT OF FINDING A PASS OVER THE NORTHERN PART OF THE MOUNTAINS, TO MAP THE COURSE OF STREAMS AND THE PRINCIPAL INDIAN TRAILS. THE GEOGRAPHY AND A GENERAL DESCRIPTION IS GIVEN FOR THE PLAINS REGION EAST OF THE MOUNTAINS, THE FOOTHILLS AND MOUNTAINS, THE SCENERY, AHERN PASS, THE WESTERN SLOPE OF THE MOUNTAINS, MUD CREEK OF THE NORTH FORK, AND THE FLATHEAD VALLEY. A DISCUSSION OF GEOLOGIC NOTES INCLUDES THE STRUCTURE OF THE MOUNTAINS, EXPOSED STRATA, LOCATION AND CHARACTER OF IGNEOUS ROCK OUTCROPS, AND A PETROGRAPHICAL ANALYSIS. EXISTING GLACIERS OBSERVED ARE REPORTED, AND THE FEATURES OF FORMER GLACIERS (WESTERN BORDER OF DRIFT, ICE TONGUES OF THE EASTERN SLOPE, AND ICE RECORDS WEST OF MAIN RANGE) ARE DESCRIBED.

C-193
CUNNINGHAM, R. N.; FULLAWAY, S. U., JR.; AND WHITNEY, C. N.
1928.
MONTANA FOREST AND TIMBER HANDBOOK.

MONTANA STATE UNIV., SCHOOL FORESTRY, MISSOULA. BULL. 278. 162 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE HANDBOOK PRESENTS INFORMATION ON THE FOREST RESOURCE—ITS AREA AND OWNERSHIP, ON PRODUCTION AND CONSUMPTION, ON THE IMPORTANCE OF THE FOREST INDUSTRY, AND ON STATE FOREST PROBLEMS. MONOGRAPHS OF COMMERCIAL TREE SPECIES CONSIDERS THE HISTORY, BOTANICAL AND SILVICULTURAL CHARACTERISTICS AND USES FOR PONDEROSA PINE, WESTERN WHITE PINE, LODGEPOLE PINE, WESTERN LARCH, DOUGLAS FIR, ENGELMANN SPRUCE, LOWLAND WHITE FIR, WESTERN RED CEDAR AND WESTERN HEMLOCK. DIRECTORIES OF SAWMILLS, TIMBER PRODUCTS PRODUCERS, FOREST AGENCIES, AND A GEOGRAPHICAL DIRECTORY IS INCLUDED.

C-194
CURNOW, EDWARD E.
1989.
"THE HISTORY OF THE ERADICATION OF THE WOLF IN MONTANA."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 99 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). A HISTORY OF ERADICATION OF THE WOLF (CANIS LUPUS), WOLF-HUMAN RELATIONSHIPS, AND EUROPEAN-AMERICAN ATTITUDES TOWARDS THE WOLF IS PRESENTED. THE THESIS DESCRIBES THE SPECIES MOBILITY, TERRITORY, FOOD HABITS, SOCIAL STRUCTURE AND PACKS, REPRODUCTIVE BEHAVIOR AND DENNING, HUNTING BEHAVIOR AND ECOLOGICAL ROLE. CONTACT WITH THE WOLF BY EXPLORERS, TRAPPERS AND WOLF BOUNTY HUNTERS IS DESCRIBED. THE EVOLUTION OF THE STATE'S CATTLE INDUSTRY, THE PROBLEM WITH WOLF PREDATION, LAWS PROVIDING FOR BOUNTY, AND THE EXAGGERATION OF THE GRAVITY OF THE PROBLEM TO A "WAR ON WOLVES" ARE TOPICS DISCUSSED.

C-195
CURRY, ROBERT R.; LISTER, J. C.; STOFFEL, K.
1977.
GLACIAL HISTORY OF FLATHEAD VALLEY AND LAKE MISSOULA. FIELD GUIDE NO. 4.
MISSOULA, MT.: GEOLOGICAL SOCIETY AMERICA, ROCKY MTN. SECTION. 26 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY). THIS STUDY OF QUATERNARY GEOLOGY OF THE FLATHEAD VALLEY INCLUDES A ROAD LOG AND DISCUSSION OF LAKE MISSOULA PROBLEMS. THE THEORIES OF THE CATASTROPHIC DRAINING OF THE LAKE AND OF VARVED LAKE FILLING CYCLES ARE EXPLAINED. PROBLEMS IN GLACIER CHRONOLOGY ARE PRESENTED. AN EXTENSIVE ROAD LOG IS INCLUDED.

C-196
CURTIS, EDWARD S.
1915.
INDIAN DAYS OF THE LONG AGO.
YONKERS-ON-HUDSON, N.Y.: WORLD BOOK CO.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS FICTIONAL CHILDREN'S BOOK IS SET IN A SALISH FLATHEAD CAMP BEFORE THE COMING OF WHITE PEOPLE. THE SALISH ARE VISITED BY SOME INDIAN TRAVELERS WHO TELL STORIES OF INDIAN LIFE IN THE AMERICAN SOUTHWEST, PACIFIC COAST, AND THE EAST. IT TELLS ABOUT THE WAYS OF LIFE OF MANY OTHER INDIAN TRIBES AS WELL AS THE SALISH. SEVENTH THROUGH TENTH GRADE LEVEL. SKCC.

C-197
CURTIS, EDWARD S.
1972.
IN A SACRED MANNER WE LIVE: PHOTOGRAPHS OF THE NORTH AMERICAN INDIAN BY EDWARD S. CURTIS.
BARRE, MASS.: BARRE PUBLISHERS.

THIS VOLUME INCLUDES A FEW OF CURTIS' SALISH AND KUTENAI PICTURES. SKCC.

C-198
CURTIS, EDWARD S.; AND HODGE, FREDERICK W., ED.
1911.
THE NORTH AMERICAN INDIAN, BEING A SERIES OF VOLUMES PICTURING AND DESCRIBING THE INDIANS OF THE UNITED STATES AND ALASKA. VOL. 7.
NEW YORK: JOHNSON REPRINT CORP. 210 PP.
PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

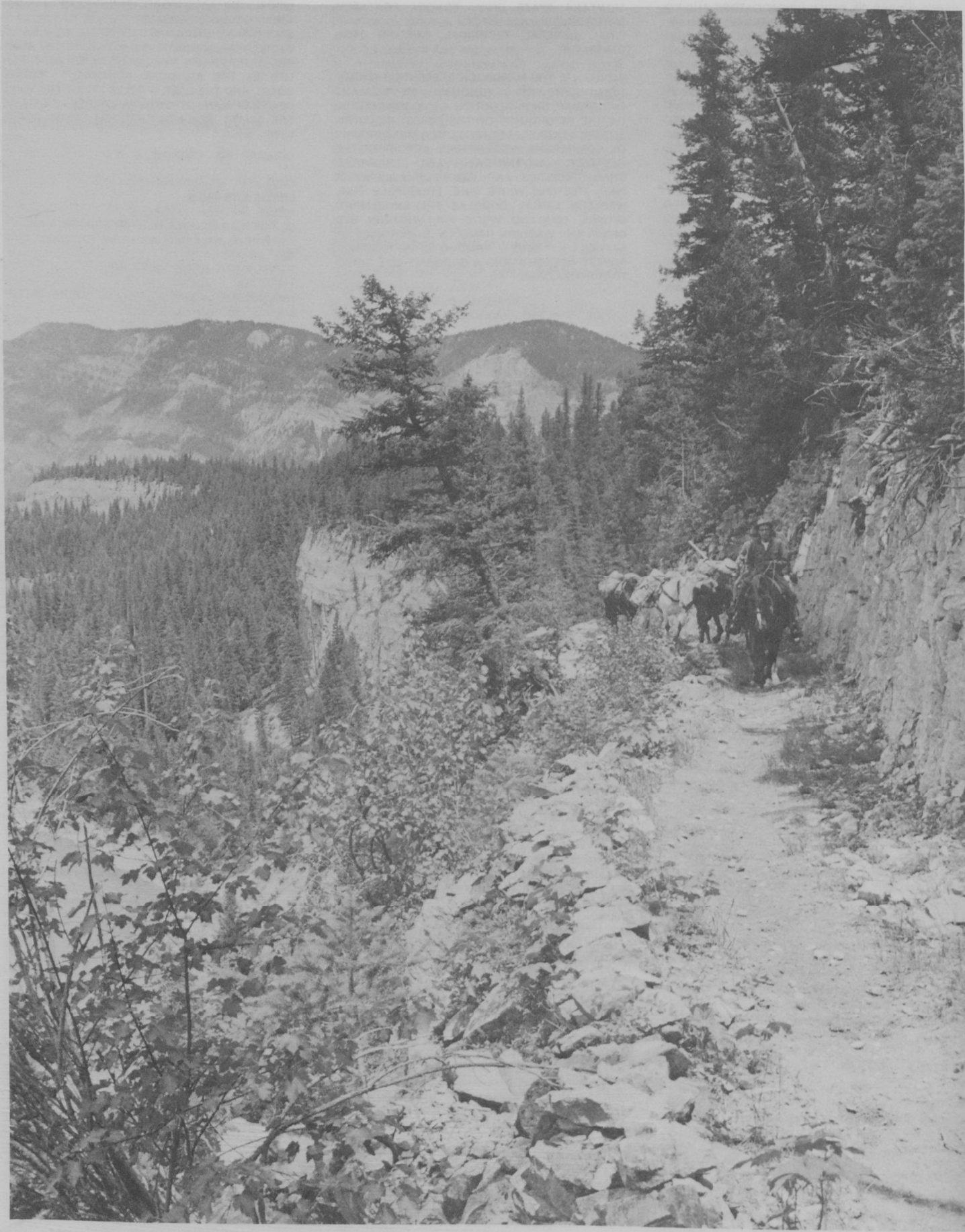
NOTE: SEE PP. 43-51; 89-114; 179-188.

(ABORIGINAL LANDS OF SALISH & KUTENAI TRIBES). THE FLATHEADS, PEND D'OURELLES AND KUTENAI TRIBES ARE INCLUDED IN THIS VOLUME. THE DISCUSSION OF THE FLATHEAD AND PEND O'ORELLES DESCRIBES THE LANDS THEY CONTROLLED, THE MEETING WITH LEWIS AND CLARK, HORSE OWNERSHIP, BUFFALO HUNTING, THE ARRIVAL OF FUR TRADERS AND MISSIONARIES, THE TREATY OF 1855, AND THE CONTROVERSY INVOLVING CHIEF CHARLOT'S BAND OF FLATHEADS. INFORMATION ON THE FLATHEADS IS ALSO FOUND IN THE DESCRIPTION OF SALISHAN CULTURE AND MYTHOLOGY. THE DESCRIPTION OF THE KUTENAI EXAMINES THEIR RELIGIOUS PRACTICES, CEREMONIES, AND MYTHOLOGY AND INCLUDES A GENERAL DESCRIPTION OF THEIR TRIBAL SUBDIVISIONS, MARRIAGE PRACTICES, TYPES OF DWELLINGS, THE WARRIOR SOCIETY AND THEIR SONG, BASKETRY, BOATING, AND MEDICAL TREATMENT.

C-199
CZECHURA, S. J., AND BERG, RICHARD B.
1977.
INDEX OF GRADUATE THESES OF MONTANA GEOLOGY.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. SPEC. PUBL. 77. 104 PP.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: ALSO PUBLISHED IN 1963, 1965, 1971. NEXT ISSUE TO BE PUBLISHED IN 1982.

(MONTANA). THIS LISTING OF THESES IS ARRANGED ALPHABETICALLY BY SUBJECT AND BY INSTITUTION GRANTING THE DEGREE. LARGE MAPS ARE INCLUDED OUTLINING THE AREAS OF EACH STUDY AREA.





D-1
DALBY, CHARLES.
1980.

"THE UPPER NORTH FORK FLATHEAD RIVER: A HYDROLOGIC STATE OF THE WATERSHED REPORT." M.S. THESIS, UNIV. MONTANA, MISSOULA. IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). FOR THE PURPOSE OF EVALUATING THE POTENTIAL FLUVIAL GEOMORPHIC IMPACTS OF WATERSHED MODIFICATION, THIS RESEARCH EXAMINES THE INTERRELATIONSHIP BETWEEN WATER/SEDIMENT TRANSPORT AND CHANNEL FORM AND PROCESS IN THE UPPER ALLUVIAL REACHES OF THE NORTH FORK. BECAUSE OF THE COMPLEXITY OF THE NORTH FORK'S FLUVIAL SYSTEM, AN INTERDISCIPLINARY APPROACH, RELYING ON RESEARCH METHODOLOGIES OF THE GEOMORPHOLOGIST, HYDROLOGIST, CIVIL ENGINEER, AND PLANT ECOLOGIST IS ADOPTED TO MEET PROJECT OBJECTIVES. METHODS INCLUDE STATISTICAL ANALYSIS OF STREAMFLOW CHARACTERISTICS, DESCRIPTION OF HYDRAULIC GEOMETRY, MODELING OF SEDIMENT TRANSPORT, DESCRIPTION OF CONTEMPORARY FLUVIAL GEOMORPHOLOGY AND HISTORIC CHANNEL CHANGES, AND USE OF VEGETATION DATING TO DETERMINE RATES OF CHANNEL PROCESSES. IN ADDITION, A VIGIL NETWORK (9 STATIONS) WAS ESTABLISHED TO PERMIT LONG-TERM MONITORING OF CHANGES IN CHANNEL GEOMETRY.

D-2
DANA, PAUL.
1883.

"AMONG THE KALISPELL: A NEW YORK JOURNALIST ON THE FLATHEAD INDIAN RESERVATION." *THE NORTHWEST*, OCTOBER 1883, P. 2.

(FLATHEAD INDIAN RESERVATION). DANA'S OBSERVATIONS OF THE FLATHEAD RESERVATION WERE ORIGINALLY PUBLISHED IN THE NEW YORK SUN. THIS SHORT SURVEY ON CONDITIONS ON THE RESERVATION PAYS SPECIAL ATTENTION TO ECONOMIC PROGRESS. SKCC.

D-3
DANIEL, MANN, JOHNSON, AND MENDENHALL.
1971.

MASTER SEWERAGE SYSTEM PLAN FOR THE LAKE MCDONALD REGION, GLACIER NATIONAL PARK, MONTANA.
DENVER, CO.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, WESTERN SERVICE CENTER. 182 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE MCDONALD). THIS ENGINEERING REPORT WAS DESIGNED TO SERVE AS A GUIDELINE FOR SEWERAGE SYSTEM IMPROVEMENTS IN GLACIER NATIONAL PARK. THE AREAS INVESTIGATED FOR THIS STUDY WERE: PARK HEADQUARTERS, APGAR, FISH CREEK CAMPGROUND, SPRAGUE CREEK CAMPGROUND, LAKE MCDONALD LODGE AREA, AND AVALANCHE CAMPGROUND. THE SCOPE OF THE WORK COVERED: 1) THE STUDY OF THE PHYSICAL AND DEVELOPMENTAL CHARACTERISTICS OF THE AREA AS THEY RELATE TO THE PRESENT AND FUTURE NEEDS FOR WASTEWATER COLLECTION AND TREATMENT; 2) THE STUDY AND INVESTIGATION OF EXISTING WATER QUALITY; 3) THE INSPECTION, ANALYSIS, AND EVALUATION OF THE EXISTING SEWERAGE SYSTEM TO DETERMINE THOSE COMPONENTS WHICH ARE DEFICIENT FOR PRESENT AND FUTURE NEEDS; 4) THE DEVELOPMENT OF ALTERNATE SEWAGE COLLECTION AND TREATMENT SCHEMES TO MEET PRESENT AND FUTURE NEEDS AND THE COMPARISON OF THESE SCHEMES WITH REGARD TO COST DESIRABILITY AND FLEXIBILITY; AND 5) THE RECOMMENDATION OF A MASTER SEWERAGE PLAN.

D-4
DANIELS, MARK.
1916.

"GLACIER NATIONAL PARK."
AMERICAN FORESTRY 22(JULY):397-404.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE PARK'S SCENERY, THE ESTABLISHMENT OF

CONCESSIONAIRES, TRAVELING BY HORSEBACK AND OTHER MEANS, THE NAMING OF PARK FEATURES, ETC.

D-5
DARROW, GEORGE.
1955.

"THE HISTORY OF OIL EXPLORATION IN NORTHWESTERN MONTANA, 1892-1950." IN *BILLINGS GEOLOGICAL SOCIETY GUIDEBOOK. SIXTH ANNUAL FIELD CONFERENCE*, PP. 225-232.

BILLINGS, MT.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA). THE HISTORY OF OIL EXPLORATION BEGINS WITH AN ACCOUNT OF MONTANA'S FIRST SUBSTANTIAL OIL BOOM, INVOLVING THE KINTLA LAKE FIELD. THE DISCOVERY OF OIL IN THE SWIFT CURRENT CREEK DISTRICT IN 1903 IS DISCUSSED, ALONG WITH ACCOUNTS OF DISCOVERY AND DEVELOPMENT OF COMMERCIAL FIELDS, 1921-1950, AT KEVIN-SUNBURST AND OTHER NORTHERN COMMUNITIES.

D-6
DARY, DAVID A.
1974.

THE BUFFALO BOOK: THE FULL SAGA OF THE AMERICAN ANIMAL.
CHICAGO: THE SWALLOW PRESS.

(FLATHEAD INDIAN RESERVATION). THIS SURVEY OF THE ENTIRE HISTORY OF THE BUFFALO GIVES SPECIAL EMPHASIS TO EARLY TWENTIETH CENTURY EFFORTS TO SAVE THE ANIMAL FROM EXTINCTION. THE PABLO-ALLARD HERD ON THE FLATHEAD RESERVATION AND ITS IMPORTANCE IN PRESERVING THE ANIMAL ARE DISCUSSED. A CHAPTER ON THE WHITE BUFFALO PAYS CONSIDERABLE ATTENTION TO THE NATIONAL BISON RANGE. SKCC.

D-7
DAUBENMIRE, R. F.
1946.

"THE LIFE ZONE PROBLEM IN THE NORTHERN INTERMOUNTAIN REGION."
NORTHWEST SCIENCE 20:28-38.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(NORTHERN INTERMTN. REGION). THIS PAPER DISCUSSES THE PROBLEM OF DEFINING BIOGEOGRAPHICAL AREAS, OR LIFE ZONES. THE PAPER ARGUES THE USE OF BIOLOGICAL CRITERIA AND THE LIMITATIONS OF CLIMATIC DATA. TEN ZONES ARE LISTED AND DEFINED.

D-8
DAUGHERTY, CHARLES H.
1976.

"FREEZE BRANDING AS A TECHNIQUE FOR MARKING ANURANS."
COPEIA 4:3-6.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSOULA COUNTY: BUTLER CREEK). RICKER (1956) LISTED FOUR CHARACTERISTICS OF THE IDEAL ANIMAL MARKING SYSTEM FOR USE IN ECOLOGICAL STUDIES: 1) IT SHOULD EXERT NO INFLUENCE ON SURVIVORSHIP OR BEHAVIOR OF THE ANIMALS, 2) IT SHOULD NOT AFFECT THE INDIVIDUALS SUSCEPTIBILITY TO CAPTURE, 3) IT SHOULD IDENTIFY THE ANIMAL INDIVIDUALLY, AND 4) IT SHOULD BE PERMANENT. THIS PAPER REPORTS ON THE USE OF FREEZE BRANDING IN MARKING ANURANS AND HOW THE TECHNIQUE FULFILLS RICKER'S REQUIREMENTS.

D-9
DAUGHERTY, CHARLES H., AND ALLENFORF, F. W.
1977.

"DIVERGENCE OF POPULATIONS." IN *ABSTRACTS OF PAPERS PRESENTED AT THE 1977 MEETINGS OF THE GENETICS SOCIETY OF AMERICA, AUSTIN, TEXAS, AUGUST 14-17, 1977.*

GENETICS 86(JUNE 1977 SUPPLEMENT):514-515.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MONTANA: FLATHEAD & LAKE COUNTIES). THE ABSTRACT PRESENTS AN ARGUMENT IN FAVOR OF THE IMPORTANCE OF GENE FLOW, AS EVIDENT FROM THE STUDY OF THE AMPHIBIAN SPECIES ASCAPHUS TRUEI GENETIC DIVERGENCE OF SEVEN ASCAPHUS POPULATIONS CORRESPONDS IN MAGNITUDE AND PATTERN TO ESTIMATED TIMES OF GEOGRAPHICAL ISOLATION OF THESE POPULATIONS. DATA SUPPORTING THE IDEA THAT GENETIC VARIATION IS A FUNCTION OF THE "MEGAPOPULATION" AVAILABLE TO CONTRIBUTE GENES TO THE LOCAL POPULATION VIA GENE FLOW IS SUMMARIZED.

D-10

DAUGHERTY, CHARLES H., AND ALLENFORF, F. W.
1977.

"THE TAXONOMIC VALUE OF GENETIC DISTANCE:
DATA FROM TWO AMPHIBIANS."

AMERICAN ZOOLOGIST 17(FALL 1977):973.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MONTANA: FLATHEAD & LAKE COUNTIES). THE ABSTRACT REPORTS ON THE STUDY OF THE TAXONOMIC IMPLICATIONS OF GENETIC DISTANCE MEASURED WITHIN TWO HIGHLY DIFFERENTIATED AMPHIBIAN SPECIES (ASCAPHUS TRUEI AND DICAMPTODON SPP). DATA FROM ALLOZYME STUDIES OF THE TWO SPECIES ARE COMPARED. GENETIC DISTANCE VALUES OF POPULATIONS IN DIFFERENT MOUNTAIN RANGES ARE RELATED TO THOSE ASSOCIATED WITH INTRA SPECIFIC VARIATION. THE SIGNIFICANCE OF THE SYMPATRIC OCCURRENCE OF TWO GENETICALLY ISOLATED DICAMPTODON "SPECIES" IS DISCUSSED.

D-11

DAUGHERTY, CHARLES H., AND CANHAM, R. P.
1975.

"AN ISLAND POPULATION OF PEROMYSCUS
MANICULATUS: I. DENSITY RELATIONS." IN PROCEEDINGS OF AMERICAN SOCIETY OF MAMMOLOGISTS, 55TH ANNUAL MEETING.
MISSOULA, MT.: UNIV. MONTANA.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). A POPULATION OF PEROMYSCUS MANICULATUS WAS STUDIED BY LIVE TRAPPING ON AN ISLAND IN FLATHEAD LAKE, MONTANA DURING THE SUMMERS OF 1972-74. POPULATIONS INCREASED EACH SUMMER, BUT SUFFERED SEVERE MORTALITY EACH WINTER. HIGH DENSITY PERIODS WERE ASSOCIATED WITH EARLY TERMINATION OF REPRODUCTIVE ACTIVITY AND FOLLOWED BY COMPARATIVELY HIGHER WINTER MORTALITY.

D-12

DAUGHERTY, CHARLES H.; DAUGHERTY, C. B.; AND CANHAM, R. P.
1978.

"COLONIZATION AND EXTINCTIONS OF SMALL MAMMAL POPULATIONS ON AN ISLAND GROUP IN FLATHEAD LAKE, MONTANA."
J. MAMMALOGY 59(1):3.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). THIS NOTE REPORTS FURTHER EVIDENCE WHICH SUPPORTS THE NOTION OF A HIGH RATE OF SPECIES TURNOVER IN NATURALLY DELIMITED GEOGRAPHIC AREAS, OBTAINED FROM A STUDY OF SMALL MAMMAL POPULATIONS ON ISLANDS IN THE LARGEST NATURAL FRESHWATER LAKE IN THE WESTERN UNITED STATES.

D-13

DAVIDSON, JACK R.
1985.

"SUPPLY RESPONSE OF GRADE A MILK PRODUCTION
IN UPPER FLATHEAD VALLEY."

M.S. THESIS, MONTANA STATE COLLEGE, BOZEMAN.
69 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS STUDY WAS CONDUCTED TO ESTIMATE SUPPLY RESPONSE OF GRADE A MILK IN FLATHEAD COUNTY. LIMITATIONS OF TIME AND DATA RESTRICTED IT LARGELY TO A DEMONSTRATION OF THE MANNER IN WHICH THE BUDGET TECHNIQUE MIGHT BE USED FOR THIS PURPOSE. THE OBJECTIVES OF THIS STUDY WERE: 1) TO DISCOVER THE PROBLEMS MET IN DETERMINING THE FACTORS INFLUENCING THE PRODUCTION-RESPONSE TO A CHANGE IN MILK PRICE, 2) TO DETERMINE THE VARIOUS ALTERNATIVES AVAILABLE BY WHICH GRADE 1 DAIRY FARMS IN MOUNTAIN VALLEYS OF WESTERN MONTANA MAY RESPOND, 3) TO POINT TO A METHOD BY WHICH THE RESPONSE MAY BE INDICATED AND BY WHICH THE VARIOUS ALTERNATIVES MAY BE TESTED, AND 4) TO TEST SOME OF THE AVAILABLE ALTERNATIVES TO ARRIVE AT THE EXPECTED RESPONSE.

D-14

DAVIS, CLIFFORD V.
1961.

"A DISTRIBUTIONAL STUDY OF THE BIRDS OF MONTANA."

PH.D. DISSERTATION, OREGON STATE COLL. 462 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THE INTENT OF THIS STUDY WAS TO PRODUCE A DOCUMENTED, UP-TO-DATE, LIST OF THE SPECIES AND SUBSPECIES OF THE BIRDS OF MONTANA. THE LIST IS ANNOTATED WITH SEASONAL, DISTRIBUTIONAL, AND BREEDING INFORMATION. FOUR MAJOR SOURCES OF INFORMATION MADE UP THE BASIS FOR THE STUDY: WRITTEN RECORDS FOR A PERIOD OF 150 YEARS, 4500 STUDY SKINS FOUND IN MUSEUMS, THE AUTHORS PERSONAL OBSERVATIONS AND COLLECTIONS, AND SIGHT RECORDS OF THE AUTHOR'S COLLEAGUES.

D-15

DAVIS, CLIFFORD V.
1963.

"A GUIDE TO THE ORNITHOLOGY OF MONTANA (1911-1940)."

PROC. MONTANA ACADEMY SCIENCES 23:157-169.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS BIBLIOGRAPHY COVERS THE ORNITHOLOGICAL LITERATURE OF MONTANA WRITTEN FROM 1911 TO 1940.

D-16

DAVIS, CLIFFORD V., AND WEEKS, S. E.
1963.

"MONTANA SNAKES."
MONTANA WILDLIFE. 11 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). A DESCRIPTION OF THE BEHAVIOR, BREEDING DISTRIBUTION, AND HABITAT REQUIREMENTS OF THE TEN KINDS OF SNAKES THAT INHABIT MONTANA. PHOTOGRAPHS ARE INCLUDED.

D-17

DAVIS, DAVID E.
1952.

"LECONTE SPARROW IN WESTERN MONTANA."
THE CONDOR 54:115-116.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK: CAMAS CREEK). THIS ARTICLE REPORTS ON A GROUP OF LECONTE SPARROWS (PASSERHERBULUS CAUDACUTUS) OBSERVED ON THE WESTERN SIDE OF GLACIER NATIONAL PARK.

D-18

DAVIS, DAVID E.
1954.

"THE BREEDING BIOLOGY OF HAMMOND'S FLYCATCHER."

THE AUK 71(APRIL 1954):164-171.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE: UNIV. MONTANA BIOL. STAT.). THIS STUDY INVESTIGATED THE BREEDING BIOLOGY OF THE HAMMOND'S FLYCATCHER (EMPIDONAX HAMMONDI) IN ORDER TO PERMIT A READY DIFFERENTIATION BETWEEN THE SPECIES AND WRIGHT'S FLYCATCHER. OBSERVATIONAL DATA WAS RECORDED FOR: VOICE (MALE POSITION NOTE, FEMALE POSITION NOTE, MALE ALARM NOTE, FEMALE ALARM NOTE, SONG, GREETING NOTE); TERRITORY; AND NESTING. PUBLISHED AND PERSONAL OBSERVATIONS ON OTHER MEMBERS OF THE GENUS ARE COMPARED WITH THE DATA COLLECTED ON THE HAMMOND'S FLYCATCHER TO ASCERTAIN SIMILARITIES IN BREEDING BIOLOGY.

D-19

DAVIS, DENIS R.
1977.

"VISITOR ATTITUDES AND PREFERENCES FOR INTERPRETIVE PROGRAMS IN GLACIER NATIONAL PARK."
M.S. THESIS, UTAH STATE UNIV., LOGAN. 140 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OBJECTIVE OF THIS STUDY WAS TO DETERMINE VISITOR PREFERENCES FOR BOAT CRUISE PROGRAM OPTIONS, AS WELL AS VISITOR PREFERENCES FOR SELECTED INTERPRETIVE PROGRAMS. A QUESTIONNAIRE WAS DEVELOPED TO ASCERTAIN ATTITUDES TOWARD AND PARTICIPATION IN INTERPRETIVE ACTIVITIES AND WAS DISTRIBUTED TO FIVE SUBPOPULATIONS OF MANY GLACIER VISITORS. SELECTED INTERPRETIVE ACTIVITIES WERE RANKED AND DIFFERENCES AMONG SAMPLE GROUPS PREFERENCE HIERARCHIES WERE ESTABLISHED. RATES OF PARTICIPATION IN SEDENTARY AND SELF-PROPELLED, AND INTERPRETIVE AND NON-INTERPRETIVE ACTIVITIES WERE ESTABLISHED.

D-20

DAVIS, LESLIE B.
1960.

"FOLKTALE RESEARCH AMONG THE UPPER PEND D'OREILLE INDIANS OF MONTANA."

PROC. MONTANA ACADEMY SCIENCES 20:58-62.

IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE PEND D'OREILLE INDIANS). MYTHOLOGY AND OTHER FORMS OF ORAL NARRATIVES CHARACTERIZING PEND D'OREILLE CULTURE ARE EXPLORED, ALONG WITH THE ROLE THAT THE FOLK NARRATIVE PLAYS IN CONTEMPORARY PEND D'OREILLE CULTURE. THE DIFFUSION AND ASSIMILATION OF THE PEND D'OREILLE CULTURE WITH THAT OF THE FLATHEAD IS CONSIDERED. THE ARTICLE REPORTS ON A STUDY IN PROGRESS WHICH HAD TWO PHASES: 1) THE INTERVIEW OF A REPRESENTATIVE SAMPLE AND THE OBSERVATION OF THE NARRATION SESSION TO TEST THE VALIDITY OF THEIR IMPRESSION OF CURRENT STORY TELLING PRACTICES, AND 2) THE ATTEMPT TO ESTABLISH AN EARLY TIME HORIZON, A POINT FROM WHICH PREVIOUS NARRATION RITUAL PRACTICES MAY BE ASCERTAINED. OVERALL STUDY OBJECTIVES WERE: TO DETERMINE THE NATURE OF THE CHANGE IN THE ROLE OF THE FOLK TALE IN PEND D'OREILLE CULTURE AND TO ANALYZE THE NUMBER AND VARIETY OF STORIES THAT ARE TRANSCRIBED, FROM TWO POINTS OF INTEREST: STUDY AND CONTENT.

D-21

DAVIS, LESLIE B.
1963.

"REMNANT FORMS OF THE TRADITIONAL FOLK NARRATIVE SALVAGED AMONG THE UPPER PEND D'OREILLE INDIANS OF MONTANA."

M.A. THESIS, UNIV. MONTANA, MISSOULA. 148 PP. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE INTENT OF THIS RESEARCH WAS THE COLLECTION, RENDITION, ANALYSIS, AND DESCRIPTION OF NARRATIVE. THE ETHNO-FOLKLORE PERSPECTIVE IS EXAMINED, RELIGION AND LITERATURE OUTLINED. NARRATIVES INCLUDED WERE THOSE CONSIDERED BY THE INFORMANT TO BE OLD, AS WELL AS THOSE NARRATIVES OF LEGENDARY PROPORTIONS AND PERSONAL HISTORIC ADVENTURES.

D-22
DAVIS, LESLIE B.
1963.

REMNANT FORMS OF FOLK NARRATIVE AMONG THE UPPER PEND D'OREILLE INDIANS.

UNIV. MONTANA, ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 31. 31 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: SEE ABSTRACT FOR SAME PAPER-LISTED UNDER DAVIS, LESLIE B. 1963. UNPUBL. M.A. THESIS.

D-23
DAVIS, LESLIE B.
1966.

"AVONLEA POINT OCCURRENCE IN NORTHERN MONTANA AND CANADA."

PLAINS ANTHROPOLOGIST 11:100-116.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(CANADA & NORTHERN MONTANA: MARIAS RIVER'S RHINEHART SITE). THIS REPORT CONSIDERS THE AVONLEA POINT AS A HORIZON MARKER FOR THE LATE PREHISTORIC PERIOD IN THE NORTHWESTERN PLAINS. THE OCCURRENCE IN MONTANA OF AVONLEA DATA IS DISCUSSED, COMPARED, AND COMBINED WITH CANADIAN DATA TO DEVELOP AN EXPANDED PICTURE OF REGIONAL AVONLEA "CULTURE." A CRITIQUE OF A PREVIOUS WORK REGARDING THE AVONLEA POINT BY THOMAS F. KEHOE AND BRUCE MCCORQUODALE (1961) IS INCLUDED AND REINFORCES ESSENTIAL HYPOTHESIS AND FURTHER CLARIFIES AVONLEA SPATIAL AND TEMPORAL PARAMETERS.

D-24
DAVIS, LESLIE B.
1979.

"MILITARY ENCULTURATION OF PEND D'OREILLE MALES." IN LIFEWAYS OF INTERMONTANE AND PLAINS MONTANA INDIANS.

BOZEMAN, MT.: MONTANA STATE UNIV., MUSEUM OF THE ROCKIES. OCCASIONAL PAPER NO. 1. 10 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: FLATHEAD INDIAN RESERVATION). THIS ARTICLE INCLUDES ACCOUNTS OF GAMES AND PLAY BEHAVIOR OF UPPER PEND D'OREILLE INDIAN YOUTHS OF EARLY WESTERN MONTANA RECORDED BY JOHN ROSENLEAF AND THE AUTHOR. THE ACCOUNTS DETAIL CHILDHOOD EVENTS RELATED TO ACQUISITION OF WARRIOR STANDING AND STATUS.

D-25
DAVIS, PAUL A.
1974.

APPLICATION OF SATELLITE IMAGERY TO ESTIMATES OF PRECIPITATION OVER NORTHWESTERN MONTANA.

RESTON, VA.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. 89 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS STUDY FOCUSED ON THE DEVELOPMENT AND TESTING OF A TECHNIQUE FOR ESTIMATING SPATIAL PRECIPITATION OVER RUGGED TERRAIN BY APPLYING OPERATIONAL POLAR ORBITING SATELLITE DATA. THE TECHNIQUE WAS APPLIED TO THREE ADJACENT BASINS IN NORTHWESTERN MONTANA. TWO SEPARATE SEASONAL PERIODS (APRIL-JUNE AND OCTOBER-DECEMBER) WERE STUDIED. CLOUD PATTERNS AND OBSERVABLE, INVISIBLE, OR INFRARED IMAGERY WERE USED TO CHARACTERIZE CIRCULATION AND SATURATION CONDITIONS OVER TIME AND SPACE. THE APPROACH INCLUDED: 1) IDENTIFICATION OF THE MOST REPRESENTATIVE CLOUD CATEGORY OVER THE BASIN FOR EACH 12-HOUR PERIOD; 2) ASSIGNMENT OF PROBABLE 12-HOUR BASIN PRECIPITATION ASSOCIATED WITH EACH CLOUD CATEGORY, USING PARAMETERIZATION BASED ON PREVIOUS DEPENDENT DATA, INCLUDING RADAR AND SURFACE OBSERVATIONS; AND 3) SUMMATION OVER SEQUENCES OF CLOUD-CATEGORY EVENTS TO DEFINE CUMULATIVE PRECIPITATION.

D-26
DAVIS, PAUL A.; WIEGMAN, ELDON J.; AND SEREBRENY, SIDNEY M.
1971.

ESTIMATION OF PRECIPITATION OVER FLATHEAD DRAINAGE BASIN USING METEOROLOGICAL SATELLITE PHOTOGRAPHS.

MENLO PARK, CA.: STANFORD RESEARCH INSTITUTE. 59 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). A SERIES OF DAILY SATELLITE PHOTOGRAPHS OF CLOUD COVER ARE USED TO ESTIMATE TOTAL PRECIPITATION. DAILY SURFACE OBSERVATIONS AT 17 STATIONS ARE ANALYZED TO DEFINE DAILY PRECIPITATION. DATA COVERS TWO SEASONAL PERIODS. CLOUD COVER CATEGORIES, ASSIGNED TO A PROBABLE 12-HOUR PRECIPITATION AMOUNT, ARE USED TO PROVIDE AN ESTIMATED TOTAL BASIN PRECIPITATION.

D-27
DAVIS, W. M.
1918.
"THE MISSION RANGE, MONTANA."

GEOGRAPHICAL REVIEW 2(OCTOBER 1916):267-288.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTN. RANGE). THE BRIEF ACCOUNT OF THE AREA'S GEOGRAPHY AND GEOLOGY DESCRIBES ITS SETTING AND FEATURES. INCLUDED ARE THE THREE BELTS OF THE RANGE (THE MIDDLE, THE LOW NORTHERN, AND THE HIGH SOUTHERN BELTS); THE TRUNCATED SPURS AND MORAINIC EMBANKMENTS; AND CIRQUES AND TROUGHS OF LOCAL GLACIERS. AN EXPLANATORY DESCRIPTION OF THE MTN.S IS INCLUDED, ALONG WITH CYCLES AND EPISODES OF GLACIAL EROSION.

D-28
DAVIS, W. M.
1920.

"FEATURES OF GLACIAL ORIGIN IN MONTANA AND IDAHO."

ANNALS ASSOC. AMERICAN GEOGRAPHERS 10:75-148.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(MONTANA & IDAHO). THE SIGNS OF SCULPTURING BY LOCAL GLACIERS IN HIGH MOUNTAINS AND THE RECORDS OF EROSION AND DEPOSITION BY BROAD SOUTH MOVING GLACIERS, AS SHOWN BY INTERMONT DEPRESSIONS ARE DISCUSSED IN THIS ARTICLE. PHYSIOGRAPHIC DESCRIPTIONS ARE GIVEN OF THE KOOTENAI-FLATHEAD DEPRESSION (ERODED VALLEYS AND TRUNCATED SPUR ENDS OF THE SWAN RANGE); GLACIER NATIONAL PARK FEATURES DUE TO GLACIAL EROSION; THE FLATHEAD BASIN (THE PLAIN AND LAKE, THE POLSON AND MISSION

MORRAINES); THE KOOTENAI-PEND D'OREILLE DEPRESSION; THE PEND D'OREILLE-SPOKANE REGION; UPPER CLARK FORK VALLEY (SCOURED CLIFFS, MORAINES IN LATERAL VALLEYS, VALLEY-SIDE CLIFFS, TERMINATION OF GLACIAL SCOURING, SOURCE OF ICE); THE SHORE LINES OF LAKE MISSOULA; AND THE RELATION OF CLARK FORK GLACIERS AND LAKE MISSOULA.

D-29
DAVIS, WILLIAM L., S. J.
1944.

"PETER JOHN DE SMET: THE JOURNEY OF 1840."

PACIFIC NORTHWEST QUARTERLY 35(JANUARY 1944):29-43.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE ARTICLE DESCRIBES THE ATTEMPTS MADE BY THE FLATHEADS TO OBTAIN PRIESTS IN THE 1830'S, THE CHOICE OF FATHER DE SMET TO SET UP THE CATHOLIC MISSION, HIS TRIP TO AND ARRIVAL AMONG THE FLATHEADS.

D-30
DAVIS, WILLIAM L., S. J.
1954.

A HISTORY OF ST. IGNATIUS MISSION: AN OUTPOST OF CATHOLIC CULTURE ON THE MONTANA FRONTIER.

SPOKANE: C. W. HILL PRINTING CO. 147 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ST. IGNATIUS & FLATHEAD RESERVATION). THE HISTORIC ACCOUNT DISCUSSES THE ORIGINS OF THE MISSION WORK, THE FIRST MISSION AT ST. IGNATIUS, AND THE PRESENT MISSION. THE ACTIVITIES UNDERTAKEN TO "CIVILIZE" THE INDIANS, SUCH AS THE EDUCATION OF INDIAN CHILDREN, ARE DESCRIBED. A HISTORY OF THE RESERVATION IS INCLUDED AS WELL AS ACCOUNTS OF THE TREATY OF 1855, GOVERNMENT POLICY AS REPRESENTED BY PRESIDENT GRANT, THE GARFIELD COMMISSION AND THE ALLOTMENT ACTS, CHIEF CHARLOT'S BAND, THE KOOTENAI AND OTHER BANDS.

D-31
DAVISON, STANLEY.
1957.

"WORKER IN GOD'S WILDERNESS."

MONTANA 7:8-17.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MONTANA: FLATHEAD INDIAN RESERVATION). THE ARTICLE PRESENTS A STUDY OF THE PERSONALITY AND LIFE OF THE REVEREND SAMUEL PARKER, A CONGREGATIONAL CHURCHMAN WHO WORKED AMONG THE NEZ PERCE AND FLATHEAD INDIANS.

D-32
DAVISSON, WILLIAM I.
1961.

"THE IMPACT OF ELECTRICAL POWER ON THE ECONOMIC DEVELOPMENT OF THE PACIFIC NORTHWEST."

PH.D. DISSERTATION, CORNELL UNIV., ITHACA. 294 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THREE PROBLEMS ARE CONSIDERED IN THIS ECONOMIC HISTORY STUDY: 1) CONDITION OF THE AREA AS UNDERDEVELOPED (WHETHER IT IS GROWING, STAGNATING, OR DECLINING), 2) THE CAUSES OF THE CONDITION; AND 3) AVAILABLE POLICY REMEDIES. THE FEASIBILITY OF FEDERAL RIVER DEVELOPMENT THROUGH IMPLEMENTATION OF THE CORPS OF ENGINEERS MAJOR WATER PLAN IS INVESTIGATED. IN ADDRESSING HYDROPOWER DEVELOPMENT, THE FOLLOWING PROBLEMS ARE CONSIDERED: 1) IF ANY INVEST-

MENT SHOULD BE MADE, 2) IF PRIVATE OR PUBLIC AGENCIES SHOULD BE INVOLVED, AND 3) WHAT RATES SHOULD BE CHARGED FOR THE POWER. IT REJECTS THE BENEFIT-COST RATIO ANALYSIS, AND RECOMMENDS USING THE INCREASE IN PRESENT WORTH, OR RATE OF RETURN ON INVESTMENT, PREDICATED ON DIRECT BENEFITS AND DIRECT COSTS.

D-33

DAY, GARY, ET. AL.
1978.

RELOCATIONS OF GRIZZLIES IN THE BORDER GRIZZLY AREA.

MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV. MONTANA. SPEC. REPT. NO. 14. 7 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHWEST MONTANA). THIS REPORT DISCUSSES THE RELOCATION OF ELEVEN GRIZZLY BEARS IN THE BORDER GRIZZLY AREA. THE SUCCESS OF EACH RELOCATION AND CAPTURE AND RELOCATION SITES ARE DESCRIBED.

D-34

DE SANTO, T. S.
1971.

"SUBALPINE LARCH OF GLACIER NATIONAL PARK."
GLACIER NATIONAL PARK, WEST GLACIER, MT. 26 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PURPOSE OF THIS PAPER IS TO SUMMARIZE WHAT HAS BEEN WRITTEN OF SUBALPINE LARCH (*LARIX LYALLII*) IN THE PARK, TO DETERMINE ITS DISTRIBUTION, AND TO REPORT OBSERVATIONS OF SEVERAL STANDS. THE CHIEF CONSIDERATIONS ARE THE DISTRIBUTION, HABITAT, CHARACTERISTICS, AND ASSOCIATIONS OF SUBALPINE FIR IN THE PARK.

D-35

DE SMET, PIERRE J.
1843.

"INDIAN MISSIONS; A LETTER FROM FATHER DE SMET, JESUIT MISSIONARY AT THE ROCKY MOUNTAINS, DESCRIBING THE COUNTRY AND CUSTOMS OF THE INDIANS."

U.S. CATHOLIC MAGAZINE, PP. 113-118; 287-298.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN U.S.: ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS IS A REPRINT OF A LETTER BY FATHER DE SMET DATED 1841) THE LETTER NARRATES THE AUTHOR'S EXPERIENCES IN JOURNEYING TO THE ROCKY MOUNTAINS. IT INCLUDES AN ACCOUNT OF HIS ARRIVAL AT A RENDEZVOUS WITH THE FLATHEADS AND RECEPTION BY THE INDIANS; NOTES CONCERNING THE CHARACTER AND HABITS OF THE INDIANS (GAMBLING, CHIEFTAINSHIP, AND DRESS); AND A DESCRIPTION OF THE COUNTRY INHABITED BY FLATHEADS.

D-36

DE SMET, PIERRE J.
1906.

"LETTERS AND SKETCHES: WITH A NARRATIVE OF A YEAR'S RESIDENCE AMONG THE INDIAN TRIBES OF THE ROCKY MOUNTAINS" IN EARLY WESTERN TRAVELS, 1748-1846, VOL. 27, EDITED BY REUBEN G. THWAITES.

CLEVELAND, OH.: ARTHUR H. CLARK CO.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: INITIALLY PRINTED IN 1843 IN PHILADELPHIA.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE NARRATIVE DESCRIBES THE FLATHEAD DESIRE FOR CHRISTIANITY, THE ROLE OF THE IROQUOIS INDIANS SETTLED AMONG THE FLATHEADS, THE TEACHING OF AGRICULTURE. IT PRESENTS AN ACCOUNT OF THE PERIOD FROM 1841 TO 1842)

D-37

DE SMET, PIERRE J.
1971.

NEW INDIAN SKETCHES.

SEATTLE, WA.: SHOREY BOOK STORE. FACSIMILE REPRODUCTION. 175 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: REPRODUCTION OF 1904 EDITION.

(WESTERN U.S.: ABORIGINAL LANDS OF THE FLATHEAD & KUTENAI INDIANS). THESE MEMOIRS OF FATHER PIERRE DE SMET INCLUDE AN ACCOUNT OF LOUISE SIGHOUIN, A COEUR D'ALENE INDIAN WOMAN, AS WELL AS VARIOUS LETTERS AND THE SHORT INDIAN CATECHISM. A VOCABULARY OF THE KUTENAI LANGUAGE IS ALSO INCLUDED.

D-38

DE SMET, PIERRE J.
1978.

OREGON MISSIONS AND TRAVELS OVER THE ROCKY MOUNTAINS IN 1845-1846.

FAIRFIELD, WA.: YE GALLEON PRESS. REPRINT OF 1847 EDITION.

(PACIFIC NORTHWEST). THIS VOLUME CONTAINS MUCH MATERIAL ABOUT THE FLATHEADS AND KALISPELS IN 1845 AND 1846 AND ST. MARY'S AND ST. IGNATIUS MISSIONS. SKCC.

D-39

DEBYLE, NORBERT V.
1973.

"BROADCAST BURNING OF LOGGING RESIDUES AND THE WATER REPELLENCY OF SOILS."

NORTHWEST SCIENCE 47(2):77-87.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MILLER & MARTIN CREEK DRAINAGES NEAR OLNEY). THIS ARTICLE REPORTS ON A STUDY OF SOIL WET- TABILITY AND ASSOCIATED DATA GATHERED IN WESTERN MONTANA DURING A MULTIDISCIPLINARY STUDY OF CONIFER LOGGING DEBRIS DISPOSAL BY BROADCAST BURNING. THE METHODS AND RESULTS ARE DISCUSSED.

D-40

DEBYLE, NORBERT V.
1976.

"FIRE, LOGGING, AND DEBRIS DISPOSAL EFFECTS ON SOIL AND WATER IN NORTHERN CONIFEROUS FORESTS." IN INTERNATIONAL UNION OF FOREST RESEARCH ORGANIZATIONS, DIV. 1, PP. 201-212.

OSLO, NORWAY: PROC. 16TH IUFRO WORLD CONGRESS.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MILLER CREEK DRAINAGE NEAR OLNEY). THIS PAPER SUMMARIZES RESEARCH ON THE IMPACTS ASSOCIATED WITH SUDDEN FOREST DISTURBANCES SUCH AS FIRE, LOGGING, AND DEBRIS DISPOSAL. THE EFFECTS OF THESE DISTURBANCES ON SOIL EROSION, CHANNEL CUTTING, SILTATION OF STREAMS, EVAPOTRANSPIRATION, INCREASED STREAMFLOW, INCREASED INSOLATION AND ALTERED MICROCLIMATE, INDUCED WATER REPELLENCY OF SOILS BY FIRE, CHANGES IN NUTRIENT CYCLING, ETC., ARE DISCUSSED IN GENERAL TERMS. VARIOUS LOGGING AND DEBRIS DISPOSAL METHODS ARE DISCUSSED.

D-41

DEBYLE, NORBERT V.
1976.

"SOIL FERTILITY AS AFFECTED BY BROADCAST BURNING FOLLOWING CLEARCUTTING IN NORTHERN ROCKY MOUNTAIN LARCH-FIR FORESTS." IN PROCEEDINGS OF THE MONTANA TALL TIMBERS FIRE ECOLOGY CONFERENCE AND FIRE AND LAND MANAGEMENT SYMPOSIUM. PP. 447-464.

TALLAHASSEE, FLA.: TALL TIMBERS RESEARCH STAT.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MARTIN CREEK). IN THIS REPORT ON THE CHEMICAL SOIL PROPERTIES BEFORE AND AFTER PRESCRIBED BURNING, DESCRIPTIONS OF THE CONTROLLING FACTORS AND METHODS ARE GIVEN. PREBURN AND POSTBURN CHARACTERISTICS STUDIED INCLUDE: PH, N, CATION EXCHANGE CAPACITY, MG, CA, AND P.

D-42

DEBYLE, NORBERT V.
1980

CLEARCUTTING AND FIRE IN THE LARCH/DOUGLAS FIR FORESTS OF WESTERN MONTANA—A MULTIFACETED RESEARCH SUMMARY.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FOREST & RANGE EXPER. STAT. 95 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD COUNTY: MILLER CREEK DRAINAGE NEAR OLNEY). THE PRIMARY PURPOSE FOR MULTI DISCIPLINARY RESEARCH WAS TO DEVELOP CRITERIA BY WHICH PRESCRIBED BROADCAST FIRES IN LOGGING SLASH COULD BE SCHEDULED TO BEST MEET SITE PREPARATION, HAZARD REDUCTION, AND OTHER MANAGEMENT GOALS. LOGGING SLASH ON 73 CLEARCUTS IN WESTERN MONTANA WAS BROADCAST BURNED OVER A WIDE RANGE OF ENVIRONMENTAL CONDITIONS. A BROAD ARRAY OF FIRE INTENSITIES AND EFFECTS WAS ACHIEVED. A SEVERE WILDFIRE WAS ALSO EVALUATED AND COMPARED TO THE PRESCRIBED FIRES. FIRE EFFECTIVENESS, ESPECIALLY FOR REMOVING THE DUFF LAYER, WAS MEASURED AND RELATED TO PREBURN CONDITIONS, FUEL LOADS, AND FIRE INTENSITY. THE EFFECTS OF THESE TREATMENTS ON AIR QUALITY, FOREST REGENERATION, VEGETATIVE RECOVERY AND DEVELOPMENT, SMALL MAMMAL POPULATIONS, SOIL PHYSICAL AND CHEMICAL PARAMETERS, AND RUNOFF AND EROSION WERE MEASURED AND ANALYZED.

D-43

DEBYLE, NORBERT V., AND PACKER, P. E.
1972.

"PLANT NUTRIENT AND SOIL LOSSES IN OVERLAND FLOW FROM BURNED FOREST CLEARCUTS."

PROC. NATIONAL SYMPOSIUM ON WATERSHEDS IN TRANSITION. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MILLER & MARTIN CREEK, MILLER: OLNEY). DRAINAGES NEAR OLNEY.) SIXTY-FIVE STUDY UNITS IN THE LARCH AND DOUGLAS-FIR FOREST TYPE OF WESTERN MONTANA WERE CLEARCUT AND THE LOGGING DEBRIS BROADCAST BURNED. THE EFFECT OF CLEARCUTTING AND BURNING ON SOIL STABILITY AND RUNOFF QUANTITY AND QUALITY IS DISCUSSED. OVERLAND FLOW AND SEDIMENT WERE CAUGHT IN TANKS BELOW 24 RUNOFF PLOTS AND ANALYZED FOR PH, CONDUCTIVITY, CONTENTS OF CARBONATES AND BICARBONATES, NA, MG, CA, AND PH. SOIL BULK DENSITY AND TOTAL PORE SPACE MEASUREMENTS WERE ALSO TAKEN.

D-44

DECKER, GARY L.
1968.

"PRELIMINARY REPORT ON THE GEOLOGY, GEOCHEMISTRY, AND SEDIMENTOLOGY OF FLATHEAD LAKE, NORTHWESTERN MONTANA."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 91 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS STUDY WAS DESIGNED TO BROADLY DEFINE THE PHYSICAL AND CHEMICAL ENVIRONS OF THE LAKE. LAKE SEDIMENTS WERE SAMPLED AND ANALYZED FOR SIZE DISTRIBUTION

AND MINERAL CONTENT. CHEMICAL DATA WAS OBTAINED FOR PH., EH, AND TEMPERATURE OF THE WATER. BEDROCK DESCRIPTIONS AND GRAVITY PROFILES ARE INCLUDED.

D-45

DEE, HENRY DRUMMOND.
1943.

"AN IRISHMAN IN THE FUR TRADE: THE LIFE AND JOURNALS OF JOHN WORK."
BRITISH COLUMBIA HISTORICAL QUARTERLY 7(OCTOBER 1943):229-270.

(ABORIGINAL LANDS OF THE PEND D'OREILLES AND FLATHEAD INDIANS). THIS BIOGRAPHICAL SKETCH OF JOHN WORK INCLUDES A LIST OF HIS JOURNALS IN THE PROVINCIAL ARCHIVES, VICTORIA, B.C. WORK TRADED AMONG THE PEND D'OREILLES AND FLATHEADS A NUMBER OF TIMES. SKCC.

D-46

DEISS, CHARLES.
1933.

PALEOZOIC FORMATIONS OF NORTHWESTERN MONTANA.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. MONTANA SCHOOL MINES. MEMOIR NO. 6. 51 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA: SWAN, FLATHEAD, & THE NORTHERN AND CENTRAL PARTS OF LEWIS & CLARK RANGES). THE NATURE, SEQUENCE, AND SUBSEQUENT DEFORMATION OF LIMESTONE AND OTHER SEDIMENTARY ROCK DEPOSITS OF THE PALEOZOIC SEA IS EXAMINED. STRATIGRAPHIC SECTIONS OF THE FOLLOWING ROCKS WERE MEASURED: MISSOULA GROUP, MADISON LIMESTONE, AND MISSISSIPPIAN. EACH OF THE TEN SECTIONS MEASURED ARE DISCUSSED. A SECTION'S LOCATION, BEARING, DIP AND STRIKE, SLOPE ANGLE, THICKNESS, AND ELEVATION IS NOTED AND MEASUREMENTS OF ITS MEMBERS ARE LISTED. ALSO INCLUDED ARE DESCRIPTIONS OF CAMBRIAN FORMATIONS, OF MEMBERS OF THE JEFFERSON LIMESTONE, AND OF MEMBERS OF THE MADISON FORMATION. BECAUSE FOSSILS COLLECTED FROM THE DIFFERENT HORIZONS HAVE NOT BEEN IDENTIFIED AND CORRELATED, THE PRESENTATION OF CORRELATIONS IS CONSIDERED TENTATIVE.

D-47

DEISS, CHARLES.
1935.

"CAMBRIAN-ALGONKIAN UNCONFORMITY IN WESTERN MONTANA." IN PROCEEDINGS OF PALEONTOLOGICAL SOCIETY.
BULL. GEOLOGICAL SOCIETY AMERICA 46:95-124. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: SWAN & FLATHEAD RANGES). THE UNCONFORMABLE RELATION OF THE BASAL CAMBRIAN FORMATION (FLATHEAD) WITH THE UNDERLYING ALGONKIAN (BELTIAN) SEDIMENTS WAS KNOWN BEFORE 1899. HOWEVER, SOME STRATIGRAPHERS DOUBTED THE EXISTENCE OF THE UNCONFORMITY IN WESTERN MONTANA. THIS PAPER DISCUSSES EVIDENCE THAT SEEMS TO PROVE CONCLUSIVELY THE PRESENCE OF THE UNCONFORMITY AND ITS DEFINITE ANGULARITY IN SEVERAL WIDELY SEPARATED AREAS. AN AREA OF 1800 SQUARE MILES IN THE FLATHEAD AND SWAN RANGES WAS MAPPED BY TRAVERSE AND PLANE-TABLE, ON A SCALE OF 1:125,000; DETAILED STRATIGRAPHIC SECTIONS WERE MEASURED AT LOCATIONS WHERE THE STRATA WAS WELL EXPOSED; AND FOSSILS WERE COLLECTED.

D-48

DEISS, CHARLES.
1937.

"CAMBRIAN STRATIGRAPHY AND TRILOBITES OF NORTHWESTERN MONTANA." IN PROCEEDINGS OF THE GEOLOGICAL SOCIETY OF AMERICA OF 1936.

BALTIMORE, MD.: WAVERLY PRESS, INC.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA). THE ABSTRACT SUMMARIZES A PAPER CONCERNING CAMBRIAN SEDIMENTS AND TRILOBITES. INCLUDED IN THE PAPER ARE DISCUSSIONS OF NINE ROCK FORMATIONS, THE GEOGRAPHY, SEDIMENTATION, AND DIASTROPHIC MOVEMENT OF CAMBRIAN AGE. 105 SPECIES OF 21 GENERA OF TRILOBITES ARE DESCRIBED; THEIR CONFINEMENT TO SEVEN CLEARLY DEMARCATED ZONES IS NOTED.

D-49

DEISS, CHARLES.
1938.

"CAMBRIAN FORMATIONS AND SECTIONS IN PART OF CORDILLERAN TROUGH."
BULL. GEOLOGICAL SOCIETY AMERICA 49(JULY 1938):1067-1168.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PENTAGON, PRAIRIE REEF, & SCAPEGOAT, MONTANA; WIND RIVER CANYON, WYOMING; BLACKSMITH FORK & HOUSE RANGE, UTAH; & HIGHLAND RANGE, NEVADA). THIS PAPER REPORTS ON THE ZONING OF FOSSILS IN THE ABOVE SEVEN SECTIONS. INCLUDED IN A DISCUSSION OF THE LEWIS AND CLARK RANGE AREA ARE THE THREE MONTANA SECTIONS, A SUMMARY OF PREVIOUS WORK IN THE RANGE, AND A DESCRIPTION OF THE MIDDLE CAMBRIAN FORMATIONS PRESENT. THE LOCATION AND FORMATIONS OF EACH SECTION ARE DEFINED. AGES, APPEARANCES, AND OTHER GENERAL GEOLOGICAL CHARACTERISTICS OF THE ROCKS ARE DESCRIBED, AS WELL AS THE OCCURRENCE OF FOSSILS SUCH AS TRILOBITES AND BRACHIOPODS.

D-50

DEISS, CHARLES.
1939.

CAMBRIAN STRATIGRAPHY AND TRILOBITES OF NORTHWESTERN MONTANA.
BALITMORE, MD.: WAVERLY PRESS, INC. GEOLOGICAL SOCIETY AMERICA, SPEC. PAPER NO. 18. 135 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: SWAN, FLATHEAD & SAWTOOTH RANGES). THE PAPER ADDRESSES ITSELF TO SIX PROBLEMS PERTAINING TO THE STUDY OF CAMBRIAN ROCKS: 1) WHICH CAMBRIAN SERIES ARE REPRESENTED IN THE AREA; 2) WHAT IS THE TOTAL THICKNESS OF THOSE IN EACH SERIES REPRESENTED; 3) WHAT IS THE MAGNITUDE OF PRESENT UNCONFORMITIES AND DISCONFORMITIES; 4) WHAT ARE THE IMPORTANT LITHOLOGIC CHARACTERISTICS OF THE CAMBRIAN SEDIMENTS; 5) WHAT ARE THE LITHOLOGIC UNITS WHICH CAN BE USED AS MAPPABLE FORMATIONS; AND 6) WHAT FAUNAS DO THE SEDIMENTS CONTAIN. INCLUDED ARE DESCRIPTIONS OF THE CAMBRIAN FORMATIONS, THE CORRELATION OF FORMATIONS (WITHIN NORTHWESTERN MONTANA AND REGIONALLY), PALEOGEOGRAPHY AND SEDIMENTATION AS WELL AS DESCRIPTIONS OF FOSSIL GENERA AND SPECIES.

D-51

DEISS, CHARLES.
1941.

"CAMBRIAN GEOGRAPHY AND SEDIMENTATION IN THE CENTRAL CORDILLERAN REGION."
BULL. GEOLOGICAL SOCIETY AMERICA 52:1085-1116.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ROCKY MOUNTAIN BASIN: FLATHEAD RIVER BASIN). THE PURPOSE OF THIS PAPER WAS TO GIVE A TENTATIVE INTERPRETATION OF THE AVAILABLE DATA WHICH COULD CLARIFY AND ENLARGE THE EXISTING PICTURE OF THE GEOGRAPHY AND

SEDIMENTS DURING CAMBRIAN TIME IN THE CENTRAL PART OF THE CORDILLERAN REGION.

D-52

DEISS, CHARLES.
1943.

"STRATIGRAPHY AND STRUCTURE OF SOUTHWEST SAYPO QUADRANGLE, MONTANA."
BULL. GEOLOGICAL SOCIETY AMERICA 54:205-262.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD COUNTY: BOB MARSHALL WILDERNESS AREA). THIS REPORT DESCRIBES THE STRATIGRAPHY OF THE SAYPO QUADRANGLE, IN THE SAWTOOTH RANGE. SECTIONS INCLUDE: THE BELT SERIES, THE CAMBRIAN SYSTEM, DEVONIAN SYSTEM, CARBONIFEROUS SYSTEM, JURASSIC SYSTEM, CRETACEOUS SYSTEM, QUATERNARY SYSTEM, HIATUSES WITHIN MAP AREA, IGNEOUS ROCKS, FAULTS, FOLDS, AND THE SEQUENCE OF GEOLOGIC EVENTS.

D-53

DEISS, CHARLES.
1943.

"STRUCTURE OF CENTRAL PART OF SAWTOOTH RANGE, MONTANA."
BULL. GEOLOGICAL SOCIETY AMERICA 54(AUGUST 1943):1123-1168.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SAWTOOTH RANGE). THE PAPER BEGINS BY SUMMARIZING PREVIOUS GEOLOGIC WORK IN THE AREA, INCLUDING THAT OF THE AUTHOR. SEDIMENTARY ROCKS, PALEOZOIC AND MESOZOIC IN AGE, EXPOSED IN THE RANGE ARE DIVIDED INTO NINE FORMATIONS. THREE STRUCTURAL PROVINCES ARE DISCUSSED: AN EASTERN PROVINCE, CHARACTERIZED BY WESTWARD-DIPPING HIGH ANGLE TO MODERATELY LOW-ANGLE THRUSTS THAT INCREASE IN NUMBER NORTHWARD; A CENTRAL PROVINCE, CHARACTERIZED BY CLOSELY SPACED, WESTWARD DIPPING, HIGH-ANGLE THRUSTS, AND BY DRAG-FOLDING OF THE DEVONIAN AND MISSISSIPPIAN ROCKS COMPRISING THE IMBRICATED SLICES; AND A WESTERN PROVINCE, CHARACTERIZED BY FOLDED, LOW-ANGLE OVER-THRUSTS, ABOVE WHICH THE ROCKS ARE COMPRESSED INTO LARGE OPEN FOLDS.

D-54

DEIK, ROBERT.
1972.

HYDROLOGY REPORT FOR THE WILD RIVERS STUDY. KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 100 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(NORTH, SOUTH, & MIDDLE FORKS OF THE FLATHEAD RIVER). THIS REPORT IS A SUPPORTING DOCUMENT TO THE FLATHEAD WILD RIVER STUDY. IT DESCRIBES THE STUDY AREA; THE CLIMATE (PRECIPITATION AND TEMPERATURE); HYDROLOGY AND CLIMATIC FACTORS (WIND, SOLAR RADIATION, PRECIPITATION, SOIL MOISTURE, STREAM CHANNEL CONDITION, AND STREAMFLOW CHARACTERISTICS); FLOW RATES; WATER QUALITY (SOURCES OF SEDIMENT AND POLLUTION); AND IRRIGATION.

D-55

DEIK, ROBERT.
1972.

"A WILDERNESS SNOW COURSE."
PAPER PRESENTED AT THE WESTERN SNOW CONFERENCE, PHOENIX, ARIZONA, 19 APRIL 1972. 9 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS). HOLBROOK SNOW COURSE, LOCATED WITHIN THE BOB MARSHALL WILDERNESS, IS MEASURED THREE TIMES A YEAR

WITH TRAVEL ACCOMPLISHED BY "PRIMITIVE" MEANS. THIS REPORT DESCRIBES THE STUDY AREA, FIELD MEASUREMENTS, HOW THE WILDERNESS ACT AFFECTS THE USE OF AIRCRAFT AND OTHER MOTORIZED EQUIPMENT IN THE AREA, AND HOW TRAVELLING BY PRIMITIVE MEANS AFFECTS THE SCOPE OF RESEARCH.

D-56

DELK, ROBERT.
1973.

"PROBABLE HYDROLOGICAL EFFECTS OF CLEAR-CUTTING ON THE FLATHEAD NATIONAL FOREST." IN *VEGETATION MANIPULATION GUIDELINES: FLATHEAD NATIONAL FOREST*.

KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, FLATHEAD NATIONAL FOREST. 65 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE METHODOLOGY DESCRIBED IN THIS REPORT IS AN ATTEMPT TO DEVELOP GUIDELINES BASED ON A WATER BALANCE APPROACH, RECOGNIZING THAT WATER IS RELATED TO CLIMATE, TOPOGRAPHY, VEGETATION, AND SOILS. DISCUSSED ARE: THE INTERCEPTION PROCESS, WIND EFFECTS ON INTERCEPTION, MASS TRANSPORT, EVAPORATION, THE DEVELOPMENT OF LOCAL DATA, THE CALCULATION OF ESTIMATED INCREASE IN MEAN ANNUAL FLOW AND AN INTERPRETATION OF RESULTS.

D-57

DELK, ROBERT.
1974.

WATER QUALITY OF STONER CREEK.

KALISPELL, MT.: U. S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST, SWAN LAKE DIST. 8+ PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(STONER CREEK). THIS REPORT PRESENTS THE RESULTS OF A WATER QUALITY MONITORING PROGRAM. IT DISCUSSES STREAMFLOW, CHANNEL CHARACTERISTICS, AND VARIOUS CHEMICAL, PHYSICAL, AND BIOLOGICAL PARAMETERS (DISSOLVED SOLIDS, BICARBONATES, PH, HARDNESS, TOTAL ALKALINITY, TEMPERATURE, AND BACTERIA). MANAGEMENT IMPLICATIONS SUCH AS THE EFFECTS OF ON-SITE ACTIVITIES ON WATER QUALITY, WATER QUALITY NEEDS FOR ON-SITE USE, AND DOWNSTREAM WATER QUALITY AND USE ARE ALSO PRESENTED.

D-58

DELK, ROBERT.
1974.

WATER QUALITY OF STONER CREEK: A PRELIMINARY REPORT.

KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 20 PP. PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(STONER CREEK WATERSHED). THIS STUDY WAS DESIGNED TO CHARACTERIZE THE STREAM AND ISOLATE ANY POTENTIAL PROBLEM AREAS. WATER QUALITY PARAMETERS INCLUDED: TEMPERATURE, DO, PH, SPECIFIC CONDUCTIVITY, TURBIDITY, TOTAL AND FECAL COLIFORMS, FECAL STREPTOCOCCUS, CA, AL, MG, NA, P, FE, MN, HCO₃, CO₃, CL₃, SO₃, NO₃, TOTAL HARDNESS, PO₂, FL₂)

D-59

DEMAREST, MAX.
1938.

"ICE FLOWAGE AS REVEALED BY GLACIAL STRIAE." *J. GEOLOGY* 46(AUGUST 1938):28-52.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). ICE FLOWAGE IN RESPONSE TO THE LAWS OF FLUID MECHANICS IS SHOWN BY ANALYSIS OF DEFLECTION STRIAE FOUND ON THE EXPOSED FLOOR OF THE CLEMENTS GLACIER. THE REPORT ATTEMPTS TO ASCERTAIN THE MINIMUM THICKNESS OF ICE NECESSARY TO PRODUCE A FLOW AT DIFFERENTIAL VELOCITIES.

D-60

DENNIS, LYMAN CLARK.

1936.

"GEOLOGY OF THE NORTH FORK VALLEY, MONTANA."

M.S. THESIS, UNIV. MINNESOTA, MINNEAPOLIS. 50 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER). THIS THESIS REPORTS ON A RECONNAISSANCE SURVEY MADE OF THE GEOGRAPHY AND GEOLOGY OF THE AREA ON BOTH SIDES OF THE RIVER. THE PAPER IS BASED ON FIELD OBSERVATIONS AND ON LABORATORY STUDIES OF COLLECTED MATERIALS, TOGETHER WITH A STUDY OF PREVIOUSLY PUBLISHED DATA ON THE REGION. TOPICS DISCUSSED INCLUDE: MINERAL RESOURCES, STRATIGRAPHY, PETROLOGY, STRUCTURE, AND GEOLOGIC HISTORY. PHOTOGRAPHS AND MAPS ARE INCLUDED.

D-61

DENTON, DAYTON W.

1952.

A PROGRAM FOR PHYSICAL EDUCATION IN THE FOURTH, FIFTH, AND SIXTH GRADES RECOMMENDED FOR THE SCHOOLS IN KALISPELL.

MISSOULA, MT.: MONTANA STATE UNIV. PROF. PAPER. 70 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: KALISPELL). THE PURPOSE OF THIS STUDY WAS: 1) TO DETERMINE THE TYPE OF PHYSICAL EDUCATION PROGRAM RECOMMENDED BY AUTHORITIES IN THE FIELD AS MOST SUITED FOR INTERMEDIATE GRADE CHILDREN, 2) TO FOLLOW THE RECOMMENDATIONS GOVERNING THE TEACHING OF P.E. AS SET FORTH BY THE STATE OF MONTANA, 3) TO PLAN A CURRICULUM FOR THE INTERMEDIATE GRADES THAT WOULD MEET CRITERIA BASED ON A NATIONAL SURVEY, 4) TO PLAN A PROGRAM THAT WOULD MEET THE AIMS AND OBJECTIVES OF A WELL ROUNDED PROGRAM AND HAVE CARRY OVER VALUE INTO LIFE, AND 5) TO EVALUATE THE PROGRAM USED AT THE ELROD SCHOOL DURING 1951-52.

D-62

DENTON, ROBERT E.

1950.

THE SPRUCE BUDWORM INFESTATION IN THE FLATHEAD NATIONAL FOREST: SOUTH FORK PRIMITIVE AREA.

COEUR D'ALENE, ID.: U.S. DEPT. AGRICULTURE, FOREST INSECT LAB. 8 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER). THE PURPOSE OF THIS SURVEY WAS TO DETERMINE THE EXTENT AND SEVERITY OF CURRENT DAMAGE OF THE SPRUCE BUDWORM INFESTATION. ATTENTION WAS FOCUSED MAINLY ON THE SPOTTED BEAR AND BIG PRAIRIE DISTRICTS. RESULTS OF THE SURVEY ARE OUTLINED, WITH MAPS SHOWING THE INFESTED AREAS.

D-63

DENTON, ROBERT E.

1976.

RELATIONSHIP OF LARCH CASEBEARER POPULATIONS TO YOUNG WESTERN LARCH DEVELOPMENT UNDER DIFFERENT STAND DENSITIES, CORAM EXPERIMENTAL FOREST, MONTANA.

MOSCOW, ID.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. PROGRESS REPT. 76-5. 24 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THIS STUDY WAS DESIGNED TO DETERMINE CASEBEARER-HOST RELATIONSHIPS FROM THE CASEBEARER'S INCEPTION THROUGH ITS EPIDEMIC CYCLE UTILIZING FIVE STOCKING DENSITIES (200,360,890,1740, AND 10,000* STEMS PER ACRE). REPRODUCTION RATES (POPULATION GROWTH RATE) BETWEEN THE FIVE STOCKING DENSITIES WERE COMPUTED FOR EACH OF THE THREE LIFE STAGES (SPRING FEEDING, PUPAL, FALL FEEDING) USING THE REGRESSION MODEL Y*BX².

D-64

DENTON, ROBERT E.

1979.

LARCH CASEBEARER IN WESTERN LARCH FORESTS. OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. TECH. REPT. INT-55. 62 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(IDAHO, OREGON, & MONTANA: CORAM EXPR. FOREST). THIS PUBLICATION BRINGS TOGETHER THE KNOWLEDGE ACCUMULATED ON THE BIOLOGY, ECOLOGY, AND CONTROL OF THE LARCH CASEBEARER (COYEOPHORA LARICELLA) SINCE ITS DISCOVERY IN WESTERN LARCH FORESTS. SPECIAL EMPHASES IS PLACED ON CONTROL THROUGH THE INTRODUCTION OF EXOTIC PARASITES.

D-65

DENTON, ROBERT E., AND THEROUX, L. J.

1979.

AN ANNOTATED BIBLIOGRAPHY OF THE LARCH CASEBEARER (COLEOPHORA LARICELLA (HUBNER)). OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. GEN. TECH. REPT. INT-52. 29 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, INTERNATIONAL.

(CORAM EXPR. FOREST). THE CONTENTS OF 147 PUBLISHED REFERENCES ON THE LARCH CASEBEARER ARE ANNOTATED. CITATIONS ARE CROSS REFERENCED BY SUBJECT AS WELL AS BY AUTHOR. AN APPENDIX LISTS 30 UNPUBLISHED REPORTS. THE BIBLIOGRAPHY IS COMPLETE THROUGH 1977, AND INCLUDES ABSTRACTS OF PAPERS IN FOREIGN LANGUAGES, TRANSLATED INTO ENGLISH.

D-66

"DEVELOPMENT'S KNOCKING AT GLACIER'S DOOR. 1975."

CONSERVATION NEWS, OCTOBER 15, 1975, PP. 3-7. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK & VICINITY). THE ARTICLE DISCUSSES THE SEARCH FOR AND PROPOSED DEVELOPMENT OF ENERGY RESOURCES IN THE VICINITY OF GLACIER PARK. IT INCLUDES: OIL AND GAS LEASES, COAL PROSPECTS, THE BLACKFEET TRIBE'S PETITION FOR A "CONSERVATION AGREEMENT" FOR REGULATION OF RIGHTS IN THE EASTERN PART OF THE PARK, COVERING ENTRY, HUNTING, FISHING, GRAZING, AND TIMBER CUTTING. THE ISSUES OF WILDLIFE PROTECTION, PARTICULARLY GRIZZLY BEAR PROTECTION, ARE CONSIDERED IN LIGHT OF THESE PROPOSED DEVELOPMENTS.

D-67

DEWEY, JERALD E.

1973.

"ACCUMULATION OF FLUORIDES BY INSECTS NEAR AN EMISSION SOURCE IN WESTERN MONTANA." *ENVIRONMENTAL ENTOMOLOGY* 2:4-8.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: COLUMBIA FALLS). THE STUDY REPORTED IN THIS PAPER WAS DESIGNED TO DETERMINE IF INSECTS COLLECTED NEAR A FLUORIDE SOURCE ACCUMULATED FLUORIDE AND IF SO, AT WHAT CONCENTRATIONS. FOUR MAJOR GROUPS OF INSECTS (POLLINATORS, PREDATORS, FOLIAGE FEEDERS AND CAMBIAL REGION FEEDERS) WERE COLLECTED NEAR THE ALUMINUM REDUCTION PLANT NEAR COLUMBIA FALLS AND ANALYZED.

D-68

DEWEY, JERALD E., AND JENKINS, M. J.
1979.

AN EVALUATION OF CONE AND SEED INSECTS IN SELECTED SEED PRODUCTION AREAS IN REGION ONE.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, STATE & PRIVATE FORESTRY. REPT. NO. 79-16. 18 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(MONTANA: FLATHEAD NATL. FOREST). AN EVALUATION WAS MADE IN 21 SEED PRODUCTION AREAS AND ONE SEED ORCHARD IN REGION 1 TO IDENTIFY THE PRIMARY INSECT PESTS AND TO ASSESS THE AMOUNT OF INJURY CAUSED. CONES FROM DOUGLAS FIR, GRAND FIR, WESTERN LARCH, LODGEPOLE PINE, PONDEROSA PINE, AND WESTERN WHITE PINE WERE COLLECTED AND EXAMINED. THIS IS AN INTERIM REPORT DESCRIBING EVALUATION METHODS AND RESULTS OF THE FIRST YEARS EFFORT.

D-69

DEWEY, JERALD E., AND KOHLER, STEVE.
1974.

EVALUATION OF THE WESTERN FALSE HEMLOCK LOOPER INFESTATION IN THE UPPER FLATHEAD VALLEY.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, STATE & PRIVATE FORESTRY. REPT. NO. 74-8. 6 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOMERS, KALISPELL, BIG FORK). A WESTERN FALSE HEMLOCK LOOPER NEPTYLA FREEMANI OUTBREAK WAS DETECTED IN THE LATE SUMMER OF 1973; IT AFFECTED DOUGLAS FIR OVER A 3,000 ACRE AREA FROM SOMERS TO KALISPELL AND NEAR BIGFORK. THE RESULTS OF AN EGG MASS SURVEY ARE DETAILED; PHOTOGRAPHS AND A LIFE HISTORY OF THE INSECT ARE INCLUDED.

D-70

DEYOUNG, WILLIAM, AND ROBERTS, R. C.
1929.

SOIL SURVEY OF THE LOWER FLATHEAD VALLEY AREA, MONTANA.

BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, BUREAU OF CHEMISTRY & SOILS, AND MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. 48 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD RIVER BASIN: MISSION, JOCKO, & CAMAS VALLEYS). THE STUDY EXAMINES THE VARIETY OF SOILS-GRASSLAND, BRUSHLAND, TIMBERED, ALLUVIAL. IT CONSIDERS THEIR ACREAGE, DISTRIBUTION, CHARACTERISTICS, AND USE FOR AGRICULTURE. CHEMICAL ANALYSES OF SOIL SAMPLES ARE INTERPRETED. IRRIGATION, DRAINAGE AND ALKALI CONDITIONS ARE DISCUSSED.

D-71

DICE, LEE R.
1923.

"MAMMAL ASSOCIATIONS AND HABITATS OF THE FLATHEAD LAKE REGION, MONTANA."

ECOLOGY 4(JULY 1923):247-260.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE ARTICLE REPORTS ON A STUDY OF THE LOCAL DISTRIBUTION OF MAMMALS WITH SPECIAL ATTENTION DIRECTED TO DETERMINING THE EFFECTS OF VEGETATION TYPES ON MAMMAL DISTRIBUTION. INDIVIDUAL DESCRIPTIONS OF HABITATS AND ASSOCIATIONS ARE PRESENTED FOR THE FOLLOWING HABITATS: MARSH, BEACH, COTTONWOOD-BIRCH, ENGELMANN SPRUCE-GRAND FIR, WESTERN LARCH-DOUGLAS FIR, LODGEPOLE PINE, YELLOW PINE-DOUGLAS FIR, BUNCHGRASS, BUCKBRUSH, MOUNTAIN MEADOW, TALUS SLOPE, AERIAL, CLEARING, AND EDIFICARIAN. IN EACH DESCRIPTION, THE MAMMAL'S SCIENTIFIC AND COMMON NAMES ARE LISTED, AND PLANT SPECIES AND ABUNDANCE OF THE ANIMALS IS NOTED.

D-72

DICKEY, FRED J., AND BRIDGE, J. F.
1968.

"CAVES IN THE MOUNTAINS OF MONTANA."

NATIONAL SPELEOLOGICAL SOCIETY NEWS 11(NOVEMBER 1968):179-183.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THIS ARTICLE DESCRIBES A BACKPACK TRIP THROUGH THE BOB MARSHALL WILDERNESS AREA IN SEARCH OF PREVIOUSLY UNDISCOVERED CAVES. MAPS ILLUSTRATE THE GEOLOGY OF SILVERTIP VALLEY. THE EXPLORATION OF LIMESTONE CAVE IS DISCUSSED AND THE DISCOVERY OF IBEX MOUNTAIN CAVE IS DETAILED.

D-73

DIGHTMAN, R. A.
1967.

CLIMATE OF GLACIER NATIONAL PARK.

WEST GLACIER, MT.: GLACIER NATURAL HISTORY ASSOC. BULL. NO. 7. 9 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: POLEBRIDGE, WEST GLACIER, MARIAS PASS). THIS PAPER PRESENTS CLIMATOLOGICAL SUMMARIES FROM THREE WEATHER STATIONS: POLEBRIDGE, WEST GLACIER, AND MARIAS PASS. INCLUDED ARE TABLES ON TOTAL PRECIPITATION, AVERAGE TEMPERATURE, DAILY TEMPERATURE MAXIMUM AND MINIMUMS, MAXIMUM MONTHLY SNOW FALLS, AND GREATEST DAILY AMOUNTS OF PRECIPITATION FROM 1936-1965.

D-74

DIGHTMAN, R. A., AND BEATTY, M. E.
1952.

"RECENT MONTANA GLACIER AND CLIMATE TRENDS."

PROC. MONTANA ACADEMY SCIENCE 12:127-139. ALSO MONTHLY WEATHER REVIEW 80(MAY 1952):77-81.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE DISCUSSES THE PROGRAM OF MEASURING GLACIERS UNDERTAKEN BY THE PARK SERVICE AND THE GEOLOGICAL SURVEY. A SUMMARY OF FINDINGS FROM MEASUREMENT AND MAPPING OF SPERRY AND GRINNELL GLACIERS IS PRESENTED. RECENT TRENDS IN THE STATE'S CLIMATE AND PRESENT GLACIER CHANGES IN RELATION TO CLIMATE ARE DISCUSSED.

D-75

DILS, R. E., ET AL.
1972.

A STUDY OF FOREST MANAGEMENT PRACTICES ON THE FLATHEAD NATIONAL FOREST.

KALISPELL CHAMBER OF COMMERCE. 68 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS REPORT APPRAISES ALL MANAGEMENT PRACTICES ON THE FOREST IN LIGHT OF INCREASING CONFLICTS AMONG GROUPS OF USERS. THE STUDY EXAMINES PHYSICAL CONSIDERATIONS AND THE CURRENT SOCIO-ECONOMIC SITUATION. IT ACCESSES LAND MANAGEMENT PLANNING AND MULTIPLE USE CONSIDERATIONS. CALCULATION AND ANALYSIS OF TIMBER PRODUCTION IS INCLUDED. DETAILED RECOMMENDATIONS ARE MADE ON THE ULTIMATE LEVELS OF FOREST LAND MANAGEMENT.

D-76

DIOMEDI, A., S. J.
1879.

"LETTER."

WOODSTOCK LETTERS 8:32-41.

(ABORIGINAL LANDS OF THE KALISPEL INDIANS). THIS LETTER DESCRIBES A VISIT TO THE LOWER KALISPEL WHERE THE PRIEST EXHORTED THEM TO REFORM THEIR PERSONAL BEHAVIOR, ORGANIZED A TRIBAL POLICE FORCE, AND PRESSURED THE KALISPEL CHIEF TOWARD ASSUMING MORE AUTHORITY THAN THE TRADITIONAL LOOSELY STRUCTURED KALISPEL BAND PROVIDED. SKCC.

D-77

"THE DISCOVERY OF MARIAS PASS: A PARADOX."
1973.

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 7 PP.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK LIBRARY.

(GLACIER NATL. PARK: MARIAS PASS AREA). THIS RESEARCH PAPER DISCUSSES THE CONTROVERSY SURROUNDING THE DISCOVERY OF THE PASS. INDIAN USE OF THE PASS, ISAAC STEVENS' PLANS AND ACTIVITIES RELATIVE TO LOCATING IT, MAPS DRAWN DEPICTING THE AREA PRIOR TO JOHN F. STEVENS' TRIP, AND OTHER ACCOUNTS OF KNOWLEDGE OR USE OF THE PASS BELYING THE IDEA THAT JOHN STEVENS WAS ITS DISCOVERER ARE PRESENTED.

D-78

DIXON, JOSEPH.
1905.

"FLATHEAD COUNTY FACTS: CONGRESSMAN JOSEPH M. DIXON."

KALISPELL CHAMBER OF COMMERCE. 2 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(FLATHEAD INDIAN RESERVATION). AN ARTICLE WRITTEN BY THE CONGRESSMAN TELLS HOW TO SECURE HOMESTEADS AND TIMBER LANDS UPON THE FLATHEAD INDIAN RESERVATION.

D-79

DIXON, JOSEPH, AND JULES KARLIN, ED.
1967.

"YOUNG JOE DIXON IN THE FLATHEAD COUNTRY."
MONTANA 17(1):12-19.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(LAKE COUNTY). THIS ARTICLE CONTAINS THE PERSONAL RECOLLECTIONS OF A TRIP INTO THE FLATHEAD VALLEY IN 1891 BY JOSEPH DIXON, GOVERNOR AND U.S. SENATOR FROM MONTANA. THE JOURNEY WAS MADE BY RAIL, STAGE, AND LAKE STEAMER.

D-80

DODGE, HAROLD R.
1967.

"DEFOLIATING INSECTS IN THE NORTHERN ROCKY MOUNTAINS IN 1885."

NORTHWEST SCIENCE 31:38-42.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.: SWAN VALLEY, FLATHEAD NATL. FOREST). THE INFESTATION OF OVER THREE MILLION GROSS ACRES OF DOUGLAS FIR, WESTERN LARCH, LODGEPOLE PINE, ALPINE FIR, AND SPRUCE BY VARIOUS INSECTS IS SUMMARIZED. THE ARTICLE ADDRESSES THE SPRUCE BUDWORM, THE DOUGLAS FIR TUSSOCK MOTH, THE LARCH BUDMOTH, A SAWFLY (NEODIPRION), AND THE BLACK-HEADED BUDWORM. THE DEFOLIATION OF LODGEPOLE PINE BY A SMALL MOTH OF THE FAMILY GELECHIIDAE IN TWO AREAS OF THE SWAN VALLEY IS BRIEFLY NOTED, AS WELL AS THE DAMAGE DONE BY THE LARCH BUDMOTH IN THE SAME AREA.

D-81
DODGE, RICHARD.
1976.

MONTANA POPULATION ESTIMATES, 1950-1970.
HELENA, MT.: MONTANA DEPT. COMMUNITY AFFAIRS, DIV. RESEARCH & INFORMATION SYSTEMS. 24 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, SANDERS, LEWIS & CLARK, POWELL, & LINCOLN COUNTIES). THIS REPORT CONTAINS STATE, REGIONAL, AND COUNTY POPULATION ESTIMATES FROM 1950 TO 1975, WITH CITY POPULATION ESTIMATES FROM 1970 TO 1975. BIRTHS AND DEATHS ARE ALSO TABULATED.

D-82
DODGE, RICHARD.
1977.

MONTANA POPULATION PROJECTIONS.
HELENA, MT.: MONTANA DEPT. COMMUNITY AFFAIRS, DIV. RESEARCH & INFORMATION SYSTEMS. 44 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, SANDERS, MISSOULA, LEWIS & CLARK, POWELL, & LINCOLN COUNTIES). THIS REPORT IS A COMPILATION OF MONTANA POPULATION PROJECTIONS WITH COUNTY PROJECTIONS BY AGE AND INCORPORATED CITY PROJECTIONS FROM 1975-2000. INCLUDED ARE CHAPTERS ON HISTORICAL POPULATION TRENDS, CURRENT AND FUTURE TRENDS IN MONTANA, AND STATE AND PLANNING DISTRICT POPULATION PROJECTIONS FROM 1975-2000.

D-83
DOERKSEN, HARVEY R.
1972.
COLUMBIA RIVER INTERSTATE COMPACT, POLITICS OF NEGOTIATION.
PULLMAN, WA.: WASHINGTON WATER RESEARCH CENTER. COMPL. REPT. 11. 207 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE STUDY REPORTS ON THE ATTEMPT TO ESTABLISH A REGIONAL INSTITUTIONAL STRUCTURE FOR RIVER BASIN DEVELOPMENT AS AN ALTERNATIVE TO FURTHER FEDERAL GOVERNMENT DEVELOPMENT. HYPOTHESES FOR THE FAILURE OF THE COMPACT ATTEMPT ARE ADVANCED.

D-84
DOERKSEN, HARVEY R.
1975.
REGIONAL INSTREAM FLOW NEEDS IN THE PACIFIC NORTHWEST.
PULLMAN, WA.: WASHINGTON WATER RESEARCH CENTER, WASHINGTON STATE UNIV. REPT. NO. 20. 177 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: MONTANA). THIS STUDY EXAMINED THE LEGAL, POLITICAL, AND TECHNOLOGICAL ASPECTS OF THE PROCESS OF DETERMINING STREAM FLOW REQUIREMENTS FOR VARIOUS USES, AND ESTABLISHING AND PRESERVING THOSE FLOWS. INSTREAM FLOW METHODOLOGY IS CONSIDERED A WATER RESOURCE ALLOCATION PROCESS WHICH INCLUDES TECHNOLOGICAL DETERMINATIONS OF NEEDS FOR THE INSTREAM AND OUT-OF-STREAM USES, FLOW RECOMMENDATIONS AND DECISIONS IN THE LEGAL-POLITICAL ARENA, ESTABLISHMENT OF FLOW LEVELS UNDER THE LAW, AND MAINTENANCE AND MONITORING OF THE RESERVED FLOW OR FLOWS.

D-85
DOERKSEN, HARVEY R.; ORSBORN, J. F.; AND LAMB, B. L.
1975.
REGIONAL INSTREAM FLOW NEEDS IN THE PACIFIC NORTHWEST: AN ANALYSIS OF INSTITUTIONAL, LEGAL AND TECHNOLOGICAL ASPECTS OF ALLOCATION PROCESSES FOR LIMITED STREAMFLOW.
PULLMAN, WA.: WASHINGTON WATER RESEARCH CENTER, WASHINGTON STATE UNIV. REPT. NO. 20. 169+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: MONTANA). AN INVESTIGATION WAS CONDUCTED UNDER THIS PROJECT INTO THE LEGAL, POLITICAL AND TECHNOLOGICAL ASPECTS OF DETERMINING STREAM FLOW REQUIREMENTS FOR VARIOUS USES, AND ESTABLISHING AND PRESERVING THOSE FLOWS. INSTREAM FLOW METHODOLOGY WAS CONSIDERED AS A WATER RESOURCE ALLOCATION PROCESS WHICH INCLUDES TECHNOLOGICAL DETERMINATIONS OF NEEDS FOR THE INSTREAM AND OUT OF STREAM USES, FLOW RECOMMENDATIONS AND DECISIONS IN THE LEGAL-POLITICAL ARENA; ESTABLISHMENT OF FLOW LEVELS UNDER THE LAW, AND MAINTENANCE AND MONITORING OF THE RESERVED FLOW OR FLOWS. QUESTIONNAIRES WERE SENT TO VARIOUS STATE AND FEDERAL AGENCIES IN THE STUDY AREA.

D-86
DOMROSE, ROBERT J.
1963.
"AGE AND GROWTH OF BROOK TROUT, *SALEVINUS FONTINALIS*, IN MONTANA."
PROC. MONTANA ACADEMY SCIENCE 23:47-62.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). THE PAPER REPORTS ON A STUDY CONDUCTED TO DETERMINE THE AGE AND GROWTH OF BROOK TROUT FROM VARIOUS LOCATIONS. DATA INCLUDE COLLECTIONS FROM 13 STREAMS AND 8 LAKES BY STATE FISHERIES PERSONNEL OVER A 10-YEAR PERIOD (1950-1959). AVERAGE TOTAL LENGTHS ARE CALCULATED.

D-87
DONAHUE, JOHN J.
1977.
MONTANA'S WATER QUALITY BIBLIOGRAPHY 1974 - SUMMER 1977.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV., WATER QUALITY BUREAU. 51 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). CITATIONS INCLUDED DEAL WITH AT LEAST ONE OF THE THREE MAJOR WATER QUALITY CHARACTERISTICS: CHEMICAL, PHYSICAL-INCLUDING HYDROLOGIC AND EROSIONAL ASPECTS, AND BIOLOGICAL. SOME ADMINISTRATIVE CITATIONS ARE ALSO INCLUDED. THE BIBLIOGRAPHY IS DIVIDED INTO 3 SECTIONS: 1) WORK GENERATED BY GRADUATE STUDENTS AT UNIVERSITIES LOCATED MAINLY IN MONTANA; 2)

JOURNAL ARTICLES, BOOKS, PROCEEDINGS OF SYMPOSIA AND OTHER SCHOLARLY EFFORTS, AND 3) GOVERNMENTAL AND UNIVERSITY PUBLICATIONS.

D-88
DONNELLY, JOSEPH P., S. J.
1940.
"THE LIQUOR TRAFFIC AMONG THE ABORIGINES OF THE NEW NORTHWEST, 1800-1880."
PH.D. DISSERTATION, ST. LOUIS UNIV., ST. LOUIS. UNIV. MICROFILMS 480.

(PACIFIC NORTHWEST: WESTERN MONTANA). THIS DISSERTATION SKETCHES THE HISTORY OF THE NEW NORTHWEST, INCLUDING THE WESTERN MONTANA AREA, FROM 1800-1880 WITH SPECIAL EMPHASIS ON THE ROLE OF THE LIQUOR TRADE IN THE AREA AND GOVERNMENT EFFORTS TO SUPPRESS IT. SKCC.

D-89
DOOHAN, JOHN ROBERT.
1957.
"THE ATTITUDES AND OPINIONS OF PARENTS, PUPILS AND TEACHERS CONCERNING THEIR HIGH SCHOOL AT ST. IGNATIUS, MONTANA."
M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 111 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ST. IGNATIUS). THIS STUDY ATTEMPTED TO FIND THE AREAS OF SATISFACTION AND DISSATISFACTION OF PARENTS, PUPILS AND TEACHERS CONCERNING THEIR HIGH SCHOOL AT ST. IGNATIUS. COPIES OF THE QUESTIONNAIRES USED ARE INCLUDED.

D-90
DOOLING, OSCAR J.
1978.
EVALUATION OF PROPOSED DWARF MISTLETOE MANAGEMENT PROJECTS ON THE SWAN LAKE RANGER DISTRICT, FLATHEAD NATIONAL FOREST.
U. S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY, REPT. NO. 78-15. 11 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SWAN LAKE RANGER DISTRICT). A PROGRAM FOR CONTROLLING DWARF MISTLETOE IS PROPOSED, WITH A COST-BENEFIT ANALYSIS MADE IN YIELD PROJECTIONS FROM ONE PRECOMMERCIAL AND ONE COMMERCIAL THINNING. RECOMMENDATIONS ARE INCLUDED.

D-91
DOOLING, OSCAR J., AND BROWN, D. H.
1978.
GUIDELINES FOR DWARF MISTLETOE CONTROL IN LODGEPOLE PINE IN THE NORTHERN AND CENTRAL ROCKY MOUNTAINS.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY, REPT. NO. 78-14. 10 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.). OUTLINED IN THIS REPORT ARE: MANAGEMENT OBJECTIVES, ADMINISTRATIVE FRAMEWORK, AND A SILVICULTURAL PRESCRIPTION. THE EFFECT OF SILVICULTURAL TREATMENT ON THE SPREAD AND INTENSIFICATION OF THE DISEASE ARE DESCRIBED, COVERING REGENERATION CUTS, PARTIAL CUTS, CLEARCUTS AND THINNING. THE SIX CLASS MISTLETOE RATING SYSTEM IS DIAGRAMED. CONTROL ALTERNATIVES ARE LISTED.

D-82
DOOLING, OSCAR J., AND HAGLUND, STEVE.
 1974.
EVALUATION OF PROPOSED DWARF MISTLETOE CONTROL PROJECTS FOR FISCAL YEARS 1976 TO 1980, FLATHEAD INDIAN RESERVATION.
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY. REPT. NO. 74-20. 5 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE FLATHEAD INDIAN RESERVATION FINISHED ITS FIRST FIVE-YEAR DWARF MISTLETOE PROGRAM AND WAS READY TO BEGIN A SECOND FIVE-YEAR PLAN. THIS PAPER REPORTS ON AN EVALUATION OF THE AREA INCLUDED IN THE PLAN. THE AREAS ARE DESCRIBED, AND A COST BENEFIT ANALYSIS IS MADE.

D-83
DOUGLASS, MICHAEL.
 1977.
"THE BUFFALO OF AMERICA ARE NOT ALL DEAD."
 MONTANA HISTORIAN 7(MAY 1977):38-47.

(FLATHEAD INDIAN RESERVATION: NATL. BISON RANGE). THIS ARTICLE SKETCHES THE HISTORY OF THE BUFFALO HERD ON THE FLATHEAD RESERVATION AND THE REMOVAL OF THE HERD TO CANADA, AND THE FINAL ESTABLISHMENT OF THE NATIONAL BISON RANGE. IT DRAWS ON THE WORKS AND PAPERS OF MORTON ELROD, WHO WAS INSTRUMENTAL IN ESTABLISHING THE BISON RANGE. SKCC.

D-84
DOUMA, DON.
 1953.
"SECOND BONANZA: THE HISTORY OF OIL IN MONTANA."
 MONTANA MAGAZINE OF WESTERN HISTORY 5(AUTUMN 1953):18-30.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(GLACIER NATL. PARK). PART ONE OF THIS ARTICLE DESCRIBES THE PRE-COMMERCIAL PHASE OF MONTANA'S CRUDE OIL INDUSTRY, 1864-1919, INCLUDING THE KINTLA LAKE DEPOSITS IN WHAT WAS TO BECOME GLACIER NATIONAL PARK.

D-85
DOW, SUMNER A., JR.
 1952.
"ANTELOPE AGING STUDIES IN MONTANA."
 PROC. 32ND ANNUAL CONFERENCE OF WESTERN ASSOC. OF STATE GAME & FISH COMMISSIONERS, GLACIER NATIONAL PARK, WEST GLACIER, MT. 28 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS STUDY WAS UNDERTAKEN TO SUPPLY A RELIABLE METHOD OF AGE DETERMINATION AND COVER SOME OF THE DEVELOPMENTAL CHANGES IN STRUCTURE OCCURRING BETWEEN BIRTH AND 3/5 YEARS. THIS PAPER DEALS WITH TOOTH DEVELOPMENT, REPLACEMENT, AND WEAR.

D-86
DOW, SUMNER A., JR.
 1952.
"AN EVALUATION OF SOME CRITERIA FOR AGE DETERMINATION OF THE PRONGHORN (ANTILOCAPRA AMERICANA ORD)."
 M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 52 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: NATL. BISON RANGE). THIS STUDY OF AGE CRITERIA ATTEMPTS TO ADD TO KNOWLEDGE OF THE LIFE HISTORY OF THE PRONGHORN ANTELOPE (ANTILOCAPRA AMERICANA). 15 PP.

NHORN WERE COLLECTED FROM THE RANGE, ALONG WITH 1,322 SPECIMENS FROM THE 1951 HUNTER HARVEST. METHODS OF AGE DETERMINATION WERE EVALUATED USING KNOWN AND ESTABLISHED AGE SPECIMENS AS A BASIS. INCLUDED IN THE EVALUATION ARE WEIGHTS AND MEASUREMENTS, PELAGE CHANGES, HORN DEVELOPMENT, OSSIFICATION OF THE EPIPHYSEAL GROOVE OF THE FRONT CANNON BONE, TOOTH DEVELOPMENT, AND WEAR OF THE MANDIBULAR CHEEK TEETH.

D-87
DOW, SUMNER A., JR., AND WRIGHT, PHILLIP L.
 1962.
"CHANGES IN MANDIBULAR DENTITION ASSOCIATED WITH AGE IN PRONGHORN ANTELOPE."
 J. WILDLIFE MANAGEMENT 26(JANUARY 1962):1-18.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS PAPER DESCRIBES THE MANDIBULAR DENTITION OF 20 KNOWN-OR-ESTABLISHED-AGE ANIMALS RANGING FROM 44 DAYS TO 6.5 YEARS. A SERIES OF OVER 1,300 JAWS OBTAINED FROM MONTANA HUNTERS SUPPLEMENTED THE KNOWN-AGE SERIES. THE PAPER ALSO DESCRIBES THE INTRODUCTION OF ANTELOPE TO THE NATIONAL BISON RANGE.

D-88
DOWLER, J. W.
 1914.
LAKE MCDONALD IN THE NEW GLACIER NATIONAL PARK, MONTANA.
 TROY, OH.: MONTGOMERY PRINTING CO.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: U.S. DEPT. INTERIOR, NATIONAL PARK SERV., GLACIER NATIONAL PARK LIBRARY.

(GLACIER NATL. PARK). A COLLECTION OF POEMS AND ESSAYS BY AN EARLY VISITOR TO THE PARK. HAND TINTED PHOTOGRAPHS ARE INCLUDED.

D-89
DOWNERY, MARY K. M.
 1977.
"A PROFILE OF PSYCHOLINGUISTIC ABILITIES FOR GRADES ONE, TWO, AND THREE: STUDENTS OF THE FLATHEAD RESERVATION."
 PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 97 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE ILLINOIS TEST OF PSYCHOLINGUISTIC ABILITIES WAS ADMINISTERED TO 60 CHILDREN, RANGING IN AGES FROM 5 YEARS, 3 MONTHS TO 9 YEARS, 7 MONTHS. IT WAS HYPOTHEZIZED THAT THE PROFILES OF THE INDIAN AND THE NONINDIAN SUBJECTS WOULD NOT BE SIGNIFICANTLY DIFFERENT. MEAN SCALED-SCORE COMPARISONS WERE MADE, UTILIZING THE T-TEST COMPARISON ON THE 10 BASIC SUBTESTS, THE PROCESSES, LEVELS, AND CHANNELS OF THE TEST. MEAN PSYCHOLINGUISTIC AGE SCORES WERE COMPARED, AND SEPARATE PROFILES WERE DETERMINED FOR INDIAN, INDIAN-MALE, INDIAN-FEMALE AND EACH OF THE SEPARATE GRADE LEVELS. THE DATA REVEALED SOME SIGNIFICANT DIFFERENCES AND ANALYSIS OF THE PROFILES INDICATED TRENDS IN NEED OF FURTHER RESEARCH. A RECOMMENDATION CONCERNING A LANGUAGE EXPERIENCE APPROACH IS PRESENTED.

D-100
DRISCOLL, PHILLIP L.
 1973.
"THE ECONOMIC DEVELOPMENT OF THE MISSION VALLEY: 1910-1930."

M.A. THESIS, UNIV. MONTANA, MISSOULA. 97 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MISSION VALLEY). THE STUDY IS AN ECONOMIC HISTORY OF THE AREA, BASED UPON UNPUBLISHED MANUSCRIPT SOURCES, NEWSPAPERS, AND GOVERNMENT DOCUMENTS, ALONG WITH ORAL HISTORY IN INTERVIEWS WITH LONG-TIME MISSIONARIES AND INDIAN AGENTS. THE TRANSPORTATION PICTURE FROM 1800 TO 1910 IS PRESENTED, FOLLOWED BY AN ACCOUNT OF WHITE SETTLEMENT AND AGRICULTURAL DEVELOPMENT. THE IMPROVEMENT AND CONSTRUCTION OF ROADS AND RAILROAD SPUR LINES, THE USE OF AUTOMOBILES, AND COMMERCIAL TRUCKING ARE DESCRIBED. THE THESIS ALSO DISCUSSES THE DEVELOPMENT OF RETAIL TRADE, THE LUMBER INDUSTRY, AND BANK FAILURES DURING THE 1920'S, NOTING THE CAUSES.

D-101
DRUMMOND, LEE.
 1975.
"LIFESTYLES OF WESTERN MONTANA: A COMPARATIVE STUDY."
 UNIV. MONTANA, MISSOULA. (TYPEWRITTEN). 88 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA: FLATHEAD NATL. FOREST, KALISPELL, COLUMBIA FALLS, WHITEFISH). THE STUDY COMPARES ATTITUDES AMONG THE RESIDENTS OF KALISPELL, WHITEFISH, AND COLUMBIA FALLS IN REGARD TO FURTHER URBAN EXPANSION AND ENVIRONMENTAL AND LAND-USE RELATED PROBLEMS.

D-102
DUFFIELD, JOHN.
 1977.
THE FUTURE PRICES OF ELECTRICITY IN MONTANA.
 HELENA, MT.: MONTANA ENERGY ADVISORY COUNCIL. 105 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). A PROJECTION OF THE AVERAGE PRICES OF ELECTRICITY IS PROVIDED IN THIS STUDY, WHICH FOCUSES ITS ANALYSIS ON MONTANA POWER COMPANY AND BONNEVILLE POWER ADMINISTRATION. THE EFFECT OF CHANGES IN CERTAIN PARAMETERS ON ELECTRICAL PRICES IS IDENTIFIED. INCLUDED ARE THE PARAMETERS: CAPACITY FACTOR ON STEAM PLANTS, HYDRO CONDITIONS (AVERAGE MW), COAL COSTS, YEARLY INCREASE IN COAL COSTS, RATE BASE, COMMON EQUITY RETURN ALLOWED, DEPRECIATION RATE, AVERAGE COST OF PURCHASES OF WHOLESALE POWER, CONSUMPTION PROJECTION, AND TAX RATE.

D-103
DUNCAN, TYSON D.
A PERSONAL NARRATIVE.
 7 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(FLATHEAD VALLEY: HISTORIC DEMERSVILLE). A PERSONAL NARRATIVE OF SETTLEMENT WHICH BEGAN IN THE WINTER OF 1882-1883. THE INDIVIDUAL DESCRIBES BUILDING HIS CABIN, HIS FARMING AND CROPS PRODUCED. WEATHER OBSERVATIONS; ACCOUNTS OF WHO SETTLED WHERE; THE COMING OF "CIVILIZATION" (MORE SETTLERS, A THRESHING MACHINE, POLITICIANS); AND THE ESTABLISHMENT OF ASHLEY AND DEMERSVILLE ARE RECOUNTED.

C-104

DUNN, A. VAN V.
1942.

REPORT ON WATER RIGHTS, MCDONALD CREEK DRAINAGE, GLACIER NATIONAL PARK. SAN FRANCISCO, CA.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, REGION FOUR. 41 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK, HISTORICAL FILES.

(GLACIER NATL. PARK: MCDONALD CREEK). THIS REPORT WAS PREPARED FROM DATA OBTAINED DURING A VISIT TO MCDONALD CREEK DRAINAGE OF GLACIER NATIONAL PARK IN 1940 AND FROM SURVEYS MADE WITH WATER RIGHTS FUNDS DURING 1940. THE REPORT COVERS THE WATER RIGHTS PROBLEM, FLATHEAD RIVER WATER RIGHTS, EARLY MCDONALD CREEK CLAIMS, PATENTED LAND WITHOUT WATER RIGHTS, AND VARIOUS OTHER WATER CLAIMS. NUMEROUS MAPS ACCOMPANY THE REPORT.

D-105

DUNPHY, GERALD J.
1970-1971.

"SEISMIC ACTIVITY OF THE KERR DAM, S.W. FLATHEAD LAKE AREA, MONTANA." IN EARTHQUAKE RESEARCH IN NOAA, PP. 59-61.
U.S. DEPT. COMMERCE, NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION. TECH. REPT. ERL238-ESL-21.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KERR DAM, S.W. FLATHEAD LAKE). THIS BRIEF PAPER DELINEATES SEISMIC PATTERNS AND INVESTIGATES THE ASSOCIATION OF SEISMIC EVENTS CLOSE TO A LARGE RESERVOIR.

D-106

DUNPHY, GERALD J.
1973.

"EARTHQUAKES NEAR FLATHEAD LAKE, MONTANA, 1967-1971." EARTHQUAKE NOTES 44:86.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). MOST OF THE SEISMICITY IS DEFINED AS THREE HYPOCENTER CLUSTERS, WITH ACTIVITY BEING CONCENTRATED IN ONE CLUSTER AT A TIME. INCLUDED IN THIS DISCUSSION IS THE CORRELATION OR LACK OF CORRELATION OF AFTERSHOCK OCCURRENCE AND RESERVOIR LEVEL AT KERR DAM.

D-107

DUNSTAN, SISTER MARY.
1926.

"HUNGRY AND THIRSTY." INDIAN SENTINEL 6(WINTER 1926):31.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE COMMENTS ON THE SERVICES THE MISSION PROVIDED THE INDIANS AND MENTIONS THAT MANY OF THE FLATHEAD RESERVATION INDIANS WERE STARVING. SKCC.

D-108

DUPUIS, VIC.
1979.

SEEDLING PRODUCTION IN THE CONFEDERATED SALISH AND KOOTENAI TRIBES FOREST ENTERPRISE GREEN HOUSE. PABLO, MT.: U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS, FLATHEAD INDIAN RESERVATION. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: FLATHEAD INDIAN RESERVATION). THIS MANUAL IS A COLLECTION OF INFORMATION, DATA, AND TECHNIQUES DEVELOPED BY THE AUTHOR IN THE COURSE OF PRODUCTION OF APPROXIMATELY 700,000 SEEDLINGS IN FIVE GROWING CYCLES. IT DESCRIBES THE PROCEDURES AND TECHNIQUES TO BE USED IN ALL PHASES OF SEEDLING PRODUCTION, STORAGE, AND PREPARATION FOR OUTPLANTING.

D-109

DURGELOL, BILL, ET. AL.
1973.

"SKOOL LOO - LEGENDS FROM HERE AND THERE." THE DOVETAIL MAGAZINE, SPRING 1973, PP. 30-40.

(FLATHEAD INDIAN RESERVATION). THIS COLLECTION INCLUDES THREE LEGENDS FROM THE FLATHEAD RESERVATION. SKCC.

D-110

DURHAM, C. C.
1946.

"HAY FEVER POLLEN SURVEY OF GLACIER NATIONAL PARK." ABBOTT LAB., NORTH CHICAGO, ILL. 5 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: U.S. DEPT. INTERIOR, NATIONAL PARK SERV., GLACIER NATIONAL PARK LIBRARY.

(GLACIER NATL. PARK). THIS SURVEY CONSISTS OF A FIELD STUDY OF POTENTIAL PLANT SOURCES OF AIRBORNE POLLENS WITHIN AND NEAR GLACIER NATIONAL PARK, SUPPLEMENTED BY DAILY TESTS OF AIRBORNE POLLEN. CONCLUSIONS ARE INCLUDED.

D-111

DUSENBERRY, VERNE.
1947.

"SOME EVIDENCE OF THE ADAPTABILITY AND RESOURCEFULNESS OF THE FLATHEAD INDIAN." MUSEUM OF THE ROCKIES, BOZEMAN, MT. (TYPEWRITTEN). 11 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). IT WAS THE PURPOSE OF THIS PAPER TO POINT OUT A FEW ADAPTATIONS WHICH CHANGED THE LIFE OF THE FLATHEAD INDIAN AS HE MOVED EASTWARD AND CAME IN CONTACT WITH THE CULTURE OF THE PLAINS INDIAN. LIKEWISE, A FEW EXAMPLES OF THE MATERIAL CULTURE OF THE FLATHEAD ARE GIVEN TO SHOW HOW SUCCESSFULLY HE UTILIZED THE RESOURCES OF NATURE.

D-112

DUSENBERRY, VERNE.
1957.

"TERMINAL REPORT OF SIX MONTHS TOUR OF DUTY AS INDIAN SPECIALIST, MONTANA EXTENSION SERVICE." MUSEUM OF THE ROCKIES, BOZEMAN, MT. (TYPEWRITTEN). 22 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE OBJECTIVES OF THE AUTHOR AS INDIAN SPECIALIST WERE: 1) TO INVESTIGATE THE EDUCATIONAL POTENTIALITIES OF INDIAN STUDENTS, ESPECIALLY THOSE IN HIGH SCHOOL; 2) TO ACT AS A LIASON BETWEEN THE INDIAN AND NON-INDIAN WHENEVER SUCH OCCASION DEMANDED; AND 3) TO COOPERATE IN EVERY POSSIBLE MANNER WITH THE EXTENSION AGENTS CURRENTLY WORKING WITH INDIAN PEOPLE.

D-113

DUSENBERRY, VERNE.
1958.

"SAMPLES OF PEND D'OREILLE LITERATURE AND SALISH NARRATIVES."

MUSEUM OF THE ROCKIES, BOZEMAN, MT. (TYPEWRITTEN). 29 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE STORIES THAT APPEAR IN THIS PAPER ARE ONES THAT THE AUTHOR RECORDED IN THE 1930'S WHEN HE LIVED AMONG THE PEND D'OREILLE AND FLATHEAD-SALISH INDIANS. THE STORIES INCLUDE: A HORSE STEALING EXPEDITION, WAR EXPERIENCES, CHARLOT'S LATER YEARS, AND FARMING EXPERIENCES.

D-114

DUSENBERRY, VERNE.
1959.

"VISIONS AMONG THE PEND D'OREILLE INDIANS." ETHNOS 24:52-57.

(ABORIGINAL LANDS OF THE PEND D'OREILLE INDIANS). VISIONS PLAYED AN IMPORTANT ROLE IN THE RELIGIOUS LIFE OF THE PEND D'OREILLE. SKCC.

D-115

DUSENBERRY, VERNE.
1979.

"SAMPLES OF PEND D'OREILLE ORAL LITERATURE AND SALISH NARRATIVES." IN LIFEWAYS OF INTERMONTANE AND PLAINS MONTANA INDIANS. BOZEMAN, MT.: MUSEUM OF THE ROCKIES. OCCASIONAL PAPERS NO. 1. 12 PP. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THESE STORIES WERE RECORDED BY THE AUTHOR IN THE LATE 1930'S WHEN HE WAS LIVING AMONG THE PEND D'OREILLE AND THE FLATHEAD-SALISH. THE STORIES RELATE HORSE STEALING EXPEDITIONS, WAR EXPERIENCES, AND HISTORICAL NARRATIVES TRACING THE TRAGEDY OF THE INDIAN WHEN HIS CULTURE WAS BROKEN BY THE IMPACT OF THE WHITE MAN.

D-116

DUSENBERRY, VERNE.

"HOME TO THE RESERVATION." MUSEUM OF THE ROCKIES, BOZEMAN, MT. (TYPEWRITTEN). 5 PP. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS IS A SHORT STORY RELATING THE AUTHOR'S EXPERIENCE OF RETURNING TO THE FLATHEAD INDIAN RESERVATION AFTER AN ABSENCE OF THIRTEEN YEARS.

D-117

DUSENBERRY, VERNE.

"THE SALISH LOOKED FOR GOD." MUSEUM OF THE ROCKIES, BOZEMAN, MT. (TYPEWRITTEN). 10 PP. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS IS AN ACCOUNT OF HOW THE JESUITS CAME TO MINISTER TO THE SALISH TRIBES OF WESTERN MONTANA. THE ORIGINAL VISION OF "A MAN DRESSED LIKE A WOMAN WHO BRINGS STRONG MEDICINES" IS DESCRIBED; HOW IGNACE LA MOUSSE, AN IROQUOIS, INFLUENCED THE TRIBES TO SEND A DEPUTATION EAST TO BRING THE BLACK ROBES BACK IS DETAILED; AND THE ENSUING PARTIES WHICH WENT TO ST. LOUIS AND FINALLY RETURNED WITH FATHER DESMET ARE DESCRIBED.

D-118
DUSENBERRY, VERNE.
"VISIONS AMONG THE PEND D'OREILLE INDIANS."
MUSEUM OF THE ROCKIES, BOZEMAN, MT.
(TYPEWRITTEN). 7 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS IS AN ACCOUNT RELATED TO THE AUTHOR BY FATHER Taelman, a Jesuit who spent most of his life among the Flatheads living near the mission range of mountains. The story illustrates a curious blend of primitive and Christian belief.

D-119
DWYER, GERALD L.
1978.
"COMPETITION AND HOSTILE BEHAVIORS OF BLUE-WINGED AND CINNAMON TEAL IN WESTERN MONTANA."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 77 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(WESTERN MONTANA: NINEPIPE NATL. WILDLIFE REFUGE). HOSTILE BEHAVIORS AND REPRODUCTIVE TERRITORIES OF BLUE-WINGED TEAL (ANAS DISCORS) AND CINNAMON TEAL (A. CYANOPTERA) ARE THE SUBJECT OF THIS THESIS, WHICH INVOLVED MAPPING OF THE BIRDS' TERRITORIES. FIVE HOSTILE BEHAVIORS ARE DESCRIBED. THE BEHAVIORS OF THE TWO SPECIES ARE COMPARED. THE DESIGNATION OF THE SPECIES AS PARTIAL COMPETITORS IS EXPLAINED, IN LIGHT OF THE SIMILARITY IN HOSTILE BEHAVIORS, INTERSPECIFIC INTERACTION, AND MUTUALLY EXCLUSIVE TERRITORIES.

D-120
DYSON, JAMES L.
1937.
"SNOWSLIDE STRIATIONS."
J. GEOLOGY 45:549-557.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). SNOW, SLIDING IN CONSIDERABLE MASS DOWN STEEPLY INCLINED STRATIFICATION PLANE SURFACES OF LIMESTONE, PRODUCED, WITH THE AID OF ROCK TOOLS, STRIATIONS IDENTICAL TO THOSE OF GLACIAL ACTION. THE BOULDERS WHICH CAUSED THE MARKS WERE FOUND IN PLACE AT THE END OF THE STRIATIONS.

D-121
DYSON, JAMES L.
1941.
"RECENT GLACIER RECESSION IN GLACIER NATIONAL PARK, MONTANA."

J. GEOLOGY 49(NOVEMBER-DECEMBER 1941):815-824.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE IS CONCERNED WITH THE DECREASE IN AREA AND VOLUME OF INDIVIDUAL GLACIERS INCLUDING GRINNELL, SPERRY, JACKSON, AGASSIZ GLACIERS AND THE GLACIER OF ICEBERG LAKE. MAPS OF GLACIER SURFACE AREA AND PHOTOGRAPHS ARE USED TO ESTIMATE THE MAGNITUDE OF RECENT GLACIER RECESSION. FIGURES OF PROBABLE ICE THICKNESS ARE DERIVED FROM EXAMINATIONS OF CIRQUE FLOORS AND MEASUREMENTS OF CREVASSES.

D-122
DYSON, JAMES L.
1948.
"GLACIERS AND GLACIATION."
GLACIER NATURAL HISTORY ASSOC., WEST GLACIER, MT. SPEC. BULL. NO. 2. 24 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT COVERS THE ORIGIN OF GLACIERS, THE MOTION OF GLACIERS, GLACIERS OF THE U.S., GLACIERS OF GLACIER NATIONAL PARK, RECESSION OF PARK GLACIERS, FORMER EXTENT OF PARK GLACIATION, PARK FEATURES RESULTING FROM GLACIATION, AND LISTS SOME REFERENCES ON THE PARKS GLACIERS.

D-123
DYSON, JAMES L.
1948.
"SHRINKAGE OF SPERRY AND GRINNELL GLACIERS, GLACIER NATIONAL PARK."
THE GEOGRAPHICAL REVIEW 38:9-18.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK: SPERRY & GRINNELL GLACIERS). A REPORT DETAILING A MAPPING PROGRAM DESIGNED TO YIELD COMPREHENSIVE QUANTITATIVE DETERMINATIONS OF THE TWO GLACIERS' SHRINKAGE. TOPOGRAPHIC MAPS AND PHOTOGRAPHS ARE INCLUDED.

D-124
DYSON, JAMES L.
1952.
GLACIERS OF THE AMERICAN ROCKY MOUNTAINS. TRIENNIAL REPORT: SUBCOMMITTEE ON THE AMERICAN ROCKY MOUNTAINS.
NEW YORK: AMERICAN GEOGRAPHICAL SOCIETY. 37 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(ROCKY MTNS.: GLACIER NATL. PARK). THIS REPORT INCLUDES A REVISED LIST OF THE KNOWN ROCKY MOUNTAIN GLACIERS, RECENT DEVELOPMENTS IN

RESEARCH ON THE GLACIERS OF THIS AREA, THE DATA ON GLACIER VARIATIONS, RESULTING FROM THIS WORK, A LIST OF AERIAL PHOTOGRAPHS OF GLACIERS, AND A BIBLIOGRAPHY OF GLACIERS OF THE AMERICAN ROCKY MOUNTAINS.

D-125
DYSON, JAMES L.
1952.
"ICE-RIDGED MORAINES AND THEIR RELATION TO GLACIERS."
J. SCIENCE 250(MARCH 1952):204-211.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER DESCRIBES THE FLUTED SURFACE OF MORAINES FROM WHICH GLACIERS HAVE RETREATED. SUBGLACIAL TUNNELS WHICH FORM IN THE LEE OF BOULDERS ARE FILLED BY THE WEIGHT OF OVERLYING ICE; THESE FILLED TUNNELS FORM RIDGES. THE MORaine SURFACE IS THEN A CAST OF THE GROOVED BASE OF THE ICE. EXAMPLES FROM SPERRY, GRINNELL, AND JACKSON GLACIERS ARE USED.

D-126
DYSON, JAMES L.
1957.
THE GEOLOGIC HISTORY OF GLACIER NATIONAL PARK.
GLACIER NATURAL HISTORY ASSOC. 24 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). AN OVERVIEW OF THE GEOLOGIC HISTORY OF THE PARK, BEGINNING FROM THE BELT GEOSYNCLINE, THROUGH THE ALTYN, APPEKUNNY, GRINNELL, SIYEH, SHEPARD AND KINTLA FORMATIONS OF THE BELT SERIES, THE LEWIS OVERTHRUST AND THE EFFECT OF THE ICE AGE.

D-127
DYSON, JAMES L.
1962.
GLACIERS AND GLACIATION IN GLACIER NATIONAL PARK.
KALISPELL, MT.: O'NEILL PRINTERS. GLACIER NATURAL HISTORY ASSOC., INC. SPEC. BULL. NO. 2. 26 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE STUDY DESCRIBES PRESENT GLACIERS, THEIR ACCESSIBILITY, SUCH SURFACE FEATURES AS CREVASSES AND WELLS, AND THEIR SHRINKAGE. FORMER GLACIATION AND RESULTING FEATURES ARE DISCUSSED. INCLUDES PHOTOGRAPHS OF 1946 GLACIERS.



E-1
"EASTSIDE FLATHEAD HISTORY." 1923.
5 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD COUNTY LIBRARY,
KALISPELL, MT. MONTANA FILES.

(UPPER FLATHEAD VALLEY). ALTHOUGH THE ACCOUNT DEPICTS EARLY SETTLEMENT IN THE FLATHEAD VALLEY, IT FOCUSES ON A SPECIFIC AREA. IT DESCRIBES THE FIRST SCHOOL HOUSE, FIRST TEACHER, FIRST POST OFFICE, FIRST SAW AND FLOUR MILLS, FIRST BREWERY, FIRST BIRTH AND DEATH OF A WHITE PERSON, FIRST GROCERY, AND FIRST WHITE WOMAN.

E-2
EATON, WALTER.
1917.

"A ROCKY MOUNTAIN GAME TRAIL."

HARPERS MONTHLY MAGAZINE, 1917, PP. 111-123.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE DESCRIBES THE WILDLIFE ENCOUNTERED DURING AN EARLY BACKPACKING TRIP THROUGH GLACIER NATIONAL PARK. PARTICULAR ATTENTION IS PAID TO OBSERVATIONS OF THE ROCKY MOUNTAIN GOAT - OREAMUS MONTANUS.

E-3
EBY, DAVID EUGENE.
1977.

"SEDIMENTATION AND EARLY DIAGENESIS WITHIN EASTERN PORTIONS OF THE 'MIDDLE BELT CARBONATE INTERVAL' (HELENA FORMATION), BELT SUPERGROUP (PRECAMBRIAN-Y), WESTERN MONTANA."

PH.D. DISSERTATION, STATE UNIV. NEW YORK AT STONY BROOK. 781 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA). THE MIDDLE BELT CARBONATE INTERVAL OF THE HELENA FORMATION OF THE EASTERN PORTIONS OF THE BELT BASIN IN NORTHWESTERN MONTANA CONSISTS OF TWO TYPES OF DEPOSITIONAL CYCLES. DETAILED ANALYSIS OF BOTH TYPES OF DEPOSITIONAL CYCLES FROM SEVEN NEARLY COMPLETE EXPOSURES OF THE MIDDLE BELT CARBONATE INTERVAL, CHOSEN TO PROVIDE AN EAST-WEST TRANSECT ACROSS THE EASTERN SHELF, REVEALED SEVERAL INDEPENDENT INDICATORS OF PERVASIVE HYPERSALINITY. THE DISSERTATION DESCRIBES THESE INDICATORS AND THE PRESENCE OF ABUNDANT EVIDENCE OF HALITE-GRADE EVAPORITE DEPOSITION IN THE EASTERNMOST PORTIONS OF THE CARBONATE PLATFORM WHICH SUGGESTS THAT CALCIUM SULFATES SHOULD ALSO BE PRECIPITATING SOMEWHERE IN THE BASIN.

E-4
ECKELBERRY, GERALD R.
1978.

LOOKING BACK.

KALISPELL, MT.: THOMAS PRINTING, INC. 94 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD VALLEY). A PERSONAL NARRATIVE OF THE HISTORY OF THE ECKELBERRY FAMILY IN THE VALLEY IS PRESENTED. IT DESCRIBES THE ARRIVAL OF GEORGE ECKELBERRY IN 1887 AND THE ARRIVAL OF HIS WIFE'S FAMILY IN 1883, A CHRISTMAS CELEBRATION IN 1884, BIRTHS AND DEATHS IN THE FAMILY, INDIAN-WHITE RELATIONSHIPS, OTHER SETTLER FAMILIES, FOREST FIRES OF 1910, TRANSPORTATION, THE ESTABLISHMENT OF GLACIER NATIONAL PARK, AND SAWMILLS AND OTHER BUSINESSES.



E-5
ECKELBERRY, HENRY.
1972.

DOWN MEMORY LANE IN THE FLATHEAD.

KALISPELL, MT.: THOMAS PRINTING, INC. 55 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD VALLEY). NARRATIVES OF THE AUTHOR'S EXPERIENCES GROWING UP AND LIVING IN THE VALLEY ARE PRESENTED. INCLUDED ARE DESCRIPTIONS OF FARM LIVING; RURAL MAIL CARRIERS; HARRY ADAMS, LAWPERSON; RYTHUR-JORDAN ELK HERD; THE 1929 FIRE SEASON; OLE'S CRESTON STORE; TOWN LIFE AND WORK.

E-6
EDWARDS, J. GORDON.
1950.

"AMPHIZOIDAE (COLEOPTERA) OF THE WORLD."

WASMANN J. BIOLOGY 8:303-332.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WORLD.

(GLACIER NATL. PARK). THIS REPORT CONSIDERS THE TAXONOMY, EXTERNAL MORPHOLOGY, PHYLOGENY, AND HABITS OF THE AMPHIZIDAE BEETLE. INCLUDED IS A GENERAL DISCUSSION, PHYLOGENETIC CONSIDERATION OF ADULTS, EXTERNAL MORPHOLOGY AND BIONOMICS OF ADULTS, PHYLOGENETIC CONSIDERATION OF LARVAE, EXTERNAL MORPHOLOGY AND BIONOMICS OF LARVAE, WING VENATION, MALE AND FEMALE APPENDAGES, AND A DISCUSSION OF FIVE SPECIES.

E-7
EDWARDS, J. GORDON.
1953.

THE MORPHOLOGY OF THE MALE TERMINALIA OF BEETLES BELONGING TO THE GENUS PRIACMA (CUPESIDAE).

BRUSSELS, BELGIUM: BELGIAN NATIONAL MUSEUM.

BULL. 29. 8 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT DESCRIBES A STUDY OF THE GENITAL APPENDAGES OF THE RARE SPECIES PRIACMA SERRATA. LINE DRAWINGS ARE INCLUDED TO ILLUSTRATE THE MUSCULATURE OF THE "CUSPIS VOLSELLARIS."

E-8
EDWARDS, J. GORDON.
1954.

"THE TYPE OF SYNETA SIMPLEX SUBALPINA EDWARDS."

WASMANN J. BIOLOGY 12(Spring 1954):2-4.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(GLACIER NATL. PARK). IN THIS BRIEF ARTICLE THE AUTHOR DESIGNATES A TYPE SPECIMEN FROM AMONG THE SPECIMENS CITED IN THE ORIGINAL DESCRIPTION OF SYNETA SIMPLEX SUBALPINA. THE LOCATION WHERE THE SPECIMENS WERE COLLECTED IS INCLUDED.

E-9
EDWARDS, J. GORDON.
1956.

"ENTOMOLOGY ABOVE TIMBERLINE."

MAZAMA 38:13-17.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(NORTHWESTERN U.S.: GLACIER NATL. PARK). THIS ARTICLE DESCRIBES MOUNTAIN CLIMBING EXPEDITIONS THE AUTHOR HAS TAKEN AND THE VARIOUS INSECT SPECIES HE HAS ENCOUNTERED.

E-10
EDWARDS, J. GORDON.
1957.

"THE PTARMIGAN OF GLACIER NATIONAL PARK."

AUDUBON MAGAZINE (NOVEMBER-DECEMBER 1957):252-255.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS IS A DESCRIPTION OF THE AUTHOR'S OBSERVATIONS OF PTARMIGAN (LAGOPUS LECURUS) IN GLACIER NATIONAL PARK. NESTING BEHAVIOR IS DETAILED AND PHOTOGRAPHS ARE INCLUDED.

E-11
EDWARDS, J. GORDON.
1957.

"SOME GENERAL OBSERVATIONS ON THE ECOLOGY OF GLACIER NATIONAL PARK, MONTANA, WITH

SPECIAL REFERENCE TO CERTAIN ENTOMOLOGICAL ASPECTS."

WASMAN J. BIOLOGY 15(SPRING 1957):27-54.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER INCLUDES A GENERAL DISCUSSION OF THE GEOLOGIC HISTORY AND THE STREAMS AND LAKES OF THE PARK. IT DESCRIBES THE ECOLOGY OF THE FOLLOWING ZONES: THE ALPINE, THE SCRUB FOREST, AVALANCHE CHUTES, FOREST MEADOWS, AND THE PRAIRIE, AND DISCUSSES THE INSECTS ASSOCIATED WITH EACH ZONE.

E-12

EGGERT, RICHARD.

1977.

"FLATHEAD RESERVATION RESOURCES: RIPE FOR THE PICKING."

BORROWED TIMES, OCTOBER 1977, PP. 10-11.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE STUDIES THE RESOURCE DEVELOPMENT SITUATION ON THE FLATHEAD RESERVATION. SKCC.

E-13

EICHMANN, ROBERT D.

1936.

THE CHERRY APHID AND CHERRY MAGGOT OF THE FLATHEAD VALLEY.

BOZEMAN, MT.: MONTANA STATE COLL., AGRIC. EXPER. STAT. BULL. 313. 11 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY: FLATHEAD & LAKE COUNTIES). THIS ARTICLE DESCRIBES THE LIFE HISTORY, HABITS, AND METHODS OF CONTROL OF THE BLACK CHERRY APHID (MYZUS CERASI) AND THE BLACK-BODIED CHERRY FRUIT FLY (RHAGOLETIS FAUSTA).

E-14

EIGENMANN, CARL H.

1899.

"RESULTS OF EXPLORATIONS IN WESTERN CANADA AND THE NORTHWESTERN UNITED STATES."

BULL. U. S. FISH COMMISSION 14:101-132.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN CANADA & NORTHWESTERN U.S.). A SERIES OF COLLECTIONS OF FISHES AT 25 DIFFERENT PLACES, INCLUDING 7 IN THE COLUMBIA BASIN, ARE REPORTED. 65 SPECIES WERE COLLECTED. THE SPECIES ARE LISTED ACCORDING TO THE AREA WHERE THEY WERE FOUND, AND NOTES ARE INCLUDED DESCRIBING HOW MANY WERE COLLECTED, SIZES, MEASUREMENTS, FIN CHARACTERISTICS, COLOR AND MARKINGS, ETC.

E-15

EISNER, JANET A.

1977.

"TRANSPORTATION IN GLACIER NATIONAL PARK."

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATIONAL PARK). THE PURPOSE OF THIS STUDY WAS TO ASSESS PUBLIC TRANSPORTATION OPTIONS IN TERMS OF THEIR EFFECTIVENESS IN REDUCING PRIVATE VEHICLE IMPACT AND IN PROVIDING CONVENIENT SERVICE FOR VISITORS. GLACIER PARK'S TRANSPORTATION HISTORY IS SUMMARIZED AND PUBLIC TRANSPORTATION SYSTEMS IN OTHER UNITS OF THE NATIONAL PARK SERVICE ARE DESCRIBED AND EVALUATED.

E-16

ELLIOTT, T. C.

1926.

"IN THE LAND OF THE KOOTENAI"

OREGON HISTORICAL QUARTERLY 27(SEPTMBER 1926):279-291.

(ABORIGINAL LANDS OF THE KOOTENAI INDIANS). THIS ARTICLE IS A SKETCH OF SOME OF THE EARLY WHITE VISITORS TO THE KOOTENAI AREA. SKCC.

E-17

ELLIOTT, T. C.

1935.

"RICHARD ('CAPTAIN JOHNNY') GRANT."

OREGON HISTORICAL QUARTERLY 36(MARCH 1935):1-13.

(FLATHEAD INDIAN RESERVATION). GRANT CAME TO THE WEST AS A FUR TRADER BUT REMAINED TO RAISE A FAMILY AND MAINTAIN A CATTLE RANCH. HE WAS MARRIED TO HELENE McDONALD, A POND D'OREILLE, BETWEEN 1845 AND 1853. SKCC

E-18

ELLIOTT, T. C.

1936.

"RELIGION AMONG THE FLATHEADS."

OREGON HISTORICAL QUARTERLY 37:1-8.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS PAPER GIVES A HISTORY OF THE EARLY CONTACTS BETWEEN FLATHEAD INDIANS AND WHITES. THE PAPER DESCRIBES THE ARRIVAL OF INDIANS IN ST. LOUIS IN 1831, SEARCHING FOR PRIESTS; THE TRADING POST OF DAVID THOMPSON; AND TRADERS FINNAN McDONALD AND JEDEDIAH S. SMITH.

E-19

ELLIS, BONNIE.

1980.

"SIZE FRACTIONATION OF METABOLICALLY ACTIVE PHYTOPLANKTON AND BACTERIA IN TWO DIVERSE LENTIC SYSTEMS."

M.S. THESIS, NORTH TEXAS STATE UNIV., DENTON. 100 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(LAKE TEXOMA & FLATHEAD LAKE). THE PRIMARY OBJECTIVE OF THIS RESEARCH WAS TO DETERMINE THE RELATIVE CONTRIBUTIONS OF VARIOUS ORGANISMS AND PHyla, WITHIN THE SIZE FRACTIONS, TO THE METABOLISM OF THE PLANKTON COMMUNITIES. IT WAS CONCERNED WITH DETERMINING VIABILITIES OF DIVERSE PLANKTON ASSEMBLAGES. THOSE ORGANISMS RESPONSIBLE FOR REPORTED PHOTO HETEROTROPHY WERE INVESTIGATED. THE POTENTIAL OF INDIGENOUS ALGAE TO UTILIZE DISSOLVED ORGANIC MATTER IN SITU WAS ALSO OF INTEREST. COMPARISON OF ATP ESTIMATES OF BIOMASS TO CALCULATED MICROSCOPIC BIOMASS WAS MADE.

E-20

ELLSWORTH, LINCOLN.

1916.

THE LAST WILD BUFFALO HUNT.

NEW YORK: BY THE AUTHOR. 32 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HOT SPRINGS VALLEY: CAMAS PRAIRIE). THIS IS A BRIEF ACCOUNT OF HOW THE PABLO HERD WAS STARTED IN THE LOWER FLATHEAD VALLEY AND OF THE ROUNDUP THAT FOLLOWED. IT GIVES A MORE DETAILED ACCOUNT OF A HUNT FOR A WILD BULL IN THE LOWER FLATHEAD VALLEY, ONE OF THE LAST WILD BUFFALO KILLED IN MONTANA. IT DESCRIBES THE COUNTRY AND PERSONALITIES OF THE PERIOD.

E-21

ELMENDORF, WILLIAM W.

1965.

"LINGUISTIC AND GEOGRAPHIC RELATIONS IN THE NORTHERN PLATEAU AREA."

SOUTHWESTERN J. ANTHROPOLOGY 21(SPRING 1965):63-78.

(ABORIGINAL LANDS OF THE SALISH INDIANS). THIS ARTICLE IS A TECHNICAL EXAMINATION OF THE LINGUISTIC RELATIONSHIPS BETWEEN DIFFERENT SALISH TRIBES IN THE PLATEAU REGION. SKCC.

E-22

ELMORE, FRANCIS H.

1969.

"THE RECREATION POTENTIAL AS RELATED TO THE FLATHEAD AREA FARMS AND RANCHES."

TALK GIVEN TO AGRICULTURAL COUNCIL ON FEBRUARY 11, 1969, AT ORLEY'S IN KALISPELL BY CHIEF OF INTERPRETATION AND VISITOR SERVICES. 5 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE TALK DISCUSSES OPPORTUNITIES IN PROVIDING VISITOR FACILITIES IN THE PARK'S VICINITY. FIGURES NOTING INCREASED TRAVEL, WHERE VISITORS ARE COMING FROM, AND CHANGES IN THE CAMPING TREND ARE PRESENTED. THE NEED FOR CAMPING SITES AND WATER, SEWER, AND POWER HOOK-UP FACILITIES AS WELL AS SHOWERS AND LAUNDRIES IS DESCRIBED. IN DISCUSSING HOW FARM AND RANCH LANDS CAN HELP FULFILL SUCH A NEED, IT IS SUGGESTED THAT AN INVENTORY OF POSSIBLE TOURIST ATTRACTIONS BE TAKEN, THAT A MARKET SURVEY IS ESSENTIAL, AND THAT ADVERTISING IS NECESSARY. FINANCIAL ARRANGEMENTS AND BENEFITS ARE CONSIDERED.

E-23

ELROD, MORTON J.

1901.

"LIMNOLOGICAL INVESTIGATIONS AT FLATHEAD LAKE, MONTANA, AND VICINITY, JULY 1899."

TRANS. AMERICAN MICROSCOPICAL SOCIETY 22:63-80.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). AN INTRODUCTION TO THE UNIVERSITY OF MONTANA BIOLOGICAL STATION AND ITS SCIENTIFIC WORK IS GIVEN. A DESCRIPTION OF THE LAKE NOTES ITS GEOLOGIC HISTORY, GEOGRAPHICAL SETTING, AND DRAINAGE SYSTEM. ALSO INCLUDED ARE: RECORDS OF BIOLOGICAL COLLECTIONS AT THE LAKE; A GENERAL DESCRIPTION OF MACDONALD LAKE, DESCRIPTIONS OF A LAND SHELL SPECIES, PYRAMIDULA ELRODI; AND AN ACCOUNT OF THE STUDY OF INVERTEBRATE FAUNA IN DAPHNIA POND.

E-24

ELROD, MORTON J.

1901.

"THE BEAUTIES OF THE MISSION RANGE."

ROCKY MOUNTAIN MAGAZINE, APRIL 1901, PP. 13-26.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTNS.). AN EARLY DESCRIPTION OF THE SCENIC BEAUTY OF THE MISSION RANGE. MANY PHOTOGRAPHS AND DESCRIPTIONS OF ASCENTS OF SOME OF THE PEAKS ARE INCLUDED.

E-25

ELROD, MORTON J.

1901.

"THE UNIVERSITY OF MONTANA BIOLOGICAL STATION AT FLATHEAD LAKE."

ROCKY MOUNTAIN MAGAZINE, JUNE 1901, PP. 781-787.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(YELLOW BAY BIOL. STAT.). THIS PAPER GIVES AN EARLY REPORT ON THE HISTORY OF THE YELLOW BAY BIOLOGICAL STATION ON FLATHEAD LAKE BY ITS FOUNDING DIRECTOR. THE ARTICLE DESCRIBES THE SCENIC BEAUTY OF THE LOCALE AND RELATES PROPOSED STUDY PROJECTS FOR THE UPCOMING SEASONS.

E-26
ELROD, MORTON J.
1901.
"THE UNIVERSITY OF MONTANA BIOLOGICAL STATION."
J. APPLIED MICROSCOPY 4:1269-1278.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE AREA: YELLOW BAY BIOL. STAT.). RESEARCH ACTIVITIES INVOLVING COLLECTING OR STUDY IN THE FIELD ARE DESCRIBED IN THIS ARTICLE. THE LOCATION AND SETTING OF FIELD CAMPS ARE DEPICTED, ALONG WITH THE USE OF BOATS, FIELD LABORATORY TABLES, PHOTOGRAPHIC AND OTHER EQUIPMENT.

E-27
ELROD, MORTON J.
1903.
THE PHYSIOGRAPHY OF THE FLATHEAD LAKE REGION. BIOLOGICAL SERIES, NO. 5.
MISSOULA, MT.: UNIV. MONTANA. BULL. NO. 16.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE AREA). A GENERAL OVERVIEW OF THE AREA'S GEOGRAPHY AND GEOLOGY IS PRESENTED. THE MOUNTAIN RANGES, RIVERS, AND LAKES ARE DESCRIBED, ALONG WITH THE GEOLOGIC FORCES WHICH FORMED THE TROUGHS, VALLEYS, AND PEAKS.

E-28
ELROD, MORTON J.
1904.
"BIRDS IN THEIR RELATION TO AGRICULTURE."
IN SECOND ANNUAL REPORT, MONTANA STATE BOARD OF FARMERS INSTITUTES, PP. 173-190.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS ARTICLE DISCUSSES BIRDS FROM THE ECONOMIC STANDPOINT AND IS DIVIDED INTO THE FOLLOWING SECTIONS: BIRDS AS FOOD FOR MAN, BIRDS AS PROTECTION FROM INSECT RAVAGES, BIRDS AS DESTROYERS OF WEED SEEDS, AND BIRDS AS DESTROYERS OF NOXIOUS BIRDS AND MAMMALS.

E-29
ELROD, MORTON J.
1904.
"THE UNIVERSITY OF MONTANA BIOLOGICAL STATION AND ITS WORK."
SCIENCE 20(12 AUGUST 1904):205-212.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: YELLOW BAY BIOL. STAT.). THE ARTICLE PRESENTS A HISTORY AND DESCRIBES THE CURRENT STATUS OF THE STATION. ORNITHOLOGICAL STUDIES, PLANT COMMUNITY INVESTIGATIONS, BOTANICAL COLLECTIONS, FOREST TREE TYPE OBSERVATIONS, INVERTEBRATA AND ENTOMOLOGY COLLECTIONS, AND GEOLOGIC OBSERVATIONS ARE SAMPLES OF WORK BEING DONE. THE ATTRIBUTES FOR THE SCIENTIST OF OUTDOOR STUDY ARE ARGUED.

E-30
ELROD, MORTON J.
1908.
"THE FLATHEAD BUFFALO RANGE: A REPORT TO THE AMERICAN BISON SOCIETY OF AN INSPECTION OF

THE FLATHEAD INDIAN RESERVATION, MONTANA, FOR THE PURPOSE OF SELECTING A SUITABLE LOCATION FOR A NATIONAL BUFFALO RANGE." IN AMERICAN BISON SOCIETY ANNUAL REPORT, 1905-1907.
NEW YORK: AMERICAN BISON SOCIETY. 48 PP.

(NATL. BISON RANGE). THIS ARTICLE DESCRIBES ELROD'S INSPECTION OF SEVERAL POTENTIAL SITES ON FLATHEAD RESERVATION FOR THE NATIONAL BISON RANGE, AND GIVES A DETAILED DESCRIPTION OF WHY HE SELECTED THE SITE FINALLY CHOSEN FOR THE RANGE. SKCC.

E-31
ELROD, MORTON J.
1908.
PICTURED ROCKS: INDIAN WRITINGS ON THE ROCK CLIFFS OF FLATHEAD LAKE, MONTANA. BIOLOGICAL SERIES, NO. 14.
MISSOULA, MT.: UNIV. MONTANA. BULL. NO. 46. 10 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: ANGEL POINT). PICTOGRAPHS ON A CLIFF ARE DISCUSSED IN THIS ARTICLE WHICH INCLUDES PHOTOGRAPHS. ACCESS TO THE PICTOGRAPHS, THE COMPOSITION OF ROCKS OF THE CLIFF, AND THE MATERIALS USED IN MAKING THE PICTOGRAPHS ARE DESCRIBED ALONG WITH THE NATURE OF THE FIGURES (BUFFALO, DEER, HORSE, ETC.).

E-32
ELROD, MORTON J.
1926.
"MONTANA." IN NATURALISTS' GUIDE TO THE AMERICAS, PP. 537-544.
BALTIMORE, MD.: WILLIAMS & WILKENS CO.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: GLACIER NATL. PARK, FLATHEAD LAKE, & NATL. BISON RANGE). THIS CHAPTER DESCRIBES THE ORIGINAL BIOTA (FOREST REGION, ALPINE TUNDRA, GRASSLAND); THE PRESENT BIOTA; AND NATURAL AREAS. INCLUDED ARE SECTIONS ON FLATHEAD LAKE, GLACIER NATIONAL PARK, AND THE NATIONAL BISON RANGE.

E-33
ELROD, MORTON J.
1926.
"THE MONTANA NATIONAL BISON RANGE."
J. MAMMALOGY 7(FEBRUARY 1926):45-48.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS STATEMENT OF CONDITIONS OF THE RANGE DESCRIBES THE GROWTH OF THE BUFFALO (BISON BISON) HERD, RANGE CONDITION, AND THE POLICY OF POPULATION REDUCTION. THE PRESENCE OF OTHER ANIMALS ON THE RANGE IS DISCUSSED.

E-34
ELROD, MORTON J.
"COLLECTING SHELLS IN MONTANA."
THE NAUTILUS 15:9-16.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD LAKE, & SWAN LAKE). A LISTING OF THE SCIENTIFIC NAMES AND A HISTORY OF THE LOCATIONS OF WHERE BOTH FRESH WATER AND TERRESTRIAL SPECIMENS WERE COLLECTED.

E-35
ELROD, MORTON J.
"NOTES ON PYRAMIDULA ELRODI PILS."
THE NAUTILUS 16:3-6.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTNS.). THIS SHELL, COLLECTED ONLY ALONG THE BANKS OF McDONALD LAKE IN THE MISSION MOUNTAINS, IS DESCRIBED AND ITS HABITAT PREFERENCES ARE NOTED.

E-36
ELROD, MORTON J.
"PYRAMIDULA STRIGOSA."
THE NAUTILUS 27:5-10.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & GLACIER NATL. PARK). THIS ARTICLE DESCRIBES FOUR DIFFERENT VARIETIES OF PYRAMIDULA STRIGOSA FOUND IN WESTERN MONTANA AND WHERE THE SPECIMENS WERE COLLECTED.

E-37
ELROD, MORTON J., AND RICKER, M.
1902.
"A NEW HYDRA."
TRANS. AMERICAN MICROSCOPICAL SOCIETY 23(AUGUST 1901):2-4.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: ECHO LAKE). THIS ARTICLE DESCRIBES WHAT THE AUTHORS BELIEVED WAS A NEW HYDRA, FOUND IN LARGE NUMBERS IN ECHO LAKE.

E-38
ELWOOD, HENRY, ED.
1976.
SOMERS, MONTANA: THE COMPANY TOWN.
KALISPELL, MT.: THOMAS PRINTING, INC.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(SOMERS). THIS BOOK DEALS WITH THE YEARS FROM 1901 TO 1945, WHEN SOMERS WAS A COMPANY TOWN AND A CENTER OF INDUSTRIAL AND TRANSPORTATION ACTIVITY IN THE FLATHEAD VALLEY. EARLY SETTLEMENT IN THE UPPER FLATHEAD VALLEY IS DESCRIBED. IT DETAILS THE ESTABLISHMENT OF SCRIBNER AND KALISPELL, THE COMING OF THE RAILROAD, AND THE SEARCH FOR MARIAS PASS. IT ALSO INCLUDES HISTORIC ACCOUNTS OF THE ESTABLISHMENT OF THE SCHOOL AND THE CHURCHES; THE BEGINNING AND ENDING OF LUMBERMILL OPERATIONS BY THE SOMERS LUMBER COMPANY; THE ACTIVITIES OF THE LABOR UNION, THE INDUSTRIAL WORKERS OF THE WORLD; EARLY COMMUNITY HAPPENINGS; AND STEAMBOATS.

E-39
ELWOOD, HENRY, ED.
"STEAMBOATS ON FLATHEAD LAKE."
MONTANA HISTORIAN 7:40-45.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: HISTORIC PHOTOGRAPHS INCLUDED.

(FLATHEAD LAKE). EARLY TRANSPORTATION SYSTEMS ARE BRIEFLY DESCRIBED; HOWEVER, THE ARTICLE EMPHASIZES THE HISTORY OF STEAMBOATS. NAMES OF THE BOATS, THEIR OWNERS, THE YEARS OF THEIR OPERATION, AND THEIR USE FOR COMMERCIAL HAULING AND RECREATIONAL EXCURSIONS ARE TOPICS DISCUSSED.

E-40
ELWOOD, JERRY W., AND HOLTON, GEORGE D.
1984.
AN AGE AND GROWTH ANALYSIS OF PUMPKINSEED (LEPOMIS BIGGOSUS) FROM HORSESHOE LAKE, MONTANA.
HELENA, MT.: MONTANA DEPT. FISH & GAME. 36 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HORSESHOE LAKE, NEAR FERNDAL). THE STUDY DESCRIBES AND ANALYZES THE AGE AND RATE OF GROWTH OF PUMPKINSEED SUNFISH (*LEPOMIS GIBBOSUS*). THE LAKE'S CHARACTERISTICS, THE FISH'S BODY LENGTH-SCALE LENGTH, TOTAL LENGTHS OF MALES/FEMALES, ANNUAL INCREMENTS IN LENGTH, LENGTH-WEIGHT RELATIONSHIPS, GROWTH IN WEIGHT, AND CONDITION FACTORS ARE DISCUSSED.

E-41
EMBRY, PATRICIA.
1970.

"VOCAL COMMUNICATION OF THE RED SQUIRREL, *TAMIASCIURUS HUDSONICUS*."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 51 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: YELLOW BAY BIOL. STAT., GLACIER NATL. PARK, & YELLOWSTONE NATL. PARK). THE VOCALIZATION OF THE RED SQUIRREL IS DESCRIBED THROUGH THE RECORDING OF AN ANALYSIS OF DIFFERENT KINDS OF CALLS. QUANTITATIVE DESCRIPTIONS OF SOUNDS IN TERMS OF KINDS OF NOTES, DURATION OF NOTES AND INTER-NOTE INTERVALS, MAJOR FREQUENCIES COMPOSING NOTES, AND TYPES OF TEMPORAL PATTERNING WERE OBTAINED. VARIATION IN VOCALIZATION WAS EXAMINED ON SEVERAL LEVELS: INTER/INTRA-INDIVIDUAL VARIATION, VARIATION BETWEEN THE SEXES, VARIATION BETWEEN ADULTS AND JUVENILES, AND VARIATIONS BETWEEN THREE GEOGRAPHIC POPULATIONS WHICH INCLUDED TWO DIFFERENT SUBSPECIES.

E-42
EMBRY, ROBERT S.
1980.

"A SOIL-SITE INDEX OF WESTERN LARCH (*LARIX OCCIDENTALIS*) IN MONTANA."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 47 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(FLATHEAD RIVER BASIN). THE PURPOSE OF THIS STUDY WAS TO DETERMINE IF THERE WERE ANY SOIL PHYSICAL PROPERTIES OR PHYSIOGRAPHIC FEATURES THAT MIGHT BE USED AS AN INDEX TO PREDICT THE GROWTH OF *LARIX OCCIDENTALIS* IN MONTANA.

E-43
ENG, R.L.
1975.

"ENVIRONMENTAL FACTORS INFLUENCING DISTRIBUTION AND DENSITY OF GAME AND IMPORTANT BIRD POPULATIONS."
BOZEMAN, MT.: MONTANA STATE UNIV., BIOLOGY DEPT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: NORTH FORK OF THE FLATHEAD RIVER). THIS WIDE-RANGING STUDY OF BIRDS, WHICH EMPHASIZED THE RELATIONSHIPS BETWEEN BIRD POPULATIONS, HABITAT REQUIREMENTS, AND CHANGING LAND USE PRACTICES, INCLUDED A MEASURE OF BIRD POPULATIONS IN VARIOUS VEGETATIONAL TYPES IN THE FLOOD PLAIN OF THE NORTH FORK.

E-44
ENGELHARD, JOSEPH G.
1970.

"BEHAVIOR PATTERNS OF AMERICAN BISON CALVES AT THE NATIONAL BISON RANGE, MOIESE, MONTANA."
M.S. THESIS, CENTRAL MICHIGAN UNIV., MOUNT PLEASANT. 151 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS IS A REPORT ON A FIELD STUDY OF THE BEHAVIOR OF BISON BISON CALVES DURING SPRING CALVING AND SUMMER RUT. SINCE NO PREVIOUS BEHAVIORAL STUDIES OF THE NATIONAL BISON RANGE HERD HAD BEEN MADE, THIS STUDY ATTEMPTED TO DETERMINE SIMILARITIES AND DIFFERENCES BETWEEN THEIR PATTERNS AND THOSE OF OTHER HERDS UNDER DIFFERENT MANAGEMENT AND ECOLOGICAL SITUATIONS. OBSERVATIONS WERE MADE OF 90 CALVES.

E-45
ENPLAN CORPORATION.
1972.

CATTLE FEEDING AND MEAT PROCESSING, FLATHEAD INDIAN RESERVATION, NORTHWEST MONTANA.
KIRKLAND, WASH. 52 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE PURPOSE OF THIS REPORT WAS TO INVESTIGATE THE FEASIBILITY OF COMBINING FEED LOT AND SLAUGHTER PLANT OPERATIONS ON THE RESERVATION. THE FEED LOT SECTION DISCUSSES THE AVAILABILITY OF LIVESTOCK, FEED SUPPLY AND AVAILABILITY, EXISTING AND POTENTIAL OPERATIONS, MARKET PRICES, INVESTMENT, AND COSTS AND RETURNS. A SLAUGHTER PLANT IS DISCUSSED IN LIGHT OF TRANSPORTATION COSTS, AVAILABILITY OF MARKETS, LOCATION AND SIZE, ESTIMATED COST FOR CAPITAL INVESTMENT AND LABOR, AND TOTAL PROJECT COSTS.

E-46
ENPLAN CORPORATION.
1973.

A PRELIMINARY PLANNING STUDY: FLATHEAD INDIAN RESERVATION.
PABLO, MT.: CONFEDERATED SALISH & KOOTENAI TRIBES. 68 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT MARKS THE INITIAL STEP IN THE DEVELOPMENT OF A COMPREHENSIVE PLANNING PROGRAM ON THE FLATHEAD INDIAN RESERVATION. THE STUDY EXAMINES POPULATION, GENERAL ECONOMY AND LAND USE, GOVERNMENT AND MANAGEMENT, CITIZEN PARTICIPATION, AND HIGHLIGHTS MANY OF THE ECONOMIC NEEDS FOR THE RESERVATION. RECOMMENDATIONS ARE INCLUDED.

E-47
ENTERLINE, THEODORE.
1978.

"DEPOSITIONAL ENVIRONMENT OF THE PAGODA, PENTAGON, AND STEAMBOAT FORMATIONS (MIDDLE CAMBRIAN), NORTHWEST MONTANA."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 105 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). EXTENSIVE DIAGRAMS ARE INCLUDED IN THIS STUDY ON THE MIDDLE CAMBRIAN DEPOSITS IN NORTHWEST MONTANA. THE FOLLOWING LITHOFACIES ARE DESCRIBED: SHALE, BIOTURBATED MICRITE, PLANAR LAMINATED MICRITE AND MUDSTONE, INTRACLASTIC, OOLITE PELLET SAND, AND CRYPTALGAL AND FENESTRAL.

E-48
ENVIRO CONTROL, INC.
1976.

"ASSESSMENT OF EFFECTS OF ALTERED STREAM FLOW CHARACTERISTICS ON FISH AND WILDLIFE." IN ROCKY MOUNTAIN REGION CASE STUDIES, PART A: ROCKY MOUNTAINS AND PACIFIC NORTHWEST.
FORT COLLINS, CO.: U.S. DEPT. INTERIOR, FISH & WILDLIFE SERVICE, OFFICE BIOLOGICAL SERVICES,

WESTERN ENERGY & LAND USE TEAM. 186 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

AVAILABLE FROM: NATIONAL TECHNICAL INFORMATION SERVICE.

(ROCKY MTNS. & PACIFIC NORTHWEST: HUNGRY HORSE DAM & SOUTH FORK OF THE FLATHEAD RIVER). THIS REPORT CONTAINS INDIVIDUAL ANALYSES OF CHANGED FLOW REGIMES BELOW DAMS, THE IMPACT ON FISHERIES, AND METHODOLOGIES USED TO ASSESS FLOW REQUIREMENTS FOR HUNGRY HORSE DAM AND OTHERS IN THE ROCKY MOUNTAIN REGION.

E-49
ENVIRO CONTROL, INC.
1978.

INSTREAM FLOW STRATEGIES FOR MONTANA.
FORT COLLINS, CO.: U.S. DEPT. INTERIOR, FISH & WILDLIFE SERVICE, OFFICE BIOLOGICAL SERVICES, WESTERN ENERGY & LAND USE TEAM. 101 PP.
PART OF A SERIES, FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS REPORT IDENTIFIES, DESCRIBES, AND EVALUATES THE MOST PROMISING STRATEGIES (INSTITUTIONAL METHODS) FOR RESERVING INSTREAM FLOWS FOR FISH AND WILDLIFE UNDER EXISTING LAWS. IT CONTAINS A GENERAL DESCRIPTION OF EACH STRATEGY, THE MOST APPLICABLE SITUATIONS FOR ITS USE, THE PARTIES WHO CAN INITIATE THE STRATEGY, AND THE PARTIES WHO MUST IMPLEMENT IT. THE EVALUATION MATRIX PROVIDES A SUBJECTIVE ANALYSIS OF WHETHER EACH STRATEGY, HAS BEEN USED TO ADVANTAGE, DISADVANTAGE, OR NOT AT ALL IN EACH STATE. THE NARRATIVE SECTION CONTAINS AN EXPANDED DESCRIPTION OF EACH STRATEGY, NOTES IT APPLICATION POSSIBILITIES, ILLUSTRATES THE USAGE OF THE STRATEGY WITHIN THE STATE, AND EVALUATES ITS GENERAL UTILITY.

E-50
ENVIRONMENTAL PROTECTION AGENCY.
1971.

CLARK FORK RIVER BASIN: INTERIM WATER QUALITY MANAGEMENT PLAN.
DENVER, CO. 17 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(CLARK FORK & FLATHEAD RIVER BASINS). THIS INTERIM PLAN FOCUSES ON POINT SOURCES, PRIMARILY MUNICIPAL AND INDUSTRIAL WASTES, AND ON THE INFORMATION AND EVALUATION NECESSARY TO MAKE CRITICAL DECISIONS AFFECTING REGIONALIZATION AND PLANT DESIGN FOR THE IMMEDIATE CONSTRUCTION GRANT PROGRAM. THE OBJECTIVES OF THIS WATER QUALITY MANAGEMENT PLAN WERE: 1) TO ASSURE AN ACCEPTABLE LEVEL OF CERTAINTY THAT WATER QUALITY STANDARDS IMPLEMENTATION PLANS WILL ACHIEVE INSTREAM GOALS, AND 2) TO MAXIMIZE THE COST EFFECTIVENESS OF INVESTMENTS IN POLLUTION ABATEMENT AND PREVENTION ACTIONS REQUIRED TO ACHIEVE WATER QUALITY OBJECTIVES. THE LONG-RANGE OBJECTIVE IS TO IMPROVE AND MAINTAIN ESTABLISHED WATER QUALITY STANDARDS.

E-51
ERICKSON, ERICK.
1977.

"A BENEFIT-COST ANALYSIS OF TIMBER DEVELOPMENT ON THE WEST FACE OF THE MISSION MOUNTAINS."
UNIV. MONTANA, FORESTRY SCHOOL, WILDERNESS INSTITUTE, MISSOULA. (TYPEWRITTEN). 20 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTNS.). THE PURPOSE OF THIS PAPER WAS TO IDENTIFY THE MOST EFFICIENT USE OF 11,000

ACRES OF FOREST LAND INCLUDED WITHIN A PROPOSED WILDERNESS BOUNDARY. THE BENEFITS AND COSTS OF TIMBER DEVELOPMENT VS. PRESERVATION ARE CONSIDERED.

E-52
ERION, GENE L.
1962.

EMPLOYMENT IN ELEVEN WESTERN MONTANA COUNTIES: 1950, 1954-1960. REGIONAL STUDY NO. 15. MISSOULA, MT.: MONTANA STATE UNIV., SCHOOL BUSINESS ADMINISTRATION, BUREAU BUSINESS & ECONOMIC RESEARCH. 68 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(FLATHEAD, LAKE, LINCOLN, MINERAL, MISSOULA, & POWELL COUNTIES). AS PART OF A STUDY OF POWER NEEDS IN THE PACIFIC NORTHWEST, THE BPA SPONSORED THIS DETAILED STUDY OF EMPLOYMENT WITHIN ITS POWER SUPPLY AREAS. ONE OF THE PRIMARY SOURCES USED IN THE STUDY WAS UNEMPLOYMENT COMPENSATION DATA, WHICH WAS SUPPLEMENTED TO INCLUDE THOSE OCCUPATIONS NOT COVERED BY UNEMPLOYMENT COMPENSATION. EMPLOYMENT DATA WAS BROKEN DOWN INTO THE FOLLOWING TYPES OF JOBS: AGRICULTURAL, METAL MINING, PRIMARY METALS, LUMBER AND WOOD PRODUCTS, PULP AND PAPER, CONSTRUCTION, AND OTHER NON-AGRICULTURAL.

E-53
ESLICK, JOSEPH H.
1957.

"A STUDY OF THE FACILITIES, SANITATION, SERVICES, AND PERSONNEL IN THE SCHOOL LUNCH PROGRAMS OF FIVE FLATHEAD COUNTY TOWN SCHOOLS FOR THE 1957-58 SCHOOL YEAR." M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 71 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BIGFORK, SOMERS, WHITEFISH, & COLUMBIA FALLS). THE PURPOSES OF THIS STUDY WERE TO: 1) SET UP A PLAN FOR CHECKING SANITARY CONDITIONS AND EQUIPMENT IN SCHOOL LUNCH KITCHENS; 2) APPLY THE PLAN TO THE LUNCH KITCHENS OF THE SCHOOLS IN FLATHEAD COUNTY; 3) COMPARE SITUATIONS FOUND IN THE SCHOOLS WITH THOSE RECOMMENDED BY AUTHORITIES, AND MAKE ADMINISTRATORS AND LUNCH PERSONNEL MORE AWARE OF SANITARY CONDITIONS IN KITCHENS; AND 4) MAKE RECOMMENDATIONS FOR THE IMPROVEMENT OF SANITARY CONDITIONS.

E-54
ESPESETH, KAREN J.
1979.

"THE PROPOSED CABIN CREEK COAL DEVELOPMENT: THE SOCIAL IMPACT FOR THE NORTH FORK OF THE FLATHEAD RIVER."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 350 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER: U.S./CANADA INTERNATIONAL BORDER TO CAMAS CREEK). THIS SOCIAL IMPACT STUDY CONSIDERED THE ATTITUDES OF THE AREA'S RESIDENTS CONCERNING THE PROPOSED CABIN CREEK COAL DEVELOPMENT: THEIR POSITION ON THE ISSUE, BELIEF IN POTENTIAL IMPACTS, ATTITUDES TOWARDS THE POLITICAL ACTIVITIES SURROUNDING THE MINE DEVELOPMENT, AND ENVIRONMENTAL CONCERNS. RESEARCH DESIGN WAS CHARACTERIZED BY THE INTEGRATION OF SURVEY AND ETHNOGRAPHIC DATA.

E-55
EVANS, H. FRANK.
1960.

"A PRELIMINARY INVESTIGATION OF CARIBOU IN NORTHWESTERN UNITED STATES."

M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 145 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(FLATHEAD COUNTY). THE OBJECTIVES OF THIS STUDY WERE TO: 1) GATHER INFORMATION ON CARIBOU IN NORTHWESTERN UNITED STATES; 2) ESTABLISH THE SPATIAL AND TEMPORAL DISTRIBUTION OF CARIBOU, SO AS TO DETECT TRENDS IN THE POPULATION BEHAVIOR; 3) DEDUCE POSSIBLE FACTORS ASSOCIATED WITH DECLINE OF CARIBOU IN NORTHWESTERN U.S., IF A DECLINE WAS ESTABLISHED; 4) REVIEW SIGNIFICANT PUBLISHED INFORMATION ABOUT CARIBOU AND CORRELATE IT WITH HABITAT AND ALL FACTORS RELATING TO CARIBOU; AND 5) COMPARE IN GENERAL THE SOUTHERN LATITUDINAL PERIMETERS OF CARIBOU IN NORTHWESTERN U.S. WITH THOSE IN OTHER REGIONS INHABITED BY CARIBOU.

E-56
EVANS, IDRIS W., AND BROWN A. S.
1970.

AGING IN MONTANA: A SURVEY OF THE NEEDS AND PROBLEMS OF MONTANA'S SENIOR CITIZENS.

HELENA, MT.: MONTANA COMMISSION ON AGING, PENKAY EAGLES MANOR. 78 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THE GOALS OF THIS SURVEY WERE: 1) TO LOCATE THE AGED, 2) TO ACQUIRE AN INVENTORY OF THE ORGANIZATIONS IN THE STATE OF AND FOR THE AGED, 3) TO FIND OUT WHAT THE AGED PERCEIVE AS THEIR MAJOR PROBLEMS, 4) TO DISCOVER WHAT ACTIVITIES THEY PREFER TO ENGAGE IN, AND 5) TO SUPPLY A SERIES OF RECOMMENDATIONS PERTINENT TO THE INFORMATION GAINED.

E-57
EVANS, PERRY.
1925.

"COMPARING GLACIER NATIONAL PARK WITH THE HIGH SIERRA."

SIERRA CLUB BULL. 12:111-114.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE MOUNTAIN SETTING OF THE PARK, CONTRASTING IT TO THE SIERRA NEVADA MOUNTAINS. ROCK STRUCTURES AND FORM, LAKES AND CIRQUES, THE MILKY GREEN COLOR OF WATER AND THE RED AND GREEN COLOR OF THE ARGILLITE, THE GLACIERS THEMSELVES, AND THE WILDFLOWERS AND FORESTS ARE AMONG THE FEATURES DEPICTED.

E-58
EVENDEN, JAMES C.
1924.

"FOREST INSECT INFESTATION."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, WEST GLACIER, MT. 17 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A LARGE VOLUME OF ALPINE FIR (ABIES LASIOCARPA), LODGEPOLE PINE (PINUS CONTORTA), AND ENGELMANN SPRUCE (PICEA ENGELMANNI) IN THE STANDS ADJACENT TO THE MANY GLACIER HOTEL WERE KILLED BETWEEN 1914 AND 1924. THIS STUDY WAS MADE IN AN ATTEMPT TO DETERMINE THE PRIMARY CAUSE OF THE DEATH OF THE TREES, AND, IF POSSIBLE, FORMULATE CONTROL MEASURES. DESCRIBED ARE: THE FOREST TYPE, THE STATUS OF THE LOSS, INSECTS RESPONSIBLE FOR THE LOSS, DEAD LIMBS, THE POSSIBILITY OF CONTROL, DOUGLAS FIR (PSEUDOTSUGA MENSEZII) INFESTATIONS NEAR THE ST. MARY CHALET, AND CONCLUSIONS REACHED.

E-59
EVENDEN, JAMES C.
1939.

HISTORY OF INSECT SURVEY AND CONTROL, GLACIER NATIONAL PARK. 1909-1939.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 19 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATL. PARK, HISTORICAL FILES.

(GLACIER NATL. PARK). THE HISTORY OF FOREST INSECT INFESTATION WITHIN AND ADJACENT TO THE FORESTS OF GLACIER NATIONAL PARK WAS SUMMARIZED FROM OFFICIAL CORRESPONDENCE AND UNPUBLISHED REPORTS OF THE BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE. ACCOUNTS YEARLY FROM 1909 TO 1938.

E-60
EVENDEN, JAMES C.
1944.

MONTANA'S THIRTY-YEAR MOUNTAIN PINE BEETLE INFESTATION.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 23 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: GLACIER NATL. PARK, & FLATHEAD & LAKE COUNTIES). THIS NARRATIVE DOCUMENTS THE 1911-1942 EPIDEMIC INFESTATION OF THE MOUNTAIN PINE BEETLE (DENDROCTONUS MONTICOLAE HOPK.) IN MONTANA AND IDAHO. FOLLOWING THE COURSE OF THE EPIDEMIC YEAR BY YEAR, THE REPORT DESCRIBES ATTEMPTED CONTROL METHODS, THE RANGE OF THE INFESTATION, AND APPROXIMATED TIMBER LOSSES.

E-61
EVERMANN, BARTON W.
1891.

"A RECONNAISSANCE OF THE STREAMS AND LAKES OF WESTERN MONTANA AND NORTHWESTERN WYOMING."

BULL. U. S. FISH COMMISSION 11:3-60.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: PHOTOGRAPHS OF LAKES AND STREAMS, AS WELL AS ILLUSTRATIONS OF FISH SPECIES, ARE INCLUDED.

(NORTHWESTERN WYOMING & WESTERN MONTANA: FLATHEAD RIVER, FLATHEAD LAKE, SWAN RIVER, & SWAN LAKE). THE PHYSICAL AND NATURAL HISTORY FEATURES OF STREAMS AND LAKES OF THE REGION WERE INVESTIGATED. ATTENTION WAS GIVEN TO THE GENERAL CHARACTERS OF THE STREAMS AND LAKES, THEIR SIZE, DEPTH, CURRENT; THE NATURE OF OBSTRUCTIONS IN THE STREAMS; THE SOURCE OF WATER SUPPLY; THE TEMPERATURE OF THE WATER AT DIFFERENT TIMES AND PLACES; WATER CLEARNESS, THE EXTENT OF CONTAMINATION BY MINING OPERATIONS OR HEAVY RAINS; AND THE GEOLOGY OF THE REGION THROUGH WHICH THE STREAM FLOWS AND THE COMPOSITION AND NATURE OF THE BOTTOM AND BANKS OF EACH RIVER OR LAKE. SUGGESTIONS FOR THE LOCATION OF SITES FOR FISH-CULTURAL STATIONS ARE GIVEN.

E-62
EVERSMAN, SHARON.
1973.

"SOME MOSSES AND LICHENS OF WESTERN MONTANA."

PROC. MONTANA ACADEMY SCIENCES 33:37-39.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE, LINCOLN, & FLATHEAD COUNTIES). BRYOPHYTE COLLECTIONS WERE MADE IN

FLATHEAD, LAKE, AND LINCOLN COUNTIES; THE MOST CONSPICUOUS MOSSES WITH SOME ASSOCIATED LICHENS ARE DISCUSSED.

E-63

EWERS, JOHN C.
1946.

"IDENTIFICATION AND HISTORY OF THE SMALL ROBES BAND OF THE PIEGAN INDIANS."
J. WASHINGTON ACADEMY SCIENCES 36(15 DECEMBER 1946):397-401.

(ABORIGINAL LANDS OF THE PIEGAN INDIANS). THE SMALL ROBES BAND WERE OFTEN ALLIED WITH AND CLOSELY ASSOCIATED WITH THE FLATHEAD AND PEND D'OREILLE DURING THE 19TH CENTURY. SKCC.

E-64

EWERS, JOHN C.
1948.

GUSTAVUS SOHON'S PORTRAITS OF FLATHEAD AND PEND D'OREILLE INDIANS, 1854.
SMITHSONIAN MISC. COLLECTIONS, VOL. 110.

(ABORIGINAL LANDS OF THE FLATHEAD AND PEND D'OREILLE INDIANS). BIOGRAPHIES AND PORTRAITS OF THE FLATHEAD AND PEND D'OREILLE LEADERS IN 1854 INCLUDED WITH A HISTORY OF THE TRIBES. SKCC.

E-65

EWERS, JOHN C.
1963.

"IROQUOIS INDIANS IN THE FAR WEST."
MONTANA MAGAZINE OF WESTERN HISTORY 13(SPRING 1963):2-10.

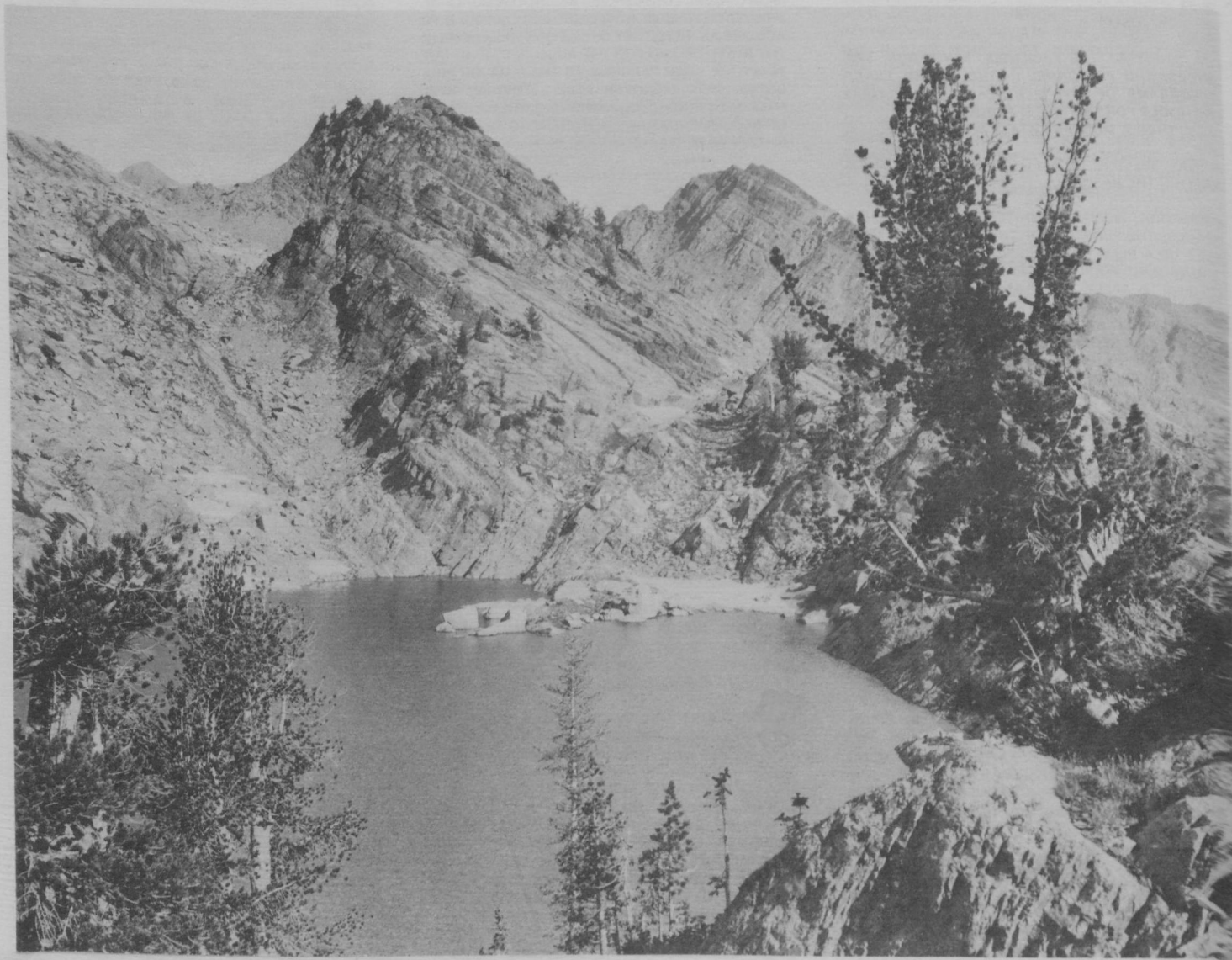
(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS ARTICLE DEALS WITH THE INFLUENCE OF THE IROQUOIS AMONG THE MOUNTAIN TRIBES AND PARTICULARLY THE FLATHEAD. SKCC.

E-66

EWERS, JOHN C.
1975.

"INTERTRIBAL WARFARE AS THE PRECURSOR OF INDIAN-WHITE WARFARE ON THE NORTHERN GREAT PLAINS."
WESTERN HISTORICAL QUARTERLY 6(OCTOBER 1975):397-410.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS ARTICLE TRIES TO PLACE INDIAN-WHITE CONFLICT ON THE NORTHERN GREAT PLAINS INTO CONTEXT WITH THE INTERTRIBAL WARFARE SUCH AS THE BLACKFEET WARRE WITH THE FLATHEADS AND KUTENAI. SKCC.



F-1
FAHEY, JOHN.
 1974.
THE FLATHEAD INDIANS. THE CIVILIZATION OF THE AMERICAN INDIAN SERIES.
 NORMAN, OK.: UNIV. OKLAHOMA PRESS. 361 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE SALISH & KOOTENAY INDIANS). THE STUDY SURVEYS POLITICAL, ECONOMIC, AND SOCIAL CHANGES AMONG THE INDIANS BETWEEN 1805 AND THE OPENING OF THE RESERVATION IN 1910. IT ADDRESSES THE FUR TRADE, THE JESUIT MISSIONARIES, THE STEVENS TREATY, THE GARFIELD CONTRACT, THE LAST DAYS OF THE BUFFALO, AND CHIEF CHARLOT'S STAND IN THE BITTERROOT. THE TRIBAL ENROLLMENT AND RESERVATION ALLOTMENT ARE DISCUSSED.

F-2
"FAITHFUL KOOTENAI." 1922.
INDIAN SENTINEL 2(JULY 1922):520-521.

(ELMO). THIS ARTICLE DESCRIBES MISSION WORK AMONG THE ELMO KOOTENAI AND APPEALS FOR SUPPORT. SKCC.

F-3
FARMER, T. T.
 1936.
"LIVE STOCK (SIC) PROGRAM ON THE FLATHEAD RESERVATION, MONTANA."
INDIANS AT WORK, APRIL 1936, PP. 33-35.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE DESCRIBES EFFORTS TO IMPROVE INDIAN INCOME FROM LIVESTOCK ON THE FLATHEAD RESERVATION. SKCC.

F-4
FARNES, PHILLIP E.
 MONTHLY, 1945-1980.
WATER SUPPLY OUTLOOK FOR MONTANA.
 BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE, AND MONTANA AGRIC. EXPER. STAT. PAGES VARY.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE REPORTS ASSESS THE YEAR'S WATER SUPPLY; FORECAST PROSPECTIVE STREAM FLOWS; SUMMARIZE SNOW MEASUREMENTS; AND PRESENT DATA ON SOIL MOISTURE, RESERVOIR STORAGE, SNOW DEPTH AND WATER CONTENT. MAPS DEPICTING SNOW WATER EQUIVALENT, SNOW COURSES, AND RELATED DATA MEASURING SITES ARE INCLUDED.

F-5
FARNES, PHILLIP E., AND SHAFER, BERNARD A.
 1972.
ANALYSIS OF SNOW SAMPLES - 1971 SNOW SEASON.
 BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE. 8 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD & LAKE COUNTIES). SNOW CORE SAMPLES WERE OBTAINED WITH A FEDERAL SNOW SAMPLER AND ANALYZED. ORIGINALLY IT WAS PLANNED TO MAKE QUALITATIVE EMISSION ANALYSIS TO IDENTIFY THE ELEMENTS PRESENT, AND A QUANTITATIVE FURNACE ATOMIC ABSORPTION ANALYSIS TO DETERMINE THE AMOUNT OF LEAD, SILVER, COPPER, AND ZINC IN EACH SAMPLE. AFTER A NUMBER OF QUALITATIVE EMISSION ANALYSES, IT WAS EVIDENT THAT THE PRESENCE OF MANY TRACE ELEMENTS WERE SO WEAK THAT POSITIVE IDENTIFICATION WAS NOT POSSIBLE. HOWEVER, COMMON ELEMENTS SUCH AS CALCIUM AND MAGNESIUM SHOWED VERY STRONGLY.



F-6
FARNES, PHILLIP E., AND SHAFER, BERNARD A.
 1974.
SUMMARY OF PRECIPITATION MEASUREMENTS: MONTANA AND FEDERAL-STATE-PRIVATE COOPERATIVE SNOW SURVEYS. 1964-1974.
 BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE. 58 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS REPORT SUMMARIZES, IN TABULAR FORM, ALL MOUNTAIN PRECIPITATION MEASUREMENTS MADE IN THE STATE FROM 1964 TO 1974. MOST OF THE PRECIPITATION STORAGE GAGES WHICH SUPPLY THIS DATA ARE LOCATED IN SMALL MOUNTAIN MEADOWS OR PROTECTED CLEARINGS AND HAVE TEN INCH DIAMETER ORIFICES.

F-7
FARNES, PHILLIP E., AND SHAFER, BERNARD A.
 1975.
SUMMARY OF SNOW SURVEY MEASUREMENTS FOR MONTANA, 1922-1974.
 BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE, AND MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. 220 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE REPORT SUMMARIZES ALL SNOW SURVEY MEASUREMENTS SINCE SNOW SURVEYS WERE STARTED IN 1922. THE FIRST PART OF THE REPORT CONTAINS TABLES OF DATA FOR ACTIVE SNOW COURSES. FOR EACH SNOW COURSE THE TABLES INCLUDE THE FOLLOWING INFORMATION: ELEVATION; DATE RECORD BEGAN; BASIN; RIVER; LATITUDE AND LONGITUDE; SECTION; ANY REMARKS CONCERNING OTHER PARAMETERS MEASURED AT THE SITE, IF AN AERIAL MARKER IS INVOLVED, AND ANY ADJUSTMENTS IN RECORD DUE TO RELOCATION OR SHORTENING; CANOPY COVER; DATE OF SURVEY; SNOW DEPTH IN INCHES; AND WATER EQUIVALENT IN INCHES.

F-8
FARNES, PHILLIP E., ET. AL.
 ANNUAL SINCE 1945.
WATER SUPPLY OUTLOOK FOR MONTANA. SNOW COURSE AND SNOW PILLOW BASIC DATA SUMMARY. ANNUAL.

BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE, MONTANA AGRIC. EXPER. STAT., AND FEDERAL, STATE, AND PRIVATE COOPERATORS. 42 PP.
 PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE ANNUAL DATA SUMMARIES ARE ISSUED OCTOBER 1 OF EACH YEAR. THEY REPRESENT A COMPILATION OF THE YEAR'S SNOW COURSE AND SNOW PILLOW DATA FOR THE YEAR. EACH COURSE OR STATION IS LISTED.

F-9
FARTH, THOMAS R.
 1965.
"THE PLATEAU WHIPPING COMPLEX AND ITS RELATIONSHIP TO PLATEAU-SOUTHWESTERN CONTACTS."
ETHNOHISTORY 12(Spring 1965):141-170.

(PLATEAU REGION). THIS STUDY OF WHIPPING IN THE PLATEAU REGION INCLUDES THE SALISH AND AN EXAMINATION OF THE POSSIBLE SOUTHWESTERN INFLUENCE. SKCC.

F-10
FEARNOW, E. C.
 1929.
RESULTS OF GAME-FISH PLANTINGS BY THE UNITED STATES BUREAU OF FISHERIES.
 WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. U.S. DEPT. COMMERCE, BUREAU FISHERIES. ECONOMIC CIRC. NO. 67. 75 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, NATIONAL.

(MONTANA: FLATHEAD RIVER BASIN). THE DOCUMENT CONTAINS INFORMATION SHOWING RESULTS OF SUCCESSFUL PLANTINGS FOR EACH STATE. NAME AND LOCATION OF WATERS WHERE PLANTINGS OCCURRED, THE SPECIES PLANTED, AND PLANTING RESULTS ARE NOTED.

F-11
FEDERAL AVIATION ADMINISTRATION. AIRPORTS SERVICE.
 1971.
MONTANA. KALISPELL, GLACIER PARK INTERNATIONAL AIRPORT. AIRPORT PROJECT. FINAL ENVIRONMENTAL IMPACT STATEMENT.

WASHINGTON, D.C.: FEDERAL AVIATION ADMINISTRATION, AIRPORTS SERVICE. 14 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: GLACIER NATL. PARK INTERNATIONAL AIRPORT). THE REPORT DISCUSSES THE ACQUISITION OF LAND FOR RUNWAY EXTENSION, CONSTRUCTION, MARKING OF A PARALLEL AND SINGLE CONNECTING TAXIWAY, AND INSTALLATION OF SAFETY FENCE. NO ADVERSE EFFECTS ARE IDENTIFIED.

F-12
FEDERAL HIGHWAY ADMINISTRATION.
1974.

FINAL ENVIRONMENTAL/SECTION 4(F) STATEMENT FOR PROJECT F-257(16) HUNGRY HORSE TO WEST GLACIER.

WASHINGTON, D.C. 190 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HIGHWAY 2 EAST: HUNGRY HORSE TO WEST GLACIER). THIS PROJECT INVOLVES THE RECONSTRUCTION OF HIGHWAY 2 FROM HUNGRY HORSE TO WEST GLACIER. THE ROAD WILL BE DESIGNED AS A FOUR-LANE PAVED HIGHWAY WITHOUT ACCESS CONTROL. AN EIGHT-FOOT BIKE PATH WILL BE BUILT ADJACENT TO THE PROPOSED HIGHWAY. ALTERNATIVES TO THE PROPOSAL ARE CONSIDERED. THE PROJECT IS DESCRIBED, THE EXISTING ENVIRONMENT IS DESCRIBED, COMMENTS FROM OTHER AGENCIES, AND COMMENTS FROM PUBLIC HEARINGS ARE INCLUDED.

F-13
FEDERAL HIGHWAY ADMINISTRATION. MONTANA DIVISION.

1972.
PROJECT F-100(9), COLUMBIA FALLS-EAST AND WEST, MONTANA: FINAL ENVIRONMENTAL IMPACT STATEMENT.

HELENA, MT. REPT. NO. FHWA-MONT-EIS-72-03-F. 104 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: COLUMBIA FALLS AREA). THE STATEMENT CONSIDERS THE PROPOSAL TO RECONSTRUCT ABOUT FOUR AND A HALF MILES OF EXISTING HIGHWAY 40. THE IMPACT OF THE TRANSPORTATION FACILITY IS CONSIDERED. 45 ACRES OF NEW RIGHT-OF-WAY ARE REQUIRED, TWO-THIRDS OF WHICH ARE PRODUCTIVE FARM LAND. SIX BUSINESSES AND FIVE RESIDENCES ARE REQUIRED TO RELOCATE.

F-14
FEDERAL HIGHWAY ADMINISTRATION. MONTANA DIVISION.

1972.
WEST GLACIER, SOUTHWEST, FLATHEAD COUNTY, MONTANA: FINAL ENVIRONMENTAL STATEMENT.
HELENA, MT. 34 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(MONTANA: HUNGRY HORSE AREA). THIS STATEMENT DISCUSSES A RECONSTRUCTION PROJECT OF U.S. HIGHWAY 2 INTENDED TO IMPROVE THE HIGHWAY. PERMANENT ADVERSE EFFECTS ARE INVESTIGATED AND RIGHT-OF-WAY ACQUISITION IS CONSIDERED. THE REPORT INCLUDES A BENEFIT COST ANALYSIS OF THE PROJECT.

F-15
FEDERAL INFORMATION EXCHANGE SYSTEM.
1971.

FEDERAL OUTLAYS: REPORT OF THE FEDERAL GOVERNMENT'S IMPACT BY STATE, COUNTY, AND LARGE CITY, FISCAL YEAR 1970.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. REPT. NO. OEO-LN-879-27. 84 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE REPORT SHOWS ALL DOMESTIC OUTLAYS OF FEDERAL FUNDS UNDER EACH PROGRAM FOR APPROPRIATION BY COUNTY AND LARGE CITY WHERE THE OUTLAY WAS MADE. THE OUTLAYS ARE ALSO SUMMARIZED AT THE NATIONAL AND STATE LEVELS BY AGENCY, PROGRAM, AND FUNCTION.

F-16
FEDERAL WRITERS' PROJECT OF THE WORK PROJECTS ADMINISTRATION FOR THE STATE OF MONTANA.

1939.
MONTANA: A STATE GUIDE BOOK. AMERICAN GUIDE SERIES.
NEW YORK: THE VIKING PRESS. 429 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE BOOK PRESENTS A GENERAL BACKGROUND: A DESCRIPTION OF THE NATURAL SETTING; AN ACCOUNT OF PREHISTORY AND HISTORY; AND A DISCUSSION OF ETHNIC GROUPS, AGRICULTURE, LABOR, INDUSTRY, TRANSPORTATION, RECREATION, AND CITIES AND TOWNS. EIGHTEEN TOURS AND SEVERAL TOURS IN GLACIER PARK ARE OUTLINED.

F-17
FEE, DEXTER.

1934.
"GOVERNMENT POLICY TOWARD THE PRINCIPAL INDIAN NATIONS OF MONTANA, 1851-1873."
M.A. THESIS, STATE UNIV. OF MONTANA, MISSOULA. 170 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD INDIAN RESERVATION & ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE RELATIONSHIP OF THE GOVERNMENT TO THE STATE'S INDIAN TRIBES IS DESCRIBED FOR THE PERIOD FROM 1851 TO 1873. THE CHANGE IN GOVERNMENT POLICY FROM CONSIDERING LANDS IN THE WEST AS RIGHTFUL PROPERTY OF INDIANS TO CONSIDERING INDIANS AS GOVERNMENT WARDS AND THE RAMIFICATIONS OF THIS CHANGE ARE DISCUSSED. INCLUDED IN THE STUDY ARE THE FOLLOWING TOPICS: 1) OFFICE OF INDIAN AFFAIRS AND POLICY OF CONSOLIDATION OF TRIBES WEST OF THE MISSISSIPPI, 2) TREATY AT FORT LARAMIE AND GROWTH OF EXPANSIONIST MOVEMENTS, 3) ISAAC STEVENS TREATY-MAKING, 4) FLATHEAD AND BLACKFEET COUNCILS OF 1855, 5) GOVERNMENT POLICY DURING THE CIVIL WAR PERIOD, 6) INDIAN HOSTILITIES AND THEIR EFFECTS ON GOVERNMENT POLICY, AND 7) THE GENESIS OF RESERVATION POLICY.

F-18
FELLIN, DAVID G.
1958.
MOUNTAIN PINE BEETLE INFESTATION AT KINTLA LAKE, GLACIER NATIONAL PARK.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PURPOSE OF THIS SURVEY WAS TO NOTE THE TREND OF THE INFESTATION AND TO RECORD THE STATUS OF THE INSECT BROOD BENEATH THE BARK OF INFESTED TREES.

F-19
FELLIN, DAVID G.
1978.
FOREST PRACTICES, SILVICULTURAL PRESCRIPTIONS AND THE WESTERN SPRUCE BUDWORM.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. 5 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(WESTERN ROCKY MTS.: CORAM EXPR. FOREST). THIS REPORT OUTLINES RESEARCH UNDER WAY AT CORAM EXPERIMENTAL FOREST. ONE OF THE BIOLOGICAL STUDIES WILL EVALUATE THE COMBINED EFFECTS OF HARVESTING METHODS, SILVICULTURAL PRESCRIPTIONS, AND RESIDUE TREATMENTS ON THE WESTERN SPRUCE BUDWORM, PARTICULARLY AS THE BUDWORM AFFECTS NEWLY ESTABLISHED STANDS, RESIDUAL UNDERSTORY, RESIDUAL OVERSTORY, AND PRODUCTION OF CONES AND SEEDS. A LITERATURE REVIEW IS INCLUDED.

F-20
FELLIN, DAVID G.
1979.

"EFFECT OF ALTERNATIVE HARVESTING PRACTICES ON FOREST FLOOR ARTHROPODS." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THIS RESEARCH EXAMINED HOW VARIOUS TYPES OF HARVESTING SYSTEMS IMPACTED THE ABUNDANCE OF A NUMBER OF SPECIES OF ARTHROPODS.

F-21
FELLIN, DAVID G.
1979.

"INFLUENCE OF SILVICULTURAL PRESCRIPTIONS AND UTILIZATION STANDARDS ON BEHAVIOUR OF THE WESTERN SPRUCE BUDWORM." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHERN ROCKY MTS.: CORAM EXPR. FOREST). THIS RESEARCH IS DIRECTED TOWARD DETERMINING: 1) HOW FOREST RESIDUE CAN AFFECT THE IMPACT OF THE WESTERN SPRUCE BUDWORM ON REGENERATION DEVELOPMENT; 2) HOW THE CHARACTERISTICS OF THE RESIDUAL STAND OF A PARTIAL CUT CAN DIRECTLY INFLUENCE THE BEHAVIOR OF THE INSECT; AND 3) HOW SPECIES COMPOSITION, SPACING, AND AGE STRUCTURE OF RESIDUAL STANDS CAN INFLUENCE EGG LAYING BEHAVIOR, OVERWINTERING LARVAL SURVIVAL, AND DISPERSAL OF YOUNG LARVAE.

F-22
FELLIN, DAVID G., AND HARVEY, A. E.
1979.

"RELATIONSHIPS OF HARVESTING AND RESIDUE TREATMENTS TO FOREST INSECT AND DISEASE ACTIVITY." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHERN ROCKY MTS.: CORAM EXPR. FOREST). THIS STUDY DISCUSSES HOW DISEASE ACTIVITIES, PRIMARILY ROOT DECAYS, ARE TIED TO THE ORGANIC MATTER CYCLING PROCESS THROUGH RESIDUE GENERATION AND THE RESULTING FIRE CYCLE IN FOREST ECOSYSTEMS. IT ALSO EXAMINES THE INTERACTION AMONG INSECTS, DISEASES, FIRE, AND GENETICS IN THE FOREST ECOSYSTEM.

F-23
FELLIN, DAVID G., AND SCHMIDT, WYMAN C.
1967.
"SPRUCE BUDWORM LARVAE SEVER STEMS OF WESTERN LARCH SHOOTS IN MONTANA."
J. FORESTRY 65(APRIL 1967):258-260.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THIS ARTICLE DISCUSSES DAMAGE DONE TO TERMINAL AND LATERAL SHOOTS OF YOUNG WESTERN LARCH (*LARIX OCCIDENTALIS*) BY SPRUCE BUDWORM (*CHORISTONEURA FUMIFERANA*). THE SEVERITY OF STEM FEEDING VARIES. ITS EFFECT ON RAPID JUVENILE HEIGHT GROWTH AND FORM IS CONSIDERED.

F-24
FELLIN, DAVID G., AND SCHMIDT, WYMAN C.
1973.
"FROST REDUCES WESTERN SPRUCE BUDWORM POPULATIONS AND DAMAGE IN MONTANA".
AGRICULTURAL METEOROLOGY 11(MARCH 1973):277-283.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THE PAPER PRESENTS QUANTITATIVE DATA DOCUMENTING REDUCTIONS IN WESTERN SPRUCE BUDWORM (*CHORISTONEURA OCCIDENTALIS*) POPULATIONS AND BUDWORM DAMAGE TO HOST TREES ASSOCIATED WITH A MID-JUNE FROST. THE DISCUSSION CONSIDERS THAT THE REDUCTION IN NUMBERS OF LARVAE OCCURRED INDIRECTLY BY A DECREASE IN AVAILABLE FOOD AND/OR DIRECTLY BY KILLING LARVAE OUTRIGHT. LUBRECHT EXPERIMENTAL FOREST, COTTONWOOD LAKES, RICE RIDGE, AND SEELEY WERE THE FOUR AREAS STUDIED SPECIFICALLY FOR BUDWORM REDUCTIONS.

F-25
FELLIN, DAVID G., AND SHEARER, RAYMOND C.
1968.
"SPRUCE BUDWORM LARVAE DAMAGE WESTERN LARCH CONES AND SEEDS."
J. FORESTRY 66(JULY 1968):568-570.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.). THIS ARTICLE DESCRIBES THE DAMAGE DONE TO WESTERN LARCH (*LARIX OCCIDENTALIS*) CONES BY SPRUCE BUDWORM (*CHORISTONEURA FUMIFERANA*) LARVAE IN 1964. THE VARIABLE SEVERITY OF THE DAMAGE IS DISCUSSED. FEEDING HABITS OF THE LARVAE ARE EXAMINED.

F-26
FENNEMAN, NEVIN M.
1931.
PHYSIOGRAPHY OF WESTERN UNITED STATES.
NEW YORK: MCGRAW-HILL BOOK COMPANY, INC. 534 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, NATIONAL.

(WESTERN UNITED STATES). THE BOOK CONTAINS DISCUSSIONS OF THE LAND FORMS OF 10 GEOGRAPHICAL AREAS, INCLUDING THE NORTHERN ROCKY MOUNTAIN PROVINCE. IN THE DISCUSSION OF THIS PROVINCE A GENERAL DESCRIPTION OF MOUNTAINS AND TRENCHES, THEIR PHYSIOGRAPHIC HISTORY AND RELATION TO STRUCTURAL DEFORMATION IS GIVEN.

F-27
FENTON, CARROLL LANE.
1934.
"ALGAE OF ANTIQUITY."
NATURE MAGAZINE, JULY 1934, PP. 15-16.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS BRIEF ARTICLE DESCRIBES FOSSIL ALGAE LEDGES FOUND WITHIN GLACIER NATIONAL PARK. PHOTOGRAPHS ARE INCLUDED.

F-28
FENTON, CARROLL LANE.
1934.
"ANCIENT SEAS OF GLACIER PARK."
NATURE MAGAZINE, MARCH 1934, PP. 121-125.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE BRIEFLY DESCRIBES THE GEOLOGIC PROCESSES THAT FORMED GLACIER NATIONAL PARK. PHOTOGRAPHS ARE INCLUDED.

F-29
FENTON, CARROLL LANE.
1934.
"SEEING NATURE IN GLACIER NATIONAL PARK."
RECREATION 28:138-140, 164-165.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE RELATES THE MANY ADVANTAGES OF BACKPACKING THROUGH GLACIER NATIONAL PARK. SOME OF THE SCENERY AND WILDLIFE LIKELY TO BE ENCOUNTERED ARE DESCRIBED.

F-30
FENTON, CARROLL LANE.
1935.
"THE MOUNTAINS OF GLACIER PARK."
NATURAL HISTORY 35:213-220.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A GENERAL DESCRIPTION OF THE GEOLOGIC HISTORY OF GLACIER NATIONAL PARK. THE IMPACT OF PROTEROZOIC SEAS ON THE LANDSCAPE IS DISCUSSED.

F-31
FENTON, CARROLL LANE.
1939.
"SEA FLOORS OF GLACIER NATIONAL PARK."
SCIENTIFIC MONTHLY 49(SEPTMBER 1939):215-226.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE GEOLOGIC RECORDS OF PAST ENVIRONMENTS ARE EXAMINED AND THE GEOLOGIC STORY OF THE PARK IS PRESENTED. INCLUDED IN THE DISCUSSION OF GEOLOGIC HISTORY IS THE FOLLOWING: THE SEA OF THE LATE PROTEROZOIC ERA; ROCK UPLIFTING, INITIATING THE DINOSAUR AGE; THE CRETACEOUS SEA; LATER FOLDING AND THE LEWIS FAULT. ROCK FORMATIONS, STRATA AND LAYERS, RIPPLE MARKS, AND FOSSILS ARE CONSIDERED IN LIGHT OF WHAT THEY TELL ABOUT SEDIMENTATION RATE, OCCURRENCE OF CURRENTS, SHALLOWSNESS OF WATER, ETC. THEORIES THAT ARGUE AGAINST THE MARINE ORIGIN OF THE PARK'S ROCKS ARE INCLUDED.

F-32
FENTON, CARROLL LANE, AND FENTON, MILDRED ADAMS.
1931.
"ALGAE AND ALGAL BEDS IN THE BELT SERIES OF GLACIER NATIONAL PARK."
J. GEOLOGY 39(OCTOBER-NOVEMBER 1931):17.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). ROCKS OF THE BELT SERIES IN GLACIER NATIONAL PARK PRESENT EVIDENCE OF REPEATED SEDIMENTARY CYCLES CLOSELY ASSOCIATED WITH CHANGES IN LEVEL. THE SEDIMENTATION APPARENTLY BEING MARINE. NEW AND PREVIOUSLY DESCRIBED SPECIES OF COLLENIA, NEWLANDIA, WEEDIA, AND BELTERIA ARE DISCUSSED.

F-33
FENTON, CARROLL LANE, AND FENTON, MILDRED ADAMS.
1937.
"BELT SERIES OF THE NORTH: STRATIGRAPHY, SEDIMENTATION, PALEONTOLOGY."
BULL. GEOLOGICAL SOCIETY AMERICA 48:1873-1970.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(GLACIER & WATERTON NATL. PARKS). THIS REPORT INCLUDES THE FOLLOWING CHAPTERS ON THE BELT SERIES: STRATIGRAPHY—RAVALLI, PIEGAN, MISSOULA GROUPS AND IGNEOUS ROCKS; SEDIMENTATION—MUD BRECCIAS, MUD BALLS, RIPPLE MARKS, MUD CRACKS, IMPRINTS AND PITS, SALT CRYSTAL CASTS, OOLITES, SEGREGATION STRUCTURES, RHYTHMS IN SEDIMENTATION, AND MARINE ORIGIN OF THE BELT; PALEONTOLOGY—FOSSILS. EXTENSIVE PHOTOGRAPHS AND ILLUSTRATIONS ARE INCLUDED.

F-34
FENTON, CARROLL LANE, AND FENTON, MILDRED ADAMS.
1957.
"PALEOECOLOGY OF THE PRECAMBRIAN OF NORTHWESTERN NORTH AMERICA."
GEOLOGICAL SOCIETY AMERICA. MEMOIR 67:103-116.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: GLACIER NATL. PARK). THE STROMATOLITE BIOSPHERES AND REEFS OF THE SNOWY RANGE AND BELT SERIES, WHERE STONY ALGAE WERE THE DOMINANT LIFE FORMS, ARE ANALYZED FROM AN ECOLOGICAL PERSPECTIVE. THE TWO AREAS ARE DISCUSSED INDIVIDUALLY. INCLUDED IN THE PRESENTATION CONCERNING THE BELT SERIES ARE: A GENERAL STATEMENT OF GEOLOGIC HISTORY REGARDING THE SERIES; BELT PALEOGEOGRAPHY, DESCRIBING CORDILLERAN SEDIMENTS AND FOSSILS; SUCH ECOLOGICAL CONDITIONS AS SHALLOWSNESS OF WATER, PERIODIC ARIDITY AND FLOODING; AND THE OCCURRENCE AND CHARACTERISTICS OF ORGANIC COMMUNITIES IN THE SERIES. VARIATION IN COMMUNITIES IN RESPONSE TO VARIED CONDITIONS IS EXAMINED.

F-35
FERNALD, GORDON H., JR., AND MITTELSTADT, R. L.
1972.
INTRODUCTION TO WATER RESOURCE PLANNING AND DEVELOPMENT IN THE COLUMBIA RIVER BASIN. PORTLAND, ORE.: U.S. DEPT. DEFENSE, ARMY CORPS OF ENGINEERS, NORTH PACIFIC DIV. 26 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE PAPER DESCRIBES THE EXISTING SYSTEM OF WATER RESOURCE USE: HYDROPOWER, IRRIGATION, FLOOD CONTROL, FISHING AND RECREATION. IT COMPARES THE COLUMBIA BASIN TO THE MEKONG RIVER IN SOUTHEAST ASIA AND GIVES A HISTORY OF PLANNING AND DEVELOPMENT ON THE COLUMBIA. THE FEDERAL WATER POWER ACT OF 1920, THE CORPS REPORTS OF 1938 AND 1948, THE COLUMBIA RIVER TREATY, AND THE PACIFIC NORTHWEST COORDINATION AGREEMENT ARE DISCUSSED.

F-36
FERRETTI, A. J., S. J.
1954.
"ST. IGNATIUS CENTENARY."
INDIAN SENTINEL 34(JUNE 1954):91-92.

(ST. IGNATIUS MISSION). THIS ARTICLE DESCRIBES THE CELEBRATION OF THE CENTENNIAL OF ST. IGNATIUS MISSION. SKCC.

F-37

FERRIS, WARREN A.
1940.

LIFE IN THE ROCKY MOUNTAINS, 1830-1835.

SALT LAKE CITY: ROCKY MOUNTAIN BOOK SHOP. 284 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(ROCKY MTS.). WARREN FERRIS' NARRATIVE OF HIS TRAVELS WHEN WORKING FOR AMERICAN FUR COMPANY IS PRESENTED. THE FLATHEAD INDIANS ARE DESCRIBED: THEIR INVOLVEMENT WITH THE CHRISTIAN RELIGION, RELATIONSHIPS WITH OTHER TRIBES, HORSE-RACING AND OTHER GAMBLING ACTIVITIES. ALSO INCLUDED IS A NARRATIVE OF A FLATHEAD CONCERNING THE FLATHEAD WARFARE WITH THE ARMED BLACKFEET, THEIR FLIGHT FROM THEIR ENEMIES, AND THEIR MEETING WITH LEWIS AND CLARK.

F-38

FERRIS, WARREN A.
1940.

LIFE IN THE ROCKY MOUNTAINS: A DIARY OF WONDERINGS ON THE SOURCES OF THE RIVERS, MISSOURI, COLUMBIA, AND COLORADO, FROM FEBRUARY 1830, TO NOVEMBER 1835. EDITED BY PAUL C. PHILLIPS.

DENVER, CO.: FRED A. ROSENSTOCK. THE OLD WEST PUBL. CO. 365 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(MISSOURI, COLUMBIA, & COLORADO RIVER BASINS. ABORIGINAL LANDS OF THE FLATHEAD & KALISPEL INDIANS.) THIS BOOK CONTAINS THE JOURNAL OF W. A. FERRIS, A FUR TRADER-EXPLORER OF THE AMERICAN FUR COMPANY. IT ALSO INCLUDES SUPPLEMENTARY WRITINGS BY FERRIS, A MAP OF THE NORTHWEST FUR COUNTRY, COMMENTS BY THE EDITOR THAT EVALUATE THE DIARY AND MAP, A BIOGRAPHY OF FERRIS, AND A HISTORY OF ROCKY MOUNTAIN EXPLORATION AND FUR TRADE FROM 1806 TO 1830.

F-39

FETH, JOHN H.
1964.

REVIEW AND ANNOTATED BIBLIOGRAPHY OF ANCIENT LAKE DEPOSITS (PRECAMBRIAN TO PLEISTOCENE) IN THE WESTERN STATES. WASHINGTON, D.C.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. BULL. 1080. 118 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(WESTERN UNITED STATES: FLATHEAD RIVER BASIN). THIS PAPER CONTAINS A SELECTED ANNOTATED BIBLIOGRAPHY ON LACUSTRINE SEDIMENTS OF THE WESTERN CONTERMINOUS UNITED STATES, RANGING IN AGE FROM PRECAMBRIAN TO PLEISTOCENE. IT ALSO INCLUDES A TABULAR SUMMARY, MAPS SHOWING DISTRIBUTION OF LAKE SEDIMENTS OF VARIOUS GEOLOGIC AGES, AND SEVERAL INDEXES. THE INDEXES GIVE CROSS REFERENCES TO PAPERS ON LAKE DEPOSITS GROUPED BY GEOLOGIC AGE OF THE DEPOSITS, STATES IN WHICH THE DEPOSITS OCCUR, CRITERIA FOR RECOGNITION OF LAKE DEPOSITS, AND ECONOMIC IMPORTANCE OF LACUSTRINE SEDIMENTS.

F-40

FEUCHT, ALEX T.
1971.

"GEOLOGY OF THE SWIFT RESERVOIR AREA: SAWTOOTH RANGE, MONTANA."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 59 PP. FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SAWTOOTH RANGE: SWIFT RESERVOIR AREA). A SURFACE GEOLOGY MAPPING PROJECT SUPPLEMENTING A STRUCTURAL ANALYSIS IS DISCUSSED. FOLLOWING A STATEMENT OF THE AREA'S

STRATIGRAPHY, THE STRUCTURAL STYLE OF DEFORMATION AND THE PRODUCTION OF A DISTINCT STRUCTURAL GEOMETRY IS DESCRIBED. THE RESULTS OF A STATISTICAL ANALYSIS OF STRUCTURAL ORIENTATIONS ARE CONSIDERED. LABORATORY WORK INCLUDED STUDY OF APPROXIMATELY 400 HAND SPECIMENS, INCLUDING 120 SPECIMENS CONTAINING CAMBRIAN TRILOBITES. THE TRILOBITES WERE STUDIED FOR CORRELATION PURPOSES.

F-41

FEUCHT, ALEX T.
1973.

NORTHWEST GEOLOGY. VOL. 2: GEOLOGY OF THE SWIFT RESERVOIR AREA, SAWTOOTH RANGE, MONTANA: STRUCTURAL IMPLICATIONS.

MISSOULA, MT.: UNIV. MONTANA. 6 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA WITHIN THE BASIN.

(SAWTOOTH RANGE). TOPICS COVERED IN THIS REPORT ARE: LITHOLOGIC-STRUCTURAL RELATIONSHIPS AND STRUCTURAL ANALYSIS. A TABLE DESCRIBING STRATIGRAPHIC SECTIONS IS INCLUDED.

F-42

FEYOLD, H. R., AND PFEIFFER, E. W.
1967.

"ANDROGEN PRODUCTION IN VITRO BY PHALAROPE GONADAL TISSUE HOMOGENATES." GENERAL & COMPARATIVE ENDOCRINOLOGY 10:26-33.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NINEPIPE & PABLO NATL. WILDLIFE REFUGES). THIS PAPER REPORTS ON THE ISOLATION AND IDENTIFICATION OF C19 METABOLITES FORMED BY PHALAROPE GONADAL TISSUE HOMOGENATES FROM SEVERAL C221 STEROID PRECURSORS. IT APPEARS POSSIBLE THAT THE RATIO OF ANDROSTENEDIONE TO TESTOSTERONE FORMED BY OVARIAN TISSUE FROM THESE PRECURSORS INCREASES WITH OVARIAN DEVELOPMENT.

F-43

FICHTLER, RICHARD K.
1980.

"THE RELATIONSHIP OF RECREATIONAL IMPACTS ON BACKCOUNTRY CAMPSITES TO SELECTED MONTANA HABITAT TYPES."

M.S. THESIS, UNIV. MONTANA, MISSOULA.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(RATTLESNAKE & MISSION MTS.). THIS RESEARCH EXPLORED THREE QUESTIONS: 1) IS THE LEVEL OF RECREATIONAL USE ON A CAMPSITE RELATED TO THE AMOUNT OF IMPACT? 2) CAN ONE OR MORE IMPACT VARIABLES SERVE AS INDICATORS OF CHANGE IN HUMAN USE? 3) CAN THE VEGETATION COMMUNITIES, OR HABITAT TYPES, THAT CAMPSITES OCCUR IN, BE RANKED ACCORDING TO THEIR SUSCEPTIBILITY TO IMPACT? CAMPSITES IN THE MISSION MOUNTAINS WERE MATCHED WITH AN UNIMPACTED CONTROL PLOT. THE AMOUNT OF IMPACT WAS DETERMINED THROUGH A COMPARISON OF EACH CAMPSITE TO THE MATCHED CONTROL PLOT.

F-44

FICKLIN, BENJAMIN F.
1935.

"FICKLIN'S EXPEDITION TO THE FLATHEAD COUNTRY IN 1888."

THE FRONTIER AND MIDLAND, AUTUMN 1935, PP. 68-69.

(FLATHEAD VALLEY). FICKLIN WAS SENT TO THE FLATHEAD COUNTRY AND ST. IGNATIUS MISSION IN PARTICULAR TO PROCURE HORSES AND SUPPLIES FOR THE ARMY MOVING AGAINST THE MORMONS IN

UTAH. HE COMMENTS ON ECONOMIC CONDITIONS ON THE FLATHEAD RESERVATION AND ST. IGNATIUS MISSION. SKCC.

F-45

FIEDLER, CARL E.
1974.

"ATMOSPHERIC CONDITIONS SURROUNDING A SEEDFALL IN WESTERN MONTANA."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 46 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MILLER CREEK DRAINAGE NEAR OLNEY). WIND MOVEMENT OVER TWO CLEARCUTS OF OPPOSING ASPECT AND THE INTERVENING RIDGE WAS STUDIED. CONTINUOUS DATA ON WINDSPEED AND DIRECTION WERE TAKEN AT THREE LOCATIONS. A SERIES OF TETHERED WEATHER BALLOONS ALONG THE CLEARCUT EDGES PROVIDED SUPPLEMENTAL DATA. MOVEMENT OF THESE BALLOONS WITH CHANGING WIND PATTERNS WAS RECORDED WITH TIME LAPSE PHOTOGRAPHY. DISPERSAL OF SMOKE FROM SMOKE GRENADES WAS ALSO PHOTOGRAPHED. WIND BEHAVIOR ON OPPOSITE ASPECTS AND THE RIDGETOP, AND LIKELY EFFECTS ON SEED DISSEMINATION ARE DISCUSSED.

F-46

FIELDS, ROBERT W., ED.
1971.

GEOLOGY OF WESTERN MONTANA: NORTHWEST MONTANA AND GLACIER NATIONAL PARK. GEOLOGICAL SERIES, VOL. 2.

MISSOULA, MT.: UNIV. MONTANA.

PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(NORTHWESTERN MONTANA & GLACIER NATL. PARK). THE FIELDTRIP GUIDEBOOK CONTAINS A NUMBER OF ARTICLES: "THE MISSOULA GROUP OF THE BELT SERIES," "THE MONTANA LINEAMENT," "CRETACEOUS ROCKS OF THE CLARK FORK VALLEY," "METALLIFEROUS DEPOSITS IN THE HELENA AREA," "ORIGIN OF THE DISTURBED BELT IN NORTHWESTERN MONTANA," "GEOLOGIC NOTES ON THE 'GATES OF THE MOUNTAINS REACH OF THE MISSOURI RIVER,'" "A BRIEF SUMMARY OF THE GEOLOGY OF THE SUN RIVER CANYON," "SEDIMENTARY HISTORY OF THE SWEETGRASS ARCH," "CUT-BANK OIL AND GAS FIELDS," AND "BELT SERIES OF NORTHWESTERN MONTANA." IT ALSO INCLUDES ROAD LOGS.

F-47

FINLEY, MARY STROUSSE.
1972.

"STORY OF THE SHOOTING OF FOUR FLATHEAD INDIANS IN SWAN RIVER AREA, WESTERN MONTANA, 1908."

MISSOULIAN, 9 APRIL 1972, P. 34.

(SWAN RIVER VALLEY). THIS ARTICLE RECORDS THE STORY OF THE SHOOTING OF FOUR FLATHEAD INDIANS BY A GAME WARDEN IN THE SWAN RIVER VALLEY IN 1908. SKCC.

F-48

FINNIGAN, GEORGE J.
1930.

"EPIC QUEST OF FLATHEAD INDIANS FOR BLACKROBE."

INDIAN SENTINEL 10 (SPRING 1930): 51-52.

(ST. IGNATIUS MISSION). THIS ARTICLE CONTAINS A SHORT SKETCH OF THE FOUNDING OF ST. IGNATIUS MISSION. SKCC.

F-49

FISCHER, HANK.
1977.

"HOW MUCH RANGE FOR GRIZZLIES?" DEFENDERS OF WILDLIFE 52:130-133.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(MONTANA: FLATHEAD NATL. FOREST, BOB MARSHALL WILDERNESS AREA, GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE FISH AND WILDLIFE SERVICES PROPOSED CRITICAL HABITAT DELINEATION FOR GRIZZLY BEAR HABITAT, A MAJOR PORTION OF WHICH IS LOCATED IN THE GLACIER NATIONAL PARK-BOB MARSHALL WILDERNESS AREA. THE ARTICLE FOCUSES ON THE IMPACT PROPOSED DEVELOPMENTS SUCH AS OIL AND GAS LEASING WOULD HAVE ON THE GRIZZLY.

F-50

FISHER, HANK.

1979.

THE FLOATER'S GUIDE TO MONTANA.

HELENA, MT.: FALCON PRESS PUBL. CO., INC. 152 PP. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: MAINSTEM, NORTH, MIDDLE, & SOUTH FORKS OF THE FLATHEAD RIVER). BASIC INFORMATION FOR FLOATING 26 MAJOR STREAMS IN THE STATE IS PROVIDED, INCLUDING ACCESS POINTS, RIVER DIFFICULTY, HAZARDS, AND TYPICAL WATER CONDITIONS. THE BOOK ALSO INCLUDES FISHING ADVICE, PLACES FREQUENTED BY WILDLIFE, AND INFORMATION PERTAINING TO THE HISTORY, LEGENDS, AND CURRENT CONSERVATION ISSUES INVOLVING THE STREAMS. THIRTY-ONE DETAILED MAPS ARE PRESENTED TO AID IN THE PLANNING OF FLOAT TRIPS.

F-51

"FISH STOCKING RECOMMENDATIONS FOR GLACIER NATIONAL PARK, 1933-1966, AND FISH PLANTING REPORTS, 1912-1953."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN).

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK, HISTORICAL FILES.

(GLACIER NATL. PARK). THESE FILES CONTAIN FISH PLANTING RECORDS WHICH DETAIL: THE NAME OF THE WATERS PLANTED, THE DATE OF EACH PLANT, THE SPECIES AND NUMBER PLANTED, THE NUMBER OF FISH BY SIZE, AND THE SOURCE OF THE FISH. MISCELLANEOUS CORRESPONDENCE REGARDING FISH PLANTINGS ARE ALSO ON FILE.

F-52

FISHER, EARL.

1952.

"A SURVEY OF THE GRADUATES FROM THE HOT SPRINGS MONTANA HIGH SCHOOL FOR THE YEARS 1946-1950 INCLUSIVE."

M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 42 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: HOT SPRINGS). THE PURPOSES OF THIS STUDY WERE TO DETERMINE WHETHER OR NOT THE YOUNG PEOPLE WHO GRADUATED RECENTLY FROM THE HIGH SCHOOL FELT THAT THE SCHOOL HAD PROPERLY PREPARED THEM TO MEET THE PROBLEMS OF EVERYDAY LIFE, AND TO LEARN WHERE THE HIGH SCHOOL FELL SHORT IF IT DID NOT SUFFICIENTLY TRAIN THEM TO MEET THEIR NEEDS, AND TO RECEIVE RECOMMENDATIONS WHICH THESE GRADUATES FELT WERE NECESSARY FOR IMPROVEMENT OF THE SCHOOL PROGRAM.

F-53

FISHER, WILLIAM; BEAUFIT, WILLIAM; AND NORUM, RODNEY A.

THE HYDROTHERMOAEROGRAPH - CONSTRUCTION AND FIRE MANAGEMENT APPLICATION.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH NOTE INT-87. 8 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: MILLER CREEK DRAINAGE NEAR OLNEY). CONVENTIONAL HYDROTHERMOGRAPHS CAN BE MODIFIED TO RECORD WINDSPEED ALONG WITH TEMPERATURE AND RELATIVE HUMIDITY. THE FIRE WEATHER RECORD RESULTING FROM THE MODIFICATION HAS APPLICATION IN PRESCRIBED FIRE PLANNING, FIRE DANGER RATING, FIRE-WEATHER FORECASTING, FIRE BEHAVIOR ANALYSIS, AND FIRE-WEATHER CLIMATOLOGY.

F-54

FITSCHEN, STUART E.

1952.

"A FOLLOW UP STUDY OF 1942-1951 HIGH SCHOOL GRADUATES OF RONAN, MONTANA."

M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 73 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(RONAN). THE PURPOSES OF THIS STUDY WERE TO DISCOVER HOW EFFECTIVE THE RONAN HIGH SCHOOL HAS BEEN IN GUIDING ITS GRADUATES, FIND OUT DIRECTLY THE GROUP'S OPINIONS REGARDING THE VALUES OF THEIR EDUCATIONAL EXPERIENCE WHILE IN HIGH SCHOOL, AND OBTAIN A BASIS FOR CURRICULUM REVISION.

F-55

FITZPATRICK, JOHN S.

1976.

MONTANA SOURCES OF SOCIO-ECONOMIC DATA.

HELENA, MT.: OFFICE OF THE GOVERNOR, BUDGET AND PROGRAM PLANNING. 9 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE PUBLICATION CONTAINS A LISTING OF STATE AGENCY INFORMATION AND OTHER SOURCES WHERE SOCIO-ECONOMIC DATA CAN BE FOUND. THE LISTING IS ORGANIZED INTO THE FOLLOWING CATEGORIES: AGRICULTURE, CRIME, ECONOMICS, EDUCATION, HEALTH AND VITAL STATISTICS, INDIANS, MISCELLANEOUS, MULTIPLE SOURCES, POPULATION, PUBLIC EXPENDITURE, TAXATION, AND WELFARE. ADDRESSES OF THE SOURCES ARE INCLUDED.

F-56

FITZPATRICK, JOHN S., ET. AL.

1976.

THE DEPARTMENT OF SOCIAL AND REHABILITATION SERVICES: A RESOURCE INVENTORY.

HELENA, MT.: MONTANA OFFICE OF BUDGET & PROGRAM PLANNING, RESEARCH UNIT. 98 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE REPORT IS AN INVENTORY AND DESCRIPTION OF SOCIAL WELFARE AND REHABILITATION SERVICES PROVIDED BY THE STATE DEPARTMENT OF SOCIAL AND REHABILITATION SERVICES. IT DESCRIBES WHAT, WHY, AND HOW SERVICES ARE BEING OFFERED SO THAT IMPROVEMENTS CAN OCCUR. THE DIVISIONS AND THEIR PROGRAMS ARE BRIEFLY ASSESSED.

F-57

FITZPATRICK, T. J.

1904.

"THE FERN FLORA OF MONTANA."

THE FERN BULL. 12(OCTOBER 1904):5-10.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD LAKE, SWAN RIVER, & GLACIER NATL. PARK). DURING THE SUMMER OF 1902 THE WRITER COLLECTED FERNS AT VARIOUS STATIONS IN WESTERN MONTANA. THE RESULTS OF THE AUTHOR'S PERSONAL WORK, TOGETHER WITH INFORMATION DERIVED FROM OTHER SOURCES, MAKE UP THIS PAPER. THE FERNS ARE GROUPED ACCORD-

ING TO FAMILY. THE SCIENTIFIC AND COMMON NAMES ARE GIVEN, AS WELL AS WHERE THE SPECIMENS WERE FOUND.

F-58

FLADMARK, ELMER N., AND NELSON, R. A.

1946.

"REPORT ON FOREST PROTECTION REQUIREMENTS FOR GLACIER NATIONAL PARK."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 78 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT OUTLINES THE PRINCIPAL FOREST AND FIRE PROTECTION PROBLEMS OF GLACIER NATIONAL PARK AND CONSOLIDATES THE IMPORTANT INFORMATION OF THE VARIOUS FORESTRY REPORTS, THE FIRE ATLAS, AND MASTER PLAN. THE TEXT, SUPPLEMENTED BY MAPS AND CHARTS, WAS PREPARED WITH THE IDEA OF PRESENTING A CONCISE PICTURE OF THE EXISTING CONDITIONS RELATING TO THE BASIC FOREST AND FIRE PROTECTION PROBLEMS OF THE PARK AND FOR CLASSIFYING THE SPECIFIC RECOMMENDATIONS THAT ALSO ARE INCLUDED.

F-59

FLAHERTY, DAVID C.

1967.

"BETTER BURNS...AND BETTER AIR?"

QUEST, DECEMBER 1967, PP. 6-12.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: MILLER CREEK DRAINAGE NEAR OLNEY). THIS ARTICLE, WRITTEN IN POPULAR STYLE, SUMMARIZES THE OBJECTIVES OF THE MILLER CREEK STUDY AND HIGHLIGHTS THE AIR POLLUTION RESEARCH OF WASHINGTON STATE UNIVERSITY.

F-60

FLAHERTY, DAVID C.

1972.

"ARE WE OBJECTIVE ABOUT FOREST FIRES?"

AMERICAN FORESTS 78:12-15, 58-59.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MONTANA: FLATHEAD NATL. FOREST: MILLER CREEK DRAINAGE NEAR OLNEY). THE NON-TECHNICAL ARTICLE EXAMINES FIRE'S ROLE IN THE ENVIRONMENT BASED ON AN INTERVIEW WITH DR. W. R. BEAUFIT. BEAUFIT EXPLAINS WHY FIRE IS A NATURAL COMPONENT OF THE NORTHERN ROCKY MOUNTAIN FORESTS. HE DESCRIBES HOW THE NORTHERN REGION-INTERMOUNTAIN STATION COOPERATIVE STUDIES ARE CONTRIBUTING TO A BETTER UNDERSTANDING OF THE USE OF FIRE IN SILVICULTURE.

F-61

FLANDRAU, GRACE.

1971.

THE STORY OF MARIAS PASS.

SEATTLE: THE SHOREY BOOK STORE. 22 PP.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MONTANA: MARIAS PASS AREA). THE BOOKLET DESCRIBES THE HISTORY OF THE EXPLORATION OF MARIAS PASS AND PRESENTS ACCOUNTS OF THE EXPLORATION ACTIVITIES OF ISAAC J. STEVENS; THE BLACKFEET INDIANS; MR. TINKAM, AN ENGINEER WITH STEVEN'S PARTY; AND JOHN F. STEVENS.

F-62

FLATH, DENNIS.

1975.

"OUR ENDANGERED SPECIES: THE WOLF."

MONTANA OUTDOORS, SEPTEMBER/OCTOBER 1975, PP. 42-45.

FINAL, SPECIFIC, NONTECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: LINCOLN & FLATHEAD COUNTIES). THE ARTICLE PRESENTS A HISTORY OF WOLF BOUNTY HUNTING AND PREDATOR CONTROL, ALONG WITH SOME DETAILS OF THE WOLF'S LIFE HISTORY. BRIEFLY OUTLINED IS THE RAISING OF PUPS, SOCIAL BONDS AND WOLF PACKS, AND FOOD HABITS. THE STATUS OF STATE WOLVES AND MANAGEMENT MEASURES ARE TOPICS DISCUSSED.

F-83

FLATHEAD COUNTY.

1968.

"AN APPRAISAL OF POTENTIAL FOR OUTDOOR RECREATIONAL DEVELOPMENTS IN FLATHEAD COUNTY, MONTANA, 1968."

WHITEFISH CHAMBER OF COMMERCE, WHITEFISH, MT. (TYPEWRITTEN). 8 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE REPORT IS AN ATTEMPT TO SHOW WHAT RECREATIONAL POTENTIAL EXISTS FOR FUTURE DEVELOPMENT OF TWELVE BASIC TYPES OF RECREATIONAL ENTERPRISES. EACH OF THE TWELVE TYPES WAS RATED ON A POINT SYSTEM IN WHICH SUCH ELEMENTS AS CLIMATE, SCENERY, NATURAL AREAS, SOILS, WILDLIFE HABITAT, HUMAN POPULATIONS, ACCESS TO ROADS, RURAL OWNERSHIP, AND LAND USE PATTERNS WERE EVALUATED. A DETAILED WRITE-UP OF EACH OF THE TWELVE TYPE ENTERPRISES IS INCLUDED.

F-84

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION.

1973.

FLATHEAD COUNTY PLANNING UNIT NO. 5. LOWER VALLEY AREA.

KALISPELL, MT. 18 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS REPORT EXAMINES THE GEOLOGY, HYDROLOGY, FLOOD PLAIN, SOILS, AND TOPOGRAPHY OF THE AREA. IT DESCRIBES THE ECONOMY, POPULATION, TRANSPORTATION AND CIRCULATION, PARKS AND RECREATION, SCHOOLS, FIRE PROTECTION, LAND USE OF THE AREA, AND THEN MAKES SOME GENERAL RECOMMENDATIONS FOR THE PRESERVATION AND ENHANCEMENT OF THE QUALITY OF LIFE IN THE LOWER VALLEY AREA.

F-85

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION.

1973.

FLATHEAD COUNTY SUBDIVISION SURVEY. REPORT AND COMPUTER PRINTOUT.

KALISPELL, MT. 5 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE PURPOSE OF THIS SURVEY WAS TO SHOW STATISTICALLY AND GRAPHICALLY THE PRESENT EXTENT AND PAST RATE OF LAND SUBDIVISION IN THE COUNTY AND TO ASSIST IN THE DETERMINATION OF NEED FOR REVIEW AND REGULATORY MEASURES. THE COMPUTER PRINTOUT CONTAINS A COMPLETE MASTER FILE OF ORIGINAL DATA AND TRACT NUMBERS OF AREA SUBDIVISIONS SINCE 1891.

F-86

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION.

1973.

FOREST LANDS, FLATHEAD COUNTY, MONTANA: PHASE 1 REPORT.

KALISPELL, MT. 23 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS REPORT IS A REVIEW OF FOREST LANDS IN FLATHEAD COUNTY BY OWNER-

SHIP, SIZE, DISTRIBUTION, AND PRESENT AND FUTURE USE COMMITMENT. FEDERAL, STATE AND PRIVATELY OWNED LANDS ARE EXAMINED.

F-87

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION.

1974.

FLATHEAD COUNTY FARM ECONOMICS.

KALISPELL, MT.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS REPORT IS INTENDED TO PROVIDE A BRIEF ANALYSIS OF THE AGRICULTURAL SECTOR OF FLATHEAD COUNTY'S ECONOMY. THE FOLLOWING TABLES AND CHARTS CONSTITUTE THE BODY OF THE REPORT: TOTAL EARNINGS, FLATHEAD COUNTY; ANNUAL AVERAGE CIVILIAN LABOR FORCE DATA FOR AREAS OF HIGH UNEMPLOYMENT; FARM EARNINGS; FARM EARNINGS AS A PERCENTAGE OF TOTAL EARNINGS; NUMBER OF FARMS BY SIZE; NUMBER OF FARMS BY ECONOMIC CLASS; CASH RECEIPTS PER FARM; FARM CASH RECEIPTS: LIVESTOCK, CROPS, TOTAL RECEIPTS FARM MARKETING; GOVERNMENT PAYMENTS AND ALL CASH RECEIPTS; DECLINING FARM POPULATION; AND NUMBER OF PERSONS SUPPORTED BY PRODUCTION OF THE FARM WORKER FOR SELECTED YEARS. A SUMMARY AND CONCLUSIONS FOLLOW.

F-88

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION.

1974.

FLATHEAD COUNTY POPULATION REPORT.

KALISPELL, MT.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS STUDY REPORTS ON GENERAL POPULATION TRENDS, IN FLATHEAD COUNTY. TABLES AND GRAPHS ILLUSTRATE THE POPULATION OF CITIES WITHIN THE COUNTY, THE BIRTH RATE, NET MIGRATION, MALE AND FEMALE, ASSUMPTIONS AND PROJECTIONS FOR MIGRATION TRENDS, AND POPULATION ESTIMATES.

F-89

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION.

1975.

FLATHEAD COUNTY ECONOMICS.

KALISPELL, MT.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE PURPOSE OF THIS REPORT IS TO PRESENT AN OVERVIEW OF HISTORICAL TRENDS AND THE PRESENT STATUS OF THE FLATHEAD COUNTY ECONOMY, ANALYZE THE INFLUENCE OF THE NATIONAL AND REGIONAL ECONOMY ON THE LOCAL ECONOMY, ANALYZE THE VARIOUS SECTORS OF THE LOCAL ECONOMY AND EXPLORE THE INTERRELATIONSHIP AMONG THEM, AND SUMMARIZE THE FLATHEAD ECONOMIC OUTLOOK. THIS IS NOT AN ECONOMIC BASE STUDY, BUT RATHER AN ANALYSIS OF AVAILABLE INFORMATION PROVIDED BY MANY AGENCIES AND INDIVIDUALS.

F-70

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION.

1975.

PRELIMINARY FLATHEAD COUNTY COMPREHENSIVE PLAN.

KALISPELL, MT. 15 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE PLAN DESCRIBED IN THIS REPORT SETS A COURSE OF ACTION FOR FUTURE DEVELOPMENT IN FLATHEAD COUNTY. THE GUIDELINES AND PROPOSALS ARE INTENDED FOR PUBLIC REVIEW AND COMMENT. TOPICS COVERED INCLUDE THE FOLLOWING: DEVELOPMENT PATTERN, URBAN AND RURAL; LOCATIONAL GUIDELINES FOR DEVELOPMENT; COMMUNITY FACILITIES; PUBLIC PARKS AND OUTDOOR RECREATION; AND STATE LAND USE.

F-71

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION.

1975.

PRELIMINARY FLATHEAD COUNTY HOUSING STUDY.

KALISPELL, MT. 110 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: COLUMBIA FALLS, KALISPELL, & WHITEFISH). THIS REPORT ANALYZES HISTORICAL, SOCIAL AND ECONOMIC TRENDS THAT AFFECT THE LOCAL HOUSING MARKET, AS WELL AS IDENTIFIES ISSUES AND RECOMMENDS SOLUTIONS. GOVERNMENT PROGRAMS ARE ANALYZED, THE LOCAL HOUSING MARKET DESCRIBED AND A DETAILED NEIGHBORHOOD ANALYSIS FOR COLUMBIA FALLS, KALISPELL, AND WHITEFISH IS INCLUDED.

F-72

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION.

1976.

FLATHEAD COUNTY POPULATION ESTIMATE. REVISED SEPTEMBER 1976.

KALISPELL, MT. 11 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS REPORT COVERS THE FOLLOWING: COUNTY POPULATION FROM 1940 THROUGH 1976, POPULATION OF INCORPORATED CITIES WITHIN FLATHEAD COUNTY FROM 1980-1976, JURISDICTIONAL AREA POPULATION DISTRIBUTION ESTIMATES, POPULATION PER DWELLING UNIT RATIOS, ESTIMATES OF FUTURE POPULATION, NEW HOME CONSTRUCTION BY TYPE, AND POPULATION DISTRIBUTION BY JURISDICTIONAL AREA.

F-73

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION.

1979.

KALISPELL - DOWNTOWN REDEVELOPMENT PLAN. PART I.

KALISPELL, MT. 24 PP.

PRELIMINARY, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL). THIS REPORT SUMMARIZES THE LONG-RANGE COMPREHENSIVE PLANNING AND DEVELOPMENT PROGRAM FOR THE DOWNTOWN AND SURROUNDING AREAS. TRAFFIC FLOW PROPOSALS ARE INCLUDED.

F-74

FLATHEAD COUNTY AREAWIDE PLANNING ORGANIZATION AND KALISPELL CITY-COUNTY PLANNING BOARD.

1974.

COMPREHENSIVE DEVELOPMENT PLAN. KALISPELL PLANNING AREA. PUBL. KALISPELL, MT.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL CITY-COUNTY PLANNING AREA). THIS PLAN ESTABLISHES GENERAL GUIDE LINES FOR DESIRABLE DEVELOPMENT. IT DOES NOT PROVIDE THE POLICIES OR PROCEDURES TO BE USED FOR SPECIFIC DEVELOPMENT OR IMPLEMENTATION DECISIONS. IT CONSIDERS PHYSICAL CHARACTERISTICS, ECONOMY, POPULATION, LAND USE, COMMUNITY FACILITIES, AND TRAFFIC CIRCULATION.

F-75

FLATHEAD COUNTY CONSERVATION NEEDS COMMITTEE.

1962.

LAND AND WATER: FLATHEAD COUNTY.

KALISPELL, MT.: CONRAD NATIONAL BANK.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS REPORT INVOLVED AN INVENTORY BASED UPON SOIL SURVEYS OF 160 ACRE SAMPLES DRAWN AT RANDOM. THE SAMPLES WERE EXPANDED TO REPRESENT ACTUAL CONDITIONS OF LAND USE, AND THIS INFORMATION, ALONG WITH THE COMMITTEE MEMBERS' EXPERTISE, WAS USED TO DEVELOP ESTIMATES OF EXPECTED LAND USE CHANGES BY 1975. ACREAGE FIGURES ARE GIVEN FOR THE FOLLOWING CURRENT AND EXPECTED USES: DRY AND IRRIGATED CROPLAND, GRASSLAND (RANGE AND PASTURE), WOODLAND, AND THOSE LANDS OUT OF AGRICULTURE. THE REPORT CLASSIFIES LAND CAPABILITY INTO 8 CATEGORIES, NOTING SUITABILITY FOR CULTIVATION.

F-76

FLATHEAD COUNTY OVERALL ECONOMIC DEVELOPMENT PROGRAM COMMITTEE.

1979.

OVERALL ECONOMIC DEVELOPMENT PROGRAM FLATHEAD COUNTY MONTANA.

KALISPELL, MT.: FLATHEAD COUNTY BOARD OF COUNTY COMMISSIONERS. 82 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS REPORT BEGINS WITH A HISTORICAL ASSESSMENT OF PAST DEVELOPMENT EFFORTS, WHICH REVEALS NEEDED CHANGES IN PROGRAM DIRECTION AND PRIORITIES, SERVES AS A GUIDE IN MAKING MORE EFFECTIVE USE OF RESOURCES TO ACHIEVE CURRENT DEVELOPMENT GOALS, AND PROVIDES SUPPORT FOR PRESENT DEVELOPMENT STRATEGY, AND A PLAN FOR IMPLEMENTATION. THE REST OF THE REPORT DESCRIBES THE AREA AND ITS ECONOMY, POTENTIALS FOR ECONOMIC DEVELOPMENT, DEVELOPMENT STRATEGY, AND A PLAN FOR IMPLEMENTATION.

F-77

FLATHEAD COUNTY SUPERINTENDENT OF SCHOOLS.

1958.

SAGAS OF OUR PIONEERS.

114 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THE HISTORIC COMPILATION INCLUDES A VARIETY OF ACCOUNTS BY EARLY SETTLERS. ARRIVAL IN THE FLATHEAD VALLEY, THE WAY OF LIFE, BIRTHS AND DEATHS, SCHOOLS AND CHURCHES, TRAVELING, RELATIONSHIPS WITH THE INDIANS, EARLY INDUSTRY (NORTH FORK COAL AND OIL), HORSES, THE ESTABLISHMENT OF TOWNS, THE FAMILIES, ETC. ARE TOPICS DISCUSSED.

F-78

"FLATHEAD COUNTY, MONTANA."

1906.

THE COAST, JANUARY 1906, PP. 1-5; 29-32.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD COUNTY). THE ARTICLE DESCRIBES THE ATTRactions OF THE COUNTY: SCENERY, CLIMATE, TIMBER, SOIL, HUNTING AND FISHING, AND RIVERS. A HISTORY OF THE AREA'S SETTLEMENT AND DEVELOPMENT IS INCLUDED. THE ARTICLE DISCUSSES THE TOWNS OF DEMERSVILLE, KALISPELL, SOMERS, WHITEFISH, AND COLUMBIA FALLS.

F-79

FLATHEAD COUNTY. FLATHEAD ANTICRIME COMMISSION.

REPORT.

KALISPELL, MT. 42 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS REPORT IS THE RESULT OF NEARLY TWO YEARS OF STUDY OF LAW ENFORCEMENT PROBLEMS. THE SIX SECTIONS OF THE REPORT ARE: 1) THE POLICY DERIVED AT THE OUTSET OF THE COMMISSION FORMATION; 2) WORK SYNOPSIS; 3) FINDINGS CONCERNING DISTRICT AND JUSTICE COURTS; 4) COUNTY ATTORNEY AFFAIRS; 5) LAW AGENCIES; AND 6) JUVENILE MATTERS. RECOMMENDATIONS ARE MADE.

F-80

FLATHEAD CULTURE COMMITTEE.

1977.

FLATHEAD INDIAN ALPHABET PRONUNCIATION DRILLS. FLATHEAD CULTURAL AND LANGUAGE MATERIALS BOOK 1.

ST. IGNATIUS, MT.

(FLATHEAD INDIAN RESERVATION). THIS BOOK CONTAINS PRONUNCIATION AND ALPHABET DRILLS FOR THE FLATHEAD LANGUAGE. SKCC.

F-81

FLATHEAD DRAINAGE 208 PROJECT.

1976.

DETAILED PROJECT PLAN.

KALISPELL, MT. 42 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THE PROPOSED PROJECT IS A WATER QUALITY MANAGEMENT PLANNING PROGRAM. OBJECTIVES AND OUTPUTS OF THE PLANNING PROCESSES ARE DISCUSSED, SCOPE OF THE PLAN IS OUTLINED, AND AN OVERVIEW OF ALL REPORTS TO BE SUBMITTED TO THE PROJECT IS INCLUDED.

F-82

FLATHEAD DRAINAGE 208 PROJECT.

1977.

AGRICULTURE AND WATER QUALITY.

KALISPELL, MT. 86 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
BASIN-WIDE.

(FLATHEAD RIVER BASIN). THE OBJECTIVES OF THIS STUDY WERE TO: 1) DEVELOP A PLAN THAT WILL MINIMIZE WATER POLLUTION FROM AGRICULTURAL SOURCES WHICH IS ENVIRONMENTALLY SOUND, SOCIALLY ACCEPTABLE, AND ECONOMICALLY FEASIBLE; 2) DESIGNATE THOSE AGENCIES MOST ACCUSTOMED TO WORKING WITH THE AGRICULTURAL COMMUNITY, AND WITH THE BACKGROUND AND EXPERTISE TO DO SO EFFECTIVELY, AS IMPLEMENTING AGENCIES TO CARRY OUT CERTAIN ELEMENTS OF THE 208 PLAN; 3) THROUGH PUBLIC MEETINGS, MEET WITH THE AGRICULTURAL COMMUNITY IN AN EFFORT TO INFORM AND INVOLVE THEM IN A PLAN THAT IS UPDATED AND VIABLE; AND 4) ESTABLISH AN EXTENSIVE WATER QUALITY MONITORING PROGRAM TO DOCUMENT THE EFFECTS OF AGRICULTURE ON WATER QUALITY, AND MONITOR THE EFFECTIVENESS OF THE 208 PLAN.

F-83

FLATHEAD DRAINAGE 208 PROJECT.

1977.

ENERGY AND WATER QUALITY.

KALISPELL, MT. 44 PP.

PART OF A SERIES, SPECIFIC, NON-TECHNICAL,
ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN: NORTH & SOUTH FORKS OF THE FLATHEAD RIVER, & HUNGRY HORSE RESERVOIR). TOPICS ADDRESSED IN THIS REPORT INCLUDE: NORTH & SOUTH FORKS OF THE FLATHEAD, CABIN CREEK COAL DEVELOPMENT, OIL AND GAS LEASES, HUNGRY HORSE DAM, PUMPED STORAGE AND HYDRO ELECTRICAL POWER, AND THE NORTHERN TIER PIPELINE.

F-84

FLATHEAD DRAINAGE 208 PROJECT.

1977.

LAND USE.

KALISPELL, MT. 154 PP.

FINAL, PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THE COLLECTION OF MAPS PROVIDES GENERAL DESCRIPTIONS OF THE ENVIRONMENTAL CONDITIONS OF THE BASIN. MAP TOPICS INCLUDE: OWNERSHIP, GENERALIZED GEOLOGY, SOILS, ANNUAL PRECIPITATION, ANNUAL WATER YIELD, SEDIMENT YIELD, VEGETATION TYPES, COMMERCIAL AND NONCOMMERCIAL FORESTS, IRRIGATED AND DRY CROPLANDS AND IRRIGABLE LANDS, GROUND WATER AVAILABLE FOR IRRIGATION, RANGELAND CONDITION, WETLAND AND DRAINAGE INVENTORY, AND RECREATIONAL FACILITIES.

F-85

FLATHEAD DRAINAGE 208 PROJECT.

1977.

LEGAL INSTITUTIONAL & IMPLEMENTATION: EXECUTIVE SUMMARY.

KALISPELL, MT. 34+ PP.

FINAL, PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THE BULK OF THIS REPORT DETAILS THE POLICIES OF THE 208 BOARD, THOSE AGENCIES RESPONSIBLE FOR THEIR IMPLEMENTATION, THE LEGAL AND INSTITUTIONAL RAMIFICATIONS, AND THE TIME FRAME WITHIN WHICH IMPLEMENTATION SHOULD PROCEED.

F-86

FLATHEAD DRAINAGE 208 PROJECT.

1977.

NORTH FORK BASELINE.

KALISPELL, MT. 33 PP.

FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER AND ITS TRIBUTARIES). THIS STUDY INTENDED TO ESTABLISH, WITHIN A SPECIFIC TIME PERIOD: 1) THE SEDIMENT PRODUCTION OF THE NORTH FORK ON A DAILY AND YEARLY BASIS AND ITS RELATIONSHIP TO FLOW, 2) THE CHEMICAL COMPOSITION OF THE NORTH FORK AND TRIBUTARY WATERS WITH SPECIAL ATTENTION PAID TO NUTRIENTS AND POTENTIALLY TOXIC METALS, AND 3) THE COMPOSITION AND DENSITY OF THE AQUATIC INSECT COMMUNITY IN THE NORTH FORK AND TRIBUTARIES. WATER QUALITY PARAMETERS ARE LISTED IN A TABLE.

F-87

FLATHEAD DRAINAGE 208 PROJECT.

1977.

RECREATION AND WATER QUALITY.

KALISPELL, MT. 50 PP.

FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THIS REPORT DEALS WITH THE EXISTING AND PLANNED RECREATION OPPORTUNITIES IN THE VALLEY, HOW THEY CAN AND WILL AFFECT WATER QUALITY, AND WHAT MEASURES CAN BE TAKEN TO MITIGATE THOSE EFFECTS. RECREATION SITE MANAGEMENT GROUPS DISCUSSED ARE: COUNTY PARK BOARD, MONTANA FISH AND

GAME, U.S. FISH AND WILDLIFE SERVICE, U.S. FOREST SERVICE, GLACIER NATIONAL PARK, AND WINTER SPORTS, INC. INCLUDED IN THE APPENDIX IS AN INVENTORY OF EXISTING RECREATIONAL SITES IN THE DRAINAGE.

**F-88
FLATHEAD DRAINAGE 208 PROJECT.
1977.**

SILVICULTURE AND WATER QUALITY.
KALISPELL, MT. NO PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). OBJECTIVES OF THIS STUDY WERE-THROUGH A LIMITED MONITORING PROGRAM-TO ATTEMPT TO CHARACTERIZE AND QUANTIFY WATER QUALITY IMPACTS OF TYPICAL LOGGING OPERATIONS; DEVISE A MANAGEMENT PLAN TO MITIGATE ANY IMMEDIATE OR LONG TERM IMPACTS OF LOGGING; AND WORK TOWARD STANDARDIZATION IN DATA GATHERING, ANALYSIS, INTERPRETATION, AND STORAGE AND RETRIEVAL TO MAXIMIZE THE VALUE OF FUTURE DATA GATHERING PROGRAMS.

**F-89
FLATHEAD FACTS: DESCRIPTION OF THE
RESOURCES OF MISSOULA COUNTY. 1890.**
MISSOULA, MT.: MISSOULA PUBL. CO. 25 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD, LAKE & SANDERS COUNTIES). AS AN ILLUSTRATED DESCRIPTION OF THE RESOURCES OF THE FLATHEAD VALLEY, THIS REPORT GIVES PARTICULAR ATTENTION TO DEMERSVILLE, THE FORERUNNER OF THE CITY OF KALISPELL. BIOGRAPHIES OF LEADING CITIZENS, INFORMATION ABOUT THE RESERVATION, AND DESCRIPTIONS OF TOWNS NO LONGER IN EXISTENCE ARE INCLUDED.

**F-90
FLATHEAD HIGH SCHOOL. STAFF OF THE ARROW.
"KALISPELL IN 1898."**
MONTANA HISTORIAN 6:10-21.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL). THIS HISTORIC ACCOUNT DESCRIBES EARLY SETTLEMENT IN THE UPPER FLATHEAD VALLEY. INCLUDED IN THE DISCUSSION ARE: JOE ASHLEY'S SETTLEMENT IN 1857, HENRY BIRNEY'S CATTLE RANCHING, FRANCOIS GRAVELLE'S DRYLAND FARMING, AND THE ESTABLISHMENT OF SCRIBNER SETTLEMENT IN 1872. KALISPELL'S BEGINNINGS WITH THE ESTABLISHMENT OF DEMERSVILLE ARE DEPICTED ALONG WITH THE EFFECT OF THE RAILROAD ON FLATHEAD COMMUNITIES AND THE DEVELOPMENT OF SCHOOLS IN KALISPELL.

**F-91
FLATHEAD INDIAN AGENCY.
1925.**
**"LETTER FROM THE SUPERINTENDENT OF THE
FLATHEAD INDIAN AGENCY TO THE COMMISSIONER
OF INDIAN AFFAIRS CONCERNING WILD HORSES ON
THE RESERVATION."**
DIXON, MT. 3 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORDS CENTER, GENERAL SERVICES ADMINISTRATION, SEATTLE, WASHINGTON.

(FLATHEAD INDIAN RESERVATION). THIS LETTER PROPOSES THE ROUNDUP AND DISPOSAL OF ABANDONED HORSES RUNNING WILD ON THE RESERVATION. IT ALSO INCLUDES A LETTER FROM MONTANA'S ATTORNEY GENERAL THAT SAYS THE COUNTY HAS NO AUTHORITY OVER THE ANIMALS, AND A LETTER FROM THE CHAIRMAN OF THE LAKE COUNTY BOARD OF COUNTY COMMISSIONERS.

**F-92
FLATHEAD INDIAN AGENCY.
1935.**
"FLATHEAD INDIAN PROJECT."
DIXON, MT. (TYPEWRITTEN). 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORDS CENTER, GENERAL SERVICES ADMINISTRATION, SEATTLE, WASH.

(FLATHEAD INDIAN RESERVATION). THIS REPORT DESCRIBES THE JOCKO VALLEY DISTRICT, THE FLATHEAD DISTRICT, AND MISSION DISTRICT OF THE FLATHEAD IRRIGATION PROJECT. TABLES LIST THE ACREAGE OF ALL CROPS IRRIGATED.

**F-93
FLATHEAD INDIAN AGENCY.
1935.**
**"WATER RIGHTS OF THE UNITED STATES ON
FLATHEAD INDIAN RESERVATION."**
DIXON, MT. (TYPEWRITTEN). 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT CONSIDERS THE SUBJECT OF WATER RIGHTS OF THE UNITED STATES ON THE FLATHEAD RESERVATION, DESCRIBES ANALYTICALLY THE METHOD INITIATING THE RIGHT, AND THEN TRACES ITS DESCENT TO THE CITIZEN WHO ACQUIRES PERPETUAL RIGHTS BY PUTTING THE WATER TO BENEFICIAL USE.

**F-94
FLATHEAD INDIAN AGENCY.
1936.**
**"PRELIMINARY STATEMENT OF CERTAIN ECONOMIC
AND SOCIAL DATA REGARDING THE FLATHEAD IN-
DIAN RESERVATION."**
DIXON, MT. (TYPEWRITTEN). 22 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORDS CENTER, GENERAL SERVICES ADMINISTRATION, SEATTLE, WASH.

(FLATHEAD INDIAN RESERVATION). THIS REPORT DESCRIBES LOCATION AND BACKGROUND; POPULATION; TRIBAL, GOVERNMENTAL, AND COOPERATIVE ORGANIZATIONS; EDUCATION; HEALTH CONDITIONS; SOCIAL CONDITIONS; LIVING CONDITIONS; RESERVATION LANDS; RESOURCES; LIABILITIES; AND TRANSPORTATION AND MARKETING.

**F-95
FLATHEAD INDIAN AGENCY.
1937.**
"REPORT ON THE FLATHEAD RESERVATION."
DIXON, MT. (TYPEWRITTEN). 9 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORDS CENTER, GENERAL SERVICES ADMINISTRATION, SEATTLE, WASH.

(FLATHEAD INDIAN RESERVATION). THIS REPORT DISCUSSES THE HISTORY OF THE RESERVATION, INCLUDING INDIAN REORGANIZATION, LAW AND ORDER, AND EDUCATION.

**F-96
FLATHEAD INDIAN AGENCY.
1942.**
**WILDLIFE MAPS FOR THE FLATHEAD INDIAN RESER-
VATION.**
DIXON, MT. 50 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORDS CENTER, GENERAL SERVICES ADMINISTRATION, SEATTLE, WASH.

(FLATHEAD INDIAN RESERVATION). THIS COLLECTION CONTAINS INDIVIDUAL MAPS WHICH INDICATE THE RANGE OF ALL MAJOR WILDLIFE SPECIES ON THE RESERVATION. IT ALSO LISTS PLANTING RECORDS.

**F-97
FLATHEAD INDIAN AGENCY.
1944.**
**"THE OUTLINE OF THE TEN-YEAR RESERVATION PRO-
GRAM FOR THE FLATHEAD INDIAN AGENCY."**
DIXON, MT. (TYPEWRITTEN). 45 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT DESCRIBES RESOURCES, PRESENT DEVELOPMENT AND USE; THE OVERALL PLAN; CULTURAL, ECONOMIC, AND SOCIAL CONDITIONS; ECONOMIC AND SOCIAL GOALS; PROPOSED DEVELOPMENT BY FEATURES; SERVICES TO BE FURNISHED AND THE ESTIMATED COSTS BY YEARS AND FEATURES.

**F-98
"THE FLATHEAD INDIANS." 1907.**
AMERICAN ANTIQUARIAN 29(1907):25-28.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS IS AN EARLY ACCOUNT OF THE SETTLEMENT OF THE FLATHEAD RESERVATION BY HOMESTEADERS. A BRIEF HISTORY OF HOW THE TRIBES AIDED LEWIS AND CLARK, HOW THEIR NUMBERS WERE REDUCED BY WAR, AND OF THE INFLUENCE OF JESUIT MISSIONARIES IS INCLUDED.

**F-99
FLATHEAD IRRIGATION PROJECT.
1909-1923.**
**FLATHEAD IRRIGATION PROJECT HISTORIES. 31
VOLS.**
ST. IGNATIUS, MT.: U.S. DEPT. INTERIOR, BUREAU RECLAMATION.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY). THESE REPORTS (31 VOLUMES) DESCRIBE IN DETAIL ACTIVITIES OF THE PROJECT AND NARRATE CONSTRUCTION ACTIVITIES ON VARIOUS DAMS AND CANALS, SURVEYS, DRAINAGE INFORMATION, HYDROMETRY, OPERATION AND MAINTENANCE OF FACILITIES, AND POWER INFORMATION. THEY ARE AN EXCELLENT SOURCE OF BACKGROUND INFORMATION ON THE FLATHEAD IRRIGATION PROJECT AND CONTAIN NUMEROUS PHOTOGRAPHS AND DIAGRAMS.

**F-100
FLATHEAD IRRIGATION PROJECT.
1910-1919.**
ALLOTMENT SURVEY.
ST. IGNATIUS, MT.: U.S. DEPT. INTERIOR, BUREAU IN-
DIAN AFFAIRS, FLATHEAD IRRIGATION PROJECT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY). THESE VOLUMES CONTAIN ORIGINAL IRRIGATION ALLOTMENT DATA GATHERED BY THE BUREAU OF RECLAMATION FOR LANDS ON THE RESERVATION. DATA INCLUDES LANDOWNER, LEGAL DESCRIPTION, CREEK OR DITCH, ACRES IRRIGATED, POSSIBLY IRRIGATED, UNIRRIGATED, AND IRRIGABLE.

**F-101
FLATHEAD IRRIGATION PROJECT.
1950-PRESENT.**
ANNUAL CROP REPORT SUMMARY.
ST. IGNATIUS, MT. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY). THIS REPORT DESCRIBES ANNUAL PRECIPITATION, RUNOFF (IN ACRE FEET), AND CROP SUCCESS FOR VARIOUS CROPS ON IRRIGATED ACREAGE. THE REPORTS ALSO GIVE AVERAGE AND TOTAL MARKET VALUES FOR INDIVIDUAL CROPS.

F-102
FLATHEAD IRRIGATION PROJECT.
1957-PRESENT.

ANNUAL PROGRESS AND NARRATIVE REPORTS.
ST. IGNATIUS, MT.: U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS.
FINAL, SPECIFIC, TECHNICAL, ORIG. DATA; WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY). THE REPORTS DESCRIBE THE OVERALL CONDITION OF THE PROJECT: WEATHER CONDITIONS, WATER SUPPLY AND MEASUREMENT, FARM ACTIVITIES, CONSTRUCTION ACTIVITIES, SURVEYS AND DESIGNS, AND POWER DATA.

F-103
FLATHEAD IRRIGATION PROJECT. MONTANA.
1930.

RECLASSIFICATION OF LANDS.
POLSON, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY). THIS REPORT INVOLVES THE CLASSIFICATION OF IRRIGABLE LANDS ON THE FLATHEAD INDIAN RESERVATION. LANDS ARE GROUPED INTO ONE OF FOUR CLASSES WITH REGARD TO IRRIGABILITY AND PRODUCTIVITY.

F-104
FLATHEAD-KALISPELL CITY COUNTY PLANNING BOARD.
1972.

KALISPELL AREA-WIDE WATER AND SEWER PLAN - PRELIMINARY.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
63 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL). THIS PLAN INCLUDES AN EVALUATION OF THE WATER FACILITIES, SANITARY SEWER FACILITIES, AND STORM DRAIN FACILITIES FOR THE URBAN AREAS WITHIN THE JURISDICTIONAL AREA OF THE CITY-COUNTY PLANNING BOARD. EACH EVALUATION CONSISTS OF A DESCRIPTION OF THE EXISTING FACILITIES, A DISCUSSION OF THE DESIGN CRITERIA, A PLAN FOR IMMEDIATE NEEDS, A FIVE TO TEN YEAR PLAN, AND A LONG RANGE PLAN. A CAPITAL IMPROVEMENTS PROGRAM IS DESCRIBED.

F-105
"FLATHEAD LAKE CHERRY GROWERS."
1950.

MONTANA TREASURES, JUNE 1950, PP. 30-35.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(FLATHEAD LAKE AREA). THIS ARTICLE DESCRIBES THE CHERRY INDUSTRY SINCE 1930. THE GROWING OF THE FRUIT, ITS PACKAGING, AND THE IMPORTANCE OF THE INDUSTRY TO KALISPELL AND POLSON IS DISCUSSED.

F-106
"THE FLATHEAD LAKE COUNTRY." 1889.
THE NORTHWEST, DECEMBER 1889, P. 13.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE ARTICLE DESCRIBES THE SIZE, THE FISH, THE RIVERS, THE EARLY SETTLEMENTS AND BUSINESSES, AND AGRICULTURE OF THE LAKE. MENTIONS THE BEGINNINGS OF RECREATIONAL DEVELOPMENT.

F-107
"FLATHEAD LAND ALLOTMENT WILL PROCEED RAPIDLY."
THE WESTERN HOMESEAKER, APRIL-MAY 1906, P. 16.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE NOTES PROGRESS IN ALLOTMENT WHICH WILL ALLOW THE OPENING OF THE FLATHEAD RESERVATION. SKCC.

F-108
FLATHEAD NATIONAL FOREST.
1914.

FLATHEAD NATIONAL FOREST ATLAS.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 60 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). A COLLECTION OF EARLY TOPOGRAPHIC MAPS OF THE FOREST, ALONG WITH INFORMATION CONCERNED WITH THE FILING OF TOWNSHIP PLATS, INCLUDING THE NAME OF CLAIMANT, TYPE OF CLAIM, NUMBER OF ACRES, AND PATENT DATE.

F-109
FLATHEAD NATIONAL FOREST.
1915.

INTENSIVE LAND CLASSIFICATION REPORT, FLATHEAD NATIONAL FOREST. BIG PRAIRIE PROJECT AND SWAN VALLEY PROJECT.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 60 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD, LAKE, & POWELL COUNTIES). THESE ORIGINAL LAND CLASSIFICATION SURVEYS DESCRIBE: LOCATION AND DESCRIPTION OF THE AREA, TOPOGRAPHY AND GEOLOGY, THE CLIMATE, WATER SUPPLY, IRRIGATION AND AGRICULTURE, TIMBER, LAND CLASSES, VALUE OF LAND FROM AN AGRICULTURAL STANDPOINT, SOIL TYPE DESCRIPTION AND MAP, ACCESSIBILITY, A VEGETATIVE COVER MAP, A CHRONOLOGICAL RECORD OF AMENDMENTS AND CORRECTIONS OF LAND CLASSIFICATION AND STATUS.

F-110
FLATHEAD NATIONAL FOREST.
1917.

EXTENSIVE LAND CLASSIFICATION: FLATHEAD NATIONAL FOREST.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE ORIGINAL LAND CLASSIFICATION REPORT DESCRIBES, BY TOWNSHIP AND RANGE, THE TOPOGRAPHY, CLIMATE, SOIL, AGRICULTURAL VALUES, FOREST VALUES, ACREAGE OF THOSE LANDS IDENTIFIED AS PERMANENTLY NON-LISTABLE AGRICULTURAL LAND, AND PRESENTLY NON-LISTABLE. TOPOGRAPHIC MAPS OF EACH AREA ARE INCLUDED.

F-111
FLATHEAD NATIONAL FOREST.
1921.

INTENSIVE LAND CLASSIFICATION, FLATHEAD NATIONAL FOREST, SWAN LAKE AREA AND CORAM-MIDDLE FORK AREA.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 60 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SWAN LAKE AREA & CORAM AREA). THIS ORIGINAL DOCUMENT CONTAINS: MAPS DESIGNATING AREAS FOR INTENSE LAND CLASSIFICATION; MAPS AND LEGENDS FOR SOIL TYPE AND CLASS MAPS; RECOMMENDATIONS FOR THE IDENTIFICATION OF LAND AS LISTABLE - OPEN TO HOMESTEAD SETTLEMENT, PERMANENTLY NON-LISTABLE - NON-AGRICULTURAL LAND BY REASON OF STEEPNESS OF SLOPE, ETC., PRESENTLY NON-LISTABLE - TIMBERED AGRICULTURAL LANDS TO BE RECLASSIFIED ONCE TIMBER IS REMOVED; AND DESCRIPTIONS OF INDIVIDUAL TOWNSHIP AND RANGES LOCATION, TOPOGRAPHY, CLIMATE, PUBLIC USE, SOIL TYPE, AGRICULTURAL AND FOREST VALUES. PHOTOGRAPHS ARE INCLUDED.

F-112
FLATHEAD NATIONAL FOREST.
1974.

FINAL ENVIRONMENTAL IMPACT STATEMENT: MULTIPLE USE PLAN - SPOTTED BEAR PLANNING UNIT.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 46 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SPOTTED BEAR PLANNING UNIT, BOB MARSHALL WILDERNESS AREA). THIS PROPOSAL IS CONCERNED WITH THE IMPLEMENTATION OF A REVISED MULTIPLE USE PLAN FOR THE PLANNING UNIT, OF WHICH ABOUT 80 PERCENT IS WITHIN THE BOB MARSHALL WILDERNESS AREA. THE PLAN INCLUDES A SUMMARY OF ENVIRONMENTAL IMPACTS AND ADVERSE ENVIRONMENTAL EFFECTS, A DESCRIPTION OF THE THREE ALTERNATIVES DEVELOPED, AND AN OUTLINE OF THE FINAL PROPOSAL WHICH CONTAINED ELEMENTS OF ALL THREE ALTERNATIVES. A DISCUSSION OF THE ROADLESS AREA, MINERAL POTENTIAL, SOIL AND WATER RESOURCES, AND DESCRIPTIONS OF THE MANAGEMENT UNITS ARE CONTAINED WITHIN THE APPENDIX.

F-113
FLATHEAD NATIONAL FOREST.
1976.

FINAL ENVIRONMENTAL IMPACT STATEMENT: MULTIPLE USE PLAN - LAKE FIVE PLANNING UNIT.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: HUNGRY HORSE & GLACIER VIEW DISTRICTS). THIS PROPOSAL DESCRIBES THE IMPLEMENTATION OF A REVISED MULTIPLE USE PLAN ON A PLANNING UNIT WITHIN HUNGRY HORSE AND GLACIER VIEW RANGER DISTRICTS. INCLUDED IS A SUMMARY OF ENVIRONMENTAL IMPACT AND ADVERSE ENVIRONMENTAL EFFECTS, DESCRIPTIONS OF FOUR POSSIBLE ACTIONS AND COPIES OF WRITTEN COMMENTS MADE.

F-114
FLATHEAD NATIONAL FOREST.
1978.

FLATHEAD NATIONAL FOREST.
KALISPELL, MT. (TYPEWRITTEN). 34 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). TOPICS COVERED IN THIS REPORT INCLUDE: THE FLATHEAD NATIONAL FOREST SITUATION STATEMENT, PROGRAM STATISTICS FOR FISCAL YEAR 1978, LAND USE PLANNING, POTENTIAL YIELD AND PROGRAMMED SELL, TIMBER SALES PREPARATION AND RELATED ROAD ENGINEERING, RIGHTS-OF-WAY AND ROAD COST SHARE AGREEMENT, ACCESS ROADS, RANGE MANAGEMENT, RECREATION MANAGEMENT, OIL AND GAS LEASE APPLICATIONS, HYDROLOGY OF THE NORTH FORK OF THE FLATHEAD, SYNOPSIS OF FOREST SERVICE FLUORIDE STUDIES, FLATHEAD

WILD AND SCENIC RIVER PROPOSAL STATUS, PROPOSED GREAT BEAR WILDERNESS, SPECIAL WILDLIFE STUDIES, AND TIMBER SALE CONTRACT MODIFICATIONS.

F-115
FLATHEAD NATIONAL FOREST.
1979.

FINAL ENVIRONMENTAL IMPACT STATEMENT: ISLAND PLANNING UNIT. LAND MANAGEMENT PLAN. SWAN LAKE RANGER DISTRICT.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 65 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SWAN LAKE RANGER DISTRICT). THIS REPORT DETAILS THE PLAN SELECTED FROM THE MANAGEMENT ALTERNATIVES OFFERED IN THE DRAFT E.I.S. PUBLIC COMMENTS ON THE DRAFT, AND CORRECTIONS AND ADDITIONS ARE MADE TO THE ORIGINAL INFORMATION CONTAINED IN THE DRAFT.

F-116
FLATHEAD NATIONAL FOREST AND GLACIER NATIONAL PARK.
1978.

RIVER RECREATION MANAGEMENT PLAN.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST, AND WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 8 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(NORTH & MIDDLE FORKS OF THE FLATHEAD RIVER). THIS REPORT REPRESENTS A COLLABORATION BETWEEN GLACIER NATIONAL PARK AND THE FLATHEAD NATIONAL FOREST IN CREATING A MANAGEMENT PLAN FOR THE NORTH AND MIDDLE FORKS OF THE FLATHEAD RIVER. A STATEMENT OF THE CURRENT CONDITIONS, CURRENT MANAGEMENT ACTIONS, MANAGEMENT ALTERNATIVES AND THEIR IMPACTS, AND RECOMMENDED MANAGEMENT ACTIONS ARE INCLUDED.

F-117
"THE FLATHEAD POWER SITE CONTEST RECORD MADE COMPLETE."
AMERICAN INDIAN LIFE, BULL. NO. 16(JULY 1930):11-18.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE EVALUATES THE EFFORTS OF THE FLATHEAD TRIBE AND OTHERS TO PRESERVE THE FLATHEAD POWER SITE INCOME FOR THE TRIBE. IT ALSO COMMENTS ON THE FINAL DECISION OF THE FEDERAL POWER COMMISSION WHICH ALLOWED THE LICENSE TO A DUMMY SUBSIDIARY OF THE MONTANA POWER COMPANY. SKCC.

F-118
"THE FLATHEAD POWER SITE LICENSE DEFAULTED."
INDIANS AT WORK, OCTOBER 1, 1934, PP. 30-32.

(FLATHEAD INDIAN RESERVATION). THE DEPARTMENT OF INTERIOR INSISTS ON MODIFICATION BEFORE APPROVAL OF REQUEST BY ROCKY MOUNTAIN WATER COMPANY FOR EXTENSION OF DATE FOR COMPLETING KERR DAM. SKCC.

F-119
"THE FLATHEAD POWER STRUGGLE NEARS ITS HOPED-FOR-END."
AMERICAN INDIAN LIFE, BULL. NO. 15(JANUARY 1930):21-22.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE REPORTS ON THE HEARINGS BEFORE THE FEDERAL POWER COMMISSION ABOUT THE DISPOSITION OF THE FLATHEAD POWER SITE.

F-120
FLATHEAD RESERVATION INFORMATION AGENCY.
1905.
"HOW WILL YOU SELECT YOUR OWN HOMESTEAD?"
THE WESTERN HOMESEKKER, OCTOBER 1905, P. 24.

(FLATHEAD INDIAN RESERVATION). IN EXCHANGE FOR A FEE THIS AGENCY OFFERED INFORMATION ABOUT HOMESTEAD SITES ON THE FLATHEAD RESERVATION. SKCC.

F-121
FLATHEAD RESOURCE ORGANIZATION.
1978.

"PROPOSED FLATHEAD DAMS."
ST. IGNATIUS, MT. 20 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(LOWER FLATHEAD RIVER). THIS IS A STATEMENT CONCERNING THE DAMS PROPOSED IN THE U.S. ARMY CORPS OF ENGINEERS FLATHEAD RIVER STUDY. THE LACK OF CONGRESSIONAL AUTHORIZATION FOR STUDY; THE ECONOMIC FEASIBILITY OF THE PROPOSED DAMS; COSTS AND BENEFITS OF BUILDING THE DAMS; LOCAL ECONOMIC, SOCIAL, AND CULTURAL IMPACTS; GEOLOGIC CONCERNS; AND CONCERNS ABOUT FISHERIES AND WILDLIFE ARE DISCUSSED. THE PUBLICATION ALSO OUTLINES ALLEGED VIOLATIONS OF FEDERAL LAW IN THE CORPS STUDY.

F-122
FLATHEAD VALLEY COMMUNITY COLLEGE.
1970.
LONG RANGE PLANNING FOR 1970.
KALISPELL, MT. 37 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL: FLATHEAD VALLEY COMMUNITY COLL.). THIS REPORT WAS PREPARED BY THE ADMINISTRATION AND FACULTY OF FLATHEAD VALLEY COMMUNITY COLLEGE IN ORDER TO PROVIDE A BASIS FOR FUTURE DEVELOPMENT OF THE COLLEGE. FUTURE ENROLLMENT IS PROJECTED, INSTRUCTIONAL AND NON-INSTRUCTIONAL REQUIREMENTS ARE OUTLINED, AND LONG RANGE FACILITY NEEDS ARE ESTIMATED. RECOMMENDATIONS ARE INCLUDED.

F-123
FLATHEAD VALLEY PLANNING COMMITTEE.
1943.
"REPORT AND JUSTIFICATION FOR WATER DEVELOPMENT OF WATER RESOURCES ABOVE FLATHEAD LAKE AND THE RELATION TO IRRIGATION, FLOOD CONTROL, POWER, AND NAVIGATION."
19 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). REPORTS FROM THE COMMITTEE COVER: IRRIGATION, FLOOD CONTROL, WATER CONSERVATION, AGRICULTURAL DEVELOPMENTS FROM FLOOD CONTROL AND IRRIGATION IN FLATHEAD COUNTY, AND POWER DEVELOPMENT IN NORTHWEST MONTANA.

F-124
FLATHEAD VALLEY: INDUSTRIAL AND AGRICULTURAL MIGHT AMID SCENIC GRANDEUR.
GREAT RESOURCES NO. 14.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THIS ARTICLE BRIEFLY DESCRIBES HOW THE CONSTRUCTION OF HUNGRY HORSE DAM BROUGHT NEW INDUSTRIAL DEVELOPMENT INTO THE VALLEY, AND OUTLINES SOME IMPORTANT INDUSTRIES IN KALISPELL, COLUMBIA FALLS, AND SOMERS.

F-125
FLAVELL, THOMAS H.
1978.
WESTERN SPRUCE BUDWORM IN THE NORTHERN REGION IN 1977 AND PREDICTIONS FOR DEFOLIATION IN 1978.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY. REPT. 78-14, 5 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(FLATHEAD NATL. FOREST & FLATHEAD INDIAN RESERVATION). IN THIS RESEARCH, AERIAL SURVEYS OF HOST TYPES WERE MADE, AND VISIBLE DEFOLIATION MAPPED ON ONE HALF INCH TO THE MILE FOREST MAPS. EGG MASS SURVEYS WERE MADE ON TEN ENTOMOLOGICAL UNITS AND THE RESULTS ARE PRESENTED.

F-126
FLINT, KEDRIC WILLIAM.
1956.
"A STUDY OF THE EFFECTS OF SCHOOL-COMMUNITY CONTACTS IN BIGFORK, MONTANA."
M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 46 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BIGFORK). THE PURPOSES OF THIS STUDY WERE TO DETERMINE THE EFFECTS OF VARIOUS SCHOOL-COMMUNITY CONTACTS ON RELATIONS IN A SPECIFIC COMMUNITY, TO MAKE RECOMMENDATIONS FOR IMPROVING SCHOOL-COMMUNITY RELATIONSHIPS, AND TO DETERMINE THE NEED FOR ADDITIONS OR DELETIONS FROM THE EXISTING PROGRAM, INCLUDING THE USE OF COMMUNITY RESOURCES FOR INSTRUCTION.

F-127
FLINT, KEDRIC WILLIAM, AND PAUL, N. D.
1957.
"EARLY HISTORY OF BIGFORK AND SURROUNDING COMMUNITIES."
32 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA STATE HISTORICAL LIBRARY, HELENA.

(BIGFORK, HOLT, ECHO LAKE, EAST LAKE SHORE, UPPER & LOWER SWAN LAKE, & FERNDAL). THIS ACCOUNT OF THE FIRST RESIDENTS OF THE COMMUNITIES OF BIGFORK, HOLT, MUD LAKE, ECHO LAKE, EAST LAKE SHORE, UPPER AND LOWER SWAN LAKE, AND FERNDAL DESCRIBES WHERE THE EARLY SETTLERS LOCATED IN RELATION TO PRESENT DAY OWNERS PROPERTY. THE INITIATION OF COMMERCE, MAIL ROUTES, SCHOOLS, AND STEAMER TRANSPORTATION ARE TOPICS INCLUDED.

F-128
FLOYD, JOHN B.
1859.
"REPORT OF THE SECRETARY OF WAR, COMMUNICATING...A COPY OF THE TOPOGRAPHICAL MEMOIR AND MAP OF COLONEL WRIGHT'S LATE CAMPAIGN AGAINST THE INDIANS OF OREGON AND WASHINGTON TERRITORIES."
SENATE EXECUTIVE DOC. NO. 32, 35TH CONGRESS, 2ND SESSION (1859) SERIAL 984.

(PACIFIC NORTHWEST). IN DOCUMENTS APPENDED TO THE SECRETARY'S REPORT, JOHN MULLAN DESCRIBES THE 1858 CONDITION OF THE FLATHEAD AND PEND D'OREILLE INDIANS. OTHER DOCUMENTS REFER TO THE ROLE OF THE PEND D'OREILLES AND CALESPELLES INDIANS IN THE 1858 INDIAN WAR. SKCC.

F-129

FOGELSONG, MARK L.
1974.

"EFFECTS OF FLUORIDES ON PEROMYSCUS MANICULATUS IN GLACIER NATIONAL PARK."
M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 52 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OBJECTIVES OF THIS STUDY WERE TO DETERMINE THE EFFECTS OF OBSERVED LEVELS OF FLUORIDES ON THE TEETH, BODY WEIGHT, FERTILITY, AND POPULATION LEVELS OF DEER MICE. A LABORATORY EXPERIMENT WAS CONDUCTED IN CONJUNCTION WITH THE FIELD WORK--EXPOSING MICE TO VARYING LEVELS OF FLUORIDES UNDER CONTROLLED CONDITIONS. VEGETATIONAL ANALYSIS OF BOTH CONTAMINATED AND NON-CONTAMINATED SITES WERE CONDUCTED.

F-130

FOGGIN, G. THOMAS III, AND FORCIER, LAWRENCE K.
1974.

CATION CONCENTRATIONS OF SMALL STREAMS DRAINING MATCHED FORESTED AND CLEARCUT WATERSHEDS IN WESTERN MONTANA.

HELENA, MT.: MONTANA UNIV. JOINT WATER RESOURCES RESEARCH CENTER. REPT. NO. 58. 54 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THE EFFECTS OF LAND MANAGEMENT PRACTICES ON STREAM WATER QUALITY ARE ADDRESSED IN THIS STUDY OF 15 FORESTED AND 15 CLEARCUT WATERSHEDS. SITES MORPHOMETRICALLY SIMILAR WERE SELECTED. STREAM WATER SAMPLES WERE COLLECTED AND ANALYZED FOR (CA++), (MG++), (NA+), (K+) AND SPECIFIC CONDUCTANCE. PROBLEMS ASSOCIATED WITH DEFINITION OF FIRST ORDER WATERSHEDS AND INTERPRETATION OF DISCHARGE PATTERNS WERE NOTED. VEGETATIVE RECOVERY FOLLOWING FOREST DISTURBANCE WAS CONSIDERED TO AFFECT STREAM CHEMISTRY.

F-131

FOGGIN, G. THOMAS III, AND MCCLELLAND, B. RILEY.
(IN PROGRESS).

THE INFLUENCE OF KOKANEE SALMON MIGRATIONS AND HUMAN USE PATTERNS UPON THE HYDROCHEMICAL AND BACTERIOLOGICAL CHARACTERISTICS OF LOWER MCDONALD CREEK, GLACIER NATIONAL PARK.

MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY.

IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOWER MCDONALD CREEK). THE INFLUENCE OF SALMON MIGRATIONS UPON THE SEASONAL HYDROCHEMICAL PATTERNS OF STREAMS AND THEIR ROLE AS A NUTRIENT RECYCLING MECHANISM HAVE NOT BEEN SIGNIFICANTLY ADDRESSED. THIS PROJECT INVESTIGATES THAT ROLE, AS WELL AS HOW THE CONCENTRATION OF HUMAN USE AND THE PRESENCE OF A HORSE PASTURE AND SEWAGE SPRAYFIELD ADJACENT TO THE CREEK MAY ALSO AFFECT THE STREAM'S WATER QUALITY.

F-132

FOGLE, VERN; GRIFFITH, DUANE; AND LUFT, LEROY D.
1979.

ENTERPRISE COSTS FOR FALLOW, WINTER WHEAT, SPRING WHEAT AFTER BARLEY, AND RECROP IN FLATHEAD COUNTY.

BOZEMAN, MT.: MONTANA STATE UNIV. COOP. EXTEN. SERVICE BULL. 1221. 22 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE BULLETIN REPORTS ON DATA COLLECTED FROM A PANEL OF FARMERS AT A MEETING HELD TO DETERMINE CURRENT CULTURAL PRACTICES AND INPUTS USED IN THE PRODUCTION OF DRYLAND CROPS. INFORMATION ABOUT THE SEQUENCE OF OPERATIONS, MACHINERY PERFORMANCE NOTES, FUEL CONSUMPTION, TYPICAL GRAIN STORAGE CAPACITY, AS WELL AS THE SIZE OF SHOPS AND MACHINE SHEDS FOR DRYLAND FARMS, IS PROVIDED. THE COSTS SHOWN ARE CONSIDERED "TYPICAL" FOR AN ABOVE AVERAGE MANAGEMENT LEVEL OF DRYLAND FARMS.

F-133

FOOTE, GEOFFREY.

1965.

"PHYTOSOCIOLOGY OF THE BOTTOMLAND HARDWOOD FORESTS IN WESTERN MONTANA."

M.A. THESIS, UNIV. MONTANA, MISSOULA. 140 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: CLARK FORK, BITTERROOT, BLACKFOOT, & MIDDLE & SOUTH FORKS OF THE FLATHEAD RIVER). THE PURPOSE OF THE STUDY WAS TO INVESTIGATE AS WIDE A RANGE OF VARIATION IN BOTTOMLAND FOREST PLANT COMPOSITION AS POSSIBLE. A QUANTITATIVE DESCRIPTION OF THE COMMUNITIES WAS MADE: AN ORDINATION WAS CONSTRUCTED USING SUCH MEASUREMENTS AS TREE DENSITY, FREQUENCY, AND DOMINANCE, SAPLING DENSITY AND FREQUENCY, AND HERB AND SHRUB FREQUENCY. SOILS WERE ALSO COLLECTED AND ANALYZED FOR A VARIETY OF NUTRIENTS, PH, AND WATER HOLDING CAPACITY. QUALITATIVE, DESCRIPTIVE OBSERVATIONS WERE MADE OF LOWLAND FOREST SUCCESSIONAL PATTERNS AS WELL AS VARIOUS RIVER DYNAMICS WHICH INFLUENCE BOTTOMLAND VEGETATION BEHAVIOR.

F-134

FOOTE, GEOFFREY.

1969.

UPPER BOB MARSHALL ELK AND VEGETATIVE STUDIES REPORT.

MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY. 56 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THE IMMEDIATE OBJECTIVES OF THIS STUDY WERE: 1) TO DESCRIBE VEGETATIONAL COMPOSITION ON THE WINTER RANGES IN THE DANAHER AND YOUNG'S CREEK DRAINAGES, 2) TO DESCRIBE ELK DISTRIBUTION ON THE WINTER RANGES AND CORRELATE THIS WITH VEGETATIVE COMMUNITIES, AND 3) TO DETERMINE THE AGE STRUCTURE OF THE ANIMALS HARVESTED DURING THE FALL OF 1968 IN THE DANAHER AND YOUNG'S CREEK AREAS.

F-135

FORBES, S. A.

1893.

"A PRELIMINARY REPORT ON THE AQUATIC INVERTEBRATE FAUNA OF THE YELLOWSTONE NATIONAL PARK, WYOMING, AND OF THE FLATHEAD REGION OF MONTANA."

BULL. U.S. FISH COMMISSION 11:207-258.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTS.: JOCKO RIVER, SWAN & FLATHEAD LAKES). THIS REPORT INCLUDES DESCRIPTIONS OF THE SPECIES AND VARIETIES OF AQUATIC INVERTEBRATES ENCOUNTERED ON A COLLECTING TRIP TO FLATHEAD LAKE AND THE SWAN AND JOCKO RIVERS. ALSO INCLUDED ARE DESCRIPTIONS OF THE TOPOGRAPHY, AND METHODS OF TRANSPORTATION THAT WERE USED. IT IS ESPECIALLY SIGNIFICANT BECAUSE IT IS ONE OF THE FIRST SCIENTIFIC INVESTIGATIONS OF THE AQUATIC BIOLOGY OF THE AREA.

F-136

FORBIS, RICHARD G.

1950.

"RELIGIOUS ACCULTURATION OF THE FLATHEAD INDIANS OF MONTANA."

M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 107 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE EXTENT TO WHICH CHRISTIANITY HAS DISPLACED NATIVE FLATHEAD RELIGIOUS DOCTRINES, RITES, AND BELIEFS IS THE SUBJECT OF THIS STUDY. THE THESIS ATTEMPTS TO GIVE A PICTURE OF FLATHEAD RELIGION BEFORE THE ARRIVAL OF CHRISTIANITY. THE INFLUENCES OF THE IROQUIS, TRAPPERS, MISSIONARIES, WHITE SETTLERS, AND GOVERNMENT IN CHANGING THE RELIGIOUS BELIEFS OF THE FLATHEAD ARE CONSIDERED. THE TOPICS DISCUSSED INCLUDE FLATHEAD COSMOLOGY AND MYTHOLOGY, THE GUARDIAN SPIRIT CONCEPT, THE WINTER SPIRIT, AND OTHER DANCES.

F-137

FORD, GARY L.

1978

LANDTYPE SURVEY REPORT OF THE SWAN RIVER STATE FOREST.

MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY. 66 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER STATE FOREST). THE OBJECTIVES OF THIS REPORT WERE: 1) BRIEFLY SUMMARIZE, FROM THE LITERATURE, WHAT IS KNOWN ABOUT THE GEOLOGY, GEOMORPHOLOGY, AND SOILS OF THE SWAN RIVER STATE FOREST; AND 2) PRESENT THE RESULTS OF FIELD INVESTIGATIONS IN THESE DISCIPLINES IN THE FOREST. THIS REPORT CAN BE BEST UTILIZED FOR PRE-FIELD WORK ORIENTATION; BY KNOWING WHAT LANDTYPE WAS MAPPED FOR AN AREA THE FIELD WORKER WILL KNOW WHAT CHARACTERISTICS TO EXPECT.

F-138

FORD, GARY L., AND KRALL, J. L.

1979.

THE HISTORY OF SUMMER FALLOW IN MONTANA.

BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. BULL. 704. 26 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). SUMMER FALLOW IS THE TILLAGE OF UNCROPPED LAND DURING THE SUMMER IN ORDER TO CONTROL WEEDS AND STORE MOISTURE IN THE SOIL FOR THE GROWTH OF A LATER CROP. THIS PAPER REVIEWS THE CHANGING ROLE OF SUMMER FALLOW IN THE DEVELOPMENT OF MONTANA'S AGRICULTURE. TOPICS COVERED INCLUDE THE DEVELOPMENT OF DRYLAND AGRICULTURE, AGRICULTURAL SETTLEMENT OF THE TRIANGLE AREA, THE BEGINNING OF STRIP FARMING, SALINE SEEP, EFFICIENCY OF WATER STORAGE AND USE, CHEMICAL FALLOW, AND WHY FARMERS SHOULD STOP SUMMER FALLOW.

F-139

FORD, PERRY M.

1949.

"FORECASTING FLOOD-SEASON RUN-OFF." IN PROCEEDINGS OF THE WESTERN SNOW CONFERENCE, RENO, NEVADA, APRIL 15, 16, AND 17, 1948. SIXTEENTH ANNUAL MEETING.

FORT COLLINS, CO.: WESTERN SNOW CONFERENCE AND RENO NEVADA: NEVADA AGRIC. EXPER. STAT.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER: BIG FORK AREA). THE PAPER IS CONCERNED WITH THE PROBLEM OF FORECASTING STREAM RUNOFF IN ADVANCE OF FLOOD SEASON,

PARTICULARLY RUNOFF DERIVED FROM SNOWMELT. IT USES THE SWAN RIVER AREA TO SHOW HOW THE APPLICATION OF STATISTICAL METHODS CAN SERVE TO ESTIMATE FLOODS. THE DISTRIBUTION OF PRECIPITATION AND TEMPERATURE EFFECTS DURING THE SNOW ACCUMULATION PERIOD, OCTOBER THROUGH MARCH, IS CONSIDERED IN RELATION TO THE APRIL THROUGH JUNE RUNOFF.

F-140
FORESMAN, KERRY R., AND SNYDER J.
1970.

"THE INFLUENCE OF WEATHER CONDITIONS ON ACTIVITY AND MOVEMENT OF THE PIKA."
UNIV. MONTANA BIOLOGICAL STATION, YELLOW BAY, MT. (TYPEWRITTEN). 28 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PURPOSE OF THIS STUDY WAS TO RELATE THE EFFECTS OF WEATHER CONDITIONS UPON ACTIVITY AND MOVEMENT OF THE PIKA, OCHOTONA PRINCEPS. TABLES CONTAIN THE FOLLOWING DATA: LIGHT CONDITIONS, WIND CONDITIONS, TEMPERATURE VARIATION, AND A GENERAL SUMMARY OF ACTIVITY AS AFFECTED BY LIGHT AND TEMPERATURE. THE TEXT DISCUSSES LIGHT INTENSITY, TEMPERATURE, AND WIND VELOCITY.

F-141
"FOREST INSECT CONDITIONS IN GLACIER NATIONAL PARK, SEASON OF 1929."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK, HISTORICAL FILES.

(GLACIER NATL. PARK). THE PURPOSE OF THE INSECT EXAMINATIONS REPORTED ON IN THIS PAPER WAS TO DETERMINE THE AMOUNT OF WHITE PINE INFESTED BY THE MOUNTAIN PINE BEETLE, THE STATUS OF THE INFESTATION, THE POSSIBILITY OF CONTROL, AND THE ESTIMATED EXPENSE. A BRIEF DESCRIPTION OF THE HABITS OF THE THREE INSECTS FOUND TO BE INFLECTING THE GREATEST DAMAGE TO THE TIMBER WITHIN THE PARK IS ALSO PRESENTED.

F-142
FORRESTER, DONALD J.
1960.
"A PRELIMINARY INVESTIGATION OF THE PROTOSTRONGYLIN LUNGWORM-BIGHORN SHEEP RELATIONSHIPS IN MONTANA."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 79 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: GLACIER NATL. PARK, WILDHORSE ISLAND). THE STUDY INVESTIGATES THE DISTRIBUTION OF LAND MOLLUSKS SERVING AS INTERMEDIATE HOSTS OF PROTOSTRONGYLIN LUNGWORMS INFECTING BIGHORN SHEEP (OVIS CANADENSIS). THE LIFE CYCLE AND BIONOMICS OF THE LUNGWORMS ARE CONSIDERED AS WELL. IT DISCUSSES THE PHYSIOLOGY OF THE FIRST STAGE LARVAE OF PROTOSTRONGYLUS STILESII AND P. RUSHI PRIOR TO THE PRESENTATION OF LUNGWORM INFECTIONS DATA.

F-143
FORRESTER, DONALD J.
1962.
"LAND MOLLUSCA AS POSSIBLE INTERMEDIATE HOSTS OF PROTOSTRONGYLUS STILESII, A LUNG WORM OF BIGHORN SHEEP IN WESTERN MONTANA."

PROC. MONTANA ACADEMY SCIENCES 22:82-92.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN MONTANA: GLACIER NATL. PARK & WILDHORSE ISLAND). THIS STUDY ENTAILED THE COLLECTION OF LAND SNAILS AND SLUGS ON THE MAIN RANGES OF THE ROCKY MOUNTAIN BIGHORN SHEEP, OVIS CANADENSIS, IN WESTERN MONTANA AND THE DETERMINATION OF WHICH SPECIES OF MOLLUSKS, IF ANY, SERVE AS INTERMEDIATE HOSTS FOR P. STILESII, A LUNGWORM PARASITE.

F-144
FORRESTER, DONALD J.
1964.
"PRENATAL INFECTION OF BIGHORN SHEEP WITH PROTOSTRONGYLIN LUNGWORMS."
NATURE 207 MARCH 1964:1051.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: GLACIER NATL. PARK, NATL. BISON RANGE, & WILDHORSE ISLAND). THE OBSERVATIONS REPORTED HERE WERE MADE IN WESTERN MONTANA TO DETERMINE IF PRENATAL INFECTION BY LUNG NEMATODES PROTOSTRONGYLUS STILESII AND P. RUSHI OCCURS IN BIGHORN LAMBS.

F-145
FORRESTER, DONALD J.
1964.
"SURVEY OF LUNGWORM INFECTION IN BIGHORN SHEEP OF MONTANA."
J. WILDLIFE MANAGEMENT 28(JULY 1964):11.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
(WESTERN MONTANA: WILDHORSE ISLAND, GLACIER NATL. PARK, & NATL. BISON RANGE). THE PURPOSE OF THIS SURVEY WAS TO DETERMINE THE FREQUENCY AND DEGREE OF PROTOSTRONGYLIN LUNGWORM INFECTION SO THAT THEY COULD BE USED WITH OTHER DATA FOR EVALUATION OF OVIS CANADENSIS POPULATION DYNAMICS AND MANAGEMENT.

F-146
FORRESTER, DONALD J., AND HOFFMAN, ROBERT S.
1963.
"GROWTH AND BEHAVIOR OF A CAPTIVE BIGHORN LAMB."
J. MAMALOGY 44(FEBRUARY 1963):116-118.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WILDHORSE ISLAND). THIS PAPER REPORTS ON AN ORPHANED MALE ROCKY MOUNTAIN BIGHORN LAMB CAPTURED ON WILDHORSE ISLAND. DATA ON GROWTH AND BEHAVIOR WERE COLLECTED FOR APPROXIMATELY ONE YEAR. THE ANIMAL'S DIET IN CAPTIVITY, GROWTH AND WEIGHT CHANGES, BEHAVIOR, ETC., ARE REPORTED.

F-147
FORRESTER, DONALD J., AND SENDER, CLYDE M.
DATE 1963.
"BIGHORNS AND LUNGWORM."
MONTANA WILDLIFE. 5 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(WESTERN MONTANA: GLACIER NATL. PARK, NATL. BISON RANGE, & WILDHORSE ISLAND). THE MAJOR OBJECTIVES OF THIS INVESTIGATION WERE TO DETERMINE THE EXTENT OF LUNGWORM INFECTION IN OVIS CANADENSIS OF MONTANA AND TO LEARN MORE ABOUT THE LIFE CYCLE AND ECOLOGY OF THE PARASITE: PROTOSTRONGYLUS STILESII. A REVIEW OF THE LIFE CYCLE OF THE PARASITE AND THE HISTORY OF THE DISCOVERY OF THE DISORDER ARE INCLUDED.

F-148
FORRESTER, DONALD J., AND SENDER, CLYDE M.
1963.
"EFFECT OF TEMPERATURE AND HUMIDITY ON SURVIVAL OF FIRST STAGE PROTOSTRONGYLUS STILESII LARVAE."
EXPERIMENTAL PARASITOLOGY 13:83-89.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN MONTANA: WILDHORSE ISLAND & THE NATL. BISON RANGE). THIS PAPER REPORTS ON EXPERIMENTS DESIGNED TO DETERMINE THE EFFECT OF DRYING ON LARVAE ISOLATED FROM LUNG TISSUE AND TO DETERMINE THE EFFECTS OF VARIOUS TEMPERATURES ON SURVIVAL.

F-149
FOX, FRANKLIN G.
1977.
"BUREAU OF INDIAN AFFAIRS' TIMBER SALES POLICIES: ECONOMIC IMPACTS ON THE FLATHEAD INDIAN RESERVATION."
PH.D. DISSERTATION, UNIV. WASHINGTON, SEATTLE. 280 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS DISSERTATION IS A DETAILED ANALYSIS OF THE EFFECT OF THE TIMBER SALES POLICIES OF THE BUREAU OF INDIAN AFFAIRS ON THE FLATHEAD INDIAN RESERVATION. THE AUTHOR SHOWS THAT BETTER POLICIES BETWEEN 1952 AND MAY 1975 WOULD HAVE RAISED RETURNS TO INDIANS FROM SALES OF PONDEROSA PINE; BETTER PRICE ADJUSTMENT CLAUSES AND HIGHER BIDS WOULD ALSO HAVE INCREASED RETURNS. ALL CALCULATIONS CONNECTED TO THESE CONCLUSIONS ARE ILLUSTRATED.

F-150
FOX, P. P.
1955.
"LOWER GLACIAL LAKE MISSOULA SEDIMENTS IN MONTANA."
GEOLOGICAL SOCIETY AMERICA BULL. 66:1713. (ABSTRACT).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIAL LAKE MISSOULA). MORE THAN 200 FEET OF PREVIOUSLY UNDESCRIBED STRATA ARE ADDED TO THE LAKE BED SEQUENCE. DRILLING SHOWED "BROWN, FAT, VARVED CLAY HAVING A LIQUID LIMIT OF 42 TO 63 PER CENT," WITH ONLY MINOR INTERBEDS OF SILT AND SAND. SILTS AND SANDS CHARACTERISTIC OF EXPOSED MISSOULA BEDS OVERLIE THE CLAY SEQUENCE.

F-151
FOY, LESLIE.
"WALKUP AND SWANEY TRADING POST ON ASHLEY CREEK AND THE EARLY HISTORY OF THE FOYS IN THE FLATHEAD."
2 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: INCLUDES HANDDRAWN MAP OF THE LOCATIONS OF THE TRADING POSTS.

AVAILABLE FROM: FLATHEAD CO. LIBRARY-MONTANA FILES.

(KALISPELL). A BRIEF EARLY HISTORY OF THE FOY FAMILY AND OTHER SETTLERS IN THE FLATHEAD VALLEY.

F-152
FRANCIS, BERTHA A.
1965.
"THE LAND OF THE BIG SNOWS."
BUTTE, MT.: BY THE AUTHOR. 229 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: SOME HISTORIC INFORMATION PERTAINING TO THE FLATHEAD BASIN IS INCLUDED.

(WESTERN MONTANA). THE BOOK DESCRIBES THE FRONTIER HISTORY: THE FLATHEAD AND NEZ PERCE INDIANS, LEWIS & CLARK, EARLY TRADERS AND TRAPPERS SUCH AS ANGUS McDONALD, MINERS AND SETTLERS. THE ACCOUNT FOCUSES ON THE DEVELOPMENT OF THE BIG HOLE VALLEY.

F-153
FRANCIS, CORNELIA.
1977.

HISTORY OF JOCKO VALLEY ROAD NAMES.
ST. IGNATIUS, MT.: MISSION VALLEY NEWS. 52 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, ORIGINAL DATA, WITHIN THE BASIN.

(JOCKO VALLEY). THIS BOOKLET WAS PART OF A BICENTENNIAL PROJECT AND DESCRIBES THE BACKGROUND IN PEOPLE AND PLACE NAMES BEHIND THE NAMING OF JOCKO VALLEY ROADS.

F-154
FRANCISCA, SISTER M.
1922.
"MOTHER MARY AMADEUS: HER LIFE AND MISSEINARY LABORS."
INDIAN SENTINEL 2(JULY 1922):490-495.

(ST. IGNATIUS MISSION). MOTHER AMADEUS ESTABLISHED THE URSULINE WORK AT ST. IGNATIUS. SKCC.

F-155
FRANZ, RICHARD.
1971.
"NOTES ON THE DISTRIBUTION AND ECOLOGY OF THE HERPETOFAUNA OF NORTHWESTERN AMERICA."
BULL. MARYLAND HERPETOLOGICAL SOCIETY 7:9-18.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER, WHITEFISH LAKE, ASHLEY LAKE, YELLOW BAY BIOL. STAT., & GLACIER NATL. PARK). THIS PUBLICATION IS AN ANNOTATED LIST OF THE AMPHIBIANS AND REPTILES EITHER OBSERVED OR COLLECTED BY THE AUTHOR. THE LOCATION AND TYPE OF HABITAT THE SPECIMEN WAS COLLECTED IN ARE DESCRIBED, AND PHOTOGRAPHS AND DRAWINGS ARE INCLUDED.

F-156
FRANZ, RICHARD, AND LEE, D. S.
1970.
"THE ECOLOGICAL AND BIOGEOGRAPHICAL DISTRIBUTION OF THE TAILED FROG, ASCAPHUS TRUEI IN THE FLATHEAD RIVER DRAINAGE OF NORTHWESTERN MONTANA."
MARYLAND HERPETOLOGICAL SOCIETY BULL. 6(DECEMBER 1970):62-73.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE McDONALD; SWAN, STILLWATER, JOCKO, LITTLE BITTERROOT RIVERS; & NORTH, MIDDLE, & SOUTH FORKS OF THE FLATHEAD RIVER). THIS ARTICLE REPORTS ON AN ATTEMPT TO INTERPRET THE EFFECT OF PRESENT ECOLOGICAL FACTORS AND PAST BIOGEOGRAPHIC INDULATIONS ON THE DISTRIBUTIONAL PATTERNS OF THE TAILED FROG. STREAM SAMPLES WERE USUALLY CONCERNED WITH DETERMINING THE PRESENCE OR ABSENCE OF TADPOLES BECAUSE THAT STAGE OF DEVELOPMENT WAS BOTH EASIER TO OBSERVE AND WAS MORE DEMANDING IN ITS ECOLOGICAL REQUIREMENTS THAN ADULTS. A TABLE LISTS STREAMS IN NORTHWESTERN MONTANA CONTAINING POPULATIONS OF TAILED FROGS. SOME OF THOSE STREAMS WERE INVESTIGATED CHEMICALLY AND THERMALLY AND THE RESULTS ARE PRESENTED IN TABLES.

F-157
FRAZIER, THOMAS.
1975.
"THE SORROWS OF CHIEF CHARLOT."
REAL WEST, MARCH 1975, PP. 14-17.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION & BITTERROOT VALLEY). THE ARTICLE DESCRIBES THE TREATY-MAKING EVENTS, THE WHITE SETTLEMENT OF BITTERROOT VALLEY, PRESIDENT GRANT AND CONGRESS' EDICT FOR THE REMOVAL OF THE FLATHEADS TO THE JOCKO RESERVATION, JAMES GARFIELD'S MEETING WITH CHIEF CHARLOT AND THE FLATHEADS, THE POVERTY OF CHARLOT'S BAND, AND THEIR EVENTUAL MOVE TO THE JOCKO. THE CONTROVERSY OF THE MOVE, CHARLOT'S FORGED SIGNATURE, AND LACK OF PROMISED FINANCIAL SUPPORT ARE TOPICS ADDRESSED.

F-158
FREDENBERG, WADE.
1974.
"SAVING THE BUFFALO: C. E. CONRAD'S HERD."
MONTANA HISTORIAN 4(WINTER 1974):2-7.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL AREA). A BUFFALO (BISON BISON) HERD OWNED BY C. E. CONRAD IS THE SUBJECT OF THIS HISTORIC ACCOUNT. HIS PURCHASE IN 1902 OF 27 HEAD OF C. P. ALLARD'S BUFFALO HERD, THEIR STAY ON WILDHORSE ISLAND FROM 1902 TO 1903, PROBLEMS OF CONTROLLING THE HERD ON VARIOUS CONRAD RANCHES, AND THE SELLING OF THE HERD IN 1921 ARE EVENTS DISCUSSED.

F-159
FREDLUND, DALE, E., AND FREDLUND, LYNN.
1970.
"ARCHEOLOGICAL SURVEY OF THE FORKS OF THE FLATHEAD RIVER: A PRELIMINARY REPORT."
ARCHEOLOGY IN MONTANA 11(OCTOBER-DECEMBER 1970):15-31.
PRELIMINARY, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: A MAP OF ARCHAEOLOGICAL SITES IS INCLUDED.

(MIDDLE, NORTH, & SOUTH FORKS OF THE FLATHEAD RIVER). PREHISTORIC RESOURCES OF THE AREA ARE ASSESSED IN THIS ARTICLE. INCLUDED IS A DESCRIPTION OF 23 SITES WHICH WERE LOCATED, PHOTOGRAPHED, AND RECORDED USING THE SMITHSONIAN INSTITUTE'S TRINOMIAL DESIGNATION SYSTEM. IMPLEMENTS, HEARTHS, PITS, ROCK ALIGNMENTS, CHIPPIN AREAS, BARK-STRIPPED TREES, GRAVESITES, AND TRAILS ARE NOTED. THE USE AND OCCUPATION OF THE AREA BY INDIANS IS DISCUSSED.

F-160
FREDLUND, DALE E.; AND FREDLUND, LYNN.
1971.
"ARCHAEOLOGICAL SURVEY OF THE THREE FORKS OF THE FLATHEAD RIVER, MONTANA."
ARCHEOLOGY IN MONTANA 12(APRIL-SEPTEMBER 1971):1-58.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: A MAP OF ARCHAEOLOGICAL SITES AND DRAWINGS OF IMPLEMENTS ARE INCLUDED.

(MIDDLE, NORTH, & SOUTH FORKS OF THE FLATHEAD RIVER). THE ARTICLE REPORTS ON A PREHISTORIC RESOURCE SURVEY, A PART OF THE RESEARCH RESULTING FROM THE WILDLAND SCENIC RIVERS ACT. 26 SITES ARE INCLUDED. METHODS INVOLVED THE RECORDING OF SITES ON SITE FORMS OF THE STATEWIDE ARCHAEOLOGICAL SURVEY IN ACCORD WITH SMITHSONIAN INSTITUTION'S NUMBERING SYSTEM, DAILY FIELD NOTES,

AND THE FINDING OF DIAGNOSTIC ARTIFACTS. LOCATION, SETTING, AND EVIDENCE OF INDIAN OCCUPATION AND USE FOR EACH SITE IS DESCRIBED.

F-161
FREEMAN, MELODY.
1973.
"MISSION AT THE RENDEZVOUS—ABOUT A LOVELY OLD CHURCH."
DOVETAIL MAGAZINE, SPRING 1973, PP. 4-13.

(ST. IGNATIUS MISSION). THIS ARTICLE DESCRIBES THE HISTORY OF THE ST. IGNATIUS MISSION AND ITS PRESENT CONDITION. SKCC.

F-162
FREEMAN, OTIS W., AND MARTIN, HOWARD H.
1954.
THE PACIFIC NORTHWEST: AN OVERALL APPRECIATION. 2ND ED.
NEW YORK: JOHN WILEY & SONS, INC. 540 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS BOOK PRESENTS INFORMATION ON PHYSICAL CHARACTERISTICS AND NATURAL RESOURCES IN ORDER TO FACILITATE AN UNDERSTANDING OF ECONOMIC PATTERNS AND PROBLEMS. REGIONAL RELATIONSHIPS ARE STRESSED; ECONOMIC, SOCIAL, HUMAN, AND PHYSICAL FACTORS ARE INTEGRATED. IT INCLUDES RESEARCH CONCERNING: CHANGING HUMAN ADJUSTMENTS, PHYSICAL ENVIRONMENT, EXPLOITATION AND CONSERVATION OF NATURAL RESOURCES, AGRICULTURE AND INDUSTRY, COMMERCIAL AND URBAN DEVELOPMENT.

F-163
FRIEDLINE, ROGER A.; SMITH, ROBERT B.; AND BLACKWELL, DAVID D.
1976.
"SEISMICITY AND CONTEMPORARY TECTONICS OF THE HELENA MONTANA AREA."
BULL. GEOLOGICAL SOCIETY AMERICA 88(FEBRUARY 1976):81-95.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(HELENA AREA). AN EARTHQUAKE SURVEY CONDUCTED DURING 1973 IN THE HELENA AREA INDICATES THAT THERE MAY BE A POSSIBLE RELATION BETWEEN THE LOCAL SEISMICITY AND THE NEARBY MARYSVILLE HIGH HEAT-FLOW AREA. EARTHQUAKES WERE LOCATED IN TWO CLUSTERS NORTHWEST OF HELENA ALONG A NARROW TREND THAT IS PARALLEL TO THE INTERMOUNTAIN SEISMIC BELT.

F-163
FRIEDLINE, ROGER A.; SMITH, ROBERT B.; AND BLACKWELL, DAVID D.
1976.
"SEISMICITY AND CONTEMPORARY TECTONICS OF THE HELENA MONTANA AREA."
BULL. GEOLOGICAL SOCIETY AMERICA 88(FEBRUARY 1976):81-95.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(HELENA AREA). AN EARTHQUAKE SURVEY CONDUCTED DURING 1973 IN THE HELENA AREA INDICATES THAT THERE MAY BE A POSSIBLE RELATION BETWEEN THE LOCAL SEISMICITY AND THE NEARBY MARYSVILLE HIGH HEAT-FLOW AREA. EARTHQUAKES WERE LOCATED IN TWO CLUSTERS NORTHWEST OF HELENA ALONG A N500W TREND THAT IS PARALLEL TO THE INTERMOUNTAIN SEISMIC BELT.

F-164
FRENCHTOWN HISTORICAL SOCIETY.
1976.
FRENCHTOWN VALLEY FOOTPRINTS.
MISSOULA, MT.: MOUNTAIN PRESS PRINTING.

(FRENCHTOWN). MANY OF THE INDIVIDUALS MENTIONED IN THIS LOCAL HISTORY WERE MEMBERS OF THE SALISH AND KOOTENAI TRIBES OR MARRIED INTO THE TRIBES. A NUMBER OF OLDER FRENCHTOWN RESIDENTS ARE QUOTED ABOUT THEIR DEALINGS WITH THE INDIANS ON FLATHEAD. SKCC.

F-165

FROHLICHER, JOHN C.

1931

"SIAAMI".

THE FRONTIER, 1931, P. 60-61.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: ST. IGNATIUS). THE ARTICLE DESCRIBES THE DIAMOND JUBILEE OF THE MISSION: THE ACTIVITIES, THE CHILDREN PERFORMING, AND THE "SIAMI," A FEAST FOR THE DEAD.

F-166

FRUSH, CHARLES W.

1896.

"A TRIP FROM THE DALLES OF THE COLUMBIA, OREGON, TO FORT OWEN, BITTERROOT VALLEY, MONTANA, IN THE SPRING OF 1858."

CONTRIBUTIONS TO THE HISTORICAL SOCIETY OF MONTANA 2:337-342.

(COLUMBIA RIVER BASIN). THE TRAVELLING PARTY INCLUDED FOUR FLATHEAD PACKERS. THE GROUP MET PEND D'OREILLES AND KALISPELLS ON THE TRIP OUT OF THE LOWER COLUMBIA WHICH WAS THEN INVOLVED IN AN INDIAN-WHITE WAR. THE FLATHEADS, PEND D'OREILLES, AND KALISPELLS WERE ALL NEUTRAL DURING THE WAR. SKCC.

F-167

FRYXELL, RONALD.

1965.

"MAZAMA AND GLACIER PEAK VOLCANIC ASH LAYERS: RELATIVE AGES."

SCIENCE 147(12 MARCH 1965):1288-1290.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD RIVER BASIN). THE DEPOSITS OF PUMICE AND ASH FROM ERUPTIONS OF MOUNT MAZAMA AT CRATER LAKE, OREGON, AND GLACIER PEAK IN THE NORTHERN CASCADE RANGE OF WASHINGTON WERE USED AS TOOLS IN THIS STUDY OF POSTGLACIAL REGIONAL CHRONOLOGY. PHYSIOGRAPHIC AND STRATIGRAPHIC EVIDENCE IS PRESENTED TO SUPPORT THE REGIONAL CORRELATION OF THE TWO VOLCANIC ASH LAYERS. THE AGE AND DISTRIBUTION OF THE DEPOSITS IS INDICATED. SEQUENCES OF CULTURAL MATERIAL AND HUMAN SKELETAL REMAINS AT ARCHAEOLOGICAL SITES ARE BRIEFLY DISCUSSED TO SHOW THEIR ASSOCIATION WITH MAZAMA ASH.

F-168

FULBRIGHT, SUSAN

1973.

"WILDHORSE ISLAND ON FLATHEAD LAKE."

MONTANA HISTORIAN 4(AUTUMN 1973):11-13.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: WILDHORSE ISLAND). A HISTORY OF THE USES OF THE ISLAND AND THE ORIGIN OF ITS NAME ARE TOPICS DISCUSSED. ITS VARIOUS LANDOWNERS AND THE DEVELOPMENTS THEY INITIATED ARE MENTIONED.

F-169

FULKERSON, FRANK B.

1962.

ALUMINUM FABRICATION IN THE PACIFIC NORTHWEST: AN ECONOMIC SURVEY.

WASHINGTON, D.C.: U.S. DEPT. INTERIOR, BUREAU MINES. INFO. CIRC. 8123. 29 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE PURPOSE OF THIS SURVEY WAS TO PROVIDE MORE INFORMATION ABOUT ALUMINUM FABRICATION INDUSTRIES OF THE PACIFIC NORTHWEST AND TO IDENTIFY THE PRINCIPAL CONSUMERS OF ALUMINUM AND THE FINISHED PRODUCTS MANUFACTURED. DATA WERE COMPILED BY VISITS, CORRESPONDENCE, AND NEWS ITEMS AND INCLUDES MOST OF THE LARGE CONSUMERS IN EACH INDUSTRY AND A REPRESENTATIVE SAMPLE OF SMALL FIRMS.

F-170

FULLER, E. O.

1974.

"THE CONFEDERATED SALISH AND KUTENAI TRIBES OF THE FLATHEAD RESERVATION." IN INTERIOR SALISH AND EASTERN WASHINGTON INDIANS III.

NEW YORK: GARLAND PUBL. INC.

PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE SALISH & KOOTENAI INDIANS, & THE FLATHEAD RESERVATION). THE TREATY OF 1855 INVOLVING THE SALISH AND KOOTENAI INDIANS IS DISCUSSED, ALONG WITH THE ANTHROPOLOGY, TRIBAL HISTORY, AND CENSUS OF THE INDIANS. THE REPORT UTILIZES ACCOUNTS FROM FATHER DE SMET; ISAAC STEVENS; CAPTAIN MULLAN; INDIAN AGENT, MAJOR JOHN OWEN; DAVID THOMPSON; FUR TRADERS ROSS COX, JOHN WORK, AND W. A. FERRIS. THE TRIBAL HABITS OF PLAINS INDIANS, THEIR AFFECTION FOR LAND, AND INTERTRIBAL WARFARE ARE AMONG THE TOPICS DISCUSSED. THE SYNOPSIS ATTEMPTS TO DEFINE TRIBAL BOUNDARIES, TRIBAL RESIDENCE AND OCCUPATION. AN APPENDIX INCLUDES MAPS DEPICTING INDIAN TERRITORY AUTHORIZED BY SUCH PEOPLE AS DE SMET, DOTY, AND STEVENS.

F-171

FULLER, E. O., ET. AL.

1974.

INTERIOR SALISH AND EASTERN WASHINGTON INDIANS. VOL. 3.

NEW YORK: GARLAND PUBL., INC.

(ABORIGINAL LANDS OF THE SALISH INDIANS). THIS VOLUME INCLUDES FOUR RESEARCH PAPERS COMPILED IN THE COURSE OF THE CASES OF THE TRIBES OF THIS AREA BEFORE THE INDIAN CLAIMS COMMISSION AND THE FINDINGS OF THE COMMISSION. SKCC.

F-172

FULLER, MARGARET BRADLEY.

1927.

"STRATIGRAPHIC BOUNDARIES IN GLACIER NATIONAL PARK, MONTANA."

BULL. GEOLOGICAL SOCIETY AMERICA 38:153.

(ABSTRACT).

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A MAP WAS PRESENTED OF THE FORMATIONS FOUND IN MOST OF THE LEWIS RANGE AND IN PART OF THE LIVINGSTON RANGE IN GLACIER NATIONAL PARK. BOUNDARIES WERE BASED ON FIELD STUDIES PARTY RECONNAISSANCE AND ARE PARTLY DETAILED. THE MAIN CONCLUSIONS ARE DISCUSSED.

F-173

FULLER, PATRICIA R.

1976.

"BROWSE PRODUCTION AND UTILIZATION ON SPOTTED BEAR MOUNTAIN WINTER RANGE AND SEASONAL MOVEMENTS OF THE SPOTTED BEAR ELK HERD."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 66 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SPOTTED BEAR MTN.) THIS STUDY WAS IMPLEMENTED TO PROVIDE QUANTITATIVE BASELINE DATA ON BROWSE PRODUCTION AND UTILIZATION ON THE SPOTTED BEAR MOUNTAIN WINTER RANGE BEFORE PROPOSED ROAD CONSTRUCTION AND TIMBER HARVESTS BEGIN. THE SPECIFIC OBJECTIVES OF THE STUDY WERE 1) TO QUANTITATIVELY SAMPLE BROWSE PRODUCTION AND UTILIZATION, 2) COMPARE THE PRODUCTION AND UTILIZATION BETWEEN DIFFERENT HABITAT TYPES ON THE WINTER RANGE, AND 3) CONTINUE MONITORING OF RADIO-COLLARED ELK TO PROVIDE ADDITIONAL MOVEMENT AND SEASONAL RANGE INFORMATION.

F-174

FUNK, WILBUR E.

1959.

"MISSION MOUNTAINS: SUITE FOR ORCHESTRA."

M.A. THESIS, MONTANA STAT. UNIV., MISSOULA. 6 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTNS.). THE WORK PRESENTS A SUITE FOR ORCHESTRA, A THREE-MOVEMENT COMPOSITION WITHOUT DEFINITE FORM. THE PIECE IS DESCRIPTIVE IN STYLE AND CONTAINS SEVERAL MOVEMENTS ABOUT A COMMON SUBJECT. IT ATTEMPTS TO PUBLICIZE ONE OF THE NATURAL SPLENDORS OF MONTANA, THE MISSION MOUNTAINS. MUSICAL SCORE IS INCLUDED.

F-175

FUNKE, RICHARD, AND ZACEK, J.

1977.

RANGE INVENTORY AND STATUS REPORT, FLATHEAD INDIAN RESERVATION, MONTANA.

RONAN, MT., U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS, FLATHEAD INDIAN AGENCY. 30 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE PURPOSE OF THIS INVENTORY OF THE GRAZING RESOURCE OF THE FLATHEAD INDIAN RESERVATION WAS TO ACQUAINT THE TRIBES WITH THE CONDITION OF THE RESOURCE AND ITS USERS; TO SHOW WHAT IS BEING DONE ON THE RANGE AND GRAZING UNITS, AND TO OFFER SUGGESTIONS AS TO HOW PRODUCTION AND INCOME CAN BE IMPROVED WITHOUT FURTHER DEPLETION OF EITHER THE SOIL OR THE VEGETATION.



G-1
GABRIEL, HERMAN W. III.
 1976.
"WILDERNESS ECOLOGY: THE DANAHER CREEK DRAINAGE, BOB MARSHALL WILDERNESS, MONTANA."
 PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 244 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA: DANAHER CREEK DRAINAGE). THE OBJECTIVES OF THIS STUDY WERE TO DETERMINE WHAT BIOTIC COMMUNITIES EXISTED IN THE STUDY AREA PRIOR TO THE INFLUENCE OF MODERN MAN AND TO EVALUATE THE ROLE OF WILDFIRE IN THE MAINTENANCE OF THOSE EARLY COMMUNITIES. HISTORICAL FILES OF STATE AND FEDERAL AGENCIES WERE SEARCHED TO DETERMINE WHEN AND HOW MODERN MAN BEGAN TO INFLUENCE THE DRAINAGE. DENDROCHRONOLOGY METHODS WERE USED TO DATE FIRE SCARS AND DETERMINE THE AGE CLASS STRUCTURE OF PRESENT FOREST STANDS. THE ROLE OF WILDFIRE IS DISCUSSED IN TERMS OF MAINTAINING FIRE-ADAPTED COMMUNITIES, CONTROLLING SUCCESSION, RECYCLING CLIMAX COMMUNITIES, FIRE CYCLES, AND CREATING AND MAINTAINING GAME ANIMAL WINTER RANGE.

G-2
GAFFNEY, WILLIAM S.
 1941.
"THE EFFECTS OF WINTER ELK BROWSING, SOUTH FORK OF THE FLATHEAD RIVER, MONTANA."
 J. WILDLIFE MANAGEMENT 5:427-453.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST, SOUTH FORK OF THE FLATHEAD RIVER, & BOB MARSHALL WILDERNESS AREA). THE PURPOSE OF THIS REPORT IS TO PRESENT AND ANALYZE DATA ON THE FORAGE CONDITIONS AND FACTORS INFLUENCING THEM ON THE WINTER RANGE OF THE UPPER SOUTH FORK ELK

HERD. THE REPORT EXAMINES: WINTER CLIMATIC CONDITIONS, THE RELATION OF COVER TYPE TO WINTER FEED, THE HISTORY OF THE HERD, PRESENT NUMBERS, BIOTIC AND OTHER INFLUENCES, THE EFFECTS OF WINTER BROWSING, DAMAGE TO THE WINTER RANGE, INDICATORS OF OVERUSE, AND EFFECT OF OVERBROWSED RANGE ON THE ELK.

G-3
GAGERMEIER, GARY L.
 1976.
"A BACTERIOLOGICAL INVESTIGATION OF THE HASKELL CREEK DRAINAGE."
 M.S. THESIS, UNIV. MONTANA, MISSOULA. 76 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HASKELL CREEK DRAINAGE). THE STUDY OBJECTIVES WERE: 1) TO DETERMINE THE BACTERIOLOGICAL QUALITY OF SURFACE WATER IN FIRST AND SECOND ORDER CREEKS, LOCATING POINT SOURCES OF CONTAMINATION AND ANALYZING THE IMPACT ON THE WATERSHED; 2) TO DETERMINE DIFFERENCES IN WATER QUALITY BETWEEN OPEN AND CLOSED DRAINAGES; AND 3) TO ASSESS THE EFFECTS OF BIG MOUNTAIN SKI RESORT ON THE WATER QUALITY OF FIRST CREEK AND THE WHITEFISH WATER SUPPLY. ANALYSIS INCLUDED FECAL COLIFORM, TOTAL COLIFORM, AND FECAL STREPTOCOCCUS.

G-4
GALSTER, RICHARD W.
 1968.
"ENGINEERING GEOLOGY AT THE FLATHEAD TUNNEL, LIBBY PROJECT." PAPER PRESENTED AT THE 6TH ANNUAL ENGINEERING GEOLOGY AND SOILS ENGINEERING SYMPOSIUM.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SALISH RANGE: ELK MOUNTAIN). A PROJECT DRIVING A SINGLE TRACK BORE UNDER THE MOUNTAIN'S NORTHWEST SHOULDER IS DISCUSSED. INCLUDED

IN THE DISCUSSION ARE SITING REQUIREMENTS, TOPOGRAPHY AND COVER, AND PORTAL LOCATIONS. THE EXAMINATION OF THE AREA'S GEOLOGY CONSIDERS JOINTS, MAJOR FAULTS, STRUCTURAL INFLUENCE, THE ELK MOUNTAIN MEADOWS FAULT ZONE, DAVIS CREEK GEOLOGIC "SURPRISE," BASIN CREEK FAULT, GROUND WATER, AND BURROWS CREEK SLIDE. TUNNEL SUPPORT AND USES OF INSTRUMENTS TO GATHER DATA ARE ALSO DESCRIBED.

G-5
"GAME COUNT."
 1921-1953.
 GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN).
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: HISTORICAL FILES, GLACIER NATIONAL PARK.

(GLACIER NATL. PARK). THIS FILE CONTAINS ANNUAL GAME COUNTS OF MOOSE, MULE DEER, WHITE-TAILED DEER, MOUNTAIN SHEEP, MOUNTAIN GOATS, GRIZZLY BEAR, BLACK BEAR, ELK, MARTEN, MINK, LYNX, OTTER, BEAVER, AND GROUSE.

G-6
GAMERTSFELDER, JOSEPH W.
 1947.
"A STUDY OF GLACIER NATIONAL PARK."
 M.A. THESIS, OHIO UNIV., ATHENS. 113 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS THESIS IS AN ATTEMPT TO NARRATE THE HISTORY OF GLACIER NATIONAL PARK FROM THE EARLIEST EXPLORATION OF THE REGION TO THE PRESENT TIME. EMPHASIS IS PLACED LARGELY ON LEGISLATION BY THE FEDERAL GOVERNMENT AND THE DEVELOPMENT OF THE PARK BY THE DEPARTMENT OF THE INTERIOR. CHAPTERS INCLUDE: THE NATIONAL PARK MOVEMENT, EARLY HISTORY AND FOLKLORE, THE ESTABLISHMENT OF GLACIER NATIONAL PARK, LATER LEGISLATION AND DEVELOPMENT, AND PRESENT ORGANIZATION AND STATUS. APPENDICES COVER THE ACT TO ESTABLISH GLACIER NATIONAL PARK, STATISTICS OF GLACIER NATIONAL PARK, AND AREAS SUPERVISED BY THE NATIONAL PARK SERVICE.

G-7
GARDNER, RULON.
 1978.
COST PERFORMANCE AND ESTHETIC IMPACT OF AN EXPERIMENTAL FOREST ROAD IN MONTANA.
 OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RES. PAPER INT-203. 28 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THE OBJECTIVE OF THIS STUDY WAS TO LOCATE, DESIGN, AND CONSTRUCT A ROAD WITH REDUCED IMPACTS ON THE ENVIRONMENT THAT WOULD STILL SERVE THE NEAR-MINIMUM NEEDS OF PROJECTED TRAFFIC VOLUMES, VEHICLE SIZES, AND SKYLINE LOGGING EQUIPMENT. ALTERNATE DESIGNS AND COSTS/IMPACTS WERE EVALUATED. THE ROAD PERFORMANCE TO DATE WAS ACCESSED.

G-8
GARDNER, RULON.
 1979.
"SOME ENVIRONMENTAL AND ECONOMIC EFFECTS OF ALTERNATIVE FOREST ROAD DESIGNS."
 TRANS. AMERICAN SOCIETY AGRICULTURAL ENGINEERS 22:63-68.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN U.S.: CORAM EXPR. FOREST). ENVIRONMENTAL AND ECONOMIC IMPACTS OF FOREST ROAD DESIGN ALTERNATIVES ARE STRONGLY RELATED TO THE DESIGN ELEMENTS OF ROAD CROSS SECTION, WIDTH, CUT SLOPE, ROAD SURFACE, AND FULL SLOPE AND THE ATTENDANT CLEARING. PRINCIPAL METHODS FOR REDUCING THE OVERALL WIDTH ARE DISCUSSED, AND DESIGN CRITERIA ARE DETAILED.

G-9
GARFIELD, JAMES A.
1872.

"REPORT OF HON. JAMES A. GARFIELD, COMMISSIONER FOR THE REMOVAL OF THE FLATHEAD TRIBE OF INDIANS FROM THE BITTER ROOT VALLEY, IN MONTANA TERRITORY, TO THE JOCKO RESERVATION, IN SAID TERRITORY, WITH ACCOMPANYING PAPERS." IN REPORT OF THE COMMISSIONER OF INDIAN AFFAIRS, 1872, PP. 109-118.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.

(FLATHEAD INDIAN RESERVATION). GARFIELD'S OFFICIAL REPORT OF HIS NEGOTIATIONS WITH CHARLO AND THE BITTERROOT FLATHEADS AND THE PRINTED VERSION OF THE AGREEMENT WITH THE FAMOUS "FORGED" SIGNATURE. SKCC.

G-10
GARLAND, G. D.; KANASEWICH, E. R.; AND THOMPSON, T. L.
1961.

"GRAVITY MEASUREMENTS OVER THE SOUTHERN ROCKY MOUNTAIN TRENCH AREA OF BRITISH COLUMBIA."

J. GEOPHYSICAL RESEARCH 66(AUGUST 1961):2495-2505.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(SOUTHEASTERN BRITISH COLUMBIA.) THIS STUDY DESCRIBES GRAVITY MEASUREMENTS YIELDING ANOMALIES WHICH SHOW RELATIONSHIPS TO SOME OF THE MAJOR STRUCTURAL FEATURES OF THE AREA. THE GRAVITY FIELD PROVIDES NEW INFORMATION ON THE FORM OF THE ROCKY MOUNTAIN TRENCH IN THE REGION. THE PRESENCE OF THREE DEEP BASINS, NOW FILLED WITH UNCONSOLIDATED MATERIAL, IS INDICATED. SUCH A PATTERN SUGGESTS A SYSTEM OF LONGITUDINAL AND TRANSVERSE FAULTS. THE THEORY THAT THE TRENCH WAS PRODUCED BY DOWNFAULTING IS DISCUSSED.

G-11
GARLICK, LEWIS R.
1949.

REPORT OF FISHERY MANAGEMENT INVESTIGATIONS AT GLACIER NATIONAL PARK WITH RECOMMENDATIONS FOR PLANTING PROGRAMS IN SEVERAL LAKES.

PORTLAND, ORE.: U.S. DEPT. INTERIOR, FISH & WILDLIFE SERVICE. 14 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: McDONALD LAKE). THIS REPORT DESCRIBES A STUDY OF SEVERAL PROBLEM LAKES ON THE WEST SIDE OF THE PARK TO DETERMINE FACTORS INFLUENCING THE PRODUCTION OF GAME FISH AND TO WORK OUT A MANAGEMENT PROGRAM TO PROVIDE A GREATER RETURN TO THE FISHERMAN'S CREEL. FIVE SIMILAR LAKES (McDONALD, LOGGING, QUARTZ, BOWMAN, AND KINTLA) WERE EXAMINED IN AN ATTEMPT TO DETERMINE IN WHAT WAY THE POOR FISHING LAKES DIFFERED FROM THE GOOD, AND HOW HATCHERY PRODUCTION COULD BEST BE USED TO BOLSTER THE FISHING IN THE POORER LAKES.

G-12
GARNER, DON R.
1971.

KALISPELL NEIGHBORHOOD DEVELOPMENT STUDY. KALISPELL, MT.: KALISPELL NEIGHBORHOOD DEVELOPMENT AUTHORITY. 44 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL). THE RESEARCH OBJECTIVES OF THIS STUDY WERE TO OBTAIN DATA ON: THE PERSONAL CHARACTERISTICS OF ADULT FAMILY MEMBERS, SOCIOECONOMIC CHARACTERISTICS OF THE FAMILY UNIT, HOUSING CONDITIONS, AND THE ATTITUDES OF THE PEOPLE CONCERNING A PROGRAM OF HOUSING REHABILITATION AND RENEWAL. TABLES LIST ALL DATA COLLECTED.

G-13
GARREY, GEORGE H.
1902.

"GLACIATION BETWEEN THE ROCKIES AND THE CASCADES IN NORTHWESTERN MONTANA, NORTHERN IDAHO, AND EASTERN WASHINGTON." M.S. THESIS, UNIV. CHICAGO. 93 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHWESTERN UNITED STATES: FLATHEAD VALLEY & VICINITY). THIS THESIS CONCERNS ITSELF WITH THE GLACIAL HISTORY OF THE NORTHWEST, PRIMARILY NORTHEASTERN WASHINGTON. IT DOES INCLUDE A DISCUSSION OF GLACIATION IN THE FLATHEAD VALLEY, ASHLEY CREEK VALLEY, THE VALLEY WEST OF BIG ARM OF FLATHEAD LAKE, ALONG BEAR CREEK, AND THE MIDDLE FORK OF THE FLATHEAD. IT ALSO DESCRIBES ROCKS OF THE KALISPELL-SUMMIT REGION.

G-14
GARRIC, RICHARD K.
1962.

"A STUDY OF THE CRYOFLORE IN THE PACIFIC NORTHWEST STATES." M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 51 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(MISSION MTNS. & GLACIER NATL. PARK). IT WAS THE PURPOSE OF THIS STUDY TO DETERMINE THE CRYOFLORE FOR AS MANY REGIONS IN THE PACIFIC NORTHWEST AS COULD BE REACHED DURING THE INVESTIGATION PERIOD, TO CONTRIBUTE TO THE KNOWLEDGE OF THE STRUCTURE AND DEVELOPMENT OF THE ORGANISMS THEMSELVES, AND TO PRESENT ECOLOGICAL DATA AND OBSERVATIONS AS RELATED TO THE SNOW ALGAE. A LITERATURE REVIEW IS INCLUDED.

G-15
GARVIN, PAUL.
1953.

"SHORT KUTENAI TEXTS." INTERNATIONAL J. AMERICAN LINGUISTICS 19:305-311.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: ABORIGINAL LANDS OF THE KOOTENAI INDIANS). SEVEN KOOTENAI STORIES TRANSCRIBED IN THE KOOTENAI LANGUAGE IN THE INTERNATIONAL PHONETIC ALPHABET ARE PRESENTED ALONG WITH ENGLISH TRANSLATIONS. THE STORIES ARE: 1) HOW THE WHITES CAME TO THE KOOTENAI, 2) THE NEW CAR, 3) HOW ABEL ST. PIERRE "LOST" HIS SNOWSHOES, 4) AN INCIDENT AT THE SAWMILL, 5) A DAY IN SCHOOL, 6) TWO FLAT TIRES IN A DAY, AND 7) THE MUSIC DANCE.

G-16
GAUFIN, ARDEN R.
1974.

THE FATE AND EFFECTS OF PESTICIDES IN THE AQUATIC ENVIRONMENT OF THE FLATHEAD LAKE DRAINAGE AREA.

BOZEMAN, MT.: MONTANA STATE UNIV., WATER RESOURCES RESEARCH CENTER. REPT. NO. 47. 50 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & FLATHEAD INDIAN RESERVATION). THE RESULTS OF A ONE-YEAR PRELIMINARY SAMPLING OF PESTICIDE PRACTICES ON THE RESERVATION AND LATER WORK CONCENTRATING ON THE EFFECTS OF DDT ON OSPREY (PANDION HALIAETUS) SURVIVAL AND NESTING ON THE LAKE ARE DISCUSSED. WATER CONTAMINATION WITH TOROON AND OTHER PESTICIDES AND HERBICIDES AND THE CATASTROPHIC DECLINE OF THE OSPREY POPULATION IS EXAMINED.

G-17
GAUFIN, ARDEN R.
1974.

AN INVESTIGATION OF THE WATER QUALITY AND PRODUCTIVITY OF POLSON BAY, FLATHEAD LAKE, MONTANA.

BOZEMAN, MT.: MONTANA STATE UNIV., WATER RESOURCES RESEARCH CENTER. REPT. NO. 48. 17 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: POLSON BAY). ZOOPLANKTON AND PHYTOPLANKTON COLLECTIONS WERE TAKEN AND A BIOMASS ESTIMATE WAS OBTAINED. THE INVESTIGATION MEASURED THE EXCHANGE OF NUTRIENTS WITH BOTTOM SEDIMENTS. PARTICULATE MATTER IN THE WATER WAS ANALYZED FOR CARBON AND ASH FREE DRY WEIGHT, AND THE GROSS PRIMARY PRODUCTIVITY OF FLATHEAD LAKE WAS MEASURED BY MEANS OF THE CARBON 14 METHOD. THE STUDY ALSO NOTED THE OCCURRENCE OF THERMAL STRATIFICATION, THE CONCENTRATION OF NUTRIENTS AND DISSOLVED SOLIDS, AND THE PRESENCE OF COLIFORM.

G-18
GAUFIN, ARDEN R.
1974.

AN INVESTIGATION OF THE WATER QUALITY AND PRODUCTIVITY OF POLSON BAY, FLATHEAD LAKE, MONTANA.

MISSOULA, MT.: UNIV. MONTANA, YELLOW BAY BIOLOGICAL STAT. 8 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: POLSON BAY). THE FOLLOWING OBJECTIVES FOR RESEARCH CONDUCTED IN FLATHEAD LAKE WERE USED AS GUIDELINES FOR PROPOSED RESEARCH IN POLSON BAY: 1) TO DETERMINE THE VARIABILITY IN PRODUCTIVITY IN VARIOUS AREAS WITHIN FLATHEAD LAKE AND TO DETERMINE TO WHAT EXTENT VARIATIONS IN PRODUCTIVITY ARE DUE TO LOCAL POLLUTION; 2) TO DETERMINE THE STANDING CROP OF PHYTOPLANKTON AND ZOOPLANKTON PRESENT DURING ALL SEASONS OF THE YEAR AND THE EFFECTS OF STRATIFICATION, OVERTURN, AND LIGHT PENETRATION ON PLANKTON DISTRIBUTION AND PRODUCTION; 3) TO DETERMINE THE ROLE OF THESE NUTRIENTS IN THE EUTROPHICATION OF FLATHEAD LAKE; 4) TO PREPARE NUTRIENT BUDGETS FOR VARIOUS PRODUCTIVITY REGIONS IN THE LAKE BASED UPON THE NUTRIENT REQUIREMENTS OF THE PHYTOPLANKTON; AND 5) TO DETERMINE RATES OF CARBON ASSIMILATION BY PHYTOPLANKTON IN DIFFERENT AREAS OF THE LAKE BY USE OF THE C-14 BIOASSAY APPROACH. THE REPORT CONTAINS A DESCRIPTION OF THE PROBLEM, THE RESEARCH COMPLETED, AND THE PROPOSED RESEARCH PROJECT.

G-19
GAUFIN, ARDEN R.
1974.
A STUDY OF NATURAL WATER SYSTEMS IN WESTERN MONTANA.
SALT LAKE CITY: UTAH UNIV., AND WASHINGTON, D.C.: OFFICE WATER RESEARCH & TECHNOLOGY. 94 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: THE FLATHEAD RIVER BASIN IS INCLUDED.

(WESTERN MONTANA). A THREE-PHASE STUDY, CONDUCTED BETWEEN 1966 AND 1970, ATTEMPTS TO DETERMINE THE WATER QUALITY OF AQUATIC SYSTEMS. A VARIETY OF PARAMETERS ARE DISCUSSED.

G-20
GAUFIN, ARDEN R., AND VOERMAN, G. B.
1975.
AN IN SITU STUDY OF THE NUTRITION OF LAKE ZOOPLANKTON USING CARBON-14 AND PHOSPHORUS-32, FLATHEAD LAKE, MONTANA.
WASHINGTON, D.C.: U.S. DEPT. INTERIOR, OFFICE WATER RESOURCES RESEARCH. 17 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS STUDY WAS UNDERTAKEN TO DETERMINE THE STATE OF ZOOPLANKTON NUTRITION IN THE LAKE, USING C-14 AS A RADIOTRACER. THE REPORT ATTEMPTS TO DEFINE THE RELATIONSHIP BETWEEN ZOOPLANKTON AND PHYTOPLANKTON. THE RESULTS OF NUTRIENT ADDITION, ZOOPLANKTON GRAZING AND RADIO TRACER GRAZING EXPERIMENTS, RESPIRATION DETERMINATION, AND MONTHLY SAMPLING ARE INCLUDED.

G-21
GAUFIN, ARDEN R.; PRESCOTT, G. W.; TIBBS, J. G.; AND MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES.
1976.
LIMNOLOGICAL STUDIES OF FLATHEAD LAKE, MONTANA: A STATUS REPORT.
CORVALLIS, ORE.: U.S. ENVIRONMENTAL PROTECTION AGENCY, OFFICE RESEARCH & DEVELOPMENT, ENVIRONMENTAL RESEARCH LAB. 85 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: YELLOW BAY BIOL. STAT.). THIS IS A REVIEW OF THE ONGOING STUDIES CONDUCTED ON FLATHEAD LAKE, SPONSORED BY THE EPA. THOSE PROJECTS INCLUDE: A STUDY ON THE DISTRIBUTION, ECOLOGY, AND PRODUCTION OF PHYTOPLANKTON; A STUDY ON THE SYSTEMATICS AND ECOLOGY OF ZOOPLANKTON IN THE LAKE; AND A REPORT OUTLINING THE FISH POPULATION OF THE LAKE.

G-22
GAUFIN, ARDEN R.; RICKER, W. E.; MINER, M.; MILAM, P.; AND HAYS, R.
1972.
"THE STONEFLIES (PLECOPTERA) OF MONTANA."
TRANS. AMERICAN ENTOMOLOGICAL SOCIETY 98:1-161.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). 119 SPECIES OF STONEFLIES THAT OCCUR IN MONTANA ARE RECORDED WITHIN THIS REPORT, INCLUDING THOSE FOUND IN THE FLATHEAD LAKE AREA. TAXONOMIC CHARACTERISTICS ARE INCLUDED.

G-23
GAUFIN, ARDEN R.; STANFORD, JACK A.; AND TIBBS, JOHN F.
1975.
DISTRIBUTION AND BIOTIC EFFECTS OF NUTRIENTS IN FLATHEAD LAKE, MONTANA.

YELLOW BAY, MT.: UNIV. MONTANA BIOLOGICAL STAT.; SALT LAKE CITY: UNIV. UTAH; DENTON, TX.: NORTH TEXAS STATE UNIV.; WASHINGTON, D.C.: U.S. ENVIRONMENTAL PROTECTION AGENCY; AND HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES. 98 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE STUDY DESCRIBES SEASONAL DYNAMICS OF VARIOUS PHYSICAL AND CHEMICAL PARAMETERS INVOLVED IN PLANKTON COMMUNITY METABOLISM AND RELATES FINDINGS TO NUTRIENT LOADING TRENDS PREVIOUSLY REPORTED. THE MAIN STUDY OBJECTIVE WAS BASELINE DATA COMPILATION AND CLARIFICATION OF HYDRODYNAMICS TO ADVANCE LIMNOLOGIC MANAGEMENT.

G-24
GEDNEY, DONALD R.; NEWPORT, CARL A.; AND HAIR, DWIGHT.
1966.
PROSPECTIVE ECONOMIC DEVELOPMENTS BASED ON THE TIMBER RESOURCES OF THE PACIFIC NORTHWEST.
PORTLAND, ORE.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, PACIFIC NORTHWEST FOREST & RANGE EXPR. STAT. 174 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE STUDY IS PART OF AN ECONOMIC BASE STUDY TO SERVE POWER PLANNING NEEDS OF THE BPA. THIS REPORT PROVIDES A BASIS FOR FORECASTING THE POWER REQUIREMENTS GENERATED BY THE FOREST INDUSTRIES TO THE YEAR 1985. THE APPRAISAL OF THE PRESENT AND FUTURE FOREST RESOURCES, FOREST INDUSTRIES, AND FOREST EMPLOYMENT IS BASED ON AN ANALYSIS OF THE NATION'S TIMBER SITUATION AND AN ALLOCATION OF ESTIMATED FUTURE NATIONAL DEMAND TO THE REGION.

G-25
GEIS, MARY BARRACLOUGH.
1955.
"HONKERS' WINTER HAUNT."
MONTANA WILDLIFE, 1955, PP. 8-10.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY: NINEPIPE NATL. WILDLIFE REFUGE & LOWER FLATHEAD RIVER). THE ARTICLE CONSIDERS THE RESEARCH PROBLEMS ASSOCIATED WITH MANAGEMENT OF THE CANADIAN GOOSE. A SUMMARY OF DATA COLLECTED ON THE BIRD IS PRESENTED AND INCLUDES: REPRODUCTIVE BEHAVIOR, NESTING, EGG HATCHES, GOSLING MOVEMENTS, YOUNG MORTALITY, AND LOCAL GEESE BAGGED BY HUNTERS. METHODS EMPLOYED WERE NEST OBSERVATIONS, THE MARKING OF GOSLINGS WITH DYE, AND LEGBANDING OF THE GEESE. MANAGEMENT PRACTICES TO PROTECT BREEDING POPULATIONS ARE SUGGESTED.

G-26
GEIS, MARY BARRACLOUGH.
1956.
"PRODUCTIVITY OF CANADA GEESE IN THE FLATHEAD VALLEY, MONTANA."
J. WILDLIFE MANAGEMENT 20(OCTOBER 1956):1-10.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY). THIS REPORT EXAMINES THE BREEDING POPULATION OF BRANTA CANADENSIS MOFFITTI IN THE VALLEY AS A UNIT. POPULATION COMPOSITION WAS ASSESSED, NESTING BEHAVIOR OBSERVED, BROOD MOVEMENTS FOLLOWED, AND GOSLING SURVIVAL DETERMINED.

G-27
GELHAUS, JAMES; SCHNEIDER, J.; AND ROACH, M. D.
1978.
ANNUAL AIR QUALITY DATA SUMMARY FOR MONTANA, 1977.
MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV., AIR QUALITY BUREAU. 89 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: MISSOULA AIR QUALITY REGION COVERS COLUMBIA FALLS.

(MONTANA: COLUMBIA FALLS). THE DATA PRESENTED CONSISTS OF THAT INFORMATION GATHERED IN AIR QUALITY MONITORING IN THE FIVE AIR QUALITY CONTROL REGIONS FOR 1977. THE FIRST PART OF THIS REPORT IS A GENERAL SURVEY ON AIR QUALITY IN THE STATE, AND COVERS SO₂ AND TOTAL SUSPENDED PARTICULATES. THE SECOND PART SUMMARIZES ALL AIR POLLUTANTS MEASURED IN INDIVIDUAL SPECIAL STUDIES. COLUMBIA FALLS IS COVERED IN A SPECIAL FLUORIDE STUDY.

G-28
GELHAUS, JAMES W., ET. AL.
1979.
FLATHEAD RIVER BASIN ENVIRONMENTAL IMPACT STUDY: ANNUAL REPORT OF AIR QUALITY STUDIES FOR 1978.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV., AIR QUALITY BUREAU. 250 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THIS REPORT SUMMARIZES THE FIRST YEAR OF AIR QUALITY METEOROLOGY AND VISIBILITY DATA COLLECTED BY THE STATE AIR QUALITY BUREAU. THE AIR QUALITY DATA COVERS PARTICULATES, PARTICLE SIZE SULFATES, NITRATES, AND TRACE ELEMENTS. THE METEOROLOGY DATA INCLUDES SURFACE AND UPPER AIR PARAMETERS. THE VISIBILITY DATA INCLUDES SCATTERING COEFFICIENTS, TURBIDITY, AND DIFFUSE RADIATION.

G-29
GELHAUS, JAMES W., ET. AL.
1979.
METEOROLOGICAL STUDY: COLUMBIA FALLS, MONTANA.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV., AIR QUALITY BUREAU. 75 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: COLUMBIA FALLS: TEAKETTLE MTN.). THIS STUDY WAS CONDUCTED TO MEASURE SURFACE AND UPPER AIR METEOROLOGY NECESSARY FOR AIR POLLUTION POTENTIAL DETERMINATIONS, MEASURE SURFACE AND UPPER AIR METEOROLOGY NECESSARY TO DEFINE THE AIR FLOW AROUND TEAKETTLE MOUNTAIN, AND MEASURE AND CORRELATE VISIBILITY WITH METEOROLOGY OF THE AREA. EXTENSIVE TABLES LIST DATA COLLECTED. TECHNIQUES ARE EXPLAINED, AND RECOMMENDATIONS ARE PRESENTED.

G-30
GESSNER, ROBERT.
1931.
MASSACRE: A SURVEY OF TODAY'S AMERICAN INDIAN.
NEW YORK: JONATHON CAPE AND HARRISON SMITH.

(FLATHEAD INDIAN RESERVATION). THE STORY OF THE FLATHEAD DAM CONTROVERSY FROM THE SIDE OF THE PRO-INDIAN LOBBY WHICH FOUGHT AGAINST DEVELOPMENT OF THE SITE BY MONTANA POWER. SKCC.

G-31
GIBBS, RAFE.
1948.

"TRAIL OF THE LEANINGS."
COLLIERS. 3 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(GLACIER, YELLOWSTONE, & GRAND TETON NATL. PARKS). THE ARTICLE DESCRIBES HORSEBACK TRIPS, THE GOING-TO-THE-SUN HIGHWAY, THE FLOWERS AND MOUNTAINS OF GLACIER PARK. FLATHEAD LAKE AND THE MISSION MOUNTAINS ARE ALSO DISCUSSED. THE REST OF THE ARTICLE PERTAINS TO THE ANIMALS AND SIGHTS AT YELLOWSTONE AND GRAND TETON PARKS.

G-32
GIBSON, DICK.
1978.

LABOR MARKET INFORMATION FOR AFFIRMATIVE ACTION PROGRAMS IN MONTANA, 1977-1978.
HELENA, MT.: MONTANA DEPT. LABOR & INDUSTRY, EMPLOYMENT SECURITY DIV., RESEARCH & ANALYSIS SECTION. 70 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THE TABLES PRESENTED IN THIS REPORT ARE DESIGNED TO PROVIDE LABOR MARKET INFORMATION TO ASSIST EMPLOYERS IN EVALUATING THE UTILIZATION OF WOMEN AND MINORITIES IN THEIR WORK FORCE AND IN ESTABLISHING GOALS TO IMPROVE SUCH UTILIZATION.

G-33
GIBSON, K. E., AND BENNETT, D.
1979.

OVERWINTERING SURVIVAL OF MOUNTAIN PINE BEETLE LARVAE AND THE RESULTANT EFFECTS ON BEETLE POPULATIONS IN THE NORTHERN REGION IN 1979.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY. REPT. NO. 79-15. 9 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN REGION: FLATHEAD NATL. FOREST). DURING DECEMBER 1978 AND JANUARY 1979, TEMPERATURES REACHED ALL-TIME LOWS IN SOME PARTS OF MONTANA. OVERWINTERING MOUNTAIN PINE BEETLE POPULATIONS WERE SAMPLED DURING FEBRUARY AND MARCH 1979. EFFECTS OF THE EXTREME COLD VARIED FROM SITE TO SITE.

G-34
GIBSON, K. E., AND MCGREGOR, M. D.
1979.

A REVIEW OF SELECTED MOUNTAIN PINE BEETLE EPIDEMICS AND THE INFESTATION POTENTIAL FOR THE TALLY LAKE RANGER DISTRICT, FLATHEAD NATIONAL FOREST.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY. REPT. NO. 79-5. 13 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: TALLY LAKE RANGER DISTRICT). THIS REPORT CONTAINS A BRIEF HISTORY OF SELECTED MOUNTAIN PINE BEETLE INFESTATIONS AND THE POTENTIAL FOR INFESTATIONS IN HIGH HAZARD STANDS ON THE TALLY LAKE RANGER DISTRICT. MANAGEMENT ALTERNATIVES TO LESSEN THE SEVERITY, OR REDUCE THE POSSIBILITY OF INFESTATIONS, ARE DISCUSSED.

G-35
GIBSON, WILLIS.
1914.
"A LITTLE HISTORY OF GLACIER NATIONAL PARK."

THE MOUNTAINEER 7:9-16.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE GIVES AN HISTORIC ACCOUNT OF HUGH MONROE'S VISIT TO ST. MARY'S LAKES, THE ESTABLISHMENT OF GOVERNMENT AUTHORITY, THE EXPLORATION OF J.W. SCHULTZ AND GEORGE B. GRINNELL, THE COMING OF THE RAILROAD, THE TRAVELS OF LYMAN B. SPERRY, THE MOVEMENT TO ESTABLISH THE PARK, AND THE BLACKFEET INDIANS.

G-36
GILBERT, CHARLES H., AND EVERMANN, BARTON W.
1894.

"A REPORT UPON INVESTIGATIONS IN THE COLUMBIA RIVER BASIN, WITH DESCRIPTIONS OF FOUR NEW SPECIES OF FISHES."

BULL. U.S. FISH COMMISSION 14:169-204.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(SNAKE RIVER & UPPER COLUMBIA RIVER BASIN). THE BULLETIN REPORTS ON TWO STUDIES: AN EXAMINATION OF THE OBSTRUCTIONS IN SNAKE RIVER WHICH MIGHT INTERFERE WITH THE MOVEMENT OF SALMON; AND A PRELIMINARY STUDY OF THE NATURAL HISTORY FEATURES OF THE UPPER COLUMBIA BASIN, WITH SPECIAL REFERENCE TO THE PRESENT AND FORMER OCCURRENCE OF SALMON. INCLUDED ARE THE FOLLOWING: 1) DETAILED DESCRIPTIONS OF THE VARIOUS STREAMS VISITED; 2) A LIST OF FISH SPECIES OBTAINED IN THE COLUMBIA RIVER BASIN, TOGETHER WITH A DISCUSSION OF THEIR RELATIONSHIPS AND DISTRIBUTION; 3) NOTES ON THE BREEDING COLORS OF THE WHITEFISH (COREGONUS WILLIAMSONI); AND 4) AN ANNOTATED LIST OF THE REPTILES AND BATRACHIANS OBTAINED. FOUR NEW FISH SPECIES FOR THE UPPER COLUMBIA ARE PRESENTED IN THE LIST. SPECIMENS OF TWO SPECIES FROM THE LIST OF REPTILES AND BATRACHIANS WERE COLLECTED IN MONTANA: RANA PRETIOSA AND RANA PIPIENS BRACHYCEPHALA.

G-37
GILBERT, PAT K.
1974.

"MECHANICAL CHARACTERISTICS OF FOLDS IN THE UPPER CRETACEOUS STRATA IN THE DISTURBED BELT OF NORTHWESTERN MONTANA."

M.S. THESIS, TEXAS A & M UNIV., COLLEGE STATION. 64 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: SAWTOOTH RANGE). THIS PAPER PRESENTS INFORMATION ON THE MECHANICS OF FLEXURAL FOLDING GAINED FROM A FIELD STUDY IN THE FOLDED UPPER CRETACEOUS STRATA OF THE DISTURBED BELT OF NORTHWESTERN MONTANA. LABORATORY ANALYSES OF POROSITY, CALCITE TWIN LAMELLAE, SORTING, AND MICROFRACTURES IN THE VIRGELLE SANDSTONE WERE CONDUCTED. A CONTROLLED CROSS SECTION THROUGH A WAVE TRAIN OF THESE FOLDS, OTHER FIELD OBSERVATIONS, AND THEORETICAL CONSIDERATIONS WERE USED TO PROVIDE DATA ON THE MECHANICS OF FLEXURAL FOLDING.

G-38
GILL, GERALD B.
1972.

"ALTERATIONS OF THE IN VITRO DIGESTIBILITY OF DEER BROWSE AS AFFECTED BY SYSTEMATIC MIXING OF PAIRED SPECIES."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 82 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN MONTANA WINTER RANGES: SWAN VALLEY). THE SCOPE OF THIS INVESTIGATION WAS TO EVALUATE THE QUALITIES OF FORAGE MIXTURES

BY DIGESTING VARIOUS COMBINATIONS OF PAIRED BROWSE SPECIES IN VITRO. SAMPLES OF BROWSE SPECIES COMMONLY USED BY MULE DEER AND WHITE-TAILED DEER WERE COLLECTED. WINTER FORAGE WAS SELECTED TO TEST MIXTURE RESPONSES OF PLANTS THAT WERE ASSUMED TO VARY IN THEIR NUTRIENT LEVELS AND PALATABILITY.

G-39
GILMOUR, ERNEST H.
1963.

"A LITHOLOGIC CHANGE IN THE PRECAMBRIAN RAVALLI GROUP, NORTHWESTERN MONTANA."
THE COMPASS OF SIGMA GAMMA EPSILON 40:146-154.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA). THE GEOLOGY OF ABOUT 250 SQUARE MILES WAS MAPPED IN THE SOUTHERN HALF OF THE STRYKER 30-MINUTE QUADRANGLE IN NORTHWESTERN MONTANA DURING THE SUMMER OF 1962. THE PURPOSE OF THIS PAPER IS TO REPORT THE RESULTS OF THE PETROGRAPHIC STUDY AND TO PRESENT POSSIBLE EXPLANATIONS FOR THE LITHOLOGIC CHANGE.

G-40
GILMOUR, ERNEST H.
1964.

"GEOLOGY OF THE SOUTHWESTERN PART OF THE STRYKER QUADRANGLE, NORTHWESTERN MONTANA."

M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 70 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: SALISH MTNS.). THIS REPORT CONCERNING THE SOUTH HALF OF THE STRYKER 30 MINUTES QUADRANGLE COVERS: THE PHYSIOGRAPHY, STRATIGRAPHY, RAVALLI AND PIEGAN GROUPS, STRUCTURAL GEOLOGY, LITHOLOGIC CHANGE IN THE RAVALLI, AND BELT PALEOGEOGRAPHY.

G-41
GINGRAS, LOUIE.
1977.

COYOTE AND KOOTENAI AS TOLD TO JO RAINBOLT.
BILLINGS, MT.: MONTANA COUNCIL FOR INDIAN EDUCATION.

A SELECTION OF KOOTENAI COYOTE TALES. INTEREST LEVEL: 2ND GRADE. SKCC.

G-42
GIRARD, GEORGE L.
1941.

"THE MALLARD: ITS MANAGEMENT IN WESTERN MONTANA."

J. WILDLIFE MANAGEMENT 5:20-40.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WINEPIPE & PABLO NATL. WILDLIFE REFUGES). THIS PAPER DESCRIBES THE ECOLOGY, LIFE HISTORY, AND MANAGEMENT OF THE MALLARD IN WESTERN MONTANA. MANAGEMENT IS DISCUSSED IN LIGHT OF HABITAT, FOOD AND FEEDING, AND THE EFFECTS OF FARMING, PRIVATE LAND OWNERSHIP, AND HUNTING.

G-43
GIBBORNE, H. T.
1927.

"PRECIPITATION CYCLES IN NORTHERN IDAHO AND NORTHWESTERN MONTANA."

NORTHWEST SCIENCE 1(SEPTEMBER 1927):59-60.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN IDAHO & NORTHWESTERN MONTANA). THE PURPOSE OF THIS PAPER WAS TO SHOW THE OCCURRENCE OF CYCLIC PATTERNS OF PRECIPITATION. RAINFALL RECORDS FROM 1881 TO 1924 FOR SPOKANE, WALLA WALLA, AND MISSOULA WERE AVERAGED AND PLOTTED TO DETERMINE THE AMPLITUDE AND PERIODICITY OF RAINFALL.

G-44

GISBORNE, H. T.

1929.

"A FOREST FIRE EXPLOSION ON THE HALF MOON BURN."

THE FRONTIER, 1929, PP. 13-16.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(TEAKETTLE MTN. TO BELTON). THIS IS AN EYEWITNESS ACCOUNT OF THE 1929 HALF MOON FIRE, WHICH BURNED 90,000 ACRES BETWEEN TEAKETTLE MOUNTAIN AND BELTON AND GLACIER PARK HEADQUARTERS. THE AUTHOR VIVIDLY DESCRIBES THE FIRE "EXPLOSION" WHICH BURNED OVER 1,300 ACRES IN A PERIOD OF TWO MINUTES.

G-45

GLACIER NATIONAL PARK.

1918-1941.

GLACIER NATIONAL PARK CIRCULARS.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK.

PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE FOLLOWING INFORMATION IS CONTAINED IN THESE CIRCULARS: HOW TO REACH GLACIER PARK, ROAD AND TRAIL INFORMATION, ACCOMMODATIONS, RECREATIONAL ACTIVITIES, TOUR RATES, GEOLOGIC HISTORY, AND CENTERS OF INTEREST.

G-46

GLACIER NATIONAL PARK.

1968-PRESENT.

ANNUAL RESEARCH SUMMARY.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE.

PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE REPORTS SUMMARIZE PROGRESS OF RESEARCH IN THE PARK. THE OBJECTIVE OF THE RESEARCH PROGRAM IS TO OBTAIN A BROAD SPECTRUM OF DATA ON THE ECOSYSTEMS IN THE PARK THROUGH COORDINATED RESEARCH PROJECTS BY RESIDENT PERSONNEL, UNIVERSITY CONTRACTORS, COOPERATING SCIENTISTS, AND INDEPENDENT INVESTIGATORS. THE DIVISION OF RESEARCH IS RESPONSIBLE FOR ADMINISTRATION, LIAISON, AND COORDINATION OF THESE PROJECTS, AS WELL AS FOR COMMUNICATION WITH THE SCIENTIFIC COMMUNITY.

G-47

GLACIER NATIONAL PARK.

1974.

FINAL ENVIRONMENTAL IMPACT STATEMENT: LAKE McDONALD MASTER SEWERAGE SYSTEM PLAN, GLACIER NATIONAL PARK, MONTANA.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 62+ PP. FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT DESCRIBES THE PROPOSED CONSTRUCTION OF THE MASTER SEWERAGE SYSTEM, SUMMARIZES THE ADVERSE ENVIRONMENTAL EFFECTS AND ENVIRONMENTAL IMPACTS OF THE PROPOSAL, AND OUTLINES POSSIBLE ALTERNATIVES TO THE PROPOSAL. COMMENTS RECEIVED PERTAINING TO THE DRAFT ENVIRONMENTAL IMPACT STATEMENT ARE INCLUDED.

G-48

GLACIER NATIONAL PARK.

1978.

WESTSLOPE CUTTHROAT TROUT MANAGEMENT ACTION DESCRIPTION.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 8 PP. DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PLAN DESCRIBES THE CURRENT STATUS OF SALMO CLARKI LEWISI WITHIN THE PARK, THE CURRENT MANAGEMENT PROCEDURES, AND THE RESULTS OF THOSE ACTIONS. MANAGEMENT ALTERNATIVES ARE CONSIDERED, AND THEIR IMPACTS ARE ANALYZED. RECOMMENDATIONS FOR MANAGEMENT ARE MADE AND THE NEED FOR ADDITIONAL DATA IS OUTLINED.

G-49

GLACIER NATIONAL PARK.

ANNUAL.

"REPORT OF THE PARK NATURALIST, GLACIER NATIONAL PARK."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN).

PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE REPORTS OUTLINE THE SEASON'S ACTIVITIES BY THE PARK NATURALIST. AN ASSESSMENT OF THE FLOWERS, TREES, AND WILDLIFE IS REPORTED. OBSERVATIONS ON THE PARK'S GLACIERS ARE MADE, GEOLOGICAL PARTIES' ACTIVITIES ARE NOTED, SUGGESTIONS FOR TRAILS TO BE CONSTRUCTED ARE MADE.

G-50

GLACIER NATIONAL PARK.

"CHECKLIST OF GLACIER NATIONAL PARK FISHES."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 2 PP.

DRAFT, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE LIST'S NOMENCLATURE FOLLOWS "A LIST OF COMMON AND SCIENTIFIC NAMES OF THE BETTER KNOWN FISHES OF THE UNITED STATES AND CANADA" (AMERICAN FISHERIES SOCIETY, ANN ARBOR, MICHIGAN, 1948). FISH COMMON AND SCIENTIFIC NAMES, AND A BRIEF DISCUSSION OF THEIR DISTRIBUTION IN THE PARK IS INCLUDED.

G-51

GLACIER PARK TRANSPORT COMPANY.

1937-1952.

DRIVERS MANUAL.

GLACIER PARK, MT.

PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS HANDBOOK WAS DESIGNED TO ACQUAINT BUS DRIVERS WITH ALL ASPECTS OF THE PARK'S PHYSICAL AND HISTORICAL FEATURES. WILDLIFE AND VEGETATION IDENTIFICATION, GEOLOGIC HISTORY, HOW THE PARK ADMINISTRATION OPERATES, THE BLACKFEET RESERVATION, AND MANY OTHER TOPICS ARE COVERED.

G-52

GLACIER'S ECOSYSTEM.

GLACIER NATURAL HISTORY ASSOC. 4 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: VERY BRIEF.

(GLACIER NATL. PARK). A BRIEF OUTLINE OF THE CONCEPT OF ECOSYSTEMS AND A DIAGRAM OF GLACIER PARK'S ECOSYSTEM.

G-53

GLENN, JAMES, ET. AL.

1970.

AN AIR QUALITY STUDY IN THE LIBBY AND FLATHEAD VALLEY AREA.

HELLENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, DIV. AIR POLLUTION CONTROL, INDUSTRIAL HYGIENE & RADIOLOGICAL HEALTH. 83 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: APPENDUM IS A REPORT ON THE EFFECTS OF SMELTER EMISSION AT COLUMBIA FALLS, CONTRIBUTED BY CLANCY C. GORDON.

(CENTRAL PORTION OF THE FLATHEAD RIVER BASIN & LIBBY AREA). THE STUDY EXAMINES BASELINE QUALITY AND TYPES OF AIR "CONTAMINANTS: DUSTFALL, REACTIVE SULFUR, TOTAL SUSPENDED PARTICULATES, BENZENE SOLUBLE FRACTION, LEAD, ARSENIC, AND FLUORIDE. A VEGETATIVE SURVEY OF COLUMBIA FALLS IS INCLUDED.

G-54

GOPALAKRISHNAN, CHENNAI.

1971.

A STUDY OF THE ECONOMIC, LEGAL, AND INSTITUTIONAL ASPECTS OF MONTANA'S WATER RESOURCE DEVELOPMENT.

BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT. BULL. 648. 33 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE CURRENT WATER USE PATTERNS ARE DISCUSSED IN TERMS OF THEIR ECONOMIC CONTRIBUTION, FUTURE CHANGES IN WATER USE, THE CURRENT WATER LAWS AND THEIR ECONOMIC EFFECT. CONSERVATION DISTRICTS AND STATE AND FEDERAL ROLES IN WATER DEVELOPMENT ARE ALSO CONSIDERED.

G-55

GORDON, CLANCY C.

1971.

1971 GLACIER NATIONAL PARK STUDY: INTERIM REPORT.

MISSOULA, MT.: UNIV. MONTANA, ENVIRONMENTAL STUDIES DEPT.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). DURING 1971 A STUDY OF FLUORIDE ACCUMULATION WAS UNDERTAKEN ON VEGETATION AND SMALL ANIMALS IN THREE AREAS WITHIN THE BOUNDARIES OF GLACIER NATIONAL PARK AND COMPARED TO ACCUMULATIONS FOUND THE PREVIOUS YEAR. TABLES CONTAIN DATA COLLECTED.

G-56

GORDON, CLANCY C.

1972.

1971 GLACIER NATIONAL PARK STUDY: FINAL REPORT.

MISSOULA, MT.: UNIV. MONTANA. 28 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE REPORT CONTAINS THE FLUORIDE DATA OBTAINED FROM THE ANALYSIS OF VEGETATION AND ANIMALS COLLECTED IN THREE AREAS IN THE PARK. CONIFEROUS FOLIAGE, WOODY SHRUBS, CHIPMUNKS, DEER MICE, GROUSE, WHITE-TAILED DEER, AND BLACK BEAR FEMUR BONES WERE COLLECTED AND ANALYZED.

G-57

GORDON, CLANCY C.

1974.

ENVIRONMENTAL EFFECTS OF FLUORIDES: GLACIER NATIONAL PARK AND VICINITY.

DENVER: U.S. ENVIRONMENTAL PROTECTION AGENCY, DIV. AIR & WATER PROGRAMS. 155 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK & COLUMBIA FALLS). THE REPORT CONSIDERS A 1970 STUDY OF FLUORIDE ACCUMULATION AND ITS PATHOLOGICAL EFFECTS ON MANY PLANT AND ANIMAL SPECIES. GRASS SAMPLES NOTING FLUORIDE ACCUMULATION ARE PRESENTED. THE PHENOMENON OF INCREASING FLUORIDE CONCENTRATIONS IN THE FOOD CHAIN IS DISCUSSED.

G-58

GORDON, CLANCY C.
1975.

1974-75 REPORT: MONITORING OF FLUORIDE ACCUMULATION IN GLACIER NATIONAL PARK. MISSOULA, MT.: UNIV. MONTANA. 40 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE STUDY OBJECTIVE WAS TO ASCERTAIN IF FLUORIDE EMITTED FROM AN ALUMINUM PLANT WAS CONTINUING TO ACCUMULATE IN VEGETATION AND ANIMAL TISSUE (NOT THE AMOUNT OF FLUORIDE INJURY TO SPECIES). SAMPLES FROM CONIFERS, SHRUBS, FORBS AND GRASSES, AND MAMMAL SAMPLES WERE CHEMICALLY ANALYZED USING AN ORION FLUORIDE SPECIFIC ION ELECTRODE AS THE FLUORIDE SENSOR.

G-59

GORDON, CLANCY C.
1978.

HOG HEAVEN MINING DISTRICT: WATER QUALITY SUPPLEMENT 2. MISSOULA, MT.: UNIV. MONTANA, ENVIRONMENTAL STUDIES DEPT. 14 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HOG HEAVEN MINING DISTRICT). THIS IS A CONTINUATION OF A 1977 STUDY BY THE SAME AUTHOR. BECAUSE OF DROUGHT CONDITIONS EXPERIENCED DURING THE FIELD SEASON OF 1977, ADDITIONAL EXAMINATION OF THE WATER QUALITY FOR A MORE TYPICAL WATER YEAR WAS NECESSARY TO BE ANALYZED. WATER QUALITY PARAMETERS WERE: DO, PH, SPECIFIC CONDUCTIVITY, TEMPERATURE, CA, MG, FE, HEAVY METALS, SO-3, CaCO₃, NO-3, AND ARSENIC.

G-60

GORDON, CLANCY C., AND ENVIRONMENTAL STUDIES LABORATORY PERSONNEL.
1972.

1970 GLACIER NATIONAL PARK STUDY. MISSOULA, MT.: UNIV. MONTANA, ENVIRONMENTAL STUDIES DEPT. 277 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK & COLUMBIA FALLS). DURING THE SUMMER AND FALL OF 1970, A STUDY OF FLUORIDE ACCUMULATION AND ITS PATHOLOGICAL EFFECTS WAS CARRIED OUT ON MANY SPECIES OF FLORA AND FAUNA IN THE COLUMBIA FALLS-GLACIER NATIONAL PARK AREA. THIS REPORT DISCUSSES: ACCUMULATION IN VEGETATION FORAGED BY ANIMALS; ACCUMULATION IN FOLIAR AND OTHER THAN FOLIAR PORTIONS OF VEGETATIVE SPECIES, AND FLUORIDE ACCUMULATION IN INDIGENOUS WILD ANIMALS.

G-61

GORDON, CLANCY C., ET. AL.
1972.

1972 GLACIER PARK REPORT. MISSOULA, MT.: UNIV. MONTANA. 16 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE REPORT DESCRIBES THE CONTINUED MONITORING OF FLUORIDE CONTAMINATION IN FLORA AND FAUNA SAMPLES. A LIMITED NUMBER OF SAMPLES WERE COLLECTED. VEGETATION SAMPLES INCLUDE PINUS PONDEROSA, PINUS CONTORTA, AND PSEUDOTSUGA MENZIESII. BONE TISSUES OF AN ELK AND BLACK BEAR, TWO RUFFED GROUSE, AND MEMBERS OF THE TWO DEER SPECIES WERE ANALYZED.

G-62

GORDON, CLANCY C., ET. AL.
1977.

BASELINE EVALUATION OF ECOSYSTEMS IMPACTED BY MINING IN THE VICINITY OF THE FLATHEAD SILVER MINE, HOG HEAVEN MINING DISTRICT. MISSOULA, MONT.: BY THE AUTHOR. 82 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN BASIN;

NOTE: THE APPENDIX INCLUDES A REVIEW OF LITERATURE PERTAINING TO THE TOXICITY OF COPPER, ZINC, ALUMINUM, SULFATE, AND PH.

AVAILABLE FROM: CONGDON AND CAREY CO., DENVER, COLORADO.

(NORTHWESTERN MONTANA: HOG HEAVEN HILL MINING DISTRICT). THE STUDY OBJECTIVE IS THE DETERMINATION OF THE EFFECTS OF PAST SILVER-MINING ON VEGETATION AND WATER QUALITY. A CHECKLIST OF VASCULAR PLANTS, THEIR RELATIVE ABUNDANCE AND HEALTH, IS INCLUDED. THE WATER QUALITY OF STREAMS RECEIVING DIRECT DISCHARGE OF MINE DRAINAGE EFFLUENT IS COMPARED TO UNAFFECTED WATERS. WATER QUALITY PARAMETERS CONSIDERED ARE: HEAVY METALS, PH, ALUMINUM, SULFATE, SEDIMENT, TEMPERATURE, AND INSECTS.

G-63

"GOVERNMENT SURVEY NOW COMPLETED ON THE FLATHEAD RESERVATION." THE WESTERN HOMESEAKER, NOVEMBER 1905, P. 28.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE ANNOUNCES THE COMPLETION OF THE SURVEY OF THE RESERVATION LANDS. SKCC.

G-64

GRAFF, PAUL W.
1920.

"UNREPORTED FERNS FROM MONTANA." BULL. TORREY BOTANICAL CLUB 47(31 MARCH 1920):125-129. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY & GLACIER NATL. PARK). THIS PAPER GIVES DESCRIPTIONS OF FOUR "NEW" FERNS FOUND WITHIN THE FLATHEAD BASIN. THEY ARE OPHIOGLOSSUM VULGATUM, ASPIDIUM CRISTATUM, A. FILIX-MAS, AND A. SPINULOSUM.

G-65

GRAFF, PAUL W.
1922.

"UNREPORTED PLANTS FROM GLACIER NATIONAL PARK." BULL. TORREY BOTANICAL CLUB 49(JULY 8, 1922). FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A LISTING OF THE SCIENTIFIC NAMES, THE DISCOVERER AND LOCATION OF DISCOVERY OF PREVIOUSLY UNREPORTED PLANTS.

G-66

GRAHAM, DONALD R.
1963.

"FLATHEAD COUNTY SOILS IN RELATION TO THEIR INHERENT FERTILITY STATUS."

M.S. THESIS, MONTANA STATE COLL., BOZEMAN. 75 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). EIGHT WESTERN MONTANA SOILS WERE INVESTIGATED BY LABORATORY AND FIELD TRIALS TO DETERMINE RELATIVE LEVELS OF AVAILABLE NITROGEN, PHOSPHORUS, POTASSIUM, AND BORON. FERTILITY LEVELS OF EACH SOIL WERE DETERMINED BY COMPUTING THE MEDIAN OF CHEMICAL DETERMINATIONS FROM EACH SOIL. SOIL TEST DATA FROM EACH TRIAL SITE WERE COMPARED TO THE MEDIAN OF THE SERIES TO DETERMINE HOW WELL THE SITE REPRESENTED THE FERTILITY STATUS OF THE SERIES. RESULTS OF EACH FIELD TRIAL WERE WEIGHED AGAINST THESE COMPARISONS AND INTERPRETATIONS WERE MADE ACCORDINGLY.

G-67

GRAHAM, DONALD R.
1964.

DWARF MISTLETOE SURVEY IN WESTERN MONTANA. OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH NOTE INT-14. 7 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE DISTRIBUTION AND FREQUENCY OF INFECTION BY DWARF MISTLETOE (ARCEUTHOBium spp.) IN A PORTION OF WESTERN MONTANA WAS DETERMINED BY A SURVEY OF 2,090 SAMPLE PLOTS IN THE CLARK FORK UNIT. THE SURVEY METHODS ARE DESCRIBED; TABLES LIST PERCENTAGE OF TREES INFECTED BY COUNTY, TIMBER TYPE, AND SEVERITY OF INFECTION.

G-68

GRAHAM, DONALD R.
1972.

"NITRATE LEVELS IN GROUND WATER." NOW, MONTANA STATE UNIV., COLL. AGRICULTURE, BOZEMAN, MT. 1 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN MONTANA: FLATHEAD COUNTY). THIS IS A BRIEF REPORT ON PRELIMINARY STUDIES OF NITRATE MOVEMENT ON WESTERN MONTANA COARSE TEXTURED SOILS. NITRATE MOVEMENT UNDER A SOLID SET SPRINKLER SYSTEM ON A SANDY LOAM SOIL (POTATO FIELD) IN CRESTON WAS MONITORED, AND A NITRATE DISTRIBUTION PROFILE WAS EXAMINED IN A WINTER WHEAT FIELD.

G-69

GRAHAM, DONALD R.
1973.

HAY FERTILIZATION IN FLATHEAD VALLEY, MONTANA. BOZEMAN, MT.: MONTANA STATE UNIV. RESEARCH REPT. 32. 17 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY). THE REPORT CONTAINS OBSERVATIONS OF A TWO-YEAR STUDY OF HAY RESPONSE TO FERTILIZER ON AREA SOILS. FERTILIZER TREATMENTS INVOLVE: SULFUR, PHOSPHOROUS, NITROGEN, POTASSIUM, BORON, ZINC, IRON, AND MOLYBDENUM. IT NOTES THE EFFECT ON HAY QUALITY AND YIELD, THE CORRELATION (AND EXCEPTIONS) OF SOIL TEST DATA AND ACTUAL FIELD RESPONSES, THE RESPONSE OF HAYS WITH RELATIVELY LOW NUTRIENT-ELEMENT LEVELS TO FERTILIZERS OF THAT ELEMENT, AND THE INFLUENCE OF FERTILIZER ON NUTRIENT LEVELS WITH HARVEST DELAY.

G-70
GRAHAM, DONALD R.
 1973.
LEAF ANALYSES OF SWEET CHERRY TREES IN THE FLATHEAD LAKE REGION OF MONTANA.)
 BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT., RESEARCH RE PT. 63. 18 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). LEAF ANALYSIS IS A METHOD OF EVALUATING THE NUTRIENT STATUS OF A PLANT; THEORETICALLY, NUTRIENT LEVELS IN LEAVES SHOULD GIVE SOME INDICATION OF DEFICIENCIES OR IMBALANCES. LEAVES WERE COLLECTED FROM EIGHT FIFTEEN-YEAR-OLD 'LAMBERT' CHERRY TREES, AND SOIL SAMPLES WERE COLLECTED FROM THE DRIP LINE AT THE SAMPLE TREES. THE EFFECT OF EACH LEAF NUTRIENT-ELEMENT ON THE LEVEL OF OTHER ELEMENTS WAS EVALUATED BY DEVELOPING A SYMMETRIC CORRELATION MATRIX. TABLES LIST ALL ANALYSIS DATA.

G-71
GRAHAM, DONALD R.
"NITRATE MOVEMENT IN WESTERN MONTANA SOILS."
 MONTANA AGRIC. EXPR. STAT., WESTERN RESEARCH CENTER, HAMILTON, MT. (TYPEWRITTEN). 7 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD, LAKE, & SANDERS COUNTIES). THIS PAPER REPORTS ON A FOUR-YEAR STUDY OF 32 WESTERN MONTANA SOILS CONCERNING THE RAPIDITY AND EXTENT OF NITRATE MOVEMENT. IRRIGATED, DRYLAND, AND SANDY SOILS ARE EXAMINED.

G-72
GRAHAM, DONALD R., AND ROATH, C. W.
 1972.
HARVEST TIMING, FERTILIZATION AND SPECIES OF HAY FOR WESTERN MONTANA.
 BOZEMAN, MT.: MONTANA STATE COLL., MONTANA AGRIC. EXPR. STAT. RESEARCH REPT. 22. 10 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: CRESTON, RONAN, & LONEPINE). THE DOCUMENT REPORTS ON STUDIES AT FIVE AREA LOCATIONS WHICH EVALUATED SIX SPECIES OF GRASS AND LEGUME, THREE FERTILITY LEVELS, AND THREE HARVEST SCHEDULES. IT SEEKS TO DEVELOP FEASIBLE AGRONOMIC ALTERNATIVES TO ACHIEVE MAXIMUM YIELDS OF HIGH QUALITY HAY DURING SUITABLE HAYING WEATHER.

G-73
GRAHAM, V. E., AND YOUNG, R. T.
 1934.
"A BACTERIOLOGICAL STUDY OF FLATHEAD LAKE, MONTANA."
 ECOLOGY 15 (APRIL 1934):101-109.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS ARTICLE PRESENTS BOTH QUANTITATIVE AND QUALITATIVE DATA RESULTS OF A BRIEF BACTERIOLOGICAL SURVEY DONE DURING 1929 AND 1930. THE DISTRIBUTION OF THE BACTERIA IN BOTH SPACE AND TIME IS DESCRIBED. SOME OF THE IMPORTANT PHYSIOLOGICAL AND MORPHOLOGICAL CHARACTERS OF THE BACTERIA ARE ALSO REPORTED, TOGETHER WITH A BRIEF STUDY OF NITRIFICATION AND DENITRIFICATION.

G-74
GRANT, MADISON.
 1919.
THE BEGINNINGS OF GLACIER NATIONAL PARK.
 WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS IS AN EARLY HISTORICAL ACCOUNT OF THE CREATION OF GLACIER NATIONAL PARK. INCLUDED ARE COMMENTS ON MANY OF THE OLDER NAMES OF THE VARIOUS NATURAL FEATURES OF THE PARK.

G-75
GRANT, MADISON.
 1919.
EARLY HISTORY OF GLACIER NATIONAL PARK.
 WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE. 12 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS HISTORIC ACCOUNT OF GLACIER NATIONAL PARK DISCUSSES ITS EARLY EXPLORATION, THE NAMING OF ITS FEATURES, GEORGE BIRD GRINNELL'S EXPLORATION ACTIVITIES AND NEGOTIATIONS WITH THE BLACKFEET TO OBTAIN THE AREA FOR THE FEDERAL GOVERNMENT, MINING ACTIVITIES, AND THE ESTABLISHMENT OF THE PARK ITSELF.

G-76
GRAY, HAROLD.
 1974.
MONTANA INDIANS AND HEALTH—CULTURAL AWARENESS CONFERENCE: A FINAL REPORT.
 HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, DIV. COMPREHENSIVE HEALTH PLANNING. 38 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). A COMPILATION OF THE PROCEEDINGS OF A CONFERENCE DEALING WITH INDIAN HEALTH PROBLEMS AND FOCUSING ON CULTURAL PROBLEMS RELATING TO HEALTH. OPINIONS OF INDIANS AND HEALTH PROFESSIONALS ARE PRESENTED. THE REPORT PRESENTS RECOMMENDATIONS AND PROVIDES EXCERPTS AND TEXTS OF SPEECHES.

G-77
GREAT NORTHERN RAILWAY.
 1906.
FLATHEAD INDIAN RESERVATION.
 40 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: TEMPERATURE AND PRECIPITATION DATA FOR 1899-1906 ARE INCLUDED.

AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(FLATHEAD INDIAN RESERVATION). THE BOOKLET DESCRIBES THE OPENING OF THE RESERVATION FOR SETTLEMENT AND INCLUDES A COPY OF THE CONGRESSIONAL ENACTMENT. QUESTIONS ARE ANSWERED CONCERNING: SIZE OF THE OPENED LANDS, CLIMATE, SOIL, WATER, TIMBER, AND WHAT CROPS DO WELL. FRUIT GROWING, STOCKRAISING, LUMBERING, MINERAL RESOURCES, EDUCATION, HEALTH, AND SPORTING ACTIVITIES ARE DISCUSSED.

G-78
GREAT NORTHERN RAILWAY.
 1909.
THE FERTILE FLATHEAD VALLEY, MONTANA.
 KISER. 22 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(FLATHEAD VALLEY: KALISPELL & FLATHEAD LAKE). THE BOOKLET ADVERTISES THE AMENITIES OF THE REGION: ITS "EQUABLE" CLIMATE, ORCHARDS, LAND VALUES. EARLY KALISPELL AND OTHER VALLEY TOWNS ARE DESCRIBED.

G-79
GREAT NORTHERN RAILWAY.
 1946.
GLACIER NATIONAL PARK AND WATERTON LAKES NATIONAL PARK.
 ST. PAUL, MN. 30 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). PRIMARILY PHOTOGRAPHS AND SOME DESCRIPTIONS OF VARIOUS RECREATIONAL ACTIVITIES OFFERED AT THE PARK.

G-80
GREAT NORTHERN RAILWAY.
 1967.
"FLATHEAD TUNNEL OPERATIONS ON THE LASER BEAM."
 THE GREAT NORTHERN GOAT, 1967, P. 14.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS ARTICLE DESCRIBES HOW LASER BEAMS WERE USED IN ALIGNING DRILLING THROUGH ELK MOUNTAIN FOR A DISTANCE OF 38,544 FEET.

G-81
GREAT NORTHERN RAILWAY.
 1968.
"TWO DRILL TEAMS BORING MOUNTAINS CREATING GREAT NORTHERN'S SECOND LONGEST TUNNEL IN THE WEST."
 THE GREAT NORTHERN GOAT, JANUARY 1968, PP. 8-9.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS ARTICLE DESCRIBES CONSTRUCTION ON THE FLATHEAD TUNNEL, LOCATED IN THE SALISH MOUNTAINS.

G-82
GREAT NORTHERN RAILWAY.
 1969.
"FLATHEAD TUNNEL NEARS COMPLETION: SWITCH TO NEW LINE PLANNED IN LATE 1970."
 THE GREAT NORTHERN GOAT, DECEMBER 1969, P. 14.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS ARTICLE DESCRIBES THE VENTILATION SYSTEM INSTALLED IN THE SEVEN-MILE FLATHEAD TUNNEL WHICH WILL PERMIT THE USE OF DIESEL-ELECTRIC LOCOMOTIVES.

G-83
GREAT NORTHERN RAILWAY.
"AEROPLANE MAP—GLACIER NATIONAL PARK."
 GREAT NORTHERN RAILWAY, ST. PAUL, MINN. 1 P.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(GLACIER NATL. PARK). THIS EARLY TOPOGRAPHIC MAP OF THE PARK INCLUDES ROADS, TRAILS, AND RAILROAD LINES, PLUS A LISTING OF SADDLE HORSE AND BUS TRIPS.

G-84
GREAT NORTHERN RAILWAY.
KEY TO GLACIER AND WATERTON LAKES PARKS.
 30 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(GLACIER NATL. PARK). THIS ARTICLE DESCRIBES THE RECREATIONAL ACTIVITIES OPEN TO VISITORS TO GLACIER PARK PRIOR TO 1950.

G-85

GREENACRES, INC.

1963.

1962 FOREST INVENTORY FLATHEAD INDIAN RESERVATION, VOL. 1.

BILLINGS, MT.: U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS. 150 PP.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS INVENTORY WAS UNDERTAKEN TO PROVIDE NEW AERIAL PHOTOGRAPHS, ACCURATE PLANIMETRIC AND TIMBER TYPE MAPS, AND FOREST INVENTORY AND GROWTH DATA TO THE FLATHEAD INDIAN AGENCY. TABLES ILLUSTRATE DBH AND TOTAL HEIGHT RELATIONSHIPS, AND CUBIC AND BOARD FEET VOLUMES BY SPECIES.

G-86

GREER, KENNETH R.

1974.

"MONTANA GRIZZLY BEAR MANAGEMENT AND PUBLIC HARMONY."

PAPER PRESENTED AT THE THIRD INTERNATIONAL CONFERENCE ON BEAR RESEARCH AND MANAGEMENT, BINGHAMPTON, NEW YORK. 46 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). A SURVEY INITIATED TO OBTAIN DATA ON LEGAL GRIZZLY BEAR (*URSUS ARCTOS*) KILLS AND GRIZZLY HUNTERS IS DISCUSSED, ALONG WITH INFORMATION OF GRIZZLY MORTALITY DUE TO CAUSES OTHER THAN HUNTING. SEX AND AGE OF THE DEAD BEARS AND THE SUCCESSFUL RELOCATION OF GRIZZLIES ARE TOPICS DISCUSSED. MANAGEMENT RECOMMENDATIONS ARE PRESENTED.

G-87

GREINER, ELLIS C.; WORLEY, DAVID E.; AND O'GARA, BART W.

1974.

"PROTOSTRONGYLUS MACROTIS (NEMATODA: METASTRONGYLOIDEA) IN PRONGHORN ANTELOPE FROM MONTANA AND WYOMING."

J. WILDLIFE DISEASES 10(JANUARY 1974):70-73.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WYOMING & MONTANA: NATL. BISON RANGE). LUNGWORM PREVALENCE AND INTENSITY IN PRONGHORN ANTELOPE (*ANTILOPACAPRA AMERICANA*) WAS STUDIED. COMPARISONS BETWEEN PRONGHORN AND BIGHORN SHEEP (*OVIS CANADENSIS*) LUNGWORM DISTRIBUTIONS AND PREVALENCES ARE REPORTED. REASONS FOR THE DIFFERENCES IN THE PREVALENCE OF LUNGWORMS ARE SUGGESTED.

G-88

GRIDLEY, MARION E., ED.

1971.

INDIANS OF TODAY. 4TH ED.

CHICAGO: I.C.F.P., INC.

(FLATHEAD INDIAN RESERVATION). THIS BOOK INCLUDES SKETCHES OF D'ARCY MCNICKLE AND DOROTHY L. ANDERSON FROM THE FLATHEAD RESERVATION. SKCC.

G-89

GRIESER, KENNETH CHARLES, AND BROWMAN, LUDVIG G.

1956.

"TOTAL GONADOTROPIC POTENCY OF MULE DEER PITUITARIES."

ENDOCRINOLOGY 58:206-211.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). A COOPERATIVE STUDY OF REPRODUCTIVE PHENOMENA IN MULE DEER (*ODOCOILEUS HEMIONUS*) WAS INITIATED TO COINCIDE WITH A DEER HERD REDUCTION PROGRAM ON THE NATIONAL BISON RANGE. THE PRINCIPAL OBJECTIVE OF THE INVESTIGATION WAS TO REPORT ON THE TOTAL GONADOTROPIC POTENCY OF ENTIRE PITUITARIES OF FEMALE MULE DEER COLLECTED FROM THREE DIFFERENT AGE GROUPS THROUGHOUT THE YEAR.

G-90

GRIGGS, ROBERT F.

1938.

"TIMBERLINES IN THE NORTHERN ROCKY MOUNTAINS."

ECOLOGY 19(OCTOBER 1938):548-564.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.: GLACIER NATL. PARK & 10 OTHER LOCATIONS). TIMBERLINES ARE INVESTIGATED IN THIS STUDY IN AN ATTEMPT TO DETERMINE WHETHER THEY ARE ADVANCING, RETREATING, OR STATIC. FOR EACH OF THE ELEVEN STUDY AREAS, VEGETATIVE FEATURES OF THE TIMBERLINE ARE DESCRIBED.

G-91

GRINNELL, GEORGE BIRD.

1898.

"NORTHERN ROCKY MOUNTAIN GLACIERS."

SCIENCE 8(18 NOVEMBER 1898):711-712.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A DESCRIPTION BY AN EARLY SCIENTIFIC EXPLORER OF GLACIERS ENCOUNTERED ON THE BLACKFEET RESERVATION, LATER TO BECOME GLACIER NATIONAL PARK.

G-92

GRINNELL, GEORGE BIRD.

1901.

"THE CROWN OF THE CONTINENT."

CENTURY, SEPTEMBER 1901, PP. 680-672.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). DESCRIPTIONS OF GLACIER NATIONAL PARK, THE "CROWN OF THE CONTINENT," BY ONE OF THE FIRST PEOPLE TO DO ANY EXTENSIVE TRAVELLING THROUGH THE AREA. PACK TRIPS ARE DESCRIBED; THE AREA'S PHYSICAL BEAUTY DETAILED.

G-93

GRINNELL, GEORGE BIRD.

1929.

"NOW GLACIER NATIONAL PARK."

AMERICAN FORESTRY 35(AUGUST 1929):488-492.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DISCUSSES THE FEATURES OF THE PARK AND GIVES A HISTORY OF ITS DEVELOPMENT. THE SCENERY AND TRAILS, AN AREA UNDER INDIAN JURISDICTION, AND MINING PROSPECTS ARE DESCRIBED.

G-94

GRISWOLD, GILLETT.

1953.

ARCHAEOLOGICAL SITES IN THE FLATHEAD LAKE REGION: A SYMPOSIUM.

MISSOULA, MT.: ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 15. 52 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS PAPER PRESENTS REPORTS ON 9 ARCHAEOLOGICAL SITES IN THE AREA. TOPICS ARE: LITHIC SPECIMENS FROM DAYTON, PICTOGRAPHS AND A ROCK SHELTER, THE ORIGIN OF PICTOGRAPHS, THE LAKESIDE OCCUPATION SITE, AN OCCUPATION SITE NEAR HUNGRY HORSE RESERVOIR, SPECIMENS FOUND ON THE SUDAN SITE, AND AN ARCHAEOLOGICAL SITE AT SWAN LAKE. EDITORS' COMMENTS FOLLOW EACH REPORT.

G-95

GRISWOLD, GILLETT.

1953.

"AN OCCUPATION SITE IN THE HUNGRY HORSE RESERVOIR AREA." IN ARCHAEOLOGICAL SITES IN THE FLATHEAD LAKE REGION: A SYMPOSIUM.

MISSOULA, MT.: UNIV. MONTANA. ANTHROPOLOGICAL & SOCIOLOGICAL PAPERS, NO. 15. 52 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR). A DESCRIPTION OF THE RESERVOIR AREA AND OF THE ONLY IDENTIFIED OCCUPATION SITE THERE.

G-96

GRISWOLD, GILLETT.

1954.

"ABORIGINAL PATTERNS OF TRADE BETWEEN THE COLUMBIA BASIN AND THE NORTHERN PLAINS."

M.A. THESIS, MONTANA STATE UNIV., MISSOULA.

(WESTERN MONTANA). THIS THESIS SUMMARIZES THE HISTORICAL AND ARCHAEOLOGICAL EVIDENCE OF TRADE THROUGH THE WESTERN MONTANA AREA BEFORE THE ARRIVAL OF THE WHITES. SKCC.

G-97

GRISWOLD, GILLETTE.

1970.

"ABORIGINAL PATTERNS OF TRADE BETWEEN THE COLUMBIA BASIN AND THE NORTHERN PLAINS."

ARCHAEOLOGY IN MONTANA 11(APRIL-SEPTEMBER 1970):1-96.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: INFORMATION CONCERNING THE INDIANS OF THE FLATHEAD BASIN IS INCLUDED IN DISCUSSIONS PERTAINING TO THE COLUMBIA-FRASER PLATEAU.

(NORTHWESTERN UNITED STATES: ABORIGINAL LANDS OF THE INDIANS OF THE COLUMBIA BASIN). THE PAPER RECONSTRUCTS PREABORIGINAL, INTERTRIBAL TRADE PATTERNS THAT EXISTED BETWEEN THE LATE 1780'S AND THE EARLY 1800'S WITHIN THREE CULTURAL AREAS: THE NORTHWEST COAST, THE COLUMBIA-FRASER PLATEAU, AND THE GREAT PLAINS. MODES OF PRODUCTION AND DISTRIBUTION, TYPES AND VALUES OF EXCHANGE MEDIA EMPLOYED, AND THE METHODS OF EXCHANGE ARE DISCUSSED. EXAMINATIONS OF ETHNOGRAPHIC LITERATURE AND RECORDS AND JOURNALS OF EARLY EUROPEAN EXPLORERS WERE MADE.

G-98

GRIVA, EDWARD, S. J.

1918.

"NEW YEAR'S DAY WITH THE KOOTENAI."

INDIAN SNTINEL 1(JANUARY 1918):27-28.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE DESCRIBES THE WAY NEW YEAR'S WAS CELEBRATED AT THE TIME BY THE ELMO KOOTENAI. SKCC.

G-99

GROFF, S. L.
1983.

STRATIGRAPHIC CORRELATIONS FOR MONTANA AND ADJACENT AREAS.

BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. SPEC. PUBL. NO. SP31. 1 P.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE CHART SHOWS STRATIGRAPHIC CORRELATIONS OF THE FORMATIONS OF VARIOUS GEOLOGIC PERIODS AND EPOCHS, FROM THE PRECAMBRIAN BELT SYSTEM TO QUATERNARY DEPOSITS. INFORMATION IS ARRANGED IN COLUMNAR FASHION. THE SECTIONS PRESENTED ARE NORTHWESTERN MONTANA, WEST GLACIER-WHITEFISH RANGE, AND WESTERN MONTANA-COEUR D'ALENE.

G-100

GROFF, S. L., AND STONE, ALBERT W.
1958.

A SUMMARY REPORT ON THE GROUND WATER SITUATION IN MONTANA.

BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. INFO. CIRC. 26. 45 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). A SUMMARY OF CURRENT KNOWLEDGE REGARDING GROUND- WATER RESOURCES IS PRESENTED. BASIC CONCEPTS OF GROUND WATER SCIENCE ARE EXPLAINED, BUT NO ATTEMPT WAS MADE TO PRESENT DETAILED SCIENTIFIC ANALYSIS OF ANY PARTICULAR AREA. MONTANA IS BROKEN INTO THREE BROAD GEOGRAPHICAL AREAS (WESTERN, CENTRAL, AND EASTERN) AND THE OCCURRENCE OR POTENTIAL OCCURRENCE OF GROUND WATER IS DISCUSSED FOR EACH AREA. THE REPORT CONCLUDES WITH AN ARTICLE BY ALBERT W. STONE ENTITLED "MONTANA AND THE LAW OF GROUND WATER."

G-101

GROUT, A. J.
1901.

"TWO NEW VARIETIES OF BRACHYTHECIUM."

THE BRYOLOGIST 4(JULY 1901):48.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: AVALANCHE TRAIL & SPERRY GLACIER). A BRIEF NOTE ON TWO NEW VARIETIES OF BRACHYTHECIUM, B. RIVULARE LAXUM AND B. COLINUM HOLZINGERI. LOCALE, LEAF, AND CELLULAR CHARACTERISTICS ARE LISTED.

G-102

A GUIDE TO LOCAL GOVERNMENT FINANCE.

HELENA, MT.: OFFICE OF THE GOVERNOR, STATE-LOCAL COORDINATOR. 52+ PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE GUIDE OF LOCAL FACILITIES AND PROGRAMS CONTAINS AN INDEX IDENTIFYING LOCAL, STATE, AND FEDERAL FINANCING SOURCES AND PROGRAMS. A LISTING AND DESCRIPTION OF THE LOCAL RESOURCES AND STATE AND FEDERAL PROGRAMS FOLLOWS AND NOTES THE TYPES OF PROGRAMS AND THE CONTACT.

G-103

GULBRANDSEN, R. A.; GOLDSCH, S. S.; AND THOMAS, H. H.
1963.

"GLAUCONITE FROM THE PRECAMBRIAN BELT SERIES, MONTANA."

SCIENCE 140(26 APRIL 1963):360-362.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: GLACIER NATL. PARK). THIS ARTICLE DESCRIBES THE FIRST PRE-CAMBRIAN AGED GLAUCONITE REPORTED IN NORTH AMERICA, COLLECTED FROM THE UPPER PART OF THE MISSOULA GROUP OF THE BELT SERIES, FLATHEAD COUNTY.

G-104

GUSTAFSON, NEIL C.
1973.

RECENT TRENDS/FUTURE PROSPECTS: A LOOK AT UPPER MIDWEST POPULATION CHANGES.
MINNEAPOLIS: UPPER MIDWEST COUNCIL. 69 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(UPPER MIDWEST: FLATHEAD RIVER BASIN). THIS STUDY EXAMINES: GENERAL POPULATION CHANGES

AND DISTRIBUTION, COUNTY POPULATIONS CHANGES, SMALL AREA POPULATION CHANGES, MIGRATION, AGE STRUCTURE, AGE DISTRIBUTION, RACIAL COMPOSITION, INCOME, EDUCATION ATTAINMENT, EMPLOYMENT, URBAN AREA POPULATIONS, SERVICE CENTERS, POPULATION PROJECTIONS, AND URBAN AREA POPULATION ESTIMATES. MAPS AND CHARTS ILLUSTRATE MOST OF THE DATA.

G-105

GUTHRIE, MARK R.
1978.

CULTURAL RESOURCE INVENTORY OF SPECIFIED AREAS WITHIN GLACIER NATIONAL PARK, MONTANA.

LINCOLN, NE.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, MIDWEST ARCHAEOLOGICAL CENTER. 28 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). PRIOR TO PROPOSED DEVELOPMENTS IN GLACIER NATIONAL PARK THIS SURVEY WAS CONDUCTED IN COMPLIANCE WITH EXECUTIVE ORDER H583 AND NATIONAL PARK SERVICE HISTORIC PRESERVATION POLICIES. FIVE SITES WERE LOCATED: TWO ARE PREHISTORIC LITHIC SCATTERS, THREE ARE HISTORIC SITES WHICH INCLUDE A HOMESTEAD RANCH, A SCARRED TREE, AND AN OLD TOWN SITE. MAPS AND PHOTOGRAPHS ARE INCLUDED.

G-106

GYNN, JOHN C.; CHAPMAN C. M.; AND RILEY, M. C.
1939-1950.

BLISTER RUST CONTROL, GLACIER NATIONAL PARK.
SPOKANE, WA.: U.S. DEPT. AGRICULTURE, BUREAU ENTOMOLOGY & PLANT QUARANTINE, DIV. PLANT DISEASE CONTROL, BLISTER RUST CONTROL. 56 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE ARE A SERIES OF REPORTS ON THE PROGRESS OF THE BLISTER RUST CONTROL PROGRAM IN THE PARK. WORK PROJECTS ARE DISCUSSED, RECOMMENDATIONS MADE, AND THE RESULTS OF THE YEAR'S FIELD WORK ARE SUMMARIZED. TABLES LIST THE NUMBER OF ACRES, MAN DAYS, AND PLANTS ERADICATED.



H-1

HABECK, JAMES R.

1963.

"THE COMPOSITION OF SEVERAL CLIMAX FOREST COMMUNITIES IN THE LAKE MCDONALD AREA OF GLACIER NATIONAL PARK."

PROC. MONTANA ACADEMY SCIENCES 23:37-44.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE MCDONALD AREA). THE OBJECTIVE OF THIS REPORT IS THE CLARIFICATION OF THE NATURE AND COMPOSITION OF THE AREA'S MATURE FORESTS. THE COMPOSITION OF FOUR CLIMAX STANDS ARE PRESENTED AND DISCUSSED. THE DATA DEMONSTRATES THE DIFFICULTY, IF NOT IMPOSSIBILITY, OF CONSIDERING ALL THESE STANDS AS A SINGLE CEDAR-HEMLOCK CLIMAX. VARIATIONS IN PHYSIOGRAPHIC FEATURES ARE CONSIDERED TO BRING ABOUT DIFFERENCES IN SOIL MOISTURE CONDITIONS BELIEVED TO BE OF MAJOR SIGNIFICANCE IN AFFECTING FOREST COMPOSITION.

H-2

HABECK, JAMES R.

1963.

"LICHEN DISTRIBUTION IN THE LAKE MCDONALD FOREST COMMUNITIES IN GLACIER NATIONAL PARK."

PROC. MONTANA ACADEMY SCIENCES 23:34-36.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE MCDONALD AREA). THE STUDY OBJECTIVE WAS TO DETERMINE WHETHER OR NOT THE DISTRIBUTIONAL PATTERNS OF THE LICHEN SPECIES ARE RELATED TO FOREST TYPES. LICHENS WERE COLLECTED IN THREE TYPES OF FOREST COMMUNITIES: 1) LODGEPOLE PINE (PINUS CONTORTA), 2) WESTERN LARCH-WHITE PINE-RED CEDAR (LARIX OCCIDENTALIS-PINUS MONTICOLA-THUJA PLICATA), AND 3) RED CEDAR-WESTERN HEMLOCK (TSUGA HETEROPHYLLA). A LISTING OF THE LICHEN SPECIES COLLECTED IN EACH OF THE THREE FOREST TYPES IS GIVEN. THE ARTICLE ALSO DISCUSSES THE POSSIBILITY OF HOST SPECIFICITY, THE FOREST TYPE WITH THE GREATEST SPECIES DIVERSITY, AND A LICHEN SPECIES AS A FIRE HAZARD.

H-3

HABECK, JAMES R.

1967.

"MOUNTAIN HEMLOCK COMMUNITIES IN WESTERN MONTANA."

NORTHWEST SCIENCE 41:169-177.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD VALLEY). THIS REPORT GIVES A BASIC DESCRIPTION OF MOUNTAIN HEMLOCK (TSUGA MERTENSIANA) COMMUNITIES. THE CORRELATION OF THE SPECIES' RANGE EXTENSION WITH A SIMILAR PENETRATION OF MOIST PACIFIC COAST AIR MASSES IS DISCUSSED. 15 STANDS WERE SELECTED TO REPRESENT A WIDE RANGE OF SITES, COMPOSITIONS, AND STAND AGES. TREES, SAPLINGS, AND UNDERSTORY VEGETATION UNDERWENT DETAILED SAMPLING. THE BASIC APPROACH USED IN THE ANALYSIS OF THE COMMUNITY DATA INVOLVED AN ARRANGEMENT OF STANDS IN ORDER OF INCREASING IMPORTANCE VALUES FOR TSUGA MERTENSIANA. THE REPORT ALSO INCLUDES THE RECORDING AND ANALYZING OF IMPORTANCE VALUES FOR 10 TREE SPECIES, SUCCESSIONAL PATTERNS, AND THE MAINTAINING OF THE MOUNTAIN HEMLOCK AS A SHADE-TOLERANT, CLIMAX SPECIES.

H-4

HABECK, JAMES R.

1967.

THE VEGETATION OF NORTHWESTERN MONTANA: A PRELIMINARY REPORT.



MISSOULA, MT.: UNIV. MONTANA. 57 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, EXISTING DATA, BASIN-WIDE.

(NORTHWESTERN MONTANA). THIS SUMMARY DESCRIPTION OF THE DISTRIBUTION AND COMPOSITION OF MAJOR PLANT COMMUNITIES OUTLINES GENERAL RELATIONSHIPS OF THE COMMUNITIES TO REGIONAL MOISTURE, TOPOGRAPHICAL FEATURES, AND FIRE. A TENTATIVE SYSTEM OF VEGETATION ORGANIZATION IS INCLUDED.

H-5

HABECK, JAMES R.

1968.

"FOREST SUCCESSION IN THE GLACIER PARK CEDAR-HEMLOCK FORESTS."

ECOLOGY 49(SUMMER 1968):8-16.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE MCDONALD). A GRADIENT ANALYSIS AND DESCRIPTION WAS MADE OF FOREST SUCCESSION AMONG THUJA PLICATA-TSUGA HETEROPHYLLA COMMUNITIES. 33 PIONEER, SERAL AND CLIMAX COMMUNITIES LOCATED ON WELL DRAINED SLOPES AT ELEVATIONS FROM 3200 TO 3500 FEET WERE SAMPLED. THE DATA SUMMARIZED ALONG THE RESULTING ORDINATION GRADIENT PROVIDE A QUANTITATIVE DESCRIPTION OF THE BASIC SUCCESSIONAL PATTERN EXISTING AMONG THOSE COMMUNITIES.

H-6

HABECK, JAMES R.

1969.

"A GRADIENT ANALYSIS OF A TIMBERLINE ZONE AT LOGAN PASS, GLACIER NATIONAL PARK."

NORTHWEST SCIENCE 43:9-18.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). FOURTEEN COMMUNITIES OCCURRING ON THE EAST SLOPE OF THE CONTINENTAL DIVIDE, AT ELEVATIONS BETWEEN 5,700 AND 7,200 FEET, WERE STUDIED FOR DETAILED ANALYSIS OF COMMUNITY COMPOSITION AND SPECIES DISTRIBUTION. RESULTS AND DISCUSSION ARE INCLUDED.

H-7

HABECK, JAMES R.

1969.

AN ORDINATION OF THE CEDAR-HEMLOCK COMMUNITIES IN GLACIER NATIONAL PARK.

MISSOULA, MT.: MONTANA STATE UNIV., DEPT. BOTANY. 9 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PRESENTATION IS CONCERNED WITH A QUANTITATIVE STUDY WHICH HAS BEEN MADE OF THE THUJA-TSUGA COMMUNITIES IN THE PARK. A DESCRIPTION OF THE ORDINATION PROCEDURE AND DIAGRAMS OF THE DISTRIBUTION OF THE SPECIES ARE INCLUDED.

H-8

HABECK, JAMES R.

1970.

FIRE ECOLOGY INVESTIGATIONS IN GLACIER NATIONAL PARK: HISTORICAL CONSIDERATIONS AND CURRENT OBSERVATIONS.

MISSOULA, MT.: UNIV. MONTANA. 80 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

NOTE: RANGE DISTRIBUTION MAPS OF MAJOR TREE SPECIES.

(GLACIER NATL. PARK). THE STUDY DISCUSSES THE ROLE OF FIRE IN THE ESTABLISHMENT AND MAINTENANCE OF THE PARK ECOSYSTEM. EMPHASIS IS PLACED ON THE WEST SIDE OF THE PARK.

FOREST VEGETATION TYPES, THE BASIC NATURE OF FIRES, HISTORICAL DESCRIPTIONS OF EARLY BURNS, EARLY VEGETATION TYPE SURVEYS, CONCLUSIONS DRAWN CONCERNING FIRE HISTORY, SUPPLEMENTARY DATA, AND INFORMATION ON FIRE ECOLOGY ARE TOPICS COVERED.

H-9

HABECK, JAMES R.

1970.

THE VEGETATION OF GLACIER NATIONAL PARK, MONTANA.

MISSOULA, MT.: UNIV. MONTANA. 132 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: COMPREHENSIVE REVIEW OF LITERATURE AND EXTENSIVE BIBLIOGRAPHY.

(GLACIER NATL. PARK). A DETAILED DESCRIPTION OF THE PARK'S VEGETATION. FACTORS COVERED WHICH INFLUENCE THE DISTRIBUTIONAL PATTERNS OF COMMUNITIES INCLUDE FIRE HISTORY, TOPOGRAPHY, SOIL AND MOISTURE RELATIONSHIPS, GEOLOGIC HISTORY AND CLIMATE. AQUATIC COMMUNITIES, BOTH VASCULAR AND NON-VASCULAR, TALUS COMMUNITIES AND CRYOFLORE ARE EXAMINED IN LESS DETAIL.

H-10

HABECK, JAMES R.

1972.

"GLACIER'S LOGAN PASS: A CASE OF MISMANAGEMENT."

NATIONAL PARKS & CONSERVATION MAGAZINE, MAY 1972, PP. 5-10.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE REVIEWS ADMINISTRATIVE DECISIONS MADE IN GLACIER NATIONAL PARK WHICH THREATEN THE ALPINE ECOSYSTEM. SEWAGE DISPOSAL AND BOARDWALK CONSTRUCTION ARE DISCUSSED.

H-11

HABECK, JAMES R.

1979.

"SLOW PROGRESS: A REPORT ON RESEARCH IN NATURAL AREAS."

WESTERN WILDLANDS (SPRING 1979):4-8.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: CORAM EXPER. FOREST). THIS ARTICLE DESCRIBES THE HISTORY AND CURRENT STATUS OF THE RESEARCH NATURAL AREA (RNA) SYSTEM IN THE FOREST SERVICE'S REGION ONE. THE ORIGINAL OBJECTIVE OF THE PROGRAM WAS TO ESTABLISH A NATIONWIDE NETWORK OF INTACT NATIVE ECOSYSTEMS WHERE PLANTS AND ANIMALS HAVE CONTINUED TO OPERATE WITHIN A FRAMEWORK OF NATURAL PROCESSES ON ESSENTIALLY UNALTERED LANDSCAPES. ONE OF THE ESTABLISHED RNA'S IN THE REGION IS CORAM RESEARCH NATURAL AREA IN THE FLATHEAD NATIONAL FOREST.

H-12

HABECK, JAMES R., AND CHOATE, C. M.

1963.

"AN ANALYSIS OF KRUMMHOLZ COMMUNITIES AT LOGAN PASS, GLACIER NATIONAL PARK"

NORTHWEST SCIENCE 37:165-166.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). THIS PAPER REPORTS THE FINDINGS OF AN INVESTIGATION OF 5 KRUMMHOLZ COMMUNITIES. THE DATA WERE USED TO CALCULATE FREQUENCY PERCENTAGE VALUES FOR ALL THE VASCULAR PLANTS ENCOUNTERED.

H-13

HABECK, JAMES R., AND CHOATE, C. M.

1964.

AN ANALYSIS OF A TIMBERLINE GRADIENT IN GLACIER NATIONAL PARK.

MISSOULA, MT.: MONTANA STATE UNIV. 4 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). THIS REPORT EXAMINES THE NATURE AND CHARACTERISTICS OF A SERIES OF COMMUNITIES OCCURRING NEAR LOGAN PASS WHICH REPRESENT A TRANSITION BETWEEN PICEA ENGELMANNII-ABIES LASIOCARPA FORESTS AND ALPINE KRUMMHOLZ. TABLES SUMMARIZE DATA COLLECTED FROM EACH OF 12 COMMUNITIES.

H-14

HABECK, JAMES R., AND HARTLEY, E.

1965.

"THE VEGETATION OF MONTANA-A BIBLIOGRAPHY."

NORTHWEST SCIENCE 39:13-26.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN & GLACIER NATL. PARK). THE COMPREHENSIVE LISTING OF THE KNOWN REFERENCES TO THE VEGETATION OF MONTANA INCLUDES PAPERS ON GLACIER NATIONAL PARK.

H-15

HABECK, JAMES R., AND HARTLEY, E.

1967.

BIBLIOGRAPHY OF MONTANA VEGETATION.

MISSOULA, MT.: MONTANA STATE UNIV., DEPT. BOTANY. 52 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN & GLACIER NATL. PARK). THIS BIBLIOGRAPHY IS DIVIDED INTO THE FOLLOWING SECTIONS: MONTANA FLORAS - STATEWIDE, COUNTY AND LOCAL AREAS; MONTANA VEGETATION STUDIES - VASCULAR PLANTS, TAXONOMIC WORKS, PHYTOGEOGRAPHY; PHYSICAL FEATURES OF MONTANA - SOIL, CLIMATE, GEOLOGY AND GEOGRAPHY, ECOLOGY, FORESTRY (SILVICULTURE); MONTANA FUNGI - MUSHROOMS, MOLDS, RUSTS AND YEASTS, ALGAE, BRYOPHYTES; AND MONTANA PARKS AND HISTORICAL.

H-16

HABECK, JAMES R., AND MUTCH, R. W.

1973.

"FIRE DEPENDENT FORESTS IN THE NORTHERN ROCKY MOUNTAINS."

QUATERNARY RESEARCH 3(OCTOBER 1973):408-424.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTS.: GLACIER NATL. PARK). MORE THAN 50 YEARS OF EFFORTS DIRECTED TOWARD EXCLUSION OF WILDLAND FIRES IN THE NORTHERN ROCKY MOUNTAINS HAS RESULTED IN A DEFINITE AND OBSERVABLE IMPACT ON FOREST ECOSYSTEMS IN THE REGION. THE PURPOSES OF THIS PAPER ARE TO DESCRIBE THE VEGETATION PATTERNS SHAPED BY THE FIRE ENVIRONMENT OF THE NORTHERN ROCKY MOUNTAINS, TO RELATE FIRE-DEPENDENT SPECIES TO ECOSYSTEM STABILITY, AND TO DISCUSS THE PRACTICAL APPLICATION OF SUCH KNOWLEDGE TO WILDERNESS FIRE MANAGEMENT.

H-17

HABECK, JAMES R., AND WEAVER, T. W.

1969.

"A CHEMOSYSTEMATIC ANALYSIS OF SOME HYBRID SPRUCE (PICEA) POPULATIONS IN MONTANA."

CANADIAN J. BOTANY 47(OCTOBER 1969):1565-1570.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: GLACIER NATL. PARK). THIS ARTICLE IS CONCERNED WITH THE ANALYSIS, BY CHEMOSYSTEMATIC METHODS, OF SPRUCE SUSPECTED OF BEING HYBRID DERIVATIVES FROM THE INTROGRESSION BETWEEN PICEA GLAUCA AND P. ENGELMANNII, WHOSE BOTANICAL RANGES OVERLAP. RESINS WERE COLLECTED FROM TYPICAL P. GLAUCA AND TYPICAL P. ENGELMANNII POPULATIONS AND THESE WERE ANALYZED BY VAPOR-PHASE CHROMATOGRAPHY, AS WERE RESINS FROM SUSPECTED POPULATIONS. MONOTERPENE COMPOSITIONS WERE DETERMINED AND THROUGH THE CALCULATION OF RATIOS BASED ON THE PERCENTAGES OF LIMONENE, MYRCENE, AND BETA PHELLANDRENE, A TWO-DIMENSIONAL ORDINATION WAS CONSTRUCTED OF THE TYPICAL AND HYBRID SPRUCE POPULATIONS.

H-18

HABY, VINCENT A., AND SIMS, JAMES R.

1979.

AVAILABILITY OF MICRONUTRIENT CATIONS IN MONTANA SOILS.

BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. BULL. 706. 20 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: INCLUDES TABLES AND MAPS OF DATA WHICH LOCATE STUDY SITES. SITES WITHIN THE FLATHEAD BASIN ARE INCLUDED.

(MONTANA). THE STUDY CONSIDERS THE AVAILABILITY OF COPPER, IRON, MANGANESE, AND ZINC IN SOILS SAMPLED FROM THE FOLLOWING SOURCES: 15 SOILS FROM THE MSU COLLECTION OF BENCH MARK SOILS; 55 SMALL GRAIN-NITROGEN TOP-DRESSING SITES SAMPLED AT 0-6 INCHES WITH 37 SAMPLED AT 6-12 INCHES; AND 1,243 PRODUCER SOILS. FLUCTUATIONS BY DEPTH OF IRON AND COPPER, AND CORRELATIONS FOR IRON, ZINC, COPPER, AND MANGANESE RELATIVE TO PH AND PHOSPHORUS ARE DISCUSSED.

H-19

HADDON, SAM E.

1965.

"ACCESS AND WHARFAGE RIGHTS AND THE TERRITORIAL EXTENT OF INDIAN RESERVATION BORDERING ON NAVIGABLE WATER: WHO OWNS THE BED OF FLATHEAD LAKE?"

MONTANA LAW REVIEW 27:55-77.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & FLATHEAD INDIAN RESERVATION). BECAUSE THE SOUTHERN HALF OF FLATHEAD LAKE LIES WITHIN THE EXTERNAL BOUNDARIES OF THE FLATHEAD INDIAN RESERVATION, AND BECAUSE OF A 1942 DECISION FROM THE COURT OF APPEALS FOR THE NINTH CIRCUIT, ROCHESTER VS. MONTANA POWER CO., A UNIQUE QUESTION EXISTS AS TO A POSSIBLE CONFLICT BETWEEN THE RIGHTS OF RIPARIAN OWNERS ON THE LAKE AND THE TRIBAL RIGHTS OF THE CONFEDERATED INDIAN TRIBES WHO OCCUPY THE RESERVATION. THIS ARTICLE EXAMINES THE LEGAL ASPECTS OF THAT QUESTION.

H-20

HAET, MARGOT FREEMAN.

1973.

"GLACIER NATIONAL PARK VISITOR IMAGES OF GRIZZLY BEARS."

M.S. THESIS, MICHIGAN STATE UNIV., EAST LANSING. 27 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PURPOSE OF THIS ANALYSIS WAS TO DETERMINE 1) IF A GRIZZLY BEAR IMAGE EXISTS FOR THE GENERAL PUBLIC VISITING GLACIER NATIONAL PARK, 2) WHAT THE IMAGE IS, AND 3) WHAT IMPLICATIONS ARE DERIVED FROM

THE GRIZZLY BEAR IMAGE FOR THE GLACIER NATIONAL PARK WILDLIFE INFORMATION SYSTEMS. THE STUDY DESIGN IS DESCRIBED AND THE FINDINGS OUTLINED.

H-21
HAGEN, CECIL.
1964.

"THE GREAT RIVER OF THE WEST."
THE PACIFIC NORTHWESTERNER, SUMMER 1964, PP. 33-39.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: FLATHEAD BASIN IS INCLUDED.

(COLUMBIA RIVER BASIN). THE ARTICLE DESCRIBES THE COLUMBIA RIVER BASIN: ITS SIZE, RUNOFF, GRADIENT, HYDRO-POWER POTENTIAL, HISTORY OF USE, CANADA-U.S. NEGOTIATIONS, AND DAM BUILDING.

H-22
HAGER, RICHARD L.; DOMROSE, ROBERT; AND TENNANT, D. L.
1978.

WHITEFISH RIVER NATURAL RESOURCE AND PHYSICAL FEATURES INVENTORY.
BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE. 27 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH RIVER: WHITEFISH). THIS INVENTORY WAS CONDUCTED AS A PART OF AN ENVIRONMENTAL ASSESSMENT FOR THE PREPARATION OF THE WHITEFISH LAKE WATERSHED PLAN AND ENVIRONMENTAL IMPACT STATEMENT. THE STREAM INVENTORY LOOKED AT STREAMBED AND BANK ALTERATIONS SUCH AS ROCK RIPRAP, CAR BODIES, CHANNEL CHANGES, IRRIGATION DIVERSIONS, ERODING BANKS, AND CRITICAL SEDIMENT SOURCES. PHYSICAL AND BIOLOGICAL INVENTORIES INCLUDED BANK VEGETATION, STREAMBED MATERIAL, POOL AND RIFFLE LENGTHS, FISH SPAWNING BEDS, OBSTRUCTION TO RECREATION AND DEBRIS.

H-23
HAGLUND, STEPHEN A.
1978.

"PRELIMINARY EVALUATION OF SOME REFORESTATION STRATEGIES ON THE FLATHEAD RESERVATION."
WASHINGTON STATE UNIV., PULLMAN. (TYPEWRITTEN). 33 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS PAPER REPORTS ON THE RESULTS OF A STUDY DESIGNED TO ASSESS SURVIVAL AND GROWTH OF WESTERN LARCH AND ENGELMANN SPRUCE CONTAINERIZED SEEDLINGS ON SUBALPINE FIR SERIES HABITAT TYPES. THREE PLANTING ALTERNATIVES WERE TESTED: TYPE OF SEEDLING (BARE-ROOT VERSUS CONTAINERIZED), SEASON OF PLANTING (CONTAINERIZED SEEDLINGS (SPRING VERSUS FALL), AND METHOD OF PLANTING CONTAINERIZED SEEDLINGS (AUGER VERSUS DIBBLE VERSUS MACHINE).

H-24
HAGLUND, STEPHEN A., AND DOOLING, OSCAR J.
1972.

OBSERVATIONS ON THE IMPACT OF DWARF MISTLETOE ON DOUGLAS-FIR IN WESTERN MONTANA.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY. REPORT NO. D-72-1. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(FLATHEAD INDIAN RESERVATION: YELLOW BAY LOGGING UNIT). THIS COMPARISON OF TWO SIMILAR STANDS - ONE HEALTHY AND ONE INFESTED WITH DWARF MISTLETOE - GIVES AN INDICATION OF THE IMPACT OF THE PARASITE. BY PREDICTING THE VOLUME OF THE HEALTHY STAND AT AGE 120 (THE AGE OF THE INFESTED STAND), THE RESEARCHERS WERE ABLE TO ESTIMATE THE VOLUME OF TIMBER LOST DUE TO THE INFESTATION.

H-25
HAINES, F. N.
1909.

REPORT FOR THE FOREST ATLAS - BLACKFEET NATIONAL FOREST.

KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 19 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BLACKFEET NATL. FOREST - NOW FLATHEAD NATL. FOREST). THIS EARLY REPORT DESCRIBES THE GENERAL CHARACTER OF THE TOPOGRAPHY AND NATURAL RESOURCES IN THE BLACKFEET NATIONAL FOREST, NOW THE FLATHEAD NATIONAL FOREST.

H-26
HAINES, FOREST EUGENE.
1977.

"LOWER MISSISSIPPIAN SEDIMENTATION IN NORTHWESTERN MONTANA."
M.S. THESIS, UNIV. MISSOURI, ROLLA. 128 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA). THIRTY-THREE MEASURED SECTIONS, NINE WITH THIN SECTIONS AND INSOLUBLE RESIDUES, WERE STUDIED TO DETERMINE THE DEPOSITIONAL HISTORY OF THE ALLAN MOUNTAIN LIMESTONE AND THE LOWER MEMBER OF THE CASTLE REEF DOLOMITE OF THE MADISON GROUP IN NORTHWESTERN MONTANA.

H-27
HAINES, FRANCIS D.
1938.

"THE NORTHWARD SPREAD OF HORSES AMONG THE PLAINS INDIANS."
AMERICAN ANTHROPOLOGIST 40:429-437.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(WESTERN NORTH AMERICA: ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS ARTICLE DESCRIBES THE SPREAD OF THE HORSE TO WESTERN INDIAN TRIBES FROM THE YEAR 1800. THE NORTHWARD SPREAD OF THE HORSE FROM THE SPANISH SETTLEMENTS IS DISCUSSED, WITH ATTENTION TO THE RATE OF THE SPREAD, THE LINES OF DISTRIBUTION, AND THE APPROXIMATE DATES WHEN THE VARIOUS TRIBES SECURED THEIR FIRST ANIMALS. SPECIAL ATTENTION WAS GIVEN TO GEOGRAPHIC FEATURES SUCH AS MOUNTAINS, INDIAN TRAILS AND TRADE ROUTES, RIVERS, AND DESERTS. INDICATIONS THAT HORSES WERE IN WESTERN MONTANA BEFORE THEY REACHED ITS SOUTHEASTERN CORNER AND THAT TWO LINES EXISTED FROM WHICH THE HORSES FROM SANTA FE WERE DISTRIBUTED TO THE NORTH ARE DISCUSSED.

H-28
HAINES, FRANCIS D.
1940.

"THE WESTERN LIMITS OF THE BUFFALO RANGE."
PACIFIC NORTHWEST QUARTERLY 31(OCTOBER 1940):389-398.

(PLATEAU REGION). THIS ARTICLE DISCUSSES REFERENCES TO BUFFALO IN THE PLATEAU REGION. SKCC.

H-29
HAKOLA, JOHN W., ED.
1962

FRONTIER OMNIBUS.
MISSOULA, MT.: MONTANA STATE UNIV. PRESS, AND
HELENA, MT.: HISTORICAL SOCIETY OF MONTANA.

(ABORIGINAL LANDS OF THE SALISH & KOOTENAI INDIANS). MANY OF THE DOCUMENTS INCLUDE REFERENCES TO THE SALISH AND KOOTENAI TRIBES. THE DOCUMENTS VARY FROM POPULAR TO SCHOLARLY. SKCC.

H-30
HALAZON, GEORGE C.
1954.

ELK REPRODUCTION.
PULLMAN, WA.: WASHINGTON STATE UNIV. 9 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: COPIES NOT AVAILABLE FOR DISTRIBUTION BUT ONE COPY IS DEPOSITED AND MAY BE REVIEWED AT THE NATIONAL BISON RANGE.

(NATL. BISON RANGE). THE PURPOSE OF THIS STUDY WAS TO OBTAIN MORE SPECIFIC INFORMATION CONCERNING: 1) THE OCCURRENCE OF RECURRING HEAT CYCLES, 2) DURATION OF HEAT, 3) TIME INTERVAL BETWEEN HEAT PERIODS, AND 4) DATE OF BREEDING.

H-31
HALAZON, GEORGE C., AND BUECHNER, HELMUT K.
1955.

"SECONDARY OVULATION IN ELK."
IN PARTIAL FULFILLMENT OF PH.D. DEGREE FROM WASHINGTON STATE COLLEGE, PULLMAN. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE PURPOSE OF THIS PAPER IS TO PRESENT DATA INDICATING THE FREQUENCY AND CHRONOLOGICAL SEQUENCE OF EVENTS LEADING TO THE FORMATION OF TWO CORPORA LUTEA. OVER 100 PAIRS OF OVARIES WERE EXAMINED.

H-32
HALES, A. L., AND NATION, J. B.
1973.

"A SEISMIC REFRACTION SURVEY IN THE NORTHERN ROCKY MOUNTAINS: MORE EVIDENCE FOR AN INTERMEDIATE CRUSTAL LAYER."
GEOPHYSICAL ROYAL ASTRONOMICAL SOCIETY 35:381-399
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.). THE RESULTS OF TWO SEISMIC PROFILES IN THE NORTHWESTERN UNITED STATES ARE INTERPRETED. AT EACH STATION ALONG THE PROFILES ONE VERTICAL SEISMOMETER WAS RECORDED AT TWO LEVELS OF GAIN ON AN ANALOGUE MAGNETIC TAPE RECORDER. TIME MARKS FROM A QUARTZ CRYSTAL OSCILLATOR-CONTROLLED CLOCK WERE RECORDED ON ANOTHER CHANNEL. WWV TIME SIGNALS WERE RECORDED ON A FOURTH CHANNEL. RESULTS ARE PRESENTED AND DISCUSSED.

H-33
HALL, FRANK W.
1962.

"GEOLOGY OF THE NORTHWEST PLEASANT VALLEY QUADRANGLE, MONTANA."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 60 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH AREA: NORTHWEST PLEASANT VALLEY QUADRANGLE). THE PURPOSE OF THIS PROJECT WAS TO MAKE A GEOLOGIC RECONNAISSANCE OF THE KOOTENAI-FLATHEAD AREA IN NORTHWESTERN MONTANA TO ASCERTAIN THE POTENTIAL MINERAL RESOURCES OF THE AREA.

H-34

HALL, HUBERT HANDEL.
1952.

"MISSISSIPPIAN STRATIGRAPHY IN SOUTHWESTERN ALBERTA AND NORTHWESTERN MONTANA."

PH.D. DISSERTATION, UNIV. WISCONSIN, MADISON.
110 PP

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(SOUTHWESTERN ALBERTA & WESTERN MONTANA: BOB MARSHALL WILDERNESS AREA). THE PURPOSES BEHIND THIS WORK WERE TO ESTABLISH FUNDAMENTAL ROCK AND TIME UNITS IN SURFACE SECTIONS WHICH THEN COULD BE OF USE IN SUBSURFACE STUDIES, AND TO COMPARE THE MISSISSIPPIAN ROCKS OF SOUTHWESTERN ALBERTA WITH THOSE OF NORTHWESTERN MONTANA. TEN DETAILED SECTIONS OF MISSISSIPPIAN ROCKS WERE MEASURED AND RECORDED, BED BY BED, TO THE NEAREST TENTH OF A FOOT. LITHOLOGY, COLOR, TEXTURE, STRUCTURE, WEATHERING CHARACTERISTICS, AND FAUNA WERE INSPECTED. DATA FOR TWO MISSISSIPPIAN SECTIONS FROM MONTANA ARE GIVEN. ONE OF THESE TWO SECTIONS IS FROM THE NORTHERN SAWTOOTH RANGE, THE OTHER FROM PENTAGON MOUNTAIN IN THE LEWIS AND CLARK RANGE.

H-35

HALL, JAMES H.
1971.

"AN INVESTIGATION OF THE REASONS FOR THE DIFFERENCES IN THE MEDIAN AGES OF INDIANS AND WHITES IN LAKE AND SANDERS COUNTIES WITH EMPHASIS ON THE FLATHEAD RESERVATION."

M.A. THESIS, UNIV. MONTANA, MISSOULA. 110 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: 53 TABLES OF DEMOGRAPHIC STATISTICS ARE INCLUDED.

(FLATHEAD INDIAN RESERVATION). THE STUDY ANALYZES THE DIFFERENCE IN THE MEDIAN AGES OF WHITES AND NONWHITES IN COUNTIES WITH LARGE NONWHITE POPULATIONS. IT EXPLAINS THE DISPARITY BY CONSIDERING THE REASONS: MORTALITY RATES, OUT-MIGRATION, BIRTH RATES, AND SOCIO-ECONOMIC FACTORS.

H-36

HALL, ROBERT L.
1977.

A CRITIQUE: THE INFESTATION OF MOUNTAIN PINE BEETLE, NORTH FORK SUBDISTRICT, GLACIER NATIONAL PARK.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, MT. 3 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK AREA). THE CRITIQUE EXAMINES THE ROLE OF FIRE AND THE PINE BEETLE IN THE EVOLUTION OF THE FOREST SYSTEM TOWARDS CLIMAX. BEETLE INFESTATIONS IN CLIMAX LODGEPOLE PINE STANDS AND SERAL LODGEPOLE PINE FORESTS ARE CONSIDERED. IN ARGUING THE MAINTENANCE OF THE NATURAL SYSTEM, A HAZARDOUS TREE PROGRAM IS MENTIONED AND BENEFITS OF INFESTATIONS ARE EXPLAINED.

H-37

HALL, ROBERT L.
1978.

THE STATUS OF FLUORIDE POLLUTANTS IN GLACIER NATIONAL PARK.

WEST GLACIER, MT. 27 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK, & COLUMBIA FALLS). THIS REPORT CONTAINS A CHRONOLOGY OF FLUORIDE STUDIES IN GLACIER NATIONAL PARK FROM 1969 THROUGH 1978. IT SUMMARIZES A SERIES OF STUDIES BY GORDON (1972, 1974, 1975), DESCRIBES INVESTIGATIONS BY THE ANACONDA COMPANY IN COLUMBIA FALLS, AND PRESENTS THE RESULTS OF NATIONAL PARK SERVICE INVESTIGATORS. TABLES CONTAIN DATA PERTINENT TO VARIOUS STUDIES. CORRELATIONS ARE DISCUSSED.

H-38

HALLET, BERNARD.
1975.

"NATURE AND EFFECTS OF CHEMICAL PROCESSES ON THE BASE OF TEMPERATE GLACIERS."

PH.D. DISSERTATION, UNIV. CALIFORNIA, LOS ANGELES. 95 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ROCKY MTN. GLACIERS: GLACIER NATL. PARK). THE DISSERTATION DISCUSSES CARBONATE COATINGS WHICH COVER PRE-CAMBRIAN AND EARLY PALEOZOIC CALCAREOUS MARINE ROCKS EXPOSED BY GLACIAL RETREATS AND WHICH RESULT FROM CHEMICAL PRECIPITATION UNDER MOVING ICE. THE REPORT IS ORGANIZED INTO THREE SECTIONS. THE FIRST DESCRIBES THE DISTRIBUTION, FORM, STRUCTURE, AND COMPOSITION OF THE CARBONATE DEPOSITS AND DISCUSSES THE PROCESSES THAT RESULT IN SUBGLACIAL DISSOLUTION AND PRECIPITATION. IT PRESENTS THE RESULTS OF EXPERIMENTS INVESTIGATING THE EFFECTS OF FREEZING ON CaCO_3 SOLUTIONS AND APPLIES THE RESULTS TO THE SUBGLACIAL FORMATION OF THE CARBONATE COATINGS. THE SECOND SECTION DESCRIBES THE SILICA-RICH SUBGLACIAL DEPOSITS. THE THIRD SECTION PRESENTS A MODIFICATION OF THE BED SLIP THEORY THAT CONSIDERS EFFECT OF SUBGLACIAL CHEMICAL PROCESSES ON GLACIER SLIDING.

H-39

HALLET, BERNARD.
1978.

"DEPOSITS FORMED BY SUBGLACIAL PRECIPITATION OF CaCO_3 ."

GEOLOGICAL SOCIETY AMERICA BULL. 87:1003-1015.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA REGIONAL.

(GLACIER NATL. PARK). LIMESTONE AND OTHER CALCAREOUS OUTCROPS RECENTLY EXPOSED BY RETREATING TEMPERATE GLACIERS IN THE ROCKY MOUNTAINS ARE WIDELY COVERED WITH PATCHY CARBONATE COATINGS THAT FORMED AS A RESULT OF CHEMICAL PRECIPITATE UNDER THE MOVING ICE. THIS PAPER DESCRIBES THE DISTRIBUTION FORM, STRUCTURE, AND COMPOSITION OF THE DEPOSITS. IT THEN DISCUSSES THE PROCESSES THAT RESULT IN SUBGLACIAL DISSOLUTION AND PRECIPITATION, EMPHASIZING THE DOMINANT ROLE OF FREEZING IN CONTROLLING THE COMPOSITION OF SUBGLACIAL WATERS. NEXT IT PRESENTS THE RESULTS OF AN EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF FREEZING ON CaCO_3 SOLUTIONS WHICH ARE DISCUSSED IN TERMS OF THE PHASE EQUILIBRIA IN THE $\text{CaCO}_3\text{-H}_2\text{O-CO}_2$ SYSTEM. FINALLY, IT APPLIES THESE RESULTS TO THE SUBGLACIAL FORMATION OF THE CARBONATE COATINGS AND TO THE BROADER QUESTION OF THE ROLE OF SUBGLACIAL PROCESSES IN GLACIER MOTION AND SUBGLACIAL EROSION.

H-40

HALLET, BERNARD.
1978.

"THE EFFECT OF SUBGLACIAL CHEMICAL PROCESSES ON GLACIER SLIDING."

J. GLACIOLOGY 17:209-221.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). IN THIS ARTICLE THE GLACIER SLIDING THEORY OF NYE IS MODIFIED TO INCLUDE THE EFFECT OF SOLUTES IN SUBGLACIAL REGULATION WATERS ON THE SLIDING PROCESS. MOTIVATION FOR THIS DEVELOPMENT STEMS FROM STUDIES OF SUBGLACIALLY FORMED CHEMICAL DEPOSITS THAT APPEAR TO BE WIDESPREAD ON ROCK SURFACES RECENTLY EXPOSED BY RETREATING TEMPERATE GLACIERS.

H-41

HALLET, BERNARD.
1978.

"GLACIAL GEOLOGY OF RECENTLY DEGLACIATED BEDROCK AREAS."

PROC. FIRST CONFERENCE ON SCIENTIFIC RESEARCH IN THE NATIONAL PARKS 21 NOVEMBER 9-12, 1976:7-14.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). AREAS RECENTLY EXPOSED BY THE RETREAT OF CIRQUE GLACIERS IN GLACIER NATIONAL PARK WERE STUDIED IN THE CONTEXT OF THE MODERN GLACIER SLIDING THEORY IN ORDER TO ELUCIDATE THE PROCESSES THAT ARE ACTIVE AT THE BASES OF THESE GLACIERS. THIS STUDY CAN BE SUBDIVIDED INTO THREE PARTS: SUBGLACIAL CHEMICAL EXCHANGE, STRIATIONS AND BASAL ICE FLOW, AND ROUGHNESS OF GLACIER BEDS AND CALCULATED SLIDING VELOCITY.

H-42

HALVORSON, ORA JOHNSON.
1971.

"CHARLES E. CONRAD OF KALISPELL: MERCHANT PRINCE WITH A GENTLE TOUCH."

MONTANA 21:56-67.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL). THE ARTICLE SKETCHES THE BIOGRAPHY OF CHARLES EDWARD CONRAD (1850-1902), WITH SOME ATTENTION TO HIS BROTHER, WILLIAM G. CONRAD (1848-1914). THEIR MIGRATION TO MONTANA FOLLOWING THE CIVIL WAR, BUSINESS AND BANKING DEALINGS, LAND AND CATTLE ACTIVITIES, AND KALISPELL INFLUENCE ARE CHRONICLED.

H-43

HAMEL, D. R.; MCGREGOR, M. D.; AND OAKES, R. D.
1977.

STATUS OF MOUNTAIN PINE BEETLE INFESTATION, GLACIER NATIONAL PARK; 1978.

U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. STATE & PRIVATE FORESTRY REPT. NO. 77-4. 7 PP.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT DESCRIBES THE FINDINGS OF A PROJECT DESIGNED TO OBTAIN ESTIMATES OF NUMBERS OF INFESTED TREES PER HECTARE, SIZE OF ATTACKED TREES, AND OVERALL INFESTATION TREND. A DISCUSSION OF THE IMPACT OF THE INFESTATION IS INCLUDED, AS WELL AS METHODS OF THE SURVEY.

H-44

HAMEL, D. R.; OAKES, R. D.; AND HOTHEN, R.
1977.

POTENTIAL FOR INFESTATION BY MOUNTAIN PINE BEETLE IN LODGEPOLE PINE STANDS, HUNGRY HORSE DISTRICT, FLATHEAD NATIONAL FOREST.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY, FOREST INSECT & DISEASE MANAGEMENT. 5 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: HUNGRY HORSE DISTRICT). GROUND SURVEYS WERE CONDUCTED NEAR THE CHALLENGE GUARD STATION, MIDDLE FORK OF THE FLATHEAD RIVER DRAINAGE, TO DETERMINE STAND COMPOSITION, AGE, ELEVATION, MEAN TREE SIZE, AND PHLOEM THICKNESS. BASED ON THESE MEASUREMENTS, A HAZARD RATING FOR ATTACK BY MOUNTAIN PINE BEETLE WAS CALCULATED.

H-45
HAMILTON, JAMES M.
1970.

HISTORY OF MONTANA: FROM WILDERNESS TO STATEHOOD. EDITED BY MERRILL G. BURLINGAME. PORTLAND, ORE.: BINFORDS & MORT. 672 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS HISTORY OF THE STATE FROM ITS EARLY EXPLORATIONS UP TO THE CURRENT TIME DESCRIBES THE FOLLOWING: THE LEWIS AND CLARK EXPEDITION; THE PERIOD OF THE FUR TRADE; EXPLORING THE ROCKY MOUNTAINS BETWEEN THE MISSOURI VALLEY AND THE COLUMBIA BASIN; THE ARRIVAL OF EMIGRANT SETTLERS; THE ACQUISITION OF INDIAN LAND BY THE GOVERNMENT; MINING ACTIVITIES; TERRITORIAL GOVERNMENT; AGRICULTURE AND BUSINESS DEVELOPMENT; INDIAN WARS OF 1870'S; EDUCATIONAL, SOCIAL AND RELIGIOUS INSTITUTIONS; STATEHOOD; AND 20TH CENTURY MONTANA. INCLUDED ARE ACCOUNTS OF A. W. TINKHAM'S ATTEMPTS TO FIND MARIAS PASS, AND THE BATTLE FOR THE NORTHERN PACIFIC RAILROAD.

H-46
HAMPTON, H. DUANE, AND FARR, WILLIAM E.
1974.
HISTORICAL RESOURCES OF MONTANA. MISSOULA, MT.: UNIV. MONTANA, DEPT. HISTORY. 58 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(NATL. FORESTS OF MONTANA: FLATHEAD NATL. FOREST). THE HISTORICAL RESOURCES OF NATIONAL FOREST LANDS AND OFFICES ARE SURVEYED IN THIS REPORT. SEVEN OBJECTIVES WERE INVOLVED: 1) TO DEVELOP AN OVERVIEW DESCRIBING HISTORIC EVENTS (EXPLORATION, FUR TRADE, MINING, NUMBERING, AGRICULTURE, TRANSPORTATION, AND TWENTIETH CENTURY DEVELOPMENT); 2) TO PROVIDE A DESCRIPTION OF HISTORICAL METHODOLOGY; 3) TO ASCERTAIN THE QUALITY AND QUANTITY OF RESEARCH MATERIAL AVAILABLE IN FOREST SERVICE DEPOSITORIES; 4) TO MAKE SPECIFIC RECOMMENDATIONS FOR THE MANAGEMENT OF THE HISTORICAL RESOURCE; 5) TO INVENTORY HISTORIC SITES AND STRUCTURES LOCATED ON NATIONAL FOREST LAND; 6) TO COMPILE A BIBLIOGRAPHY COVERING THE PUBLISHED WORKS USED IN THIS REPORT; AND 7) TO COMPILE A LIST OF INDIVIDUALS WHO ARE BOTH INTERESTED AND KNOWLEDGEABLE IN THE HISTORICAL SIGNIFICANCE OF THE FORESTS AND THE STATE.

H-47
HANCOCK, MORRIS.
1907.
"THE FLATHEAD INDIAN TRIBE AND THEIR BEAUTIFUL RESERVATION." INDIAN SCHOOL JOURNAL 7(JANUARY 1907):11-15.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE IS MOSTLY A DESCRIPTION OF THE RESERVATION AND THE SITUATION ON THE RESERVATION DURING A RECENT VISIT BY HANCOCK PRESUMABLY DURING THE SUMMER OF 1906. IT HAS AN INTRODUCTORY HISTORICAL NOTE DRAWN LARGELY FROM PETER RONAN'S BOOK. SKCC.

H-48
HAND, RALPH L.
1963.
"BIRD NOTES FROM WESTERN MONTANA."

THE CONDOR 55:44-46.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: NINEPIPE NATL. WILDLIFE REFUGE). THIS ARTICLE CONTAINS REPORTS OF SIGHTINGS ON THE NINEPIPE NATIONAL WILDLIFE REFUGE OF A WESTERN GREBE (AECHMOPHOS OCCIDENTALIS) AND AN AMERICAN AVOCET, (RECURVIOSTRA AMERICANA).

H-49
HAND, RALPH L.
1969.
"A DISTRIBUTIONAL CHECKLIST OF BIRDS OF WESTERN MONTANA." UNIV. MONTANA, MISSOULA. (TYPEWRITTEN). 51 PP. FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA). THIS ANNOTATED LIST WAS DESIGNED FOR THOSE INTERESTED PROFESSIONALLY IN SERIOUS FIELD STUDIES OR IN POPULAR BIRD WATCHING. IT CAN SERVE AS A GUIDE TO SEASONAL OCCURRENCE, HABITAT PREFERENCES AND SPECIFIC LOCALITIES WHERE THE LESS COMMON AND UNFAMILIAR SPECIES ARE LIKELY TO BE FOUND. BOTH COMMON AND SCIENTIFIC NAMES ARE GIVEN. IT INCLUDES A RECORD OF SITINGS FOR EACH SPECIES, NOTING THE OBSERVER, THE DATE AND LOCATION OF THE OBSERVATION.

H-50
HANNA, WARREN L.
1976.
MONTANA'S MANY-SPLENDORED GLACIERLAND: ALL YOU'VE EVER WANTED TO KNOW ABOUT GLACIER PARK. SEATTLE: SUPERIOR PUBL. CO. 215 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS BOOK DESCRIBES THE FEATURES AND ATTRACTIONS OF GLACIER NATIONAL PARK. IT DISCUSSES THE PARK'S NATURAL HISTORY AND THE SCENIC ATTRACTIONS OF THE NATURAL ENVIRONMENT. THE HUMAN HISTORY ASSOCIATED WITH THE PARK AND CURRENT ADMINISTRATION IN LIGHT OF RECENT PROBLEMS ARE ALSO DESCRIBED.

H-51
HANSEN, BERT.
1947.
"FULL BLOOD FLATHEAD INDIAN MONTANA STUDY GROUP. ARLEE MONTANA." IN FLATHEAD INDIAN NOTES. MISSOULA, MT.: THE MONTANA STUDY GROUP. 73 PP. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: ARLEE). THIS REPORT CONTAINS NOTES OF THE MEETINGS OF THE FULL BLOOD STUDY GROUP, THE STORY OF MARY-SDIPP-SHIN-MAH, THE STORY OF LITTLE MARY'S VISION, DISCUSSIONS AMONG LEADERS OF THE COMMUNITY, STORIES OF THE ORIGINS OF THE TRIBES, AND A DISCUSSION EXAMINING THE POSSIBILITY OF IMPROVING THE AGRICULTURAL BASE OF THE RESERVATION.

H-52
HANSEN, BERT.
1947.
"LONEPINE HISTORICAL DRAMA: A HISTORICAL DRAMA WRITTEN AND PRODUCED BY THE PEOPLE OF LONEPINE, MONTANA, ON THE EVENINGS OF MARCH 7 AND 8, 1947." THE MONTANA STUDY, UNIV. MONTANA, MISSOULA. (MIMEO).

(LONEPINE). LONEPINE IS A RESERVATION COMMUNITY COMPOSED ALMOST ENTIRELY OF WHITES, BUT THIS DRAMA DOES TOUCH ON THE INDIAN USE OF THE AREA FOR LIVESTOCK GRAZING BEFORE THE RESERVATION WAS OPENED. SKCC.

H-53
HANSEN, BERT.
1949.
"AS LONG AS THE GRASS GROWS: COMMUNITY PAGEANT DRAMA: MISSOULA, MONTANA, JULY 16 AND 17, 1949." MONTANA STATE UNIV., MISSOULA. (MIMEO).

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS FICTIONAL PRESENTATION OF THE 1855 TREATY DEALS WITH JAMES GARFIELD'S VISIT TO CHARLO IN 1872, THE 1891 REMOVAL FROM THE BITTERROOT VALLEY, AND THE OPENING OF THE RESERVATION IN 1910. SKCC.

H-54
HANSEN, BERT.
1950.
"AS THE WATER FLOWS: MISSOULA'S 2ND ANNUAL HISTORICAL PAGEANT, JULY 15-16, 1950." MISSOULA, MT. (MIMEO).

(FLATHEAD INDIAN RESERVATION). THIS DRAMA DEALS WITH THE HISTORY OF HUNTING RIGHTS OF THE FLATHEAD INDIANS AND THE PROBLEMS THEY HAVE HAD IN MAINTAINING THEM. SKCC.

H-55
HANSEN, BERT.
1953.
"YEARS OF CONFLICT: HISTORIC OUTDOOR DRAMA, AUGUST 8-9, 1953, POLSON, MONTANA." MONTANA STATE UNIV., MISSOULA. (MIMEO).

(POLSON). THIS FICTIONAL HISTORY OF POLSON INCLUDES HOMESTEADING, ARRIVAL OF GOVERNOR STEVENS, INTRODUCTION OF CHRISTIANITY, DAVID THOMPSON'S EXPLORATIONS, AND INDIAN LEGENDS. SKCC.

H-56
HANSEN, BERT.
1954.
"ONE HUNDRED YEARS OF PROGRESS: THE CENTENARY OF ST. IGNATIUS MISSION, ST. IGNATIUS, MONTANA, SEPTEMBER 24, 25, 26, 1954." MONTANA STATE UNIV., MISSOULA. (MIMEO). (ST. IGNATIUS). THIS DRAMA RECORDS THE HISTORY OF THE ST. IGNATIUS MISSION. SKCC.

H-57
HANSEN, BERT.
1957.
"SKY CHIEF GREAT." IN THE 1957 MONTANA ALMANAC. EDITED BY HENRY K. SHEARER. MISSOULA, MT.: MONTANA STATE UNIV. PRESS.

(FLATHEAD INDIAN RESERVATION). THIS CHAPTER REPRODUCES TWO FLATHEAD STORIES ABOUT RELIGION, INCLUDING ONE TOLD BY PIERRE PICHETTE ABOUT A RELIGIOUS EXPERIENCE HE HAD. SKCC.

H-58
HANSEN, BERT.
1960.
RONAN, 1910-1960: GOLDEN JUBILEE PAGEANT, JULY 29-30-31, RONAN, MONTANA. SOUVENIR PROGRAM. RONAN, MT.

(RONAN). THIS PAGEANT ABOUT RONAN AREA HISTORY INCLUDES SOME EVENTS IN TRIBAL HISTORY SUCH AS THE 1855 TREATY AND THE OPENING OF THE RESERVATION. SKCC.

H-59
HANSEN, HENRY P.
 1948.
"POST GLACIAL FORESTS OF THE GLACIER NATIONAL PARK REGION."
ECOLOGY 19(APRIL 1948): 146-152.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DISCUSSES TWO SPHAGNUM BOGS, SECTIONS OF WHICH REVEAL POLLEN PROFILES FROM WHICH POSTGLACIAL FOREST SUCCESSION IS RECONSTRUCTED AND CLIMATIC SEQUENCE INTERPRETED. PLANT SPECIES GROWING ON THE SPHAGNUM-SEDGE MAT AND TREES INVADING ITS MARGINS ARE IDENTIFIED. EARLY POSTGLACIAL ARBORESCENT INVADERS, THE EXPANSION OF EASTERN YELLOW PINE, WHITE PINE, SPRUCE AND FIR SPECIES, AND THE RECENT PREDOMINANCE OF LODGEPOLE PINE ARE DESCRIBED.

H-60
HANSHAW, BRUCE B., AND HALLET, BERNARD.
 1977.
"OXYGEN-ISOTOPE COMPOSITION OF SUBGLACIALLY PRECIPITATED CALCITE: PALEOCLIMATE IMPLICATIONS."
SCIENCE 200:1267-1270.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA.

(THE ALPS & GLACIER NATL. PARK: BLACKFOOT GLACIER). THIN CALCITE-RICH COATINGS ARE WIDESPREAD ON CALCAREOUS BEDROCK EXPOSED BY ACTIVELY RETREATING TEMPERATE GLACIERS. THIS PAPER COMPARES THE OXYGEN-ISOTOPE COMPOSITION OF CALCITE THAT FORMED UNDER A GLACIER TO THE ISOTOPE COMPOSITION OF THE GLACIER, ATTEMPTING TO ESTABLISH THAT THE ISOTOPE COMPOSITION OF THE CALCITE IS RELATIVELY INDEPENDENT OF THE BEDROCK CALCITE COMPOSITION. ANALYSES OF CALCITE PRECIPITATED UNDER PLEISTOCENE ICE SHEETS MAY LEAD TO AN ESTIMATE OF THE COMPOSITION OF THE ICE SHEET WHICH COULD IMPROVE THE INTERPRETATION OF APPARENT MINIFERAL PALEOTEMPERATURES BY ALLOWING ESTIMATION OF THE S180 OF PLEISTOCENE OCEANS.

H-61
HANSHAW, BRUCE B., AND HALLET, BERNARD.
 1977.
"PALEOCLIMATIC IMPLICATIONS OF SUBGLACIALLY PRECIPITATED CALCITE FROM GLACIER NATIONAL PARK, USA."
PROC. SECOND INTERNATIONAL SYMPOSIUM ON WATER-ROCK INTERACTION, STRASBOURG, FRANCE.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: BLACKFOOT GLACIER). THE ARTICLE DISCUSSES A SUBGLACIAL CHEMICAL TRANSFER OCCURRING AS GLACIERS SLIDE ACROSS CALCAREOUS BEDROCK, DISSOLVING CARBONATE MINERALS AND CHEMICALLY PRECIPITATING PATCHY WHITE CALCITE. IT DESCRIBES THE GLACIER AND ITS GEOLOGIC SETTING, AND PRESENTS THE GEOCHEMICAL RESULTS OF MELTWATER SAMPLING AS WELL AS THE PETROGRAPHIC MICROSCOPE AND SCANNING ELECTRON MICROSCOPE EXAMINATION OF BEDROCK AND SUBGLACIAL PRECIPITATE.

H-62
HANZEL, DELANO A.
 1959.
"THE DISTRIBUTION OF THE CUTTHROAT TROUT (SALMO CLARKI) IN MONTANA."
M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 57 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). THE STUDY CONSIDERED FACTORS AFFECTING THE DISTRIBUTION OF CUTTHROAT TROUT (SALMO CLARKI). DATA SOURCES ARE: 100 EAST

SLOPE STREAMS SURVEYED, 219 RECORDS FROM FISHERIES BIOLOGISTS, 769 RECORDS FROM CREEL CENSUS RETURNS (MONTANA FISH AND GAME DEPARTMENT), AND 35 RECORDS FROM THE MONTANA STATE COLLEGE COLLECTION. BARRIERS AND THE PRESENCE OF OTHER TROUT SPECIES ARE TOPICS DISCUSSED. INDIVIDUAL DISTRIBUTION RECORDS OF CUTTHROAT TROUT FROM 899 STREAMS AND 244 LAKES ARE LISTED; ANY PREDOMINANCE IS NOTED.

H-63
HANZEL, DELANO A.
 1959.
"THE DISTRIBUTION OF THE CUTTHROAT TROUT (SALMO CLARKI) IN MONTANA."
PROC. MONTANA ACADEMY SCIENCES 19:32-71.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS STUDY OF CUTTHROAT TROUT HAD TWO PRIMARY OBJECTIVES: TO DETERMINE THE DISTRIBUTION AND RELATIVE ABUNDANCE OF PURE CUTTHROAT TROUT STOCKS AND TO SECURE INFORMATION ON FACTORS WHICH INFLUENCE THEIR DISTRIBUTION AND ABUNDANCE. IN ADDITION, OBSERVATIONS WERE MADE ON TAXONOMIC DIFFERENCES BETWEEN THE VARIOUS NATIVE STRAINS OF CUTTHROAT TROUT AND THE PREVALENCE OF HYBRIDS. INVESTIGATIONS WERE CONCENTRATED EAST OF THE DIVIDE, BUT ALL AVAILABLE INFORMATION ON THE SPECIES IN MONTANA IS INCLUDED IN THIS REPORT.

H-64
HANZEL, DELANO A.
 1972.
A SYNOPSIS REPORT ON THE FISH POPULATION OF FLATHEAD LAKE.
KALISPELL, MT.: MONTANA DEPT. FISH & GAME. 13 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS REPORT DETAILS THE HISTORY OF SCIENTIFIC INVESTIGATION OF FLATHEAD LAKE, LISTS NATIVE AND EXOTIC FISH SPECIES AND THE YEAR OF INTRODUCTION, DISCUSSES THE EXTENT OF BIOLOGICAL STUDY OF VARIOUS FISH SPECIES TO DATE, AND LISTS THE SPECIES COMPOSITION OF A NETTING SERIES.

H-65
HANZEL, DELANO A.
 1977.
ANGLER PRESSURE AND GAME FISH HARVEST ESTIMATES FOR 1975 IN THE FLATHEAD RIVER SYSTEM ABOVE FLATHEAD LAKE.
HELENA, MT.: MONTANA DEPT. FISH & GAME. FISHERIES INVESTIGATIONAL REPT. 23 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(UPPER FLATHEAD RIVER BASIN). THE REPORT PRESENTS FISHING PRESSURE AND HARVEST ESTIMATES FOR THE 1975 FISHING SEASON. ESTIMATES WERE DERIVED BY EXPANSION OF CREEL CENSUS DATA WITH A STATEWIDE MAIL SURVEY OF FISHING PRESSURE ESTIMATES.

H-66
HANZEL, DELANO A.
 1977.
ASHLEY CREEK PROPERTY LIST.
KALISPELL, MT.: MONTANA DEPT. FISH & GAME. 118 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ASHLEY CREEK). THIS COMPILATION OF PROPERTY OWNERS ALONG ASHLEY CREEK IS A PARTIAL LISTING DESCRIBING THE OWNERS GENERALLY WITHIN ONE MILE OF THE CREEK. MAPS INDICATE

NUMBER OF ACRES OWNED AND THE TOWNSHIP, RANGE, AND SECTION NUMBER OF THE PROPERTY LISTED.

H-67
HARD, JOHN, AND RICE, J.
 1979.
PRELIMINARY RESULTS OF SEEDLING DAMAGE SURVEYS IN YOUNG PLANTATIONS ON SELECTED FORESTS IN REGION ONE.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, DIV. STATE & PRIVATE FORESTRY. REPT. NO. 79-10. 5 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST). A SURVEY WAS CONDUCTED TO DOCUMENT FREQUENCY AND CAUSES OF SEEDLING INJURY OR MORTALITY IN YOUNG PLANTATIONS, AND TO SHOW LAND MANAGERS WHERE PLANTATION PEST MANAGEMENT MIGHT BE DESIRABLE. TABLES LIST THE NUMBER OF SEEDLINGS EXAMINED BY SPECIES AND CONDITIONS.

H-68
HARD, JOHN; TUNNOCK, SCOTT; AND EDER, R.
 1980.
WESTERN SPRUCE BUDWORM DEFOLIATION TREND RELATIVE TO WEATHER IN THE NORTHERN REGION, 1969-1978.
MISSOULA, MT. STATE AND PRIVATE FORESTRY REPT. NO. 80-4. 25 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST). THIS PAPER REPORTS ON A STUDY WHICH COMPARED BUDWORM DEFOLIATION TRENDS WITH WEATHER BY GEOGRAPHIC ZONE. IT INCLUDES ANALYSIS OF DEFOLIATION TRENDS; THE RATIO OF ACRES DEFOLIATED IN THE CURRENT YEAR TO ACRES DEFOLIATED THE PRIOR YEAR; AND WEATHER DURING THE BUDWORM, LARVAL, AND PUPAL PERIODS DURING THE PAST DECADE. THE METHODS, RESULTS AND A DISCUSSION ARE INCLUDED. PREDICTIONS ARE MADE FOR 1980 AND CONCLUSIONS ARE DRAWN. TABLES OF DATA SUPPLEMENT THE TEXT.

H-69
HAROLDSON, A. D.
 1975.
AN INPUT-OUTPUT MODEL OF THE MONTANA ECONOMY.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. BULL. 682. 21 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS ANALYSIS IS AN EMPIRICAL TECHNIQUE FOR DESCRIBING THE FLOW OF GOODS AND SERVICES IN MONTANA. THE MODEL IS COMPOSED OF 15 SECTORS (BUSINESS, HOUSEHOLD, AND GOVERNMENT), AND TRACES THE DISPERSAL OF REVENUE THROUGH THE ECONOMY. IT IS A USEFUL TOOL TO ESTIMATE THE IMPACT OF ECONOMIC OPPORTUNITIES SUCH AS WATER DEVELOPMENT, EXPANSION OF TOURIST INDUSTRY, FOSSIL FUEL DEVELOPMENT, ETC.

H-70
HARRIMAN, ALICE.
"THE COUNTRY GOD REMEMBERED."
NORTHWEST MAGAZINE, 1920, PP. 23-26.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY). THE ARTICLE DISCUSSES THE AREA'S ATTRACTIONS FOR THE TOURIST, SETTLER, MANUFACTURER, AND INVESTOR. IT DESCRIBES ITS

FORESTS AND LAKES, THE CLIMATE, AGRICULTURAL SUITABILITY, AND TIMBER CLAIMS. THE POTENTIAL FOR POWER DEVELOPMENT OF LOCAL STREAMS, THE BIG FORK ELECTRIC AND LIGHT COMPANY, AND KALISPELL ARE ALSO DESCRIBED.

H-71

HARRIMAN, DAVE.

1974.

AN OLD INDIAN TOLD ME,

RONAN, MT.: GEORGE M. WHITE, PRINTER.

(FLATHEAD INDIAN RESERVATION). INFORMATION ABOUT THE PLANTS AND ANIMALS OF THE FLATHEAD RESERVATION, WRITTEN IN A POPULAR STYLE. SKCC.

H-72

HARRINGTON, F. M., AND FRAHM, E. E.

1962.

SWEET CHERRIES IN MONTANA

BOZMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. BULL. 567. 20 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE AREA: EAST SHORE). THE STUDY DESCRIBES THE ESTABLISHMENT OF AN EXPERIMENTAL CHERRY ORCHARD. EXPERIMENTS BEGAN IN 1936 AND ENDED IN 1953-55. THE USE OF THE LAMBERT VARIETY, TREE SPACING, POLLINATION, SHAPING AND PRUNING, DRAINAGE, IRRIGATION, AND THE USE OF COMMERCIAL FERTILIZERS ARE TOPICS DISCUSSED. RECOMMENDATIONS FOR CULTURAL PRACTICES ARE PRESENTED.

H-73

HARRINGTON, LEONA, AND APGAAR SCHOOL PUPILS. **HISTORY OF APGAAR.**

WEST GLACIER, MT.: BY THE AUTHOR. 63 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE McDONALD & APGAAR). THE COMPILATION OF WRITINGS BY SETTLERS DESCRIBES THEIR ARRIVAL, SURROUNDINGS, AND LIFE. PARK HISTORY AND A HISTORY OF FIRES ARE CHRONICLED.

H-74

HARRIS, ANN.

1977.

GEOLOGY OF NATIONAL PARKS.

DUBUQUE, IOWA: KENDALL LUNT PUBL. CO. 396 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, NATIONAL.

(U.S. NATL. PARKS: GLACIER NATL. PARK). THE CHAPTER ON GLACIER NATIONAL PARK REVIEWS THE HISTORY OF THE PARK AND THE PROCESSES THAT CREATED GEOLOGIC FEATURES FOUND WITHIN IT. A SEVENTEEN POINT GEOLOGIC HISTORY OUTLINES THE PRINCIPAL FORMATIONS, DEPOSITIONS, AND FAULTINGS. A BIBLIOGRAPHY IS INCLUDED.

H-75

HARRIS, DAVID V.

1978.

THE GEOLOGIC STORY OF THE NATIONAL PARKS AND MONUMENTS. 2ND ED.

FT. COLLINS, CO.: COLORADO STATE UNIV. FOUNDATION PRESS. 325 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, NATIONAL.

(U.S. NATL. PARKS: GLACIER NATL. PARK). THE CHAPTER ON THE NORTHERN ROCKY MOUNTAIN PROVINCE COVERS GLACIER NATIONAL PARK. A BRIEF DISCUSSION EXAMINES GLACIER'S ROCKS (INCLUDING BIYEH LIMESTONE WHICH CONTAINS FOSSILIZED ALGAE), MOUNTAINS (INCLUDING CHIEF MOUNTAIN), AND GLACIERS (COVERING LAND FEATURES CREATED BY GLACIAL ACTION).

H-76

HARRIS, ROBERT L., JR.

1974.

FLUORIDE POLLUTION IN THE FLATHEAD COUNTY, MT.

DENVER, CO.: U.S. ENVIRONMENTAL PROTECTION AGENCY, AIR & WATER PROGRAMS DIV., REGION VIII 159 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY, COLUMBIA FALLS, & GLACIER NATL. PARK). THIS REPORT ASSEMBLES INTO A SINGLE DOCUMENT A SUMMARY OF RESULTS OF THE EFFORTS OF THE ENVIRONMENTAL STUDIES LABORATORY OF THE UNIVERSITY OF MONTANA, THE FOREST SERVICE, AND THE EPA. FLUORIDE CONCENTRATIONS IN FLORA AND FAUNA, AND PATTERNS OF AIRBORNE FLUORIDES WERE THE BASIS OF THE STUDIES.

H-77

HARRIS, WILLIAM G.

1972.

"THE UTILIZATION OF INDIAN TRIBES RESOURCES IN THE PRODUCTION AND MARKETING OF CHRISTMAS TREES."

M.B.A. THESIS, UNIV. MONTANA, MISSOULA. 71 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE OBJECTIVES OF THE STUDY WERE TO 1) IDENTIFY THE AVAILABLE RESOURCES THAT WILL FACILITATE THE ESTABLISHMENT OF BOTH CULTURED AND NATURAL CHRISTMAS TREE PLANTATIONS, 2) DESCRIBE THE DIFFERENT METHODS OF DEVELOPING CULTURED CHRISTMAS TREE STOCK, SUCH THAT SPECIFIED QUANTITIES OF THE RESOURCE MAY BE INCORPORATED INTO THE OVERALL STRUCTURED PROGRAM; 3) ANALYZE THE REQUISITE ELEMENTS OF TOPOGRAPHY, SOIL, AND CLIMATE CONGRUENT TO APPLICABLE TREE FORMATION; AND 4) DESIGN AN APPROPRIATE CONFIGURATION OF INTEGRATED OBJECTIVES SO AS TO DETERMINE AN OPERATIVE AND PROFITABLE APPROACH TO THE MARKETING OF INDIAN TREES.

H-78

HARRIS, WILSON P., AND HARRIS, CAROLYN W.

1904.

LICHENS AND MOSSES OF MONTANA. BIOLOGICAL SERIES, NO. 7.

MISSOULA, MT.: UNIV. MONTANA. BULL. 19:313-330.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: MISSOULA AREA, LOWER FLATHEAD RIVER, FLATHEAD LAKE AREA, & SWAN VALLEY). AN EXPEDITION WHICH COLLECTED 87 SPECIES OF LICHEN IN 20 GENERA AND 37 SPECIES OF MOSSES IN 19 GENERA IS REPORTED. THE PAPER LISTS THE COLLECTION SITE, ITS ELEVATION AND THE DATE OF THE COLLECTION FOR EACH SPECIES COLLECTED.

H-79

HARRISON, BENJAMIN.

1890.

"MESSAGE FROM THE PRESIDENT OF THE UNITED STATES TRANSMITTING A REPORT RELATIVE TO THE COMPENSATION OF HENRY B. CARRINGTON, A SPECIAL AGENT FOR THE SALE OF CERTAIN INDIAN LANDS."

SENATE EXECUTIVE DOC. NO. 70, 51ST CONGRESS, 1ST SESSION. SERIAL NO. 2886.

(FLATHEAD INDIAN RESERVATION). THIS IS CARRINGTON'S REPORT OF HIS EFFORT TO REMOVE THE BITTERROOT FLATHEADS TO THE JOCKO RESERVATION. SKCC.

H-80

HARRISON, JACK E.

1972.

"PRECAMBRIAN BELT BASIN OF NORTHWESTERN UNITED STATES: ITS GEOMETRY, SEDIMENTATION, AND COPPER OCCURRENCES."

GEOLOGICAL SOCIETY AMERICA BULL. 83:1215-1240. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHWESTERN UNITED STATES: NORTHWESTERN MONTANA). THE PURPOSE OF THIS PAPER WAS TO PRESENT AND ANALYZE NEW STRATIGRAPHIC DATA, TO POINT OUT CONFLICTS IN VARIOUS TYPES OF DATA, TO SUGGEST POSSIBLE RESOLUTIONS OF THESE CONFLICTS, AND FINALLY TO INDICATE RELATIONS KNOWN TO DATE BETWEEN THE STRATIGRAPHIC FRAMEWORK AND THE STRATIBOUND COPPER OCCURRENCES.

H-81

HARRISON, JACK E.

1974.

"COPPER MINERALIZATION IN MIOGEOSYNCLINAL CLASTICS OF THE BELT SUPER GROUP, NORTHWESTERN UNITED STATES."

CENTENAIRE DE LA SOCIETE GEOLOGIQUE DE BELGIQUE, IN GISEMENTS STRATIFORMES ET PROVINCES CUPRIFERES, LIEGE, BELGIQUE. PP. 353-366.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHWESTERN U.S. & CANADA). THIS PAPER BRIEFLY REVIEWS THE STRATIGRAPHIC RECORD OF STRATA BOUND COPPER OCCURRENCES AND CONCENTRATES ON THE DISTRIBUTION AND TYPES OF COPPER OCCURRENCES. DIAGRAMS AND PHOTOGRAPHS ARE INCLUDED.

H-82

HARRISON, JACK E.

(IN PROGRESS).

BELT BASIN STUDY.

DENVER, CO.: CENTRAL ENVIRONMENTAL GEOLOGY. IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WASHINGTON, IDAHO, & MONTANA: FLATHEAD COUNTY). THIS PROJECT WILL MAP AT A SCALE OF 1:250,000 THE KALISPELL 2 DEGREE SHEET. MINERAL RESOURCE APPRAISAL WILL INCLUDE: GEOCHEMICAL SAMPLING OF AREAS FAVORABLE FOR STRATABOUND COPPER DEPOSITS; SAMPLING OF AREAS THAT SHOW ANOMALOUS GRAVITY OR MAGMATIC PROPERTIES, DETAILED GROUND GRAVITY AND MAGNETIC TRAVERSES TO PINPOINT FAVORABLE ZONES IN KNOWN BROAD ANOMALOUS AREAS; AND DRILLING ONE GREEN BED COPPER OCCURRENCE TO OBTAIN GEOLOGIC, GEOCHEMICAL, AND GEOPHYSICAL DATA NEEDED TO HELP EVALUATE THE SIGNIFICANCE OF WIDESPREAD COPPER OCCURRENCES IN BELT ROCKS.

H-83

HARRISON, JACK E., AND CAMPBELL, A. B.

1963.

"CORRELATIONS AND PROBLEMS IN BELT SERIES STRATIGRAPHY, NORTHERN IDAHO AND WESTERN MONTANA."

GEOLOGICAL SOCIETY AMERICA BULL. 74(DECEMBER 1963):1413-1428.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN IDAHO & WESTERN MONTANA). THIS PAPER ATTEMPTS TO EXTEND CORRELATION OF BELT SERIES ROCKS FROM WESTERN MONTANA INTO NORTHERN IDAHO. FOLLOWING A GENERAL STATEMENT OF THE BELT SERIES STRATIGRAPHY, THE PAPER DESCRIBES THE PRICHARD AND WALLACE FORMATIONS AND THE RAVALLI GROUP OF THE LOWER BELT ROCKS AS WELL AS THE MISSOULA GROUP, OR THE UPPER BELT ROCKS. SILTITE IS RECOGNIZED AS A VALID ROCK TYPE, IN ADDITION TO QUARTZITE AND ARGILLITE. THE PAPER ALSO DISCUSSES FACIES CHANGES, THE DIFFERING DEPOSITION OF OLDER AND YOUNGER BELT ROCKS, THE YOUNG MAJOR CROSS-WARP IN THE OLD BELT GEOSYNCLINE, AND INDICATIONS OF PETROGRAPHIC STUDIES.

H-84

HARRISON, JACK E., AND GRIMES, D. J.
1970.

MINERALOGY AND GEOCHEMISTRY OF SOME BELT ROCKS, MONTANA AND IDAHO.

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. BULL.
1372-D. 49 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(NORTHERN IDAHO & NORTHWESTERN MONTANA: MISSION MTNS. PRIMITIVE AREA & PEND D'OREILLE AREA). THE MINERALOGY AND GEOCHEMISTRY OF BELT ROCKS IN THE TWO AREAS ARE COMPARED. SEMIQUANTITATIVE SPECTROGRAPHIC ANALYSES OF 254 SAMPLES FROM THE MISSION MOUNTAINS AND 230 SAMPLES FROM THE PEND D'OREILLE AREA FORM THE BASIS FOR CHEMICAL COMPARISON; QUANTITATIVE X-RAY MINERALOGIC ANALYSES OF MOST SAMPLES PROVIDE THE MINERALOGIC DATA. ROCKS WERE CLASSIFIED ON THE BASIS OF GRAIN SIZE, TEXTURE, AND CARBONATE CONTENT INTO ONE OF FOUR ROCK TYPES: ARGILLITES, SILTITES, QUARTZITES, AND CARBONATE ROCKS. COMPARISONS OF CLASTIC ROCKS SHOWS SIMILARITY IN MINERALOGY, PATTERNS OF ABUNDANCE OF SEVERAL ELEMENTS IN RELATION TO ROCK TYPES, ETC. THE POSSIBILITY OF THE HOMOGENIZATION OF CLASTIC COMPONENTS IS ALSO DISCUSSED, AS WELL AS WHAT SUCH HOMOGENIZATION INDICATES.

H-85

HARRISON, JACK E.; GRIGGS, ALLAN B.; AND WELLS, JOHN D.
1974.

TECTONIC FEATURES OF THE PRECAMBRIAN BELT BASIN AND THEIR INFLUENCE ON POST-BELT STRUCTURES.

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROF.
PAPER 886. 15 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL
DATA, REGIONAL.

(MONTANA & IDAHO). THIS INTERIM REPORT OF THE BELT BASIN FOCUSES ON: 1) THE GENESIS OF THE BASIN, 2) PALEOZOIC EVENTS PREVIOUSLY NEGLECTED IN ANALYZING BASIN TECTONICS, 3) SOME ASPECTS CONCERNING THE ORIGIN OF THE MONTANA DISTURBED BELT, AND 4) TECTONIC EVENTS ALONG THE LEWIS AND CLARK LINE. THE WORKING HYPOTHESIS IS THAT THE BELT BASIN IS ONE OF SEVERAL EPICRATONIC REENTRANTS FORMED ALONG THE EASTERN EDGE OF THE CORDILLERAN MIOGEOCLINE DURING PRECAMBRIAN TIME. FOUR STRUCTURAL ELEMENTS PROMINENT IN BELT TIME ARE IDENTIFIED AS KEY FACTORS THAT INFLUENCED SUBSEQUENT REACTION OF THE BASIN TO VARIOUS STRESSES.

H-86

HARRISON, JACK E.; LANGE, I. M.; AND HARRISON, J. P.
1977.

STRATA-BOUND COPPER OCCURRENCES IN GREEN BEDS OF THE BELT SUPER GROUP, WESTERN MONTANA. FIELD GUIDE NO. 3.

30TH ANNUAL MEETING, ROCKY MOUNTAIN SECTION, GEOLOGICAL SOCIETY AMERICA. 12 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(WESTERN MONTANA: LAKE & SANDERS COUNTIES). THIS FIELD GUIDE WAS WRITTEN TO ACCOMPANY A FIELD TRIP FROM MISSOULA, MONTANA, ALONG THE WEST SHORE OF FLATHEAD LAKE TO LAKESIDE, SOUTH OF KALISPELL. THE PURPOSE OF THE TRIP WAS TO VIEW SOME UNITS OF THE BELT SUPER GROUP SECTION AND TO EXAMINE THE OCCURRENCES OF ANOMALOUS AMOUNTS OF STRATA-BOUND COPPER IN SOME OF THOSE ROCKS.

H-87

HARRISON, JACK E.; REYNOLDS, MITCHELL W.; KLEINKOPF, M. DEAN; AND PATTEE, ELDON C.
1989.

MINERAL RESOURCES OF THE MISSION MOUNTAINS PRIMITIVE AREA, MISSOULA AND LAKE COUNTIES, MONTANA.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. BULL.
1261-B. 48 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MISSION MTNS.). THIS EVALUATION OF MINERAL POTENTIAL CONSIDERS THE AREA'S GEOLOGIC SETTING AS WELL AS ECONOMIC APPRAISALS OF METALLIC AND NONMETALLIC MINERALS. FORMATIONS OF THE PRECAMBRIAN BELT SUPERGROUP AND THE PRESENCE OF FOLDING AND FAULTS ARE DESCRIBED. MINING CLAIMS ARE BRIEFLY DISCUSSED. MUCH OF THE REPORT CONSISTS OF TABLES PRESENTING CHEMICAL ANALYSES OF SAMPLES.

H-88

HARRISON, JOHN E.
1976.

EVOLUTION OF A LANDSCAPE: THE QUATERNARY PERIOD IN WATERTON LAKES NATIONAL PARK.

OTTAWA, CAN.: ENERGY MINES & RESOURCES CANADA. GEOLOGICAL SURVEY OF CANADA. MISC.
26. 33 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA,
REGIONAL.

(WATERTON LAKES NATL. PARK & GLACIER NATL. PARK). THE REPORT, TO BE READ WITH ITS MAP, DESCRIBES THE LANDSCAPE AS IT WAS SHAPED BY EROSION AND GLACIATION DURING THE QUATERNARY PERIOD. IT CONSIDERS THE AREA'S GLACIAL GEOMORPHOLOGY BY DESCRIBING THE CIRQUES, HORNS, ARETES, GLACIAL TROUGHS, SPURS, TARNs, HANGING TROUGHS, TILL, MORAINES, DRUMLINS, OUTWASH PLAINS, ESKERS, KAMES, KETTLES, AND VARVES. GLACIATION PERIODS IN CANADA AND IN WATERTON, THE CAMEROON AND BLAKISTON VALLEY GLACIERS, THE WATERTON VALLEY GLACIER, THE CORDILLERON AND LAURENTIDE DEPOSITS ARE DISCUSSED. A POSTGLACIAL HISTORY EXAMINES SUCH LANDFORMS AS ALLUVIAL FANS AND DELTAS, STREAM TERRACES, AND BLOWOUTS.

H-89

HARRISON, MICHAEL.
1980.

"CHIEF CHARLOT'S BATTLE WITH BUREAUCRACY."

MONTANA, FALL 1980, PP. 27-33.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION & ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE ARTICLE IS AN ACCOUNT OF CHIEF CHARLOT AND HIS BAND'S REMOVAL FROM THE BITTERROOT VALLEY. IT DISCUSSES THE ROLES PLAYED BY SOON-TO-BECOME PRESIDENT JAMES A. GARFIELD, GOVERNOR BENJAMIN D. POTTS, CHIEFS CHARLOT, ARLEE, AND ADOLPH, PRESIDENT ULYSSES S. GRANT, AND SENATOR DAWES. A SURVEY OF TRIBAL LAND, AN AGREEMENT PROVIDING FOR THE REMOVAL OF FLATHEAD INDIANS, THE POSSIBLE FORGERY OF CHARLOT'S SIGNATURE, A SENATE COMMITTEE VISIT, AND THE RECOGNITION OF ARLEE AND NOT CHARLOT AS HEAD OF THE FLATHEADS ARE TOPICS DISCUSSED.

H-90

HARSTAD ASSOCIATES, INC.
1984.

COMPREHENSIVE PLAN - WHITEFISH MONTANA.

WHITEFISH, MT.: WHITEFISH CITY-COUNTY PLANNING BOARD. 57 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(WHITEFISH). THE PRIMARY PURPOSE OF THIS STUDY WAS TO DISCOVER WHY THE AREA WAS IN ITS PRESENT CONDITION, TO SEARCH FOR MEANS OF BOLSTERING THE ECONOMIC HEALTH OF THE COMMUNITY AND TO PRESENT A PLAN TO GUIDE FUTURE DEVELOPMENT. CONTAINED WITHIN THIS REPORT ARE LAND USE AND TRAFFIC PATTERNS, SUBDIVISION CONTROL, AND OTHER PHASES OF A COMPREHENSIVE DEVELOPMENT PROGRAM. EXTENSIVE MAPS, GRAPHS, AND TABLES ARE INCLUDED.

H-91

HART, JEFF.
1974.

"PLANT TAXONOMY OF THE SALISH AND KOOTENAI INDIANS OF WESTERN MONTANA."

M.A. THESIS, UNIV. MONTANA, MISSOULA. 130 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS WAS AN ETHNOBOTANICAL STUDY WHICH INCLUDED SALISH WORDS FOR PLANTS; A TENTATIVE LIST OF KOOTENAI BOTANICAL TERMS; A LIST OF PLANTS USED AS FOOD AND MEDICINE, FOR SMOKING, FOR BUG REPELLANTS, FOR TRAINING AND SMOKING HIDES, AND FOR DYES; AND A LIST OF SCIENTIFIC AND COMMON NAMES OF PLANTS USED BY THE SALISH AND KOOTENAI.

H-92

HART, JEFF.
1976.

MONTANA-NATIVE PLANTS AND EARLY PEOPLES.

HELENA, MT.: MONTANA HISTORICAL SOCIETY, BICENTENNIAL ADMINISTRATION. 75 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THE LIST OF PLANTS USED BY INDIANS PRIMARILY FOR MEDICINAL PURPOSES INCLUDES THE FLATHEAD AND KOOTENAI TRIBES.

H-93

HARTLEY, ERNEST A.
1970.

"MANAGEMENT COMMENTS AND SUGGESTIONS FOR GLACIER NATIONAL PARK."

11 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK
LIBRARY, WEST GLACIER, MT.

(GLACIER NATL. PARK). THIS REPORT OFFERS TWENTY DETAILED OBSERVATIONS ON HOW TO LESSEN HUMAN IMPACT IN GLACIER NATIONAL PARK, PARTICULARLY ON THE FRAGILE ALPINE ECOSYSTEM SURROUNDING THE LOGAN PASS VISITOR CENTER.

H-94

HARTLEY, ERNEST A.
1976.

"MAN'S EFFECTS ON THE STABILITY OF ALPINE AND SUBALPINE VEGETATION IN GLACIER NATIONAL PARK, MONTANA."

PH.D. DISSERTATION, DUKE UNIV. 258 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS RESEARCH WAS CONDUCTED TO DETERMINE THE QUALITATIVE AND QUANTITATIVE RELATIONSHIPS BETWEEN HUMAN ACTIVITIES AND THE CONDITION OF ALPINE-SUBALPINE VEGETATION IN GLACIER NATIONAL PARK. TESTS OF TRAIL-SIDE VEGETATION MEASURED THE LONG TERM EFFECTS OF PEDESTRIAN TRAFFIC. EXPERIMENTAL PLOTS RELATED VARIOUS INTENSITIES OF TRAMPLING TO CHANGES IN VEGETATION, PHYSICAL AND PHYSIOLOGICAL STATUS OF PLANTS, AND PHYSICAL PROPERTIES OF SOILS. DATA WERE COLLECTED ON

PLANT COMMUNITY COMPOSITION, SPECIES DIVERSITY, SPECIES COVER, FLOWERING CHARACTERISTICS, HEIGHT OF PLANTS, ROOT CARBOHYDRATE CONTENT, SOIL COMPACTION (INCLUDING BULK DENSITY, UNCONFINED COMPRESSIVE STRENGTH, WATER INFILTRATION RATE), AND SOIL TEMPERATURE.

H-95
HARVEY, A. E.; JURGENSEN, M. F.; AND LARSEN, M. J.
1978.
"THE ROLE OF FORESTRY IN THE UTILIZATION OF FOREST INDUSTRY AND MUNICIPAL WASTES."
PAPER PRESENTED TO EIGHTH WORLD FORESTRY CONGRESS, OCTOBER 18-28, JAKARTA, INDONESIA. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPER. FOREST). MICROBIAL ACTIVITIES ARE THE PRINCIPAL BIOLOGICAL DETERMINANTS OF FOREST SITE QUALITY. THE ENERGY SOURCE OR SUBSTRATE FOR MOST MICROBES IS DERIVED FROM SOIL ORGANIC MATTER. THIS ARTICLE PRESENTS THE RESULTS OF RESEARCH ON THE FOLLOWING MICROBIAL ACTIVITIES MOST CRITICAL TO SITE QUALITY: NITRIFICATION, DINITROGEN FIXATION, DECAY, ECTOMYCORRHIZAL SYMBIOSIS AND PATHOGENESIS.

H-96
HARVEY, A. E.; JURGENSEN, M. F.; AND LARSEN, M. J.
1978.
"ROLE OF RESIDUE IN IMPACTS OF ITS MANAGEMENT IN FOREST SOIL BIOLOGY."
PAPER PRESENTED AT 8TH WORLD FORESTRY CONGRESS, JAKARTA, INDONESIA, OCTOBER 18-28. 10 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPER. FOREST). MICROBES GREATLY AFFECT SOIL DEVELOPMENT. THIS REPORT OUTLINES HOW MICROBIAL ACTIVITY MEDIATES NUTRIENT STATUS THROUGH RELEASE, ACQUISITION, RETENTION, AND RECYCLING. IN PART, THEY ARE RESPONSIBLE FOR SOIL PHYSICAL STATE, TILTH, AND WATER RETENTION, BY CONTROLLING TYPE AND QUANTITY OF ORGANIC MATERIALS. THESE FACTORS IN TURN AFFECT MICROBIAL PLANT SYMBIOTS AND PATHOGENS.

H-97
HARVEY, A. E.; JURGENSEN, M. F.; AND LARSEN, M. J.
1978.
"SEASONAL DISTRIBUTION OF ECTOMYCORRHIZAE IN A MATURE DOUGLAS-FIR/LARCH FOREST SOIL IN WESTERN MONTANA."
FOREST SCIENCE 24:203-208.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPER. FOREST). THIS STUDY WAS UNDERTAKEN TO ADD TO THE KNOWLEDGE ABOUT RELATIONSHIPS AMONG WOODY RESIDUES, DECAY PROCESSES, AND MYCORRHIZAL ASSOCIATIONS IN NORTHERN ROCKY MOUNTAIN FOREST ECOSYSTEMS. TABLES LIST MEAN TEMPERATURE, MOISTURE, PH, NITRATE, AMMONIUM CONTENT, NUMBER OF ECTOMYCORRHIZAL TIPS IN THE HUMUS, DECAYED WOOD AND MINERAL SOIL FRACTIONS DURING THE GROWING SEASON, THE PERCENTAGE OF THE ANNUAL TOTAL OF ACTIVE ECTOMYCORRHIZAL TIPS THAT OCCURRED IN EACH BIMONTHLY PERIOD AND IN EACH RESPECTIVE SOIL LAYER DURING EACH BIMONTHLY PERIOD. A DISCUSSION AND CONCLUSIONS FOLLOW.

H-98
HARVEY, A. E.; JURGENSEN, M. F.; AND LARSEN, M. J.
1979.
"BIOLOGICAL IMPLICATIONS OF INCREASING HARVESTING INTENSITY WITH RESPECT TO MAINTENANCE AND PRODUCTIVITY OF FOREST SOILS."

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPER. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHERN ROCKY MTNS.: CORAM EXPER. FOREST). THIS STUDY DESCRIBES HOW ORGANISMS CONTRIBUTE TO DECAY PROCESSES, NITROGEN CONVERSIONS, AND ECTOMYCORRHIZAL BIOLOGICAL CHARACTERISTICS. THE INTERDEPENDENCY BETWEEN ABOVE GROUND (ORGANIC MATTER INPUT) AND BELOW GROUND (NUTRIENT AND MOISTURE AVAILABILITY) PROCESSES IS DISCUSSED.

H-99
HARVEY, A. E.; LARSEN, M. J.; AND JURGENSEN, M. F.
1978.
"DISTRIBUTION OF ECTOMYCORRHIZAE IN A MATURE DOUGLAS-FIR/LARCH FOREST SOIL IN WESTERN MONTANA."
FOREST SCIENCE 22(DECEMBER 1976):8-12.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPER. FOREST). THIS STUDY WAS UNDERTAKEN AS A STEP TOWARD BETTER UNDERSTANDING FUNCTIONS OF THE ORGANIC RESERVES OF FOREST SOILS ON THE ACTIVITIES OF A MAJOR GROUP OF SYMBIOTIC SOIL MICROORGANISMS, THE ECTOMYCORRHIZAL FUNGI. SOIL FRACTIONATION, MYCORRHIZAL ROOT COUNTS, AND QUANTITATIVE DETERMINATION OF MYCORRHIZAE WERE PERFORMED ON SOIL CORES TAKEN FROM PERMANENT PLOT CENTERS.

H-100
HARVEY, A. E.; LARSEN, M. J.; AND JURGENSEN, M. F.
1979.
"COMPARATIVE DISTRIBUTION OF ECTOMYCORRHIZAE IN SOILS OF THREE WESTERN MONTANA FOREST HABITAT TYPES."
FOREST SCIENCE 25:350-358.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPER. FOREST). SOIL CORE SAMPLES FROM THREE WESTERN MONTANA FOREST SITES REPRESENTING A RANGE OF MOISTURE, PRODUCTIVITY, AND DOMINANT TREE SPECIES (DOUGLAS-FIR, SUBALPINE FIR, AND HEMLOCK) WERE ANALYZED FOR DIFFERENCES IN QUANTITIES AND TYPES OF SOIL ORGANIC MATTER AND THE DISTRIBUTION OF ACTIVE (PHYSIOLOGICALLY FUNCTIONING) ECTOMYCORRHIZAE IN THE SOIL PROFILE. TABLES LIST MEAN TEMPERATURE, MOISTURE, PH, AND NUMBER OF ACTIVE ECTOMYCORRHIZAL TIPS PER LITER IN THE ORGANIC AND SOIL FRACTIONS OF THREE FOREST SITES; PERCENTAGE MOISTURE CONTENT OF EACH SOIL FRACTION; AND NUMBERS OF ACTIVE ECTOMYCORRHIZAL TIPS OCCURRING IN SOILS OF EACH HABITAT TYPE, ACCORDING TO YIELD CAPABILITIES OF THE SITES.

H-101
HARVEY, A. E.; LARSEN, M. J.; AND JURGENSEN, M. F.
1979.
"ECOLOGY OF ECTOMYCORRHIZAE IN NORTHERN ROCKY MOUNTAIN FORESTS." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPER. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.: CORAM EXPER. FOREST). THIS RESEARCH EXAMINES THE ACTIVITY OF ECTOMYCORRHIZAL SYMBIOTS AND HOW THEY DEPEND ON CLIMATE AND DISTURBANCES TO CONTRIBUTE TO THEIR CONTROL OVER THE NATURE OF SOIL AND VEGETATION. THE RELATIVE IMPORTANCE OF ORGANIC FRACTIONS TO ECTOMYCORRHIZAE ACTIVITY IS DISCUSSED.

H-102
HARVEY, A. E.; LARSEN, M. J.; AND JURGENSEN, M. F.
1979.
"FIRE-DECAY: INTERACTIVE ROLES REGULATING WOOD ACCUMULATION AND SOIL DEVELOPMENT IN THE NORTHERN ROCKY MOUNTAINS."
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPER. STAT. RESEARCH NOTE INT-263. 3 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.: CORAM EXPER. FOREST). THIS REPORT BRIEFLY DESCRIBES THE IMPORTANCE OF ORGANIC MATERIALS TO THE QUALITY OF FOREST SOILS. TOPICS COVERED INCLUDE: QUANTITY OF WOOD IN FOREST SOILS, FUNCTION OF WOOD IN FOREST SOILS, DECAY FIRE INTERACTION, AND MANAGEMENT OF WOOD IN FOREST SOILS.

H-103
HARVEY, GEORGE H., JR.
1925.
"OUR FIRST SIERRA CLUB OUTING."
SIERRA CLUB BULL. 12:158-162.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE IS AN ACCOUNT OF A VACATION TRIP THROUGH THE PARK WHICH INVOLVED SIERRA CLUB MEMBERS. INCLUDED IN THE DISCUSSION ARE DESCRIPTIONS OF THE CROWD, THE CAMPS, THE COMMISSARY, THE PACK-TRAINS, THE WEATHER, AND THE PARK'S ATTRACTIONS.

H-104
HARVEY, LEROY H.
1954.
"ADDITIONS TO THE FLORA OF GLACIER NATIONAL PARK."
PROC. MONTANA ACADEMY SCIENCES, 14TH ANNUAL MEETING. 3 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT LISTS 25 TAXA WHICH ARE APPARENTLY NEW TO THE PARK FLORA. 31 ADDITIONAL ONES ARE INCLUDED WHICH HAVE NOT BEEN REPORTED FROM EITHER THE WEST OR EAST SIDE. A DESCRIPTION OF THE SITE WHERE THE SPECIMEN WAS FOUND IS INCLUDED.

H-105
HARVEY, LEROY H.
1956.
"A KEY TO THE FAMILIES OF THE TRACHEOPHYTA OF WESTERN MONTANA."
MISSOULA, MT.: MOUNTAIN PRESS.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). A TAXONOMIC KEY TO TRACHEOPHYTA. NO LOCATIONS ARE GIVEN.

H-106
HASH, HOWARD S., AND HORNOCKER, MAURICE G.
1979.
"RANGE AND HABITAT OF MALE FISHERS IN NORTHWEST MONTANA."
IDAHO COOP. WILDLIFE RESEARCH UNIT, UNIV. IDAHO, MOSCOW. (TYPEWRITTEN). 11 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SOUTH FORK OF THE FLATHEAD RIVER & BOB MARSHALL WILDERNESS AREA). FISHERS (MARTES PENNANTI) WERE CAPTURED INCIDENTALLY DURING TRAPPING EFFORTS FOR WOLVERINES IN 1975 AND 1976. THREE FISHERS WERE INDIVIDUALLY MARKED, FITTED WITH A TRANSMITTER COLLAR, AND RELOCATED PERIODICALLY FROM THE GROUND AND THE AIR. DATA ARE PRESENTED IN TABULAR FORM.

H-107
HAUER, RICHARD D.
1980.

"**ECOLOGY OF TRICHOPTERA IN THE FLATHEAD RIVER, MONTANA.**"
PH.D. DISSERTATION, NORTH TEXAS STATE UNIV., DENTON. 250 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THE OBJECTIVES OF THIS DISSERTATION WERE TO DOCUMENT THE LIFE HISTORIES OF TRICHOPTERA AND TO DETERMINE THE RELATIONSHIP, IF ANY, OF THE CLAY-DETRITAL AGGREGATES THAT ACCUMULATE IN THE RIVER TO TRICHOPTERA LIFE HISTORIES. A SERIES OF PROFESSIONAL PAPERS COMPRISE THE DISSERTATION.

H-108
HAUER, RICHARD D.; ZIMMERMAN, E.; AND STANFORD, JACK.
1980.

"**PRELIMINARY INVESTIGATIONS OF DISTRIBUTIONAL RELATIONSHIPS OF AQUATIC INSECTS AND GENETIC VARIATION OF A FISH POPULATION IN THE KINTLA DRAINAGE, GLACIER NATIONAL PARK, MONTANA.**" IN PROCEEDINGS OF SECOND CONFERENCE ON RESEARCH IN NATIONAL PARKS.
ARLINGTON, VA.: AMERICAN INSTITUTE BIOLOGICAL SCIENCES.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: KINTLA LAKE & NORTH FORK OF THE FLATHEAD RIVER). THIS PAPER PRESENTS PRELIMINARY DATA CONCERNING: 1) DISTRIBUTIONAL RELATIONSHIPS OF TRICHOPTERA AND PLECOPTERA ALONG THE STREAM CONTINUUM, WITH EMPHASIS ON TYPE FAUNA CHARACTERIZATION; AND 2) THE INVESTIGATION OF NATIVE FISH POPULATIONS TO ASSESS THE DEGREE OF GENETIC VARIATION WITHIN AND AMONG POPULATIONS OF BULL TROUT (*SALVELINUS CONFLUENTUS*) AND THE AMOUNT OF GENE FLOW BETWEEN POPULATIONS IN THE KINTLA SYSTEM AND THE FLATHEAD RIVER DRAINAGE.

H-109
HAWE, ROBERT GLEN.
1975.

"**A TELLURIC CURRENT SURVEY OVER CAMAS HOT SPRINGS AND THE MARYSVILLE.**"
NORTHWEST GEOLOGY 4:12-24.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: CAMAS HOT SPRINGS). THIS ARTICLE REPORTS ON A SURVEY DESIGNED TO EVALUATE THE TELLURIC METHOD FOR GEOTHERMAL APPLICATION, WHICH INCLUDED MAPPING AND PROFILING THE GEOTHERMAL AREAS AT CAMAS. DIAGRAMS ARE INCLUDED.

H-110
HAWLEY, VERNON D.
1965.
"THE ECOLOGY OF THE MARTEN IN GLACIER NATIONAL PARK."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 131 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS STUDY WAS DESIGNED TO OBTAIN QUANTITATIVE DATA ON THE ECOLOGY OF THE MARTEN BY MEANS OF LIVE TRAPPING AND RELEASE OF MARKED ANIMALS. THE INVESTIGATION HAD THESE OBJECTIVES: 1) TO GATHER DATA ON THE LIFE HISTORY OF THE MARTEN; 2) TO DETERMINE POPULATION DENSITY AND TURNOVER, RANGE, MOVEMENT, AND DISTRIBUTION OF MARTEN THROUGH LIVE TRAPPING AND TAGGING; AND 3) TO CORRELATE MARTEN DENSITY WITH VEGETATION TYPES AND FOOD SUPPLY.

H-111
HAWLEY, VERNON D., AND NEWBY, FLETCHER E.
1957.
"MARTEN HOME RANGES AND POPULATION FLUCTUATIONS."
J. MAMMOLOGY 38(MAY 1957):174-184.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). LIVE TRAPPING WAS INITIATED IN 1952 ON AN AREA IN GLACIER NATIONAL PARK TO OBTAIN QUANTITATIVE ECOLOGICAL DATA ON A POPULATION OF MARTES AMERICANA. INFORMATION ON THE HOME RANGE AND POPULATION FLUCTUATIONS IS INCLUDED.

H-112
HAYES, HOWARD H., AND NOBLE, FRED A.
1930.
"REBUILDING COMBINED WITH HEAVY REPAIRS IN NINE MONTHS 'OFF-SEASON' AT GLACIER PARK."
BUS TRANSPORTATION 9(APRIL 1930):206-208.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE TRANSPORTATION SYSTEM, THE REPAIR SHOP, AND ACTIVITIES OF THE GLACIER PARK TRANSPORT COMPANY.

H-113
HAZZARD, ALBERT S.
1936.
"MANAGEMENT RECOMMENDATIONS FOR THE WATERS OF GLACIER NATIONAL PARK."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 17 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT COVERS 1) THE ADVISABILITY OF FISH STOCKING IN VARIOUS LAKES AND STREAMS WITHIN THE PARK, 2) CURRENT FISH POPULATION CONDITIONS, AND 3) RECOMMENDATIONS FOR FUTURE REGULATION OF FISHING. CHARTS LIST THE SPECIES, SIZE, NUMBER, AND FREQUENCY OF STOCKING PROPOSALS FOR LAKES AND CREEKS IN THE TWO MEDICINE, CUT BANK, AND ST. MARY'S DRAINAGES.

H-114
HAZZARD, ALBERT S.
1939.
"FISH AND FISHING WATERS IN GLACIER PARK."
THE PROGRESSIVE FISH CULTURIST MEMORANDUM 1:131(JULY-OCTOBER ISSUE):1-7.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES A SURVEY OF LAKES AND STREAMS TO DETERMINE CONDITIONS FOR FISH LIFE AND OUTLINE PLANS FOR FISHERIES MANAGEMENT. FACTORS OF TROUT PRODUCTION IN STREAMS; THE HIGHER AND LOWER LAKES; THE FISH SPECIES AVAILABLE; FISHING FOR CUTTHROAT, BROOK, LAKE TROUT, AND GRAYLING; AND FISH CULTURAL OPERATIONS ARE TOPICS DISCUSSED.

H-115
HEID, WALTER G., JR., AND LARSON, D. K.
1974.
FERTILIZER USE IN MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. BULL. 628, REVISED. 40 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE PURPOSE OF THIS REPORT WAS TO SHOW THE ECONOMIC IMPORTANCE AND TRENDS IN FERTILIZER USE IN MONTANA ALONG WITH SOME NATIONAL COMPARISONS. INFORMATION REGARDING USE BY COUNTIES, USE BY LARGE SCALE FARMS, AND METHODS OF CALCULATING RATES OF RETURN ARE ALSO PROVIDED.

H-116
HELBURN, NICHOLAS; EDIE, MILTON J.; AND LIGHTFOOT, GORDON W.
1962.
MONTANA IN MAPS.
BOZEMAN, MT.: MONTANA STATE UNIV., THE RESEARCH AND ENDOWMENT FOUNDATION, AND ARTCRAFT PRINTERS. 85 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE COLLECTION INCLUDES MAPS OF PHYSIOGRAPHY, GEOLOGY, CLIMATE, VEGETATION, AND WATER RESOURCES. THE DISTRIBUTION OF HUMAN ACTIVITIES HAVE BEEN MAPPED: AGRICULTURE, LUMBER PRODUCTION, MINERAL RESOURCES, TRANSPORTATION, POPULATION, POLITICAL DIVISIONS, AND LAND ADMINISTRATION.

H-117
HELENA BRANCH OF THE FEDERAL RESERVE BANK OF MINNEAPOLIS.
1946.
YOUR BANKS: HISTORICAL SKETCHES OF MONTANA BANKS AND BANKERS.
HELENA, MT. 157 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: KALISPELL, COLUMBIA FALLS, RONAN, POLSON, ST. IGNATIUS, SOMERS, & WHITEFISH). THIS HISTORICAL SKETCHBOOK PRESENTS INDIVIDUAL ACCOUNTS OF THE ESTABLISHMENT AND GROWTH OF THE STATE'S VARIOUS BANKS, ALONG WITH SUCH GENERAL DISCUSSIONS AS "BANKING WAS DIFFERENT IN THE GOOD OLD DAYS." THE DESCRIPTIONS OF INDIVIDUAL BANKS INCLUDE A LIST OF THE FOUNDERS OF THE BANK AND BANK OFFICERS, A DESCRIPTION OF THE TOWN IN WHICH THE BANK WAS LOCATED AND ITS ECONOMY.

H-118
HEMMER, DENNIS M.
1975.
SERVICEBERRY: ECOLOGY, DISTRIBUTION AND RELATIONSHIP TO BIG GAME.
HELENA, MT.: MONTANA DEPT. FISH & GAME. PROJECT NO. W-120-R-5 + 6, JOB NO. BG-2.02, SUB JOB 3. 76 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THE OBJECTIVES OF THE STUDY WERE TO: 1) DETERMINE THE GEOGRAPHIC DISTRIBUTION OF AMELANCHIER ALNIFOLIA WITHIN MONTANA; 2) DETERMINE TOPOGRAPHIC, ALTITUDINAL, AND COMMUNITY RELATIONSHIPS OF SERVICEBERRY, 3) MEASURE THE DENSITY OF SERVICEBERRY IN GEOGRAPHIC AREAS; AND 4) DETERMINE THE SEASON AND AMOUNT OF USE OF SERVICEBERRY BY BIG GAME IN SELECTED AREAS OF FISH AND GAME DEPARTMENT DISTRICTS ONE AND TWO. FIVE GROWTH FORMS WERE DESCRIBED, REPRESENTING OVERLAPPING CLASSIFICATIONS. EIGHT MANAGEMENT SUGGESTIONS WERE MADE.

H-119
HENDERSON, PALMER.
1890.
"THE FLATHEAD INDIANS: A VISIT TO THEIR AGENCY AND TO THE ST. IGNATIUS MISSION."
THE NORTHWEST ILLUSTRATED MONTHLY MAGAZINE, AUGUST 1890, PP. 1-3.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE DESCRIBES A VISIT TO THE FLATHEAD AGENCY DURING 1890. IT ALSO INCLUDES A DESCRIPTION OF A VISIT TO THE HOUSE OF ANTOINE MOISE AND THE ST. IGNATIUS MISSION. SKCC.

H-120
HENDERSON, ROBERT E., AND O'GARA, BART W.
1978.
"TESTICULAR DEVELOPMENT OF THE MOUNTAIN GOAT."

J. WILDLIFE MANAGEMENT 42(OCTOBER 1978):921-922.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE TESTES AND EPIDIDYMIDES OF 11 MOUNTAIN GOATS WERE EXAMINED BETWEEN MID-SEPTEMBER AND LATE DECEMBER TO DETERMINE IF ADULTS WERE PRODUCING MATURE SPERMATOZOA, TESTICULAR WEIGHTS, AND THE FERTILITY AND BREEDING CAPACITY OF YEARLING MALES.

H-121
HENNINGSON, DARWIN N.
1970.
"SYSTEMATICS OF THE SOREX VAGRANS-OBSCURUS COMPLEX, REVISITED."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 118 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THIS REPORT IS BASED PRIMARILY ON AN EXAMINATION OF CRANIAL AND DENTAL MORPHOLOGY IN 628 SPECIMENS OF SOREX VAGRANS, S. OBSCURUS, AND S. PACIFICUS, 521 OF WHICH WERE USED IN A STATISTICAL ANALYSIS OF GEOGRAPHIC VARIATION. POSITIVE IDENTIFICATION OF VAGRANS AND OBSCURUS WAS MADE POSSIBLE BY THE DISCOVERY OF A QUALITATIVE, SPECIES-SPECIFIC DENTAL CHARACTER. OTHER MORPHOLOGICAL CHARACTERISTICS INVESTIGATED INCLUDED: SEXUAL DIMORPHISM, AGE VARIATION IN CRANIAL MEASUREMENTS, THE COMPARATIVE EFFECTS OF AGE AND SEASONAL FACTORS ON CRANIAL HEIGHT FLUCTUATION. INDICATIONS OF THE OCCURRENCE OF HYBRIDIZATION OF VAGRANS AND OBSCURUS ARE CONSIDERED.

H-122
HENNINGSON, DARWIN N., AND HOFFMANN, R. S.
1977.
A REVIEW OF THE TAXONOMY OF THE SOREX VAGRANS SPECIES COMPLEX FROM WESTERN NORTH AMERICA. OCCASIONAL PAPERS OF MUSEUM OF NATURAL HISTORY, NO. 68.
LAWRENCE, KS.: UNIV. KANSAS. 35 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(NORTHWESTERN UNITED STATES: WESTERN MONTANA). THIS PAPER REEXAMINES MORPHOLOGICAL SIMILARITIES BETWEEN SOREX VAGRANS VAGRANS AND S. MONTICOLUS. DIFFERENCES IN TOOTH MORPHOLOGY AND CRANIAL PROPORTIONS ARE DESCRIBED. LOCALITY DATA FOR EACH SPECIMEN EXAMINED ARE ARRANGED ALPHABETICALLY BY SPECIES AND SUBSPECIES, BY STATE OR PROVINCE, COUNTY AND LOCALITY, AND ALPHABETICALLY BY MUSEUM ABBREVIATION.

H-123
HENNINGSON, DURHAM, AND RICHARDSON.
1976.
ALTERNATIVE TECHNOLOGIES REPORT FOR SOLID WASTE DISPOSAL AND RESOURCE RECOVERY FOR THE STATE OF MONTANA.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, SOLID WASTE MANAGEMENT BUREAU. 98 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT SUMMARIZES THE TECHNICAL AND OPERATING REQUIREMENTS AND COSTS FOR THE VARIOUS SOLID WASTE PROCESSING, UTILIZATION, AND DISPOSAL ALTERNATIVES APPLICABLE IN THE STATE AT THE PRESENT TIME. THE ALTERNATIVES WERE DIVIDED INTO FOUR MAIN CATEGORIES: SANITARY LANDFILLS, TRANSFER STATIONS, PROCESSING FACILITIES, AND UTILIZATION, FACILITIES. A DETAILED ANALYSIS OF THE TECHNICAL AND OPERATING REQUIREMENTS AND THE ASSOCIATED COSTS OF UTILIZING TRANSFER

STATIONS TO REDUCE THE COSTS OF TRANSPORTING AND DISPOSING OF SOLID WASTE IS INCLUDED. THE PROCESSING AND UTILIZATION, REQUIREMENTS AND APPLICABLE COSTS FOR EACH OF THREE UTILIZATION, SYSTEMS ARE DISCUSSED IN DETAIL.

H-124
HENNINGSON, DURHAM, AND RICHARDSON.
1976.
ENERGY AND SECONDARY MATERIALS MARKET REPORT. FINAL REPORT.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, SOLID WASTE MANAGEMENT & RESOURCE RECOVERY STUDY. 70 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD AREA). THE PRIMARY OBJECTIVE OF THIS REPORT IS TO IDENTIFY AND EVALUATE EXISTING AND POTENTIAL MARKETS FOR RECOVERABLE MATERIALS IN THE SOLID WASTE GENERATED IN THE STATE OF MONTANA. THE INFORMATION OBTAINED FROM THESE INVESTIGATIONS WAS TO BE USED TO DETERMINE THE POTENTIAL OF IMPLEMENTING RESOURCE RECOVERY SYSTEMS IN THE STATE. BASED ON THE MARKET INVESTIGATIONS, THE POTENTIAL REVENUE FROM THE MARKETABLE SECONDARY MATERIALS FOUND IN THE STATE'S SOLID WASTE STREAM WAS DETERMINED.

H-125
HENNINGSON, DURHAM, AND RICHARDSON.
1978.
REGION V - SOLID WASTE MANAGEMENT STRATEGY.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, SOLID WASTE MANAGEMENT & RESOURCE RECOVERY STUDY. 100 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(FLATHEAD, LAKE, LINCOLN, MISSOULA, & SANDERS COUNTIES). THE PURPOSE OF THIS SOLID WASTE MANAGEMENT STRATEGY WAS TO PRESENT AND REVIEW THE SOLID WASTE DISPOSAL AND RESOURCE RECOVERY ALTERNATIVES WHICH HAVE BEEN EVALUATED AND DETERMINED TO BE THE MOST ECONOMICALLY VIABLE AND ENVIRONMENTALLY ACCEPTABLE FOR THE STATE. INCLUDED ARE: SYSTEMS ANALYSIS OF WASTE DISPOSAL AND UTILIZATION ALTERNATIVES; ALTERNATIVE IMPLEMENTATION STRATEGIES; AND RECOMMENDATIONS AND FINANCIAL REQUIREMENTS. THE APPENDIX CONTAINS A BASIS FOR SYSTEM COST ANALYSES.

H-126
HENRY, ALEXANDER.
1897.
NEW LIGHT ON THE EARLY HISTORY OF THE NORTHWEST: THE MANUSCRIPT JOURNALS OF ALEXANDER HENRY AND DAVID THOMPSON, 1789-1814. EDITED BY ELLIOTT COUES. 3 VOLS.
NEW YORK: FRANCIS P. HARPER.

(PACIFIC NORTHWEST). THE ENTRIES RELATING TO THE SALISH OR KOOTENAI RANGE FROM 1806 THROUGH 1811. HENRY WAS A BRITISH TRADER WHO RECORDED A NUMBER OF MEETINGS WITH THE FLATHEADS AND OTHER INDIAN TRIBES WEST OF THE ROCKIES. SKCC.

H-127
HENSLEY, ROBERT G., AND MUNDINGER, JOHN.
1978.
CONDON CREEK WHITE-TAILED DEER HABITAT ANALYSIS.
SWAN LAKE, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST, SWAN LAKE DISTRICT. 18 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SWAN LAKE DISTRICT). THIS REPORT PRESENTS THE STATUS OF THE WHITE-TAILED DEER (ODOCOILEUS VIRGINIANUS) HABITAT IN EACH SECTION OF THE SWAN LAKE DISTRICT. MANAGEMENT SUGGESTIONS ARE MADE.

H-128
HENSLEY, ROBERT G., AND OTTO, W.
1978.
TROUT LAKE ELK HABITAT ANALYSIS.
HUNGRY HORSE, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST, HUNGRY HORSE DISTRICT. 10 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: HUNGRY HORSE DISTRICT). THE OBJECTIVE OF THIS ANALYSIS IS TO PROVIDE FOREST LAND MANAGERS WITH A SYSTEM TO VISUALIZE AND QUANTITATIVELY PORTRAY PAST TIMBER MANAGEMENT PRACTICES AND TO EVALUATE THE CONSEQUENCES ON ELK HABITAT. A DETAILED EXPLANATION OF THE PROCEDURE IS INCLUDED.

H-129
HERMAN, MARGARET, AND WILLARD, E. EARL.
1977.
ROCKY MOUNTAIN WOLF AND ITS HABITAT.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, & UNIV. MONTANA, SCHOOL FORESTRY. 17 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,

NOTE: DISCUSSES WOLF SIGHTINGS IN GLACIER NATIONAL PARK, THE NORTH FORK OF THE FLATHEAD. CONTAINS BIBLIOGRAPHY OF WOLF RESEARCH.

(U.S. FOREST SERVICE, NORTHERN REGION: GLACIER NATL. PARK & NORTH FORK OF THE FLATHEAD RIVER). THE PUBLICATION REVIEWS INFORMATION ON CANIS LUPUS IRRMOTUS: THE WOLF'S HISTORICAL DISTRIBUTION, PRESENT STATUS, AND HABITAT RELATIONSHIPS. SUBSPECIES, KILLING BY HUMANS, SIGHTINGS, FOODS, SPACE REQUIREMENTS, AND DENS ARE DISCUSSED. THE FUTURE OUTLOOK FOR THE ANIMALS IS CONSIDERED.

H-130
HERMANN, FREDERICK J.
1956.
"RANGE EXTENSIONS IN NORTHWESTERN PLANTS."
RHODORA 58(OCTOBER 1956):278-281.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(GLACIER NATL. PARK). EXTENSIONS IN THE RANGES OF A NUMBER OF PLANTS ARE REPORTED HERE. INCLUDED ARE THE FOLLOWING SPECIES LOCATED IN OR NEAR THE PARK: MUHLENBERGIZ GLOMERATA, ELYMUS INNOVATUS, CAREX CUSICKII, CAREX MICROPTERA, CAREX PHYSOCARPA, AND CAREX STIPATA. THE LOCATIONS OF THE COLLECTION SITES ARE NOTED.

H-131
HERMANN, FREDERICK J.
1964.
"A NEW CAREX FROM GLACIER NATIONAL PARK."
LEAFLETS OF WESTERN BOTANY 10(MARCH 30, 1964):5-10.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER GIVES A DETAILED DESCRIPTION OF A SPECIES NOT PREVIOUSLY KNOWN TO BE IN THE PARK: CAREX PLECTOCARPA. A TAXONOMIC KEY TO DISTINGUISH IT FROM OTHER RELATED SPECIES IS INCLUDED.

H-132
HERMANN, FREDERICK J.
1969.
"THE BRYOPHYTES OF GLACIER NATIONAL PARK, MONTANA."

THE BRYOLOGIST 72(FALL 1969):19-38.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). IN THIS LISTING OF THE KNOWN BRYOFLOA, 157 SPECIES ARE REPORTED FOR THE FIRST TIME AND 24 ARE NEW TO MONTANA. LOCATION OF DISCOVERY AND ELEVATION OF THE SITE ARE REPORTED.

H-133
HERN, STEPHEN COLEMAN.
1971.

"BACTERIAL INDICATORS OF WATER QUALITY OF FLATHEAD LAKE AND FLATHEAD RIVER, MONTANA."
M.S. THESIS, UNIV. UTAH, SALT LAKE CITY. 135 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MAINSTEM OF THE FLATHEAD RIVER & FLATHEAD LAKE). THIS STUDY ATTEMPTS TO DETERMINE THE EXTENT OF SEWAGE POLLUTION PRESENT IN THE RIVER AND LAKE. THE EXTENT OF CONTAMINATION WAS ESTABLISHED THROUGH TOTAL COLIFORM, FECAL COLIFORM, AND FECAL STREPTOCOCCI COUNTS, WHICH ARE LISTED IN THE APPENDIX.

H-134
HERRERO, STEPHEN.
1970.
"HUMAN INJURY INFLICTED BY GRIZZLY BEARS."
SCIENCE 170(NOVEMBER 6, 1970):593-598.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(NORTH AMERICAN NATL. PARKS: GLACIER NATL. PARK). THE ARTICLE EXAMINES GRIZZLY BEAR (UR-
SUS ARCTOS HORRIBILIS) ATTACKS THAT RESULTED IN HUMAN INJURY. RESEARCH METHODOLOGY INVOLVED THE EXAMINATION OF NATIONAL PARK FILES, INTERVIEWS AND CORRESPONDENCE WITH PEOPLE ATTACKED BY BEARS, AND THE REVIEW OF NEWSPAPER ACCOUNTS. ATTACKS WERE THEN TABULATED AND INJURY RATES NOTED. INCLUDED IN THE DISCUSSION ARE THE HUMAN ACTIVITIES ASSOCIATED WITH ATTACKS (HIKING, CAMPING, AND PROVOKING THE BEAR), CHARACTERISTICS OF ATTACKS, TENTATIVE SUGGESTIONS ON HOW TO AVOID INJURY, AND MANAGEMENT SUGGESTIONS.

H-135
HERRINGTON, H. E., AND DOUGLAS, G. V.
1968.
INDIAN AND WHITE ATTITUDES RELATING TO INDIAN ASSIMILATION.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. BULL. 823. 25 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD INDIAN RESERVATION). THIS REPORT EVALUATES THE CHANCES MONTANA'S AMERICAN INDIAN YOUTH HAVE OF OBTAINING PERMANENT EMPLOYMENT OFF THE RESERVATION. TO DETERMINE THOSE CHANCES TWO QUESTIONS MUST BE ANSWERED: 1) DO INDIANS AND WHITES HAVE ATTITUDES FAVORABLE TO INDIAN ASSIMILATION, AND 2) ARE INDIANS QUALIFIED TO FILL JOB OPENINGS? EIGHTH AND TWELFTH GRADERS ON ALL RESERVATIONS WERE SURVEYED.

H-136
HETHERINGTON, GEORGE, JR.
1940.
"GEOLOGY OF GLACIER NATIONAL PARK."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. 38 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK HISTORICAL FILES.

(GLACIER NATL. PARK). THIS REPORT WAS BASED ON EXISTING LITERATURE AND FIELD OBSERVATIONS. IT COVERS THE MCDONALD CREEK VALLEY'S STRATIGRAPHY, STRUCTURE, AND GEOMORPHOLOGY. GEOLOGIC COLUMNS ILLUSTRATE CROSS SECTIONS OF THE STRUCTURE OF THE MOUNTAINS.

H-137
HICKS, B. L., AND PRINKKI, L. D.
1971.
NORTH FORK OF FLATHEAD RIVER WILD AND SCENIC RIVERS STUDY.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. 15 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). AS PART OF THE WILD AND SCENIC RIVERS STUDY, A GEOLOGIC RECONNAISSANCE WAS MADE OF THE NORTH FORK BETWEEN THE CANADIAN BORDER AND CAMAS CREEK. EXAMINED ARE THE PHYSIOGRAPHY AND CULTURAL FEATURES, GENERAL AND HISTORIC GEOLOGY, AND SIX SPECIFIC POINTS RELATIVE TO ROAD CONSTRUCTION AND POSSIBLE REALIGNMENT OR RENOVATION.

H-138
"HIGHLIGHTS OF THE EARLY HISTORY OF KALISPELL, MT.: SPEECH BEFORE THE TOASTMASTER'S CLUB."
KALISPELL CHAMBER OF COMMERCE, KALISPELL, MT. (TYPEWRITTEN). 3 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(FLATHEAD VALLEY: HISTORIC DEMERSVILLE AND SURROUNDING AREA). THE TEXT INCLUDES HISTORIC DESCRIPTIONS OF DAVID THOMPSON'S EXPLORATIONS; THE EARLY SETTLEMENTS OF TYSON DUNCAN, EDGAR BROOK, AND JOHN DOOLEY; THE FOUNDING OF DEMERSVILLE; THE FIRST ELECTIONS; STEAMBOATS; AND THE COMING OF THE RAILROAD.

H-139
HILDEBRAND, PETER R.
1971.
"BIOLOGY OF WHITE-TAILED DEER ON WINTER RANGES IN THE SWAN VALLEY, MONTANA."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 91 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER VALLEY). CONDITIONS IN THE BIOLOGY OF WHITE-TAILED DEER (ODOCOILEUS VIRGINIANUS) WERE ASSESSED, TOGETHER WITH HOW THE CONDITIONS MAY HAVE BEEN AFFECTED BY LOGGING OPERATIONS. SPECIFIC OBJECTIVES WERE: 1) TO DETERMINE THE PERCENTAGE OF BROWSE UTILIZED BY DEER ON THEIR WINTER RANGE FOR COMPARISON WITH EARLIER STUDIES, 2) TO INVESTIGATE THEIR HABITAT PREFERENCES AS RELATED TO COVER TYPES, 3) TO EXAMINE THEIR FOOD HABITS FOR COMPARISON WITH A SIMILAR EARLIER STUDY, 4) TO EVALUATE THEIR REPRODUCTIVE PERFORMANCE FOR COMPARISON WITH OTHER WHITE-TAILED DEER HERDS, 5) TO EVALUATE THEIR PHYSICAL CONDITION FOR COMPARISON WITH THAT OF DEER ON OTHER RANGES, 6) TO OBTAIN HARVEST DATA ON THE 1969 HUNTING SEASON FOR COMPARISON TO EARLIER SEASONS, 7) TO ESTIMATE WINTER MORTALITY DURING THE WINTERS OF 1968-69 AND 1969-70, AND 8) TO SEARCH FOR THE PRESENCE OF THE BRAINWORM (PNEUMOSTRONGYLUS TENUIS) IN WHITE-TAILED DEER. A BRIEF DISCUSSION OF MANAGEMENT CONDITIONS IS PRESENTED.

H-140
HILGERT, JERRY W.
1976.
"FLAGELLATED ALGAE OF FLATHEAD VALLEY, MONTANA."

PROC. MONTANA ACADEMY SCIENCES 38:86-97.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD & LAKE COUNTIES). TWENTY TWO DIVERSE HABITATS RANGING FROM LARGE OLIGOTROPHIC LAKES, TO GLACIAL POTHOLES, TO SMALL EUTROPHIC PONDS WERE SAMPLED. A TAXONOMIC KEY TO THE ALGAE FOUND, AND WHERE THEY WERE FOUND, IS INCLUDED.

H-141
HILPERT, FREDERICK M.
1951.
AN INVESTIGATION OF THE GROUNDWATER OF THE AREA NORTH OF FLATHEAD LAKE, MONTANA.
BUTTE, MT.: MONTANA SCHOOL OF MINES. 14 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: A SENIOR PAPER WITH QUESTIONABLE CONCLUSIONS.

(AREA NORTH OF FLATHEAD LAKE, BORDERED BY THE FLATHEAD RIVER). THE STUDY OF GROUND WATER VARIATIONS FOCUSES UPON THE REASONS FOR THE VARIATIONS. IT DISCUSSES THE HYDROGRAPHS MADE OF WELLS IN THE AREA SHOWING SEASONAL AND YEAR-BY-YEAR VARIATION AND THE CROSS-SECTIONS CONSTRUCTED TO DISCOVER REASONS FOR FLUCTUATIONS OF PARTICULAR WELLS.

H-142
HIMMEL, JAMES M.
1949.
"VARIATION IN DEPTH OF PRECIPITATION AND IN WATER EQUIVALENT OF SNOW ON THE GROUND." PAPER PRESENTED TO THE WESTERN SNOW CONFERENCE, 18TH ANNUAL MEETING, RENO, NEVADA, APRIL 15-17, 1948.
PROC. WESTERN SNOW CONFERENCE 16:117-132.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MARIAS PASS, WEST OF THE CONTINENTAL DIVIDE). THE PAPER UTILIZES 1946-47 RECORDS OF SNOW DATA FROM THE UPPER COLUMBIA SNOW LABORATORY TO SHOW THE CORRELATION BETWEEN ACCUMULATED PRECIPITATION AND WATER EQUIVALENT OF SNOW PACK. DATA ARE PRESENTED IN TABLES AND DISCUSSED.

H-143
HINTZE, LEHI F.
1960.
ORDOVICIAN STRATIGRAPHY IN WESTERN MONTANA AND ADJACENT STATES.
BILLINGS, MT.: BILLINGS GEOLOGICAL SOCIETY. ELEVENTH ANNUAL FIELD CONFERENCE. 4 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(IDAHO & WESTERN MONTANA: FLATHEAD RIVER BASIN). THIS PAPER DESCRIBES THE: ORDOVICIAN OF THE SOUTHERN CORDILLERAN GEOSYNCLINE, CENTRAL IDAHO ORDOVICIAN, BIGHORN DOLOMITES, AND AREAS LACKING ORDOVICIAN. A MAP ILLUSTRATES THE REGIONAL DISTRIBUTION AND RESTORED CROSS SECTIONS OF ORDOVICIAN ROCK.

H-144
HIRSCH, ALAN T.
1976.
"DETAILED STRUCTURE AND MESOSCOPIC FABRIC DEVELOPED ADJACENT TO THE LEWIS THRUST ON LITTLE DOG MOUNTAIN, FLATHEAD COUNTY, MONTANA."
M.S. THESIS, HARVARD UNIV., CAMBRIDGE, MA. 95 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). DOCUMENTATION AND ANALYSIS OF THE DETAILED STRUCTURE, DEFORMATIVE STYLE, AND MESOSCOPIC FABRIC PRESERVED IN THE STRATA ADJACENT TO THE LEWIS THRUST HAVE BEEN USED IN THIS STUDY TO CONSTRUCT THE HISTORY OF DEFORMATION EVENTS AND A DESCRIPTION OF THE STRESS GEOMETRY ASSOCIATED WITH EMPLACEMENT OF THE THRUST. THE AREA IS MAPPED AT A SCALE OF 1:8000 AND MINOR STRUCTURAL FEATURES HAVE BEEN NOTED IN DETAIL.

H-145
HISTORICAL RESEARCH ASSOCIATES.
1977

TIMBER, TRIBES AND TRUST - A HISTORY OF BIA FOREST MANAGEMENT ON THE FLATHEAD INDIAN RESERVATION, 1855-1975.

DIXON, MT.: THE CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD RESERVATION. 421 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE FOLLOWING CHAPTERS ARE INCLUDED IN THIS HISTORICAL REVIEW: LAND OF THE FLATHEADS, TIMBER CUTTING AND MANAGEMENT 1855-1900, FOREST ADMINISTRATION 1900-1920, BOOM AND BUST 1920-1940 TIMBER OPERATIONS, LOGGING RESERVATIONS ON THE FLATHEAD INDIAN RESERVATION (1920-1978): A PHOTO ESSAY, PLANNED FOREST MANAGEMENT: PART 1, SUSTAINED YIELD FORESTRY, AND PLANNED FOREST MANAGEMENT: PART 2, EXTENSIVE TO INTENSIVE FORESTRY. THE APPENDICES LIST: PERSONNEL, CHRISTMAS TREE HARVEST PROGRAM, FIRE CONTROL, SAWMILL OPERATORS ON THE FLATHEAD RESERVATION, STATUTES AND TIMBER SALE REGULATIONS, LOGGING CONTRACTORS, SUMMARY OF VOLUME CUT AND VALUE RECEIVED BY CALENDAR YEAR AND TIMBER SALE DATA.

H-146
HISTORICAL SOCIETY OF MONTANA.
SEE IT NOW: HISTORIC MONTANA. HERITAGE SERIES, NO. 9.
HELENA, MT.: HISTORICAL SOCIETY OF MONTANA PRESS. 52 PP.
PART OF A SERIES, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: REVISED FROM GLORIOUS GLACIER.

(GLACIER NATL. PARK, ABORIGINAL LANDS OF THE SALISH INDIANS & THE FLATHEAD INDIAN RESERVATION). THE JOURNAL CONTAINS THE FOLLOWING ARTICLES CONCERNING THE PARK: 1) BEALS, RALPH L., "EARLIEST GLACIER," 2) ROBINSON, DONALD H., "MOVE TOWARD PARKHOOD," AND 3) SCHULTZ, JAMES WILLARD, "RETURN TO THE BELOVED MOUNTAINS." A SECTION CONCERNING HISTORIC SITES IN THE STATE IS ALSO PRESENTED. THE GUIDE INCLUDES A BRIEF DISCUSSION OF THE REMOVAL OF CHIEF CHARLOT AND HIS BAND TO THE JOCKO VALLEY.

H-147
HITCHCOCK, C. LEO, AND CRONQUIST, ARTHUR.
1973.
FLORA OF THE PACIFIC NORTHWEST.
SEATTLE: UNIV. WASHINGTON PRESS. 730 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS MANUAL IS ESSENTIALLY A CONDENSATION OF AN EARLIER FIVE-VOLUME WORK, VASCULAR PLANTS OF THE PACIFIC NORTHWEST, PREPARED BY HITCHCOCK, CRONQUIST, OWNBEY, AND THOMPSON, AND PUBLISHED SERIALY FROM 1955 TO 1969 BY THE UNIVERSITY OF WASHINGTON PRESS AS VOLUME 17 OF THE UNIVERSITY OF WASHINGTON PUBLICATIONS IN BIOLOGY. THE BOOK WAS DESIGNED TO BE A FIELD MANUAL

AND INCLUDES A SYNOPTICAL KEY TO FAMILIES, AN ARTIFICIAL KEY TO FAMILIES, AND A DESCRIPTIVE FLORA BY GENUS TO SPECIES. DETAILED ILLUSTRATIONS ACCOMPANY THE TEXT.

H-148
HODGE, FREDERICK W.
1907.
HANDBOOK OF AMERICAN INDIANS, NORTH OF MEXICO.

SMITHSONIAN INSTITUTION. BUREAU AMERICAN ETHNOLOGY. BULL. 30.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, NATIONAL.

(NORTH AMERICAN, NORTH OF MEXICO: FLATHEAD INDIANS). INCLUDED IN THIS ENCYCLOPEDIA OF KNOWLEDGE REGARDING THE AMERICAN INDIAN ARE BRIEF DESCRIPTIONS OF THE FLATHEAD PEOPLE. THEY ARE MENTIONED ON PAGE 465 ONLY AS A TRIBE WHO DID NOT FLATTEN THEIR HEADS. ON PAGES 415 THROUGH 418 THE INDIANS' HUNTING WAY OF LIFE; THEIR TREATY OF 1855; POPULATION ESTIMATES IN 1806, 1853 AND 1909; AND THEIR SALISHAN LANGUAGE ARE DISCUSSED.

H-149
HODGE, FREDERICK W.
1910.
"SALISH" IN HANDBOOK OF AMERICAN INDIANS NORTH OF MEXICO PART 2.
SMITHSONIAN INSTITUTION. BUREAU AMERICAN ETHNOLOGY BULL. 30, PP. 415-416.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). A ONE-PARAGRAPH OVERVIEW OF THE FLATHEAD TRIBE IS PRESENTED. THE FOLLOWING INFORMATION IS INCLUDED: THEIR TERRITORY, DESIGNATION AS "FLATHEAD," SUBSISTENCE, THE TREATY OF 1855, AND POPULATION ESTIMATES.

H-150
HODGSON, FRED B., AND JUDGE, P.
1943.
"WINTER STUDY OF THE WHITETAIL DEER IN THE MCDONALD DISTRICT AND FLATHEAD RIVER AREA. 1942-1943."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN), 8 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE MCDONALD & MIDDLE FORK OF THE FLATHEAD RIVER). THE TOPICS COVERED IN THIS REPORT ARE: WINTER POPULATIONS; RANGING HABITS, PREDATORS, RANGE CONDITIONS, HABITS AND ANTICS, AND ADDITIONAL DATA. THE RESULTS OF A POST-MORTEM EXAMINATION OF A DOE FOUND NEAR THE MIDDLE FORK IS INCLUDED.

H-151
HODGSON, RONALD WAYNE.
1974.
"SOME EFFECTS OF THREAT APPEAL IN MESSAGES ABOUT HAZARDS OF GRIZZLY BEARS IN NATIONAL PARKS: AN EXPERIMENT."
PH.D. DISSERTATION, MICHIGAN STATE UNIV., EAST LANSING. 128 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN NATL. PARKS: GLACIER NATL. PARK). MESSAGES DESCRIBING THE CONSEQUENCES OF A GRIZZLY BEAR ATTACK HAVE BEEN SUGGESTED TO PERSUADE NATIONAL PARK VISITORS THAT BEARS ARE DANGEROUS AND THAT PRECAUTIONS ARE NECESSARY WHEN HIKING IN GRIZZLY BEAR COUNTRY. THREE LEVELS OF TWO KINDS OF THREAT: INHIBITION THREAT, EMPHASIZING THE GRIEVOUS CONSEQUENCES OF AN ATTACK; AND ANTICIPATION

THREAT, EMPHASIZING THE PROBABILITY OF AN ATTACK, WERE MANIPULATED EXPERIMENTALLY TO EVALUATE THREE HYPOTHESES. A WRITTEN THREAT APPEAL WAS PREPARED FOR EACH TREATMENT. THE MESSAGES WERE INCORPORATED IN TEST BOOKLETS AND DISTRIBUTED AT RANDOM TO 100 WILDERNESS SURVIVAL STUDENTS. A SECOND QUESTIONNAIRE WAS DISTRIBUTED AND THE RESULTS ANALYZED.

H-152
HOFFMAN, J. JACOB.
1953.
COMMENTS ON THE USE AND DISTRIBUTION OF TIPI RINGS IN MONTANA, NORTH DAKOTA, SOUTH DAKOTA, AND WYOMING.
MISSOULA, MT.: MONTANA STATE UNIV. ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 14. 16 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(NORTH & SOUTH DAKOTA, WYOMING & MONTANA: FLATHEAD AND LEWIS & CLARK COUNTIES). THIS REPORT IS CONCERNED WITH THE OCCURRENCE, DISTRIBUTION, AND USE OF TIPI RING SITES. THEORIES THAT THE RINGS ARE THE REMAINS OF OCCUPATIONAL SITES AND THAT THEY WERE USED FOR CEREMONIAL OR GAMING PURPOSES ARE DISCUSSED. THE SITES ARE LISTED IN OUTLINE FORM CONTAINING GEOGRAPHICAL AND COUNTY LOCATION AS WELL AS RESERVOIR AND ASSOCIATED BODY OF WATER LOCATIONS.

H-153
HOFFMAN, JANET L.
1976.
"REGIONAL METAMORPHISM AND K-AR DATING OF CLAY MINERALS IN CRETACEOUS SEDIMENTS OF THE DISTURBED BELT OF MONTANA."
M.S. THESIS, CASE WESTERN RESERVE UNIV., CLEVELAND, OH. 266 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN MONTANA). THIS STUDY IN CLAY PETROLOGY IS AN APPLICATION OF TEMPERATURE COMPOSITION RELATIONSHIPS IN CLAY MINERALS TO A REGIONAL GEOLOGIC PROBLEM. THE STUDY EVOLVED INTO A STUDY OF THE METAMORPHIC FEATURES OF THE FOLLOWING DISTURBED BELT SEDIMENTS: ESTIMATION OF THE TEMPERATURES OF METAMORPHISM, THE POSSIBLE HEAT SOURCES INVOLVED, AND THE CHEMICAL AND MINERALOGICAL CHANGES IN THE ARGILLACEOUS SEDIMENTS AND BENTONITE BEDS.

H-154
HOFFMAN, JANET L.; HOWER, JOHN; AND ARONSON, JAMES L.
1976.
"RADIOMETRIC DATING OF TIME OF THRUSTING IN THE DISTURBED BELT OF MONTANA."
GEOLOGY 4(JANUARY 1976):16-20.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA). MESOZOIC SEDIMENTARY ROCKS OVERRIDDEN BY THRUST PLATES IN THE DISTURBED BELT HAVE BEEN METAMORPHOSSED BY BURIAL BENEATH THESE PLATES. BENTONITE IN THE CRETACEOUS SECTION HAS BEEN CONVERTED TO POTASH BENTONITE BY THIS METAMORPHISM, ALLOWING RADIOMETRIC DATING OF THE EMPLACEMENT OF THE THRUST PLATES BY THE K-AR METHOD. THE STUDY DETERMINES A RANGE OF AGES AND COMPARES THE DATES WITH ESTIMATES FOR THE BEGINNING OF THRUSTING FROM STRATIGRAPHIC AND STRUCTURAL EVIDENCE. SINCE FIELD EVIDENCE DOES NOT ALLOW A RELIABLE ESTIMATE FOR THE END OF THRUSTING, THE YOUNGER AGES ARE CONSIDERED TO REPRESENT ADDITIONAL DATA OF INTEREST TO THE STRUCTURAL HISTORY OF THE DISTURBED BELT.

- H-155
HOFFMAN, W. J.
1983.
"SELISH MYTHS."
BULL. ESSEX INSTITUTE 15(1983):24-40.
- (JOCKO VALLEY). THIS ARTICLE CONTAINS A SERIES OF ANIMAL TALES RECORDED BY THE JOCKO VALLEY SELISH. SKCC.
- H-156
HOFFMANN, ROBERT S., AND HAND, R. L.
1961.
"RECENT SHOREBIRD RECORDS FOR MONTANA."
THE CONDOR 63(MARCH 1961):180-181.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: FLATHEAD & LAKE COUNTIES, NINEPIPE NATL. WILDLIFE REFUGE). THIS ARTICLE MENTIONS THE OCCURRENCE OF WESTERN, SEMIPALMATED, AND LEAST SANDPIPERS IN FLATHEAD AND LAKE COUNTIES.
- H-157
HOFFMANN, ROBERT S., AND PATTIE, D. L.
1968.
A GUIDE TO MONTANA MAMMALS: IDENTIFICATION, HABITAT, DISTRIBUTION AND ABUNDANCE.
MISSOULA, MT.: UNIV. MONTANA PRINTING SERVICES. 133 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.
- (MONTANA). THIS PUBLICATION CONTAINS A KEY TO THE ORDERS OF THE AREA'S MAMMALS AND BRIEF NOTES ON THE HABITAT, RELATIVE ABUNDANCE, AND DISTRIBUTION OF EACH SPECIES. THE KEY USES THOSE CHARACTERS WHICH SEEMED TO BE MOST DISTINCTIVE TO FACILITATE QUICK IDENTIFICATION. DISTRIBUTION MAPS AND AN INDEX OF COMMON AND SCIENTIFIC NAMES IS INCLUDED.
- H-158
HOFFMANN, ROBERT S., AND TABER, RICHARD D.
1959.
"COMPOSITION OF AFFINITIES OF ALPINE BIRD AND MAMMAL FAUNAS OF MONTANA."
BULL. ECOLOGICAL SOCIETY AMERICA 40:115.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: GLACIER NATL. PARK). THIS REPORT COVERS STUDIES CONDUCTED IN THE MONTANA ROCKIES, FROM GLACIER NATIONAL PARK TO THE BEARTOOTH PLATEAU. THE DIVERSITY OF FAUNA IS NOTED; POSSIBLE EXPLANATIONS FOR THE VARIATION OF DENSITIES IS DISCUSSED.
- H-159
HOFFMANN, ROBERT S., AND TABER, RICHARD D.
1959.
"PRELIMINARY NOTES ON THE VERTEBRATE FAUNAS OF THE MONTANA ALPINE."
PROC. MONTANA ACADEMY OF SCIENCES 19:91.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: BEARTOOTH PLATEAU; BIG BELT, CRAZY, LITTLE BELT, & BIG SNOWY MTS.; & GLACIER NATL. PARK). AN INVESTIGATION OF THE DIVERSITY OF FAUNA IS REPORTED IN ABSTRACT FORM. SPECIES OCCURRING IN THE VARIOUS AREAS ARE LISTED. IN COMPARING THE AREAS THE NON-OCCURRENCE OF A SERIES IN ONE REGION VERSUS ANOTHER IS NOTED. NOTEWORTHY CAPTURES ARE BRIEFLY DISCUSSED.
- H-160
HOFFMANN, ROBERT S., AND TABER, RICHARD D.
1960.
"NOTES ON SOREX IN THE NORTHERN ROCKY MOUNTAIN ALPINE ZONE."
- J. MAMMOLOGY 41(MAY 20, 1960):4-8.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK: LOGAN PASS). THIS REPORT LISTS THE NUMBER OF SOREX VAGRANS (VAGRANT SHREW) AND SOREX NANUS (DWARF SHREW) TRAPPED, THEIR PLANT AND MAMMAL ASSOCIATES, AND REPRODUCTIVE CONDITION IN THE LOGAN PASS AREA.
- H-161
HOFFMANN, ROBERT S.; HAND, R. L.; AND WRIGHT, P. L.
1959.
"RECENT BIRD RECORDS FROM WESTERN MONTANA."
THE CONDOR 61(MARCH-APRIL 1959):4-8.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.
- (FLATHEAD & LAKE COUNTIES: NINEPIPE WILDLIFE REFUGE, KALISPELL, SOMERS, & POLSON). A RECORD OF BIRDS IDENTIFIED AND COLLECTED IN THE FLATHEAD VALLEY AREA. SCIENTIFIC NAMES, NAME OF IDENTIFIER, DATE AND LOCATION COLLECTED ARE INCLUDED.
- H-162
HOFFMANN, ROBERT S.; PATTIE, D. L.; AND BELL, J. F.
1969.
"THE DISTRIBUTION OF SOME MAMMALS IN MONTANA: BATS."
J. MAMMOLOGY 50(NOVEMBER 28, 1969):737-741.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.
- (MONTANA: FLATHEAD & LAKE COUNTIES). RECORDS OF THE DISCOVERY WITHIN THE BASIN OF: MYOTIS YUMANENSIS, M. EVOTIS, M. VOLANS, M. CALIFORNICUS, PLECOTUS TOWNSENDII ARE PRESENTED.
- H-163
HOFFMANN, ROBERT S.; WRIGHT, P. L.; AND NEWBY, F. E.
1969.
"THE DISTRIBUTION OF SOME MAMMALS IN MONTANA: MAMMALS OTHER THAN BATS."
J. MAMMOLOGY 50(22 AUGUST 1969):579-604.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.
- (MONTANA: FLATHEAD RIVER BASIN). INFORMATION ON CURRENT DISTRIBUTION OF 40 SPECIES OF ANIMALS IS GIVEN. MICROSOX HOYI, OCHOTONA PRINCEPS, MARMOTA FLAVIVENTRIS, MARMOTA CALIGATA, ARVICOLA RICHARDSONI, SYNAPTOMYS BOREALIS, CANIS LUPUS, VULPES VULPES, PROCYON LOTOR, LYNX CANADENSIS, ANTILOCAPRA AMERICANA AND OREAMNOS AMERICANUS ALL OCCUR WITHIN THE BASIN AND ARE DISCUSSED.
- H-164
HOFNICH, HAROLD J., AND BEATTY, M. E.
1960.
GLACIER NATIONAL PARK VISITORS IN MONTANA (1949): A SURVEY OF OUT-OF-STATE OVERNIGHT AUTOMOBILE TOURISTS IN GLACIER NATIONAL PARK.
MISSOULA, MT.: MONTANA STATE UNIV., BUREAU BUSINESS & ECONOMIC RESEARCH. REGIONAL STUDY NO. 1. 22 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THIS PAPER REPORTS ON THE RESULTS OF A SURVEY OF 1,131 OUT-OF-STATE AUTOMOBILE TOURIST PARTIES (COMPRISING 3,405 PERSONS). IT GIVES THE REGIONS AND STATES OF ORIGIN, PARTY SIZE, LENGTH OF STAY, DISTANCE TRAVELLED IN MONTANA, CITIES OF OVERNIGHT STOPS, DAILY AND AVERAGE EXPENDITURES IN THE STATE, AND REASONS FOR A MONTANA VISIT. THE QUESTIONNAIRE ITSELF IS INCLUDED.
- H-165
HOGAN, BONNIE J.
1977.
"AN ABORIGINAL BURIAL SITE NEAR KALISPELL."
ARCHAEOLOGY IN MONTANA 18:26-52.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (KALISPELL). THIS IS A DETAILED DESCRIPTION OF A PRIMARY BURIAL SITE OF THE LATE PREHISTORIC OR EARLY HISTORIC TIME PERIOD. EXTENSIVE SKELETAL AND DENTITION MEASUREMENTS AND ARTIFACT DESCRIPTIONS ARE INCLUDED. THROUGH ETHNOGRAPHIC COMPARISONS OF BURIAL CUSTOMS OF THE PEND O'REILLE, FLATHEAD, KOOTENAI, COEUR D'ALENE AND THOMPSON INDIANS CONCLUSIONS ARE DRAWN ABOUT THE ORIGIN AND STATUS OF THE CORPSE.
- H-166
HOHAM, RONALD WILLIAM.
1966.
"THE FRESH WATER ALGAE OF MISSION WELL AND TYKESON POND, MONTANA - EXCLUDING DESMIDS AND DIATOMS."
M.S. THESIS, MICHIGAN STATE UNIV., EAST LANSING. 210 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (LAKE COUNTY: MISSION WELL & TYKESON POND). THE MAJOR OBJECTIVES OF THIS STUDY WERE: 1) TO COLLECT AND IDENTIFY THE FRESH WATER ALGAE, EXCLUDING DESMIDS AND DIATOMS; 2) TO COMPARE TWO TYPES OF PONDS LYING AT QUITE DIFFERENT ELEVATIONS; AND 3) TO CHECK ON VARIABILITY OF FLORA THROUGH SUMMER MONTHS OVER A TWO YEAR PERIOD. MINOR ASPECTS INCLUDED A STUDY OF THE AQUATIC PLANTS AND THE PH. EXTENSIVE DRAWINGS ILLUSTRATE THE TEXT.
- H-167
HOHAM, RONALD WILLIAM.
1971.
"LABORATORY AND FIELD STUDIES ON SNOW ALGAE OF THE PACIFIC NORTHWEST."
PH.D. DISSERTATION, UNIV. WASHINGTON, SEATTLE. 208 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.
- (PACIFIC NORTHWEST: NORTHWESTERN MONTANA). THIS THESIS CONCERNS THE MORPHOLOGY, TAXONOMY, LIFE HISTORIES, DISTRIBUTION, ECOLOGY, AND PHYSIOLOGY OF SELECTED SPECIES OF SNOW ALGAE. THE LIFE HISTORIES OF SIX SPECIES OF CHLOROPHYTA WERE STUDIED IN THE LABORATORY AND IN THE FIELD. SPECIES STUDIED INCLUDE CHLAMYCLOMONAS PICHINCHAE, CHLAMYDOMONAS NIVALIS, CHLAINOMONAS RUBRA, CHLAINOMONAS KOLII, RAPHDONEMA NIVALE AND CYLINDROCYSTIS BREBISSEONII. THE LIFE HISTORIES OF SOME OF THESE SPECIES WERE FOLLOWED THROUGH SPRING, SUMMER, AUTUMN, AND EARLY WINTER.
- H-168
HOLDEN, MADRONNA.
1974.
"THE MYTH OF DOKWEBAL, A DIALOGUE IN THE SENSE OF HISTORY."
PH.D. DISSERTATION, NEW YORK SCHOOL FOR SOCIAL RESEARCH, NEW YORK. 236 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.
- (PACIFIC NORTHWEST). THIS DISSERTATION ADDRESSES THE BODY OF MYTHOLOGY THAT DEALS WITH THE FIGURE OF DOKWEBAL. THE FIGURE OF DOKWEBAL, WHOSE NAME MEANS "CHANGER," IS USUALLY IDENTIFIED WITH CYCLES IN NATURE; THE MOON, THE TIDES, AND SEASONAL MOVEMENTS OF ANIMALS. THE MYTHS, AS PRESENTED, EMBODY THE HISTORY OF THE SALISH PEOPLE AND GIVE INSIGHTS INTO THE SALISH PERSPECTIVES OF WESTERN CIVILIZATION AND ITS VALUES.

H-169

HOLLENSTEINER, F. WALTER.

1974.

"W. F. (SIC) HOLLENSTEIN—A LETTER FROM O BEN SENS LODGE."

DOVETAIL MAGAZINE, APRIL 1974, PP. 47-50.

(FORT CONNAH). HOLLENSTEINER WAS ACQUAINTED WITH DUNCAN MCDONALD AND MUCH OF THIS LETTER CONCERNS WHAT DUNCAN TOLD HIM ABOUT FORT CONNAH. SKCC.

H-170

HOLLIDAY, RON.

1978.

WILDHORSE ISLAND STATE PARK MANAGEMENT PLAN.

HELENA, MT.: MONTANA DEPT. FISH & GAME, WILDHORSE ISLAND PLANNING TASK FORCE. 72 PP. DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WILDHORSE ISLAND). THE PLAN PRESENTS A BACKGROUND OF THE ISLAND'S SETTING AND HISTORY AND RECOMMENDATIONS FOR ITS FUTURE MANAGEMENT. IT INCLUDES A PUBLIC SURVEY UTILIZED TO ASSESS PUBLIC AWARENESS, USE OF THE ISLAND AND PREFERENCES FOR FUTURE RECREATIONAL MANAGEMENT ALTERNATIVES. WILDLIFE AND VEGETATION MANAGEMENT, PUBLIC TRANSPORTATION, PUBLIC USE FACILITIES, PUBLIC USE REGULATION AND ENFORCEMENT, AND GENERAL PARK ADMINISTRATION ARE THE MAJOR MANAGEMENT ISSUES CONSIDERED.

H-171

HOLLOWAY, ANCIL D.

1945.

RESULTS OF FISH PLANTING AND A STOCKING PLAN FOR GLACIER NATIONAL PARK.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, FISH & WILDLIFE SERVICE, DIV. GAME-FISH & HATCHERIES. 27 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: MCDONALD, KINTLA, BOWMAN, & MUD LAKES). THIS REPORT COVERS: STOCKING RECOMMENDATIONS FOR KINTLA, BOWMAN, MUD, AND MCDONALD LAKES; CONDITION FACTORS; DISTRIBUTION WHEN PLANTING; TRANSPORTATION METHODS; GENERAL POLICIES; AND TABLES ILLUSTRATING DATA FOR BLACK SPOTTED, DOLLY VARDEN, AND BROOK TROUT.

H-172

HOLMES, OLIVER W., JR.

1980.

"RESOURCES AND INCOME LEVELS OF FARM AND NON-FARM RURAL RESIDENTS IN THREE WESTERN MONTANA COUNTIES."

M.S. THESIS, MONTANA STATE COLL., BOZEMAN. 98 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(RAVALLI, LAKE, & SANDERS COUNTIES). THIS STUDY IS CONCERNED WITH A DESCRIPTIVE ANALYSIS OF THE RURAL RESIDENTS OF THREE LOW-INCOME COUNTIES IN WESTERN MONTANA. IT WAS INTENDED TO SERVE THE RURAL DEVELOPMENT PROGRAM IN WESTERN MONTANA. DEVELOPMENT COUNTIES AND ONE OTHER COUNTY IN THE LOW-INCOME. AN INTERVIEW SAMPLE OF 322 RURAL RESIDENCES WAS OBTAINED WHICH PROVIDED INFORMATION ON PHYSICAL AND HUMAN RESOURCES, INCOME, AND LEVELS OF LIVING.

H-173

HOLMES, OLIVER W., ED.

1986.

"PEREGRINATIONS OF A POLITICIAN - JAMES A. GARFIELD'S DIARY OF A TRIP TO MONTANA IN 1872."

MONTANA MAGAZINE OF WESTERN HISTORY 8:34-45. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD INDIANS). THIS DIARY OF CONGRESSMAN JAMES A. GARFIELD'S TRIP THROUGH MONTANA DESCRIBES THE CONGRESSMAN'S ATTEMPTS TO PERSUADE THE FLATHEAD INDIAN TRIBE TO LEAVE THE BITTERROOT VALLEY AND MOVE TO THE JOCKO RESERVATION.

H-174

HOLMES, OLIVER W., ED.

1982.

"JAMES A. GARFIELD'S DIARY OF A TRIP TO MONTANA IN 1872" IN FRONTIER OMNIBUS, PP. 347-357.

MISSOULA, MT.: MONTANA STATE UNIV. PRESS AND HELENA, MT.: HISTORICAL SOCIETY OF MONTANA. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: ORIGINALLY APPEARED AS AN ARTICLE IN THE FRONTIER (LATER FRONTIER AND MIDLAND), 1935, PP. 159-168.

(MONTANA: ABORIGINAL LANDS OF FLATHEAD INDIANS). THE ARTICLE PRESENTS A BRIEF HISTORY OF THE FLATHEAD INDIANS (THEIR ENCOUNTER WITH LEWIS AND CLARK, TREATY NEGOTIATIONS WITH ISAAC STEVENS, AND ACTIVITIES UNDERTAKEN TO REMOVE THE INDIANS FROM THE BITTERROOT VALLEY), AND CONTAINS EXTRACTS FROM THE JOURNAL OF JAMES GARFIELD ABOUT HIS JOURNEY THROUGH THE STATE ON A MISSION TO PERSUADE THE INDIANS TO LEAVE THE BITTERROOT. EXTENSIVE FOOTNOTES ACCOMPANY THE EXTRACTS TO EXPLAIN THE PEOPLE AND EVENTS DESCRIBED IN GARFIELD'S ACCOUNT.

H-175

HOLMGREN, E. J.

1976.

"THOMAS BLAKISTON, EXPLORER."

ALBERTA HISTORY 24:15-22.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY, CANADA). THE ARTICLE DESCRIBES BLAKISTON'S ROLE IN THE PALLISER-BRITISH NORTH AMERICAN EXPLORING EXPEDITION. HE LED A PARTY THROUGH THE KOOTENAI PASS AND THE FLATHEAD VALLEY, AFTER WHICH HE RESIGNED. HIS LATER JOURNEYS AND ACTIVITIES ARE DISCUSSED.

H-176

HOLTERMAN, R. JACK.

1975.

"PRELIMINARY DRAFT OF INDIAN PLACE NAMES IN AND AROUND GLACIER NATIONAL PARK, MONTANA."

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. (TYPEWRITTEN).

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). AN EXTENSIVE REPORT ON INDIAN, PRIMARILY BLACKFEET AND KOOTENAI NAMES OF PLACES IN THE PARK, IT INCLUDES THE PHONETIC INDIAN SPELLINGS AS WELL AS THE AUTHOR'S TRANSLATION. THE REPORT RELIES ON SCHULTZ'S "SIGNPOSTS OF ADVENTURE," ROBISON'S "THROUGH THE YEARS IN GLACIER NATIONAL PARK," AND WILLARDS' "ADVENTURE TRAILS IN MONTANA" FOR AID IN INTERPRETATING SOME OF THE NAMES.

H-177

HOLTERMAN, R. JACK.

1979.

"PABLO."

(TYPEWRITTEN). 10 PP.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE MANUSCRIPT PRESENTS BIOGRAPHIES OF THE

PABLO FAMILY: THE FIRST PABLO WHO CAME FROM NEW MEXICO AND WHO DIED IN 1845, AND HIS SON MICHEL WHO LIVED MUCH OF HIS LIFE IN WESTERN MONTANA. IT FOCUSES ON THE ROLE OF MICHAEL PABLO IN THE PRESERVATION OF A BUFFALO HERD (BISON BISON) ON THE RESERVATION.

H-178

HOLTZ, MATHILDE E., AND BEMIS, KATHERINE ISABEL.

1917.

GLACIER NATIONAL PARK: ITS TRAILS AND TREASURES.

NEW YORK: GEORGE H. DORAN CO. 263 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE BOOK DESCRIBES PARK SURROUNDINGS AND OUTLINES ITS TRAILS: MT. HENRY TRAIL, THE OLD TRAVOIS TRAIL, AND PIEGAN PASS. APPROACH TO THE PARK, HOTELS AND CHALETS, THE FLOWERS, LAKES, GLACIERS, AND PICTOGRAPHS ARE ALL DISCUSSED. THE TYPES OF TOURISTS AND BLACKFOOT NATIVES AND LEGENDS ARE DEPICTED.

H-179

HOLZINGER, JOHN M.

1900.

"LAKE MCDONALD AND VICINITY."

BULL. AMERICAN BUREAU GEOGRAPHY 1(SEPTEMBER 1900):280-295.

PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(GLACIER NATL. PARK). THIS ACCOUNT OF AN EARLY TRIP THROUGH THE AREA OF GLACIER PARK RELATES TALES OF CAMPING OUT AND WILDLIFE ENCOUNTERED. DESCRIPTIONS OF SCENERY AND PHOTOGRAPHS ARE INCLUDED.

H-180

HONG, WON S.

1968.

"HEPATICA OF GLACIER NATIONAL PARK."

THE BRYOLOGIST 71(Spring 1968): 3-6.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A LISTING OF 35 SPECIES, SIX OF WHICH ARE NEW TO THE STATE. THE LOCATION, THE ELEVATION, AND IDENTIFIER ARE INCLUDED.

H-181

HONG, WON S.

1969.

"LEAFY HEPATICA OF NORTHWESTERN MONTANA." IN ABSTRACTS OF THE PAPERS PRESENTED AT THE XI INTERNATIONAL BOTANICAL CONGRESS, P. 94.

SEATTLE: XI INTERNATIONAL BOTANICAL CONGRESS.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA). THE ABSTRACT REVIEWS A STUDY WHICH CATALOGED 4,000 COLLECTIONS OF LEAFY HEPATICA AND IDENTIFIED 62 SPECIES IN 21 GENERA AND 14 FAMILIES. BY PHOTOGEOGRAPHIC AFFINITY THE SPECIES BELONG TO THE FLORISTIC ELEMENTS: AN ARCTIC-BOREAL ELEMENT, A PAN NORTH AMERICAN ELEMENT, A BOREAL ELEMENT, AN EASTERN BOREAL ELEMENT, A WESTERN BOREAL ELEMENT, A CORDILLERAN ELEMENT, AND A NORTH PACIFIC ELEMENT.

- H-182
HONING, FREDERICK W.
1968.
PRELIMINARY EVALUATION OF ENGELMANN SPRUCE BEETLE, GLACIER VIEW RANGER DISTRICT, FLATHEAD NATIONAL FOREST.
MISSOULA, MT.: U.S. DEPT. OF AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY. 4 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD NATL. FOREST: GLACIER VIEW DISTRICT). THIS REPORT BRIEFLY OUTLINES TECHNICAL INFORMATION ABOUT THE OUTBREAK, INCLUDING DATA FROM A BROAD DENSITY COUNT. RECOMMENDATIONS ARE MADE.
- H-183
HOOK, A. W.
1968.
AIR QUALITY CONTROL PROGRAM AT ANACONDA ALUMINUM COMPANY'S PLANT IN COLUMBIA FALLS, MONTANA.
COLUMBIA FALLS, MT.: ANACONDA ALUMINUM CO. 8+ PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (COLUMBIA FALLS). AN OVERVIEW OF THE AIR QUALITY PROGRAM AT THE PLANT AS WELL AS A DESCRIPTION OF THE ALUMINUM REDUCTION PROCESS AND THE ELECTROLYTIC REDUCTION CELL.
- H-184
HOPWOOD, VICTOR G., ED.
1971.
DAVID THOMPSON: TRAVELS IN WESTERN NORTH AMERICA, 1784-1812.
TORONTO: MACMILLAN OF CANADA. 342 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.
- (WESTERN NORTH AMERICA). THIS EDITION PRESENTS SECTIONS OF DAVID THOMPSON'S NARRATIVE OF HIS TRAVELS, BLENDING WITH THEM PASSAGES FROM HIS OTHER JOURNALS AND REPORTS. A BRIEF BIOGRAPHY OF THE MAN IS INCLUDED, ALONG WITH COMMENTS ON THE SCIENTIFIC ACHIEVEMENT, HISTORICAL SIGNIFICANCE, AND LITERARY ACCOMPLISHMENT OF "TRAVELS". THE FINAL CHAPTERS, 7 THROUGH 10, DESCRIBE THOMPSON'S JOURNEYS IN THE PACIFIC NORTHWEST. DURING EXPLORATIONS OF THE UPPER COLUMBIA, 1807-1810, THOMPSON MET WITH FLATHEAD AND KOOTENAI INDIANS. HE GIVES AN ACCOUNT OF HIS FUR TRADING WITH THEM AND DESCRIBES A BATTLE INVOLVING SALISH AND PEIGAN PEOPLE.
- H-185
HOREJSI, CHARLES R., AND BERKLEY, ANN B.
1975.
DEINSTITUTIONALIZATION AND THE DEVELOPMENT OF COMMUNITY BASED SERVICES FOR THE MENTALLY RETARDED YOUTH OF WESTERN MONTANA.
MISSOULA, MT.: UNIV. MONTANA, DEPT. SOCIAL WORK. PROJECT ON COMMUNITY RESOURCES & DEINSTITUTIONALIZATION. 97 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (WESTERN MONTANA: MISSOULA, FLATHEAD, LAKE, LINCOLN, & SANDERS COUNTIES). THE STUDY IS CONCERNED WITH THE DEVELOPMENT OF PRACTICAL INFORMATION AND FEASIBLE RECOMMENDATIONS WHICH WOULD FACILITATE DEINSTITUTIONALIZATION AND THE DEVELOPMENT OF COMMUNITY BASED SERVICES FOR THE MENTALLY RETARDED. DATA WERE GATHERED FROM A VARIETY OF SOURCES (PARENTS OF RETARDED YOUTH, RETARDED PERSONS, PROVIDERS OF SERVICE, BOULDER RIVER SCHOOL AND HOSPITAL STAFF, STATE LEVEL PLANNERS AND ADMINISTRATORS, ETC.) AND IN A NUMBER OF WAYS (IN-DEPTH INTERVIEWS, PARTICIPANT OBSERVATION, MAILED QUESTIONNAIRES, ETC.). AN OVERVIEW OF BOULDER RIVER SCHOOL AND HOSPITAL RESIDENTS AND SERVICE NEEDS IS PRESENTED, ALONG WITH A DESCRIPTION OF THE STUDY POPULATION YOUTH AND THEIR PARENTS.
- H-186
HORN, JAMES, AND QAMAR, A.
1979.
"DETERMINATION OF ICE THICKNESS ON SPERRY GLACIER, GLACIER PARK, MONTANA."
NORTHWEST GEOLOGY 8:9-18.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK: SPERRY GLACIER). SEISMIC AND GRAVITY SURVEYS WERE CONDUCTED TO DETERMINE WHETHER THESE TECHNIQUES WERE EFFECTIVE IN DETERMINING THE DEPTH OF THE ICE IN THE CIRQUE. DATA FROM THOSE SURVEYS AND CONCLUSIONS ARE INCLUDED.
- H-187
HORNADAY, W. T.
1909.
SECOND ANNUAL REPORT OF THE AMERICAN BISON SOCIETY, 1908-1909.
NEW YORK: AMERICAN BISON SOCIETY.
- THIS ARTICLE DESCRIBES THE LEGISLATIVE EFFORTS TO ESTABLISH THE NATIONAL BISON RANGE ON THE FLATHEAD INDIAN RESERVATION AND THE CAMPAIGN FOR CONTRIBUTIONS TO PAY FOR THE FOUNDATION HERD FOR THE RANGE. SKCC.
- H-188
HORNADAY, W. T.
1910.
"REPORT OF THE PRESIDENT ON THE FOUNDING OF THE MONTANA NATIONAL BISON HERD." IN AMERICAN BISON SOCIETY THIRD ANNUAL REPORT, 1909-1910, PP. 1-20.
NEW YORK: AMERICAN BISON SOCIETY.
- (NATL. BISON RANGE). THIS ARTICLE DESCRIBES THE WORK OF ESTABLISHING THE NATIONAL BISON RANGE ON THE FLATHEAD RESERVATION, INCLUDING ERECTING THE FENCING AND SELECTING AND MOVING THE FOUNDATION HERD FROM THE CONRAD HERD IN KALISPELL. SKCC.
- H-189
HORNADAY, W. T.
1911.
"PRESIDENT HORNADAY'S REPORT." IN AMERICAN BISON SOCIETY FOURTH ANNUAL REPORT, 1911.
NEW YORK: AMERICAN BISON SOCIETY.
- (MONTANA: FLATHEAD INDIAN RESERVATION). THIS ARTICLE MENTIONS EFFORTS TO GET ANIMALS FOR THE BISON RANGE ON THE FLATHEAD RESERVATION AND THE ATTEMPT BY MICHAEL PABLO TO ARRANGE A SPORTS HUNT OF THE WILD BUFFALO REMAINING ON FLATHEAD. THE STATE OF MONTANA STOPPED THE BUFFALO HUNT BY CLAIMING THEM AS WILD GAME ANIMALS UNDER STATE JURISDICTION. SKCC.
- H-190
HORNOCKER, MAURICE G.
1973.
REPORT ON AN AUTOPSY OF A MOUNTAIN LION FROM GLACIER NATIONAL PARK.
MOSCOW, ID.: UNIV. IDAHO, IDAHO COOP. WILDLIFE RESEARCH UNIT. 2 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THE REPORT DESCRIBES THE MEASUREMENTS, AGE, AND SEX OF A DEAD COUGAR (FELIS CONCOLOR) AND PRESENTS FINDINGS AS TO ITS CONDITION AND POSSIBLE CAUSE OF DEATH.
- H-191
HORNOCKER, MAURICE G., AND HASH, HOWARD S.
1975-1977.
ECOLOGY OF THE WOLVERINE IN NORTHWESTERN MONTANA. FIRST, SECOND, AND THIRD ANNUAL REPORTS.
MOSCOW, ID.: UNIV. IDAHO, IDAHO COOP. WILDLIFE RESEARCH UNIT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD NATL. FOREST). THESE PROGRESS REPORTS DESCRIBE AN ECOLOGICAL STUDY OF THE WOLVERINE. THE STUDY INVESTIGATED HOME RANGE SIZE, DISTRIBUTION, LIFE HISTORY, REPRODUCTION, AND HABITAT SELECTION.
- H-192
HORNOCKER, MAURICE G., AND HASH, HOWARD S.
1979.
"IMMOBILIZING WOLVERINES WITH KETAMINE HYDROCHLORIDE."
IDAHO COOP. WILDLIFE RESEARCH UNIT, UNIV. IDAHO, MOSCOW. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD NATL. FOREST: SOUTH FORK OF THE FLATHEAD RIVER & BOB MARSHALL WILDERNESS AREA). THIS PAPER DESCRIBES THE METHODS USED TO IMMOBILIZE WOLVERINES (GULO GULO) IN THE STUDY OF THE ECOLOGY OF THE SPECIES. RESULTS AND A DISCUSSION OF THE EFFECTS AND DOSAGES ADMINISTERED ARE INCLUDED.
- H-193
HORODYSKI, ROBERT J.
1973.
"STROMATOLITES AND PALEOECOLOGY OF PARTS OF THE MIDDLE PROTEROZOIC BELT SUPER GROUP, GLACIER NATIONAL PARK."
PH.D. DISSERTATION, UNIV. CALIFORNIA, LOS ANGELES. 264 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THIS STUDY WAS DIRECTED TOWARD RECONSTRUCTING THE MODE OF GROWTH AND DETERMINING THE EFFECT OF ENVIRONMENTAL FACTORS ON THE GROWTH OF STROMATOLITES FROM THE MIDDLE PROTEROZOIC BELT SUPER GROUP. STROMATOLITES FROM TWO ZONES WERE INVESTIGATED. IN ADDITION TO THE ANALYSIS OF STROMATOLITES, DETAILED STRATIGRAPHIC INVESTIGATIONS OF THE TWO ZONES WERE CONDUCTED IN ORDER TO BETTER DEFINE ENVIRONMENTAL SETTINGS.
- H-194
HORODYSKI, ROBERT J.
1975.
"STROMATOLITES OF THE LOWER MISSOULA GROUP (MIDDLE PROTEROZOIC), BELT SUPERGROUP, GLACIER NATIONAL PARK MONTANA."
PRECAMBRIAN RESEARCH 2(1975):215-254.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THIS STUDY WAS DIRECTED TOWARD UNDERSTANDING THE MODE OF GROWTH AND DETERMINING THE EFFECT OF ENVIRONMENTAL FACTORS ON THE GROWTH OF WELL-PRESERVED STROMATOLITES OCCURRING IN THE LOWER PART OF THE MIDDLE PROTEROZOIC MISSOULA GROUP.
- H-195
HORODYSKI, ROBERT J.
1978.
"STROMATOLITES OF THE UPPER SIYEH LESTONE (MIDDLE PROTEROZOIC) BELT SUPERGROUP, GLACIER NATIONAL PARK, MONTANA."
PRECAMBRIAN RESEARCH 3(1978):517-536.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER SUMMARIZES RESULTS OF A CONTINUING STUDY OF STROMATOLITES OCCURRING IN THE BELT SUPERGROUP. FIVE DISTINCT TYPES OF STROMATOLITE-BEARING UNITS, ENCOMPASSING THE ENTIRE RANGE OF STROMATOLITE VARIABILITY, HAVE BEEN RECOGNIZED.

H-196
HORODYSKI, ROBERT J.
1977.
"ENVIRONMENTAL INFLUENCES ON COLUMNAR STROMATOLITE BRANCHING PATTERNS: EXAMPLES FROM THE MIDDLE PROTEROZOIC BELT SUPER GROUP, GLACIER NATIONAL PARK MONTANA." *J. PALEONTOLOGY* 51:661-671.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). FOUR PHYSICAL FACTORS WHICH INFLUENCE THE BRANCHING PATTERNS OF THE STROMATOLITES ARE DISCUSSED IN THIS ARTICLE. THEY ARE: ACCUMULATION OF NON-BIOLOGICALLY STABILIZED DETRITUS ON STROMATOLITIC GROWTH SURFACES; SPACING OF STROMATOLITE COLUMNS; GROWTH PROFILE OF STROMATOLITE BIOHERMS; AND DEGREE OF VARIABILITY ON ENVIRONMENTAL CONDITIONS.

H-197
HORODYSKI, ROBERT J.
1978.
"STROMATOLITES OF THE JACUTOPHYTON CYCLES, MIDDLE PROTEROZOIC." *GEOLOGICAL SOCIETY AMERICA. ABSTRACTS WITH PROGRAMS* 10:424
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ABSTRACT SUMMARIZES AN INVESTIGATION OF THE JACUTOPHYTON CYCLES IN THE SIEH LIMESTONE WHICH FORM A PROMINENT, 25 TO 30 METER THICK UNIT COMPOSED OF A DIVERSE ASSEMBLAGE OF STROMATOLITES. THE ASSEMBLAGE IS DIVIDED INTO 8 UNITS. THE UNITS' INCLINATION, MICROSTRUCTURE, THE OCCURRENCE OF FRAGMENTED STROMATOLITE DEBRIS IN SOME OF THE UNITS, AND THE CHANGE IN STROMATOLITIC GROWTH PROFILES IS DISCUSSED.

H-198
HORODYSKI, ROBERT J.
STROMATOLITES FROM THE MIDDLE PROTEROZOIC ALTYN LIMESTONE, BELT SUPER GROUP, GLACIER NATIONAL PARK, MONTANA IN DEVELOPMENTS IN SEDIMENTOLOGY, PP.585-597.
AMSTERDAM, NETHERLANDS: ELSEVIER SCIENTIFIC PUBLISHING.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). STROMATOLITES OCCURRING IN THE MIDDLE PROTEROZOIC ALTYN LIMESTONE OF GLACIER NATIONAL PARK ARE DOLOMITIC, FREQUENTLY BRANCHED, COLUMNAR STRUCTURES THAT ATTAIN HEIGHTS OF SEVERAL DECIMETERS TO ABOUT TWO METERS. THIS CHAPTER COVERS THE FOLLOWING: THE DEPOSITIONAL ENVIRONMENT, LAMINAR STRUCTURE, ORIGIN OF THE CARBONATE, STROMATOLITIC MACROSTRUCTURE AND FACTORS INFLUENCING STROMATOLITIC MACROSTRUCTURE.

H-199
HARR, DAVID A., ED.
1974.
AMERICAN ETHNOHISTORY: INDIANS OF THE NORTHWEST. VOL. 3: INTERIOR SALISH AND EASTERN WASHINGTON INDIANS. A GARLAND SERIES.
NEW YORK: GARLAND PUBL., INC. 415 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(EASTERN WASHINGTON, IDAHO, & WESTERN MONTANA: ABORIGINAL LANDS OF THE CONFEDERATED

SALISH & KOOTENAI TRIBES, & FLATHEAD INDIAN RESERVATION). THIS WORK CONSISTS OF THREE PARTS: 1) BACKGROUND MATERIAL SHOWING TRIBAL DISTRIBUTION IN WASHINGTON IN THE EARLY NINETEENTH CENTURY; 2) THREE INDIVIDUAL MANUSCRIPTS (E. O. FULLER, "THE CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD RESERVATION, MONTANA;" PAUL C. PHILLIPS, "HISTORY OF THE CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD RESERVATION, MONTANA;" AND CARLING MALOUF AND PAUL C. PHILLIPS, "FLATHEAD, KUTENAI, AND UPPER PEND D'OREILLE GENEALOGIES."); AND 3) COMMISSION FINDINGS. THE COMMISSION FINDINGS REPORT ON THE CONCLUSIONS REACHED BY THE INDIAN CLAIMS COMMISSION IN THE KOOTENAI TRIBE VS. THE UNITED STATES OF AMERICA.

H-200
HORSE CAPTURE, GEORGE.
1977.
A PARTIAL HISTORICAL AND CULTURAL BIBLIOGRAPHY OF THE INDIAN TRIBES OF MONTANA.
GREAT FALLS, MT.: COLLEGE OF GREAT FALLS. PRINTED IN PART WITH TITLE III FUNDS. 134 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: A SECTION DEALS SPECIFICALLY WITH THE FLATHEAD AND SALISH, ON PAGES 102-111.

(MONTANA: ABORIGINAL LANDS OF THE FLATHEAD INDIANS). ACCOUNTS OF EXPLORERS, TRAPPERS, MISSIONARIES, AND OTHER PRIME SOURCES ARE LISTED IN THIS BIBLIOGRAPHY. IT IS ORGANIZED ACCORDING TO TRIBES.

H-201
HORVATH, JOSEPH; SCHWEITZER, D.; AND BELL, E.
1978.
GRAZING ON NATIONAL FOREST SYSTEM LANDS: COST OF INCREASING CAPACITY IN THE NORTHERN REGION.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. 56 PP.
FINAL, TECHNICAL, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST). THE STUDY DISCUSSES GRAZING ALLOTMENTS AND THEIR IMPROVEMENT. IT INCLUDES AN INVENTORY OF PRESENT GRAZING CAPACITY. THE COST OF HISTORICAL ALLOTMENTS ARE CONSIDERED, AND THE COSTS OF PROPOSED IMPROVEMENTS COMPARED.

H-202
HOT SPRINGS HISTORICAL SOCIETY.
1978.
SETTLERS AND SODBUSTERS.
ST. IGNATIUS, MT.: MISSION VALLEY NEWS. 206 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY: HOT SPRINGS AREA). THIS IS A BICENTENNIAL PROJECT GIVING ACCOUNTS AND HISTORIES OF THE WOMEN AND MEN THAT SETTLED THE HOT SPRINGS AREA. IT IS NOT INTENDED TO BE A HISTORY OF THE AREA, BUT RATHER IT IS AIMED AT RETAINING SOME STORIES OF THE EARLY FAMILIES OF THE DISTRICT. IT CONTAINS NUMEROUS PHOTOGRAPHS.

H-203
HOUSTON, JEFF.
1974.
"C. E. CONRAD OF BENTON AND KALISPELL." *MONTANA HISTORIAN* 4(SPRING 1974):2-5.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL). THIS BRIEF BIOGRAPHY OF C. E. CONRAD DESCRIBES HIS ARRIVAL IN MONTANA, HIS EAR-

LY BUSINESS DEALINGS, RELATIONSHIP WITH INDIANS, MARRIAGE TO ALICIA DAVENPORT STANFORD, HIS EFFORTS TO DEVELOP KALISPELL, THE CONSTRUCTION OF THE CONRAD MANSION, AND HIS DEATH IN 1902.

H-204
"HOW TO MAKE A FAST BUCK IN THE NATIONAL PARKS." *NATIONAL PARKS & CONSERVATION MAGAZINE, JUNE 1971, P. 35.*
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). PRIVATELY OWNED PLOTS OF LAND INSIDE THE BOUNDARIES OF NATIONAL PARKS AND SPECIFICALLY IN GLACIER NATIONAL PARK ARE THE TOPICS ADDRESSED IN THIS ARTICLE. IT PRESENTS A BRIEF HISTORY OF THE 68-ACRE CLAIM, POTENTIAL THREATS FROM ITS DEVELOPMENT, AND THE POSSIBILITY OF CONDEMNATION.

H-205
HOWARD, HELEN ADDISON.
1966.
"INDIANS AND AN INDIAN AGENT: CHIEF CHARLOT AND THE FORGED DOCUMENT." *JOURNAL OF THE WEST* 5:379-397.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE ARTICLE DESCRIBES CHARLOT'S RESISTANCE AND EVENTUAL CAPITULATION TO THE FEDERAL GOVERNMENT REGARDING HIS TRIBE'S RESIDENCE IN THE BITTERROOT VALLEY. JAMES A. GARFIELD'S NEGOTIATIONS, THE FORGERY OF THE CHIEF'S SIGNATURE TO AN AGREEMENT, AND CHARLOT'S EMBITTERMENT ARE THE TOPICS DISCUSSED.

H-206
HOWARD, HELEN ADDISON.
1975.
"THE MEN WHO SAVED THE BUFFALO." *JOURNAL OF THE WEST* 14(JULY 1975):122-129.

(NATL. BISON RANGE). THIS ARTICLE SKETCHES THE STORY OF THE PABLO-ALLARD BUFFALO HERD WITH SPECIAL EMPHASIS ON THE ROLE OF PETER ROMAN AND SAM WALKING COYOTE IN ESTABLISHING THE HERD. SKCC.

H-207
HOWARD, J. W.
1929.
"THE CHEMISTRY OF FLATHEAD LAKE." *MONTANA WILDLIFE, JUNE 1929, PP. 14-15.*
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE ARTICLE REPORTS ON A STUDY OF DISSOLVED GASSES AND MINERALS AFFECTING FISH AND THE PLANT AND ANIMAL LIFE UPON WHICH THEY FEED. CHEMICAL DATA FROM VARIOUS STATIONS, DEPTHS, AND TIMES ARE GIVEN. PARAMETERS INCLUDE OXYGEN, CARBON DIOXIDE, AMMONIA, ORGANIC NITROGEN, AND MINERAL ANALYSIS.

H-208
HOWARD, JOSEPH K., ED.
1946.
MONTANA MARGINS: A STATE ANTHOLOGY.
NEW HAVEN: YALE UNIV. PRESS. 527 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE COLLECTION OF POEMS, STORIES, AND ESSAYS INCLUDES ACCOUNTS OF FRONTIER HISTORY TOLD BY INDIANS AND WHITES, DESCRIPTIONS OF RIVERS, LAND, ANIMALS, AND THE WAY OF LIFE OF MEN AND WOMEN, AND DISCUSSION OF INDUSTRY, TRAVEL, AND RELIGION.

- H-209**
HOWAY, F. W.; LEWIS, WILLIAM S.; AND MEYERS, JACOB A., EDS.
 1917.
"ANGUS McDONALD: A FEW ITEMS OF THE WEST."
WASHINGTON HISTORICAL QUARTERLY 3(JULY 1917):188-229.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.
- (MONTANA & BRITISH COLUMBIA). A NARRATIVE BY ANGUS McDONALD IS PRESENTED. A BRIEF DISCUSSION OF HIS LIFE PRECEDES THE ACCOUNT AND DESCRIBES HIS TRANSFER TO SALEESH HOUSE, MONTANA, AND HIS LIFE AS A RANCHER IN THE MISSION VALLEY. THE ACCOUNT DESCRIBES A TRIP FROM HIS HOME TO VICTORIA, BRITISH COLUMBIA, AND PRESENTS PERSONAL REMINISCENCES OF A NUMBER OF SEPARATE TRIPS OVER THIS ROUTE BY HIM AT VARIOUS TIMES. FOOTNOTES EXPLAINING THE PEOPLE AND EVENTS MENTIONED IN THE NARRATIVE ARE INCLUDED.
- H-210**
HOWE, GEORGE E.
 1973.
THE FOREST GENETICS PROGRAM FOR THE NORTHERN REGION.
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. 92 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.
- (U.S. FOREST SERVICE REGION ONE). THIS DOCUMENT PRESENTS PLANS FOR ADEQUATE GENETIC PROGRAMMING INTO ALL RESOURCE MANAGEMENT ACTIVITIES, INCLUDING TREE IMPROVEMENT, EDUCATION AND TRAINING PROGRAMS ARE ASCERTAINED TO MEET THESE NEEDS AND TO PRODUCE GENETICALLY IMPROVED PLANTS FOR ARTIFICIAL REFORESTATION. NEEDS FOR IMPROVED AND UNIMPROVED SEED ARE QUANTIFIED AND PROJECTS TO MEET THOSE DEMANDS ARE DESCRIBED.
- H-211**
HOWE, GEORGE E.
 1976.
COLLECTING OPERATIONAL SEED FROM SUPERIOR PARENT STANDS AND TREES IN THE PONDEROSA PINE SELECTIVE BREEDING PROJECT.
 MISSOULA, MT.: INLAND EMPIRE TREE IMPROVEMENT COMMITTEE. 22 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.
- (U.S. FOREST SERVICE REGION ONE.). THIS REPORT PRESENTS TWO RECOMMENDED OPTIONS FOR COLLECTING PROVEN, GENETICALLY SUPERIOR SEED OF PONDEROSA PINE FOR OPERATIONAL REFORESTATION FOR THE INLAND EMPIRE TREE IMPROVEMENT COMMITTEE COOPERATORS. THESE RECOMMENDATIONS ARE FOR THE COLLECTION OF SEED FROM ORIGINAL PARENT TREES AND STANDS WHOSE OFFSPRING, GROWING IN THE PROGENY TEST PLANTATIONS, SHOWED GENETIC SUPERIORITY IN THE EARLY STAGES OF THEIR LIFE CYCLE.
- H-212**
HOWE, GEORGE E.
 1976.
"THE EVOLUTIONARY ROLE OF WILDFIRE IN THE NORTHERN ROCKIES AND IMPLICATIONS FOR RESOURCE MANAGERS."
 PROC. TALL TIMBERS FIRE ECOLOGY CONFERENCE NO. 14 AND INTERMOUNTAIN FIRE RESEARCH COUNCIL FIRE & LAND MANAGEMENT SYMPOSIUM, MISSOULA, MT. PP. 257-265.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.
- (NORTHERN ROCKY MTNS.). THIS PAPER DISCUSSES THE ROLE WHICH FIRE AND FUEL MANAGEMENT IN THE NORTHERN ROCKIES COULD HAVE ON EVOLUTIONARY TRENDS, PARTICULARLY FIRE'S ROLE AS AN AGENT OF RANDOM GENETIC DRIFT. EVOLUTIONARY CONSEQUENCES OF MANAGEMENT ALTERNATIVES ARE DISCUSSED AND GENERAL RECOMMENDATIONS ARE MADE.
- H-213**
HOWE, GEORGE E.
 1976.
TREE IMPROVEMENT IN THE NORTHERN REGION.
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. 38 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.
- (U.S. FOREST SERVICE REGION ONE). THIS IS A STATUS REPORT OF THE U.S. FOREST SERVICE REGIONAL TREE IMPROVEMENT PROGRAM WHICH FOCUSES ON THE LATEST MAJOR ACCOMPLISHMENT IN TREE IMPROVEMENT, THE PREPARATION OF THE FOREST 10-YEAR TREE IMPROVEMENT PLAN. THE REPORT REVIEWS POLICY, THE HISTORY AND CURRENT STATUS OF TREE IMPROVEMENT, AND SUMMARIZES THE TEN-YEAR PLANS.
- H-214**
HOWE, PATRICIA J.
 1974.
"A STUDY OF THE COMMUNITY GRADIENT OF THE BENTHIC INSECTS OF WILBUR CREEK IN GLACIER NATIONAL PARK."
 M.S. THESIS, UNIV. MONTANA, MISSOULA. 98 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK: WILBUR CREEK). THE PURPOSE OF THIS INVESTIGATION WAS TO DESCRIBE A COMMUNITY OF BENTHIC INSECTS TAXONOMICALLY AND TO DISCOVER ASSOCIATIONS AMONG INDIVIDUAL SPECIES. BIOLOGICAL ASSOCIATIONS WERE WORKED OUT BY ANALYZING STOMACH CONTENTS.
- H-215**
HOWSE, T.
 1850.
"VOCABULARIES OF CERTAIN NORTH AMERICAN INDIAN LANGUAGES—KOOTENAI AND FLATHEAD."
 PROC. PHILOLOGICAL SOCIETY LONDON 4:191-206.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (ABORIGINAL LANDS OF THE FLATHEAD & KOOTENAI INDIANS). THIS ARTICLE LISTS THE FLATHEAD AND KOOTENAI TRANSLATION OF COMMON ENGLISH PHRASES.
- H-216**
HOXSEY, S. DOUGLAS.
 1971.
EXPANSION OPPORTUNITIES FOR THE WOOD PRODUCTS INDUSTRY IN WESTERN MONTANA.
 BOZEMAN, MT.: CENTER FOR INDUSTRIAL DEVELOPMENT. 40 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.
- (WESTERN MONTANA: LAKE & SANDERS COUNTIES). THIS PROJECT WAS UNDERTAKEN IN AN EFFORT TO IDENTIFY INDUSTRIAL OPPORTUNITIES IN THE SEVEN-COUNTY AREA AROUND MISSOULA WHICH MAY LEAD TO EXPANSION OF WOOD PRODUCTS INDUSTRIES. THIS REPORT ATTEMPTED TO DEFINE THE LOCAL TIMBER RESOURCES, DESCRIBE THE USE OF THE RESOURCES, AND IDENTIFY THE INDUSTRIES PRODUCING WOOD PRODUCTS. POSSIBLE PRODUCT AREAS FOR EXPANSION WERE IDENTIFIED.
- H-217**
HOYT, C. EUGENE.
 1952.
"THE GOOD FRIDAY SERVICE AT THE ST. IGNATIUS MISSION, MONTANA: A STUDY IN CULTURE CHANGE."
 M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 157 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (ST. IGNATIUS). THE GOOD FRIDAY SERVICE AT THE ST. IGNATIUS MISSION IS DESCRIBED AND ANALYZED. A SHORT HISTORY OF THE MISSION IS PRESENTED, TOGETHER WITH A HISTORY OF THE SERVICE TO 1952. INCLUDED IN THE DESCRIPTION OF THE SERVICE IS THE ORDER OF THE SERVICE, THE SERMON, THE STATIONS OF THE CROSS, SONGS, AND THE PROCESSION OUTSIDE THE CHURCH. THE PROBABLE FUTURE OF THE SERVICE IS EXAMINED.
- H-218**
HRABAR, STEPHANIE VLADIMIRA.
 1971.
"STRATIGRAPHY AND DEPOSITIONAL ENVIRONMENT OF THE ST. REGIS FORMATION OF THE RAVALLI GROUP (PRE-CAMBRIAN BELT MEGA GROUP), NORTHWESTERN MONTANA AND IDAHO."
 PH.D. DISSERTATION, UNIV. CINCINNATI. 92 + PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.
- (NORTHWESTERN MONTANA: SANDERS COUNTY). THE PURPOSE OF THIS STUDY IS TO RE-EVALUATE 1) THE DEPOSITIONAL ENVIRONMENT OF THE ST. REGIS FORMATION, AND 2) THE REGIONAL SEDIMENTOLOGICAL SETTING OF THE RAVALLI GROUP IN NORTHERN IDAHO AND WESTERN MONTANA WITHIN THE FRAMEWORK OF MODERN SEDIMENTOLOGICAL CONCEPTS. FOURTEEN STRATIGRAPHIC SECTIONS OF THE ST. REGIS AND ADJACENT UNITS WERE MEASURED IN DETAIL; 292 CROSSBED MEASUREMENTS, AND THE STRIKES OF 552 RIPPLE MARKS WERE COLLECTED. A BED-BY-BED STUDY OF BEDDING CHARACTERISTICS AND PETROGRAPHY OF DIFFERENT LITHOLOGIC TYPES IS INCLUDED.
- H-219**
HRDLICKA, ALES.
 1909.
TUBERCULOSIS AMONG CERTAIN INDIAN TRIBES OF THE UNITED STATES.
 BULL. NO. 42.
- (FLATHEAD INDIAN RESERVATION). THIS PUBLICATION INCLUDES THE STATISTICS FOR THE INCIDENCE OF TB ON THE FLATHEAD RESERVATION IN 1904. SKCC.
- H-220**
HUBER, WALTER L.
 1924.
"A SHORT TRIP IN GLACIER NATIONAL PARK."
SIERRA CLUB BULL. 12:34-38.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). A PERSONAL NARRATIVE ABOUT A SIERRA CLUB MEMBER'S FIRST TRIP TO GLACIER NATIONAL PARK. DESCRIPTIONS OF GRANITE PARK CHALET AND THE TRAIL UP SWIFT-CURRENT PASS ARE INCLUDED.
- H-221**
HUDSON, PAUL.
 1959.
"FETAL RECOVERIES IN MULE DEER."
J. WILDLIFE MANAGEMENT 23(APRIL 1959):23.4-235.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (NATL. BISON RANGE). THIS REPORT SUMMARIZES INCIDENTAL INFORMATION ON FETUSES RECOVERED FROM PREGNANT MULE DEER (*ODOCOILEUS HEMIONUS*). TOPICS DISCUSSED ARE: FETUS-DOE RATIO, SEX DETERMINATION, TWIN SIZE, PREGNANCY RATE, AND S-RATIO OF FETUSES OVER 70 MM.

H-222
HUDSON, PAUL, AND BROWMAN, LUDVIG G.

1959.
"EMBRYONIC AND FETAL DEVELOPMENT OF THE MULE DEER."
J. WILDLIFE MANAGEMENT 23:295-304.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS PAPER IS BASED ON AN ASSUMPTION THAT THE MULE DEER (ODOCOILEUS HEMIONUS) HAS BEEN SUBJECT TO AN INCREASING AMOUNT OF HUNTING PRESSURE AND THAT A KNOWLEDGE OF THE BREEDING HABITS AND REPRODUCTIVE PATTERN IS NECESSARY IF GAME MANAGEMENT AGENCIES ARE TO MAINTAIN THE BREEDING STOCK SUCCESSFULLY. THE STUDY EXAMINED THE MORPHOLOGY OF THE EMBRYONIC AND FETAL DEVELOPMENT OF THE MULE DEER. THREE PERIODS OF PRENATAL DEVELOPMENT WERE CHOSEN TO FACILITATE DISCUSSION OF DIFFERENT OVERALL PERIODS OF INTERNAL AND EXTERNAL GROWTH AND DIFFERENTIATION: PERIOD OF THE OVUM, THE PERIOD OF THE EMBRYO, AND THE PERIOD OF THE FETUS.

H-223
HUGHES, GEOFFREY.

1978.
LOGAN CREEK WATER QUALITY STUDY, FISCAL YEAR 1977 REPORT.
KALISPELL, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIVISION, WATER QUALITY BUREAU. 4+ PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: TALLY LAKE RANGER DISTRICT: LOGAN CREEK DRAINAGE AREA). THIS REPORT DESCRIBES THE CONTINUATION OF A STUDY BEGUN IN 1975. WATER QUALITY PARAMETERS WERE: AIR AND WATER TEMPERATURE, FLOW, ALKALINITY, TSS, TURBIDITY, PH, FECAL COLIFORMS, SPECIFIC CONDUCTANCE, ORGANIC COLOR, NO₂ AND NO₃, ORTHO PHOSPHATE, NA, K, CL, SO₄, CA, MG, FL, AS, HG, AND HEAVY METALS.

H-224
HUM-ISHU-MA (MOURNING DOVE).

1927.
CO-GE-WE-A THE HALF BLOOD: A DESCRIPTION OF THE GREAT MONTANA CATTLE RANGE.
BOSTON: FOUR SEAS.

(FLATHEAD INDIAN RESERVATION). THE AUTHOR, AN OKANOGAN WOMAN, WITNESSED THE BUFFALO ROUNDUP ON THE FLATHEAD RESERVATION. SKCC.

H-225
HUMAN RESOURCES PLANNING INSTITUTE.

1976.
THE ECONOMIC AND DEMOGRAPHIC ASPECTS OF THE COLUMBIA-NORTH PACIFIC WATER RESOURCES SUB-AREA.
VANCOUVER, WA.: THE PACIFIC NORTHWEST RIVER BASINS COMMISSION. 78 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: WESTERN MONTANA). THE PURPOSE OF THIS REPORT WAS TO DOCUMENT THE PAST AND CURRENT ECONOMIC AND DEMOGRAPHIC TRENDS AND TO FORECAST FUTURE LEVELS OF POPULATION, EMPLOYMENT AND INCOME IN THOSE AREAS OF THE PACIFIC NORTHWEST RIVER BASINS REGION NOT DISCUSSED IN THE PACIFIC NORTHWEST REGIONAL COMMISSIONS ECONOMIC DEVELOPMENT PLAN. THE FORECASTS WERE THEN USED TO EVALUATE A NUMBER OF REGIONAL PLANNING STRATEGIES FOR THE NORTHWEST.

H-226
HUMAN RESOURCES PLANNING INSTITUTE.

1976.
URBAN GROWTH TRENDS AND POTENTIALS - PROBLEMS, NEEDS, ISSUES - A REGIONAL REPORT.
VANCOUVER, WA.: PACIFIC NORTHWEST RIVER BASINS COMMISSION. 55 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE STUDY EXAMINES URBAN GROWTH, ITS PROBLEMS AND POTENTIAL WITH THE GOAL OF ASSISTING IN THE DEVELOPMENT OF A COMPREHENSIVE WATER AND RELATED LAND RESOURCE PLAN. IT REPRESENTS A REVIEW AND ASSESSMENT OF LOCAL, STATE, AND REGIONAL REPORTS CONCERNING PLANNING, HISTORICAL TRENDS IN POPULATION AND EMPLOYMENT, AND FEDERAL AND STATE LEGISLATION.

H-227
HUMPHREY, SETH K.

1905.
"THE STORY OF THE LITTLE BITTER ROOT." THE INDIAN DISPOSSESSED. REV. ED.
BOSTON: LITTLE, BROWN, & CO.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS IS ANOTHER RETELLING OF THE EFFORT OF CHARLO TO REMAIN IN THE BITTERROOT VALLEY. SKCC.

H-228
HUNGERFORD, ROGER D.

1979.
"MICROENVIRONMENTAL RESPONSE TO HARVESTING AND RESIDUE MANAGEMENT" IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FOREST & RANGE EXPER. STAT., FORESTRY SCIENCES LAB., MISSOULA.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHERN ROCKY MTS.: CORAM EXPER. FOREST). THIS RESEARCH HAS BEEN DIRECTED AT EVALUATING THE EFFECTS OF INTENSIVE RESIDUE REMOVAL UNDER ALTERNATIVE SILVICULTURAL PRESCRIPTIONS WITHIN ONE METER ABOVE AND BELOW THE SOIL-ATMOSPHERE INTERFACE. THE STUDY IS DEFINING AND VERIFYING RELATIONSHIPS BETWEEN CONDITIONS CREATED AND SUBSEQUENT VEGETATION RESPONSES, USING BOTH AVAILABLE INFORMATION AND ON SITE DATA.

H-229
HUNGRY WOLF, ADOLPH.

1973.
"GOOD MEDICINE IN GLACIER NATIONAL PARK." IN THE GOOD MEDICINE BOOK.
NEW YORK: WARNER PAPERBACK LIBRARY. 473 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE BOOK IS A SELECTION OF THE MYTHS, TALES AND STORIES OF THE BLACKFEET PEOPLE ABOUT THE GLACIER PARK REGION. OLD TIME NAMES OF PLACES IN THE PARK ARE INCLUDED.

H-230
HUNGRY WOLF, ADOLPH.

1974.
CHARLO'S PEOPLE: THE FLATHEAD TRIBE OF MONTANA.
CANADA: GOOD MEDICINE BOOKS. 64 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). A COLLECTION OF PHOTOGRAPHS AND STORIES RELATED BY LONG-STANDING TRIBAL MEMBERS.

STORIES INCLUDE ACCOUNTS OF DAILY CAMP LIFE, HUNTING AND DRYING MEAT, THE USE OF WILD PLANTS, DANCING AND SINGING, AND AN INDIVIDUAL WOMAN'S LIFE.

H-231
HUNGRY WOLF, ADOLPH.

1975.
INDIAN SUMMER.
INVERMERE, B.C.: GOOD MEDICINE BOOKS.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS BOOK INCLUDES A PERSONALITY SKETCH OF LOUIE NINEPIPE AND SOME INFORMATION ABOUT MARY ANN COMBS. SKCC.

H-232
HUNGRY WOLF, ADOLPH.

1975.
TEACHINGS OF NATURE.
INVERMERE, B.C.: GOOD MEDICINE BOOKS.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS BOOK CONTAINS A SECTION ON FLATHEAD MEDICINE. SKCC.

H-233
HUNT, HARRY M.

1969.
FEASIBILITY STUDY OF COMMERCIAL PROPERTY LOCATED AT RONAN, MONTANA.
PABLO, MT.: U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS, BILLINGS AREA OFFICE, FLATHEAD AGENCY. 28 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(RONAN). THIS STUDY WAS PREPARED TO ASSIST THE FLATHEAD TRIBAL COUNCIL IN OBTAINING OPTIMUM USE OF PROPERTY LOCATED WITHIN THE CITY LIMITS OF RONAN. AN EFFORT WAS MADE TO PROVIDE A PRELIMINARY PLAN DIRECTED TOWARD THE PROMOTION OF PUBLIC HEALTH, SAFETY, MORALS, AND GENERAL COMMUNITY WELFARE. THIS REPORT PROVIDES A GUIDE FOR THE DEVELOPMENT OF LANDS BEST SUITED FOR COMMERCIAL AND RECREATIONAL USE, THUS PROMOTING COMMUNITY IMPROVEMENT AND ASSURING THE LAND OWNERS THE HIGHEST RATE OF RETURN ON THEIR INVESTMENT.

H-234
HUNT, LAWRENCE J.; ADAIR, KENT T.; AND BLAKE, DONALD R.

1967.
THE ECONOMIC IMPACT OF STATE HIGHWAY MONTANA 209 ON THE SWAN-CLEARWATER VALLEY.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL BUSINESS ADMINISTRATION, BUREAU BUSINESS & ECONOMIC RESEARCH. 183 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: NUMEROUS TABLES INCLUDED.

(SWAN-CLEARWATER VALLEY). THE RESEARCH CONSIDERS THE EFFECTS OF THE CONSTRUCTION OF MONTANA HIGHWAY 209 UPON THE LOCAL ECONOMY OF THE VALLEY. A DESCRIPTION OF THE AREA AND ITS RESIDENTS, HISTORICAL DEVELOPMENT, THE HIGHWAY ITSELF, AND TRAFFIC ANALYSIS IS PRESENTED. THE EFFECTS ON LOGGING, OUTDOOR RECREATION, AND TRADE/SERVICE INDUSTRIES ARE ASSESSED. SUCH SOCIAL ASPECTS OF THE HIGHWAY AS POPULATION MOBILITY AND EDUCATION ARE DISCUSSED.

H-235
HUNTER, CHRISTOPHER J.

1974.
"FACTORS AFFECTING THE PRODUCTION OF TALLY LAKE."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 58 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(TALLY LAKE). THE PHYSICAL CHARACTERISTICS OF THE LAKE ARE EXAMINED, ALONG WITH ASPECTS OF LAND USE AFFECTING WATER QUALITY. SPECIFIC STUDY OBJECTIVES WERE: 1) TO MEASURE NUTRIENT AND BACTERIAL CONTAMINATION OF WATERS DRAINING CLEARCUT AND LIVESTOCK GRAZING AREAS, 2) TO MEASURE NUTRIENT LEVELS AND STANDING CROP IN THE LAKE, 3) TO EVALUATE THE EFFECTS OF WATERS DRAINING CLEARCUTS AND LIVESTOCK GRAZING AREAS ON LAKE PRODUCTION, AND 4) TO MAKE RECOMMENDATIONS CONCERNING WATER QUALITY IN THE TALLY LAKE DISTRICT AND THE FLATHEAD DRAINAGE IN GENERAL. WEEKLY WATER SAMPLING AT 8 STATIONS WAS UNDERTAKEN. THE FOLLOWING PARAMETERS WERE INVOLVED: CHEMICAL-BICARBONATE ALKALINITY, PH, TOTAL FILTRABLE PHOSPHATE, ORTHO-PHOSPHATE, AMMONIA, NITRATE, SILICA, DISSOLVED OXYGEN; PHYSICAL-TEMPERATURE, SECCHI DISC READINGS, STREAM DEPTH, AND BIOLOGICAL-STANDING CROP OF THE PERIPHYTON COMMUNITY, FECAL STREPTOCOCCI, AND TOTAL COLIFORM MEASUREMENTS.

H-236
HUNTER, WILLIAM F., AND BALDWIN, P. H.
1962.
"NESTING OF THE BLACK SWIFT IN MONTANA."
THE WILSON BULL. 74(DECEMBER 1962).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MISSION MTNS. & ST. IGNATIUS). THIS PAPER IS A DESCRIPTION OF THE LOCATION OF FIVE CYPSELOIDES NIGER NESTING SITES OUTSIDE OF ST. IGNATIUS. A DISCUSSION OF THE BIRDS' DEVELOPMENT WITHIN THE NESTS AND OF SWIFT DEVELOPMENT IN GENERAL IS INCLUDED.

H-237
HUNTER, WILLIAM F., AND BALDWIN, PAUL H.
1972.
"BLACK SWIFT NEST IN GLACIER NATIONAL PARK."
THE MURRELET 53(SEPTEMBER-DECEMBER 1972):50-51.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK: McDONALD-AVALANCHE CREEK AREA). THIS NOTE REPORTS ON THE OBSERVATION OF A NEST SITE OF THE BLACK SWIFT (CYPSELOIDES NIGER). ITS LOCATIONS, MATERIAL, AND SURROUNDINGS ARE DESCRIBED, AS WELL AS THE APPEARANCE OF THE NESTLINGS. THE SIGHTINGS OF BLACK SWIFT ELSEWHERE IN THE PARK ARE DISCUSSED.

H-238
HUNTON, DOROTHY H., COMP.
1966.
"COMPILATION OF HISTORIES OF WESTERN MONTANA."
(TYPEWRITTEN). 60 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
EXISTING DATA, STATEWIDE.

(WESTERN MONTANA). PERSONAL NARRATIVES DESCRIBING HISTORIC PLACES, PEOPLE, AND INSTITUTIONS ARE PRESENTED. INCLUDED IS A DISCUSSION OF THE EXPLORATIONS OF DAVID THOMPSON, THE ARRIVAL OF THE CATHOLIC MISSIONARIES, THE SETTLEMENT OF THE PLAINS-THOMPSON FALLS AREA, AND THE LIFE OF ALICE WOODY, A FRIEND OF THE PETER RONAN FAMILY.

H-239
HURLEY, G. WILLIAM.
1959.
"OVERTHRUST FAULTING AND PALEOZOIC GAS PROSPECTS IN MONTANA'S DISTURBED BELT."
BILLINGS GEOLOGICAL SOCIETY 10TH ANNIVERSARY FIELD CONFERENCE. PP. 98-108.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(NORTHWESTERN MONTANA). THE ZONE OF OVERTHRUST FAULTING AND FOLDING IN THE DISTURBED BELT IS EXAMINED. THE STRUCTURE OF THE BELT IS DIVIDED INTO 3 LAYERS: A REGIONAL LAYER, A HIGH ANGLE THRUST LAYER, AND A LOW ANGLE THRUST LAYER. FOLLOWING BRIEF DISCUSSIONS OF A DISCOVERY WELL AND OF EXPLORATION HISTORY, 3 TYPES OF TRAPS ARE IDENTIFIED. TYPE NUMBER ONE USE THE FAULT TRAPS ON THE WEDGE-EDGE OF THE PALEOZOIC THRUST SHEETS; TYPE NUMBER TWO ARE THE DRAG FOLDS FORMED AS THE RESULT OF THRUSTING; AND TYPE NUMBER THREE ARE THE FOLDS OCCURRING WEST OF THE ZONE OF DRAG FOLDING.

H-240
HUSTON, JOE E.
1984.
STREAM IMPROVEMENT TO INCREASE CUTTHROAT SPAWNING RUNS.
HELENA, MT.: MONTANA FISH & GAME DEPT., FISHERIES DIV. 13 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR). ONE OF THE LIMITING FACTORS GOVERNING THE ABUNDANCE OF SALMO CLARKI CLARKI IN THE HUNGRY HORSE RESERVOIR IS THE AMOUNT OF ANNUAL RECRUITMENT TO THE LAKE POPULATION FROM STREAMS THAT FLOW DIRECTLY INTO THE RESERVOIR. THIS STUDY WAS INITIATED TO COLLECT INFORMATION ON THE NUMBER OF SUITABLE CUTTHROAT SPAWNING CREEKS, THE PRESENCE OF BARRIERS, THE EFFECTS OF A PARTIAL BARRIER UPON A CUTTHROAT RUN, AND TO EVALUATE THE EFFECTIVENESS OF A FISH PASSAGE IMPROVEMENT PROGRAM.

H-241
HUSTON, JOE E., AND SCHUMACHER, ROBERT E.
1978.
REPORT ON FISH MIGRATION STUDIES IN FLATHEAD RIVER BETWEEN FLATHEAD LAKE AND THE CONFLUENCE OF THE SOUTH FORK WITH THE MAIN STEM.
BOISE, ID.: U.S. DEPT. INTERIOR, BUREAU RECLAMATION. 21 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD RIVER BETWEEN FLATHEAD LAKE AND ITS CONFLUENCE WITH THE SOUTH FORK OF THE FLATHEAD RIVER). THIS REPORT DEALS WITH THE EFFECTS OF THE HUNGRY HORSE RESERVOIR OPERATION UPON THE FISH OF THE FLATHEAD RIVER-FLATHEAD LAKE ECOSYSTEM. SECTIONS INCLUDED ARE: MOVEMENTS OF ADULT CUTTHROAT INTO MAIN STEM FLATHEAD RIVER, SPAWNING MOVEMENTS OF CUTTHROAT TROUT, RECAPTURE OF ADULT CUTTHROAT NEAR KALISPELL, ANGLER HARVEST OF TAGGED CUTTHROAT AND RAINBOW, AND KOKANEE SPAWNING AREAS. TABLES DIAGRAM THE RELATIONSHIP BETWEEN NATURAL FLOW, TOTAL FLOW, WATER TEMPERATURE, AND CATCH OF CUTTHROAT PER BOAT HOUR. AN ADDENDUM BY R. DOMROSE: "NOTES ON KOKANEE REDS, EXAMINATION AND FRY EMERGENCE IN RELATION TO HUNGRY HORSE RESERVOIR DISCHARGE," COVERS THE PROBLEMS ASSOCIATED WITH KOKANEE USE OF OUTSIDE PERIMETER SPAWNING AREAS.

H-242
HUTCHISON, S. BLAIR, AND ROE, A. L.
1962.
MANAGEMENT FOR COMMERCIAL TIMBER, CLARK FORK UNIT, MONTANA.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH PAPER 65. 32 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(CLARK FORK DRAINAGE: LAKE, SANDERS, & MISSOULA COUNTIES). THIS STUDY ATTEMPTS TO APPRAISE THE TIMBER MANAGEMENT JOB INVOLVED IN INCREASING PRODUCTION ON A REPRESENTATIVE AREA OF THE U.S. FOREST SERVICE'S NORTHERN REGION. THE REPORT EXAMINES: POORLY STOCKED STANDS, OVERSTOCKED STANDS, MISTLETOE DAMAGE, THE DISORGANIZATION OF THE FOREST, EROSION OF QUALITY, STAND REGENERATION; WHETHER A FAST BUILD-UP OF SUSTAINABLE CUT IS POSSIBLE, AND FUTURE TRENDS.

H-243
HYDE, GEORGE.
1959.
INDIANS OF THE HIGH PLAINS: FROM THE PREHISTORIC PERIOD TO THE COMING OF THE EUROPEANS.
NORMAN, OK.: UNIV. OKLAHOMA PRESS.

(NORTHERN PLAINS). THIS BOOK CONTAINS A GOOD INTRODUCTION TO THE PRE-WHITE TRIBAL MOVEMENTS ON THE NORTHERN PLAINS. IT NOTES THAT BEFORE THE MID-1700'S WHEN THEY WERE FORCED INTO THE ROCKY MOUNTAINS, THE ALLIANCE OF THE FLATHEADS, KOOTENAI, AND SNAKES DOMINATED THE NORTHERN PLAINS. SKCC.

H-244
HYDROCOMP, INC.
1976.
REPORT ON COLUMBIA RIVER WATER TEMPERATURE STUDY.
PORTLAND, ORE.: U.S. DEPT. DEFENSE, CORPS OF ENGINEERS, NORTH PACIFIC DIV. 145 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

NOTE: A STATION LOCATED NEAR KALISPELL, MT. IS INCLUDED IN THE DATA INDEX, APPENDIX C.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE STUDY REPORTS ON THE ALTERATION OF THE NATURAL THERMAL REGIME, ITS CAUSES AND EFFECTS. GOVERNMENT STANDARDS, VIOLATIONS AND PROBLEMS, AND THERMAL MANAGEMENT IS DISCUSSED. SIMULATION MODELLING METHODS ARE ANALYZED; GOALS AND A WORK PLAN FOR MODELLING WATER TEMPERATURES IN THE BASIN PRESENTED.

H-245
"HYDROLOGIC DATA AND SNOW SURVEYS."
1936-1946.
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK FILES.

(GLACIER NATL. PARK). THIS FILE COMPRISES VARIOUS SNOW SURVEY DATA SHEETS, AS WELL AS CORRESPONDENCE CONCERNING THE SURVEYS. DATA INCLUDES: DEPTH OF SNOW, LENGTH OF CORE, WEIGHT OF CORE, AND WATER CONTENT.

I-1
IMELDA, SISTER, O.S.U.
 1934.
"SISTER TELLS FISH STORY."
INDIAN SENTINEL 14(WINTER 1933-1934):21.

THIS ARTICLE RELATES AN ANECDOTE ABOUT AN INDIAN STUDENT WHO CAUGHT TROUT TO FEED THE STUDENTS WHEN NO OTHER FOOD WAS AVAILABLE. SKCC.

I-2
IMLAY, RALPH W.
 1962.
JURASSIC (BATHONIAN OR EARLY CALLOVIAN) AMMONITES FROM ALASKA AND MONTANA.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROF. PAPER 374-C. 32 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ALASKA & WESTERN MONTANA). THE OCCURRENCE OF JURASSIC AMMONITES OF POSSIBLE LATE MIDDLE JURASSIC (BATHONIAN) AGE IN BEDS SUCH AS THOSE OF THE UPPER MEMBER OF THE SAWTOOTH FORMATION WAS INVESTIGATED. CRANOCEPHALITES, A SUBGENUS OF ARCTOCEPHALITES, CHARACTERIZE THE AMMONITE SPECIMENS. A STRATIGRAPHIC SUMMARY AND INDIVIDUAL DISCUSSIONS OF THE VARIOUS FAUNAS PRESENT EVIDENCE TO CORRELATE THE CRANOCEPHALITES BEDS WITH THE BATHONIAN STAGE. THE INDICATION OF SUCH A CORRELATION IS DISCUSSED.

I-3
INCARNATION, SISTER M., O.S.U.
 1942.
"LADY BLACKROBES GO TO JOCKO."
INDIAN SENTINEL 22(JUNE 1942):94.

(JOCKO VALLEY). THIS ARTICLE REPORTS ON A SUMMER RELIGIOUS SCHOOL CONDUCTED IN THE JOCKO VALLEY. SKCC.

I-4
INDIAN FARMERS INSTITUTE.
 1921.
"FIRST POLSON DISTRICT PROGRAM."
ELMO, MT. (TYPEWRITTEN). 15 PP.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORDS CENTER, GENERAL SERVICES ADMINISTRATION, SEATTLE, WA.

(FLATHEAD INDIAN RESERVATION). THIS REPORT CONTAINS A TRANSCRIPT OF THE FOLLOWING PRESENTATIONS MADE AT THE MEETING: POTATOES AND CARROTS, GARDENING, VEGETABLES, GRAIN, LIVESTOCK, HOUSEKEEPING, AND INDIAN FARMING. IT IS INTERESTING FROM THE STANDPOINT OF EARLY INDIAN FARMING PRACTICES AND LIFESTYLES ON THE RESERVATION.

I-5
INGALLS, EMMA A.
"OVER TRAILS OF THE PAST: WHERE MANY THINGS WERE THAT NOW ARE NOT THERE."
9 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD COUNTY LIBRARY, MONTANA FILES.

(HISTORIC FLATHEAD COUNTY: KALISPELL & COLUMBIA FALLS AREA). THE ARTICLE TRACES THE FORMATION OF FLATHEAD COUNTY AND DESCRIBES ITS FIRST SETTLERS, CHURCHES, SCHOOLS, TEACHERS, POST OFFICE, NEWSPAPER, ETC. TROUBLES WITH INDIAN NEIGHBORS, THE COMING OF THE RAILROAD, AND NORTH FORK COAL ARE TOPICS DISCUSSED.



I-6
INTERNATIONAL ASSOCIATION FOR QUATERNARY RESEARCH.
 1965.
GUIDEBOOK FOR FIELD CONFERENCE, NORTHERN AND MIDDLE ROCKY MOUNTAINS.
LINCOLN, NE.: NEBRASKA ACADEMY SCIENCES. 129 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(ROCKY MTNS.: GLACIER NATL. PARK, & FLATHEAD, LAKE, & SANDERS COUNTIES). THE PURPOSE OF THIS CONFERENCE WAS TO PROVIDE AN OPPORTUNITY FOR A STUDY OF THE MODERN AND PLEISTOCENE ENVIRONMENTS IN THE ROCKY MOUNTAIN REGION. THIS FIELD GUIDE DESCRIBES THE GEOLOGY ENCOUNTERED ALONG A TRIP FROM GLACIER NATIONAL PARK TO KALISPELL TO PLAINS. VARIOUS STOPS ALONG THE ROUTE ARE DESCRIBED; MAPS AND CROSS SECTIONS ILLUSTRATE THE GEOLOGIC HISTORY OF THE AREA.

I-7
THE INVENTORY OF PUBLIC ARCHIVES. DIVISION OF COMMUNITY SERVICE PROGRAMS. WORK PROJECTS ADMINISTRATION.
 1940.
INVENTORY OF THE COUNTY ARCHIVES OF MONTANA: FLATHEAD, LAKE, LINCOLN, MINERAL, RAVALLI, AND SANDERS.
BOZEMAN, MT.: MONTANA HISTORICAL RECORDS SURVEY. 658 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD, LAKE, LINCOLN, MINERAL, RAVALLI, & SANDERS COUNTIES). THE GUIDE TO HISTORICAL MATERIALS INCLUDES LOCAL GOVERNMENT DOCUMENTS AND RECORDS, SKETCHES OF COUNTY HISTORY, AND DESCRIBES THE ORGANIZATION AND FUNCTION OF THE GOVERNMENT AGENCIES WHOSE RECORDS ARE LISTED. THE DOCUMENTS ARE ORGANIZED BY COUNTY AND ARE INDEXED ALPHABETICALLY.

I-8
IRVINE, CALEB E.
 1907.
"FAMOUS INDIAN FOOT RACE: TRADER SECURES GOOD WILL OF BAND OF FLATHEADS."
CONTRIBUTIONS TO THE HISTORICAL SOCIETY OF MONTANA 6(1907):479-481.

(ARLEE). THIS ARTICLE DESCRIBES AN 1842 FOOT RACE HELD NEAR ARLEE BY A FUR TRADER TO FOSTER GOOD WILL AMONG THE FLATHEADS AND INCREASE HIS TRADE. SKCC.

I-9
"IS THE BURSUM INDIAN RAID TO BE OUTDONE WITH MONTANA VICTIMS?"
AMERICAN INDIAN LIFE. BULL. NO. 9(SEPTMBER 1927):3-5.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE ABOUT THE BUREAU OF INDIAN AFFAIRS' PLANS FOR THE FLATHEAD POWER SITE CALLS TO SAVE THE RETURNS FROM THE SITE SOLELY FOR THE FLATHEAD TRIBE. SKCC.

I-10
ISAACSON, LEANNA, ET. AL.
 1966.
"THE WHITEFISH PROJECT: IMPLEMENTATION OF NEW IDEAS."
TITLE III E.S.E.A. 42 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(WHITEFISH). THE PUBLICATION DESCRIBES PROGRAMS UNDERTAKEN BY THE SCHOOL SYSTEM: OBSERVATION OF AUDIOVISUAL DEPARTMENTS, TEAM TEACHING, DESIGN FOR NEW ELEMENTARY SCHOOL BUILDING, AND TEACHER WORKSHOPS. A RESUME OF TITLE III IDEAS IS INCLUDED.

I-11
ISBILL ASSOCIATIONS, INC.
1976.

MASTER PLAN FOR GLACIER PARK INTERNATIONAL AIRPORT, KALISPELL, MONTANA.

KALISPELL, MT.: FLATHEAD COUNTY AIRPORT AUTHORITY, GLACIER PARK INTERNATIONAL AIRPORT. 150 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL: GLACIER PARK INTERNATL. AIRPORT). THIS MASTER PLAN IS DESIGNED AS A GUIDE TO PROVIDE A STAGED DEVELOPMENT PROGRAM THAT WILL ALLOW GLACIER INTERNATIONAL AIRPORT TO MAINTAIN ITS STATUS AS A REGIONAL TRANSPORTATION CENTER.

I-12
ISCH, FLORA MAE BELLEFLEUR.
1948.

"THE DEVELOPMENT OF THE UPPER FLATHEAD AND KOOTENAI COUNTRY."

M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 109 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(NORTHWESTERN MONTANA: UPPER FLATHEAD RIVER VALLEY & KOOTENAI RIVER VALLEY). AN HISTORIC DESCRIPTION OF THE DEVELOPMENT OF THE AREA IS GIVEN. THE GEOGRAPHIC FEATURES WHICH INFLUENCED THE RATE AND TYPE OF

DEVELOPMENT OF THE AREA BY INDIANS AND WHITE SETTLERS ALIKE ARE DISCUSSED.

I-13
ISCH, FLORA MAE BELLEFLEUR.
1950.

"THE IMPORTANCE OF RAILROADS IN THE DEVELOPMENT OF NORTHWESTERN MONTANA."

PACIFIC NORTHWEST QUARTERLY 41(JANUARY 1950):19-29.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, BASIN-WIDE.

(NORTHWESTERN MONTANA: FLATHEAD VALLEY). THIS ARTICLE BRIEFLY DESCRIBES SETTLEMENT PRIOR TO RAILROAD DEVELOPMENT. C.F.B. HASKELL'S RAILROAD SURVEY IN THE LATE 1880'S, THE GROWTH OF KALISPELL, THE ESTABLISHMENT OF FLATHEAD COUNTY, AND THE BEGINNINGS OF GLACIER NATIONAL PARK ARE DISCUSSED.

I-14
ITAMI, RICK.
1978.

MONTANA HISTORICAL ENERGY STATISTICS.

HELENA, MT.: MONTANA ENERGY OFFICE, CAPITOL STATION. 84 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: YEARLY UPDATES.

(MONTANA: FLATHEAD RIVER BASIN). THIS COMPILATION OF ENERGY DATA PRESENTED PRIMARILY IN TABLES AND GRAPHS COVERS THE FOLLOWING TOPICS: ENERGY PRODUCTION AND CONSUMPTION, ELECTRICITY, COAL, NATURAL GAS, CRUDE PETROLEUM AND PETROLEUM PRODUCTS, URANIUM, AND RENEWABLE ENERGY PRODUCTS.

I-15
IVORY, THOMAS MARTIN III.
1973.

"PHYTOPLANKTON PRODUCTION OF POLSON BAY, FLATHEAD LAKE, MONTANA."

PH.D. DISSERTATION, UNIV. UTAH, SALT LAKE CITY. 214 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE OBJECTIVES OF THIS STUDY WERE TO IDENTIFY AND QUANTITATIVELY ANALYZE THE PHYTOPLANKTON OF POLSON BAY, TO DETERMINE WHICH OF SEVERAL PHYSICAL AND CHEMICAL PARAMETERS INFLUENCE THE ABUNDANCE OF THE DOMINANT PHYTOPLANKTON SPECIES, TO FOLLOW PHYTOPLANKTON SUCCESSION AND PRODUCTION FOR A THREE YEAR PERIOD TO ASCERTAIN CHANGES WHICH MIGHT INDICATE THE ONSET OF CULTURAL EUTROPHICATION IN POLSON BAY, AND TO COMPARE THE PRESENT CHARACTERISTICS OF THE BAY WITH THOSE REPORTED BY YOUNT (1935) AND WITH THOSE OF OTHER AREAS OF THE LAKE. THE STUDY INCLUDES A REVIEW OF LITERATURE.





J-1
JACKSON, DENNIS COBIAN.
1971.
"A STUDY OF SELECTED GENERA OF THE FAMILIES GONATOZYGACEAE, MESSOTAENIACEAE AND DESMIDIACEAE IN MONTANA."
PH.D. DISSERTATION, MICHIGAN STATE UNIV., LANSING. 657 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THE PRIMARY OBJECTIVES OF THIS STUDY WERE: 1) TO RECORD THE DESMID TAXA ENCOUNTERED, CITING DISTRIBUTION; 2) TO PREPARE AN INCLUSIVE LIST OF THESE, INTEGRATING THE PREVIOUS RECORDS WITH THOSE OF THE AUTHOR; AND 3) TO PREPARE ILLUSTRATIONS OF THE REPORTED TAXA INDICATING, WHEREVER POSSIBLE, THE MORPHOLOGICAL VARIATION FOUND. IN ADDITION THE FINDINGS WERE TO BE COMPARED WITH THOSE OF OTHER INVESTIGATORS OF SIMILAR AND/OR RELATED PROBLEMS IN OTHER PARTS OF THE UNITED STATES. RELATED ECOLOGICAL DATA (WATER PH, TOTAL HARDNESS, ETC.) WERE ALSO GATHERED WHENEVER FEASIBLE. A WIDE RANGE OF HABITATS WERE SAMPLED, INCLUDING VARIOUS LAKES RANGING FROM OLIGOTROPHIC TO EUTROPHIC, RESERVOIRS, BOGS, PONDS, AND SLOUGHS. THE FOLLOWING INFORMATION IS GIVEN FOR THE TAXA: AUTHOR CITATION; ANY NOTES, OBSERVATIONS OR COMMENTS ON THE TAXON; DISTRIBUTION BY COUNTY; AND PREVIOUS REPORTS OF THE TAXON IN THE STATE.

J-2
JACKSON, JOSEPH.
1971.
PROPOSED PLAN OF MANAGEMENT: CHRISTMAS TREE RESOURCE, FLATHEAD INDIAN RESERVATION. PABLO, MT.: CONFEDERATED SALISH & KOOTENAI TRIBES. 30 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). IT WAS RECOGNIZED THAT IN PAST YEARS THE CHRISTMAS TREE RESOURCE ON THE FLATHEAD RESERVATION WAS BEING EXPLOITED IN SUCH A MANNER AS TO EVENTUALLY RESULT IN ITS DESTRUCTION. THIS PROPOSED MANAGEMENT PLAN EXAMINES THE

HISTORY OF THE INDUSTRY. THE PLAN PROPOSES TO CONVERT THE WILDLAND CHRISTMAS TREE AREAS INTO A FOREST BUSINESS WHICH WOULD PRODUCE CHRISTMAS TREES OF HIGH QUALITY AND IN AMOUNTS COMPATIBLE WITH ALL OTHER PHASES OF FOREST MANAGEMENT, AND TO MAINTAIN THAT CONDITION INDEFINITELY.

J-3
JACOBSEN, ROBERT D.
1979.
"LEGAL ASPECTS OF CRITICAL HABITAT DETERMINATIONS." IN BEARS: THEIR BIOLOGY AND MANAGEMENT. EDITED BY C. J. MARTINKA AND K. L. MCARTHUR.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 4 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(ROCKY MTNS.: BOB MARSHALL WILDERNESS AREA). THIS ARTICLE DESCRIBES HOW THE ENDANGERED SPECIES ACT OF 1973 ATTEMPTS TO PROTECT SPECIES FACED WITH EXTINCTION; CRUCIAL TO THAT PROTECTION IS THE DETERMINATION OF THE LISTED SPECIES CRITICAL HABITAT. PROCEDURES USED BY THE U.S. FISH AND WILDLIFE SERVICE TO DETERMINE CRITICAL HABITAT ARE DISCUSSED. THOSE HABITATS ARE DELINEATED SO THAT FEDERAL AGENCIES CAN PLAN AND CARRY OUT THEIR ACTIVITIES IN WAYS THAT WILL NOT ADVERSELY IMPACT ENDANGERED OR THREATENED SPECIES. THE STATUS OF CRITICAL HABITAT DETERMINATION FOR THE GRIZZLY BEAR IS DETAILED.

J-4
JAY, ROBERT H.
1963.
A LONG RANGE BUILDING PROGRAM FOR THE HOT SPRINGS, MONTANA, PUBLIC SCHOOLS.
MISSOULA, MT.: MONTANA STATE UNIV., EDUCATIONAL RESEARCH SERVICES, SCHOOL EDUCATION. 25 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HOT SPRINGS). THE PURPOSE OF THIS STUDY WAS TO DEVELOP PROPOSALS TO MEET THE IMMEDIATE NEEDS OF THE SCHOOL DISTRICT FOR ELEMENTARY AND SECONDARY FACILITIES AND TO ASSIST IN THE

DEVELOPMENT OF LONG RANGE PLANS. ENROLLMENT ESTIMATES FOR THE ELEMENTARY AND SECONDARY SCHOOL HAVE BEEN MADE USING THE COHORT SURVIVAL RATIO APPROACH. THE PRESENT SCHOOL FACILITIES ARE ANALYZED AND DESCRIBED. THE FINANCIAL ABILITY OF THE COMMUNITY TO PROVIDE FOR SUCH FACILITIES HAS BEEN CONSIDERED IN RELATIONSHIP TO THE FEASIBILITY OF THE PROPOSALS.

J-5
JEFFERS, LEROY.
1920.
"FROM THE MOUNTAINS OF MONTANA TO THE TETONS OF WYOMING."
SCIENTIFIC AMERICAN 123(3 APRIL 1920):364-375.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHWESTERN PARKS: GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE PARK'S SCENIC BEAUTY, NOTING THE OVERCOLORING DESCRIPTIONS OF PAST WRITERS. IT INCLUDES A BRIEF DISCUSSION OF THE KINTLA AND BOWMAN COUNTRY.

J-6
JEFFRIES, JENNIFER, ED.
1978.
"WATERS OF WEALTH: A SEMINAR ON THE KOOTENAI REGION OF THE UNITED STATES AND CANADA": SELECTED TRANSCRIPTS.
LIBBY, MT.: LIBBY DAM VISITORS CENTER.

(LIBBY AREA). THIS COLLECTION OF TRANSCRIPTS INCLUDES TALKS ON KOOTENAI AREA HISTORY GIVEN AT A 1977 CONFERENCE AT LIBBY. MANY PAPERS REFER TO THE KOOTENAI INDIANS AND TWO PAPERS INCLUDE EXTENSIVE MATERIAL ABOUT THEM. SEE ENTRIES UNDER LAWRENCE R. MORGAN AND DAVID CHANCE. SKCC.

J-7
JENKINS, HANLEY F. II.
1977.
UPPER FLATHEAD RIVER BASIN STUDY.
HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, WATER RESOURCES DIV. 135 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). MANDATED BY STATE LAW TO STUDY POSSIBLE IMPACTS ON MONTANA FROM THE PROPOSED CANADIAN CABIN CREEK COAL MINE, THE STUDY PLACES EMPHASIS ON ENVIRONMENTAL SYSTEMS RECEIVING DIRECT IMPACTS. IT EXAMINES THE CURRENT PHYSICAL AND SOCIOECONOMIC ENVIRONMENT. PLANS FOR THE DEVELOPMENT AND ACCOMPANYING FACILITIES ARE EXAMINED, AND ALTERNATE LEVELS OF FUTURE DEVELOPMENT ARE ASSESSED.

J-8
JENNI, DONALD.
1962.
"CAMAS CREEK (24SAF)."
ARCHAEOLOGY IN MONTANA 4:9-20.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD RIVER). THE ARTICLE DESCRIBES A SITE WHERE SEVERAL TYPES OF POINTS ARE PRESENT. A NEARBY FIRE HEARTH SITE AND PICTOGRAPHS ARE NOTED. MCKEAN-LIKE (OR "FISHTAIL"), HANNA-LIKE, AND DUNCAN-LIKE POINTS FROM THE FORAGEN (OR MIDDLE) PERIOD, CORNER AND SIDE-NOTCHED POINTS FROM THE LATE HUNTERS (OR UPPER) PERIOD OF MONTANA PREHISTORY, AND A VARIETY OF SCRAPERS, CUTTERS, A FEW KNIVES, AND OTHER TOOLS ARE BRIEFLY DISCUSSED.

- J-9**
JENNI, DONALD, AND JENNI, SANDY.
1959.
"CAMAS CREEK."
ARCHAEOLOGY IN MONTANA 1 (SPRING 1959): 6-7.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (LOWER FLATHEAD RIVER). THE ARTICLE BRIEFLY
DESCRIBES THREE POINT TYPES LOCATED AT A
CAMAS CREEK RIVER WASH SITE: MCKEAN, HANNA,
AND DUNCAN-LIKE POINTS.
- J-10**
JENNI, DONALD, AND JENNI, SANDY.
1962.
"CAMP MISERY SITE."
ARCHAEOLOGY IN MONTANA 3 (FEBRUARY 1962): 6-7.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- THE ARTICLE DESCRIBES THE DISCOVERY OF AN IN-
DIVIDUAL POINT AND ITS IMPORTANCE IN ASSESS-
ING THE PREHISTORIC OCCUPATION AND USE OF
RUGGED MOUNTAIN AREAS.
- J-11**
JENNINGS, JIM.
1974.
QUA QUEI OR HOW THE BUFFALO WERE SAVED.
ST. IGNATIUS, MT.: MISSION VALLEY NEWS. 40 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION & THE NATL
BISON RANGE). A HISTORY OF THE ORIGIN AND EX-
PANSION OF THE ALLARD-PABLO BUFFALO HERD IN
THE MISSION VALLEY. MANY OLD PHOTOGRAPHS
ACCOMPANY THE TEXT.
- J-12**
JOHNS, SAM E., COMP.
1943.
THE PIONEERS. 10 VOLS.
1600 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
BASIN-WIDE.
- (FLATHEAD VALLEY). THE VOLUMES CONTAIN PER-
SONAL HISTORIES OF EARLY SETTLEMENT, OFTEN
PEOPLE'S OWN ACCOUNTS. NEWS ITEMS FROM THE
DAILY INTERLAKE DURING THE YEARS 1889-1892,
AND ARTICLES FROM THE FLATHEAD FACTS (1890'S)
AND OTHER EARLY PUBLICATIONS ARE INCLUDED.
AN INDEX NOTING THE VARIETY OF AVAILABLE
HISTORIC INFORMATION (INDIANS, BUSINESSES,
SCHOOLS, COURT CASES) REPRESENTS ONE
VOLUME.
- J-13**
JOHNS, WILLIS M.
1959.
PROGRESS REPORT ON GEOLOGIC INVESTIGATIONS
IN THE KOOTENAI-FLATHEAD AREA, NORTHWEST
MONTANA: I. WESTERN LINCOLN COUNTY.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY,
MONTANA SCHOOL MINES. BULL. NO. 12. 56 PP.
IN PROGRESS, PART OF A SERIES, GENERAL,
TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (NORTHWEST MONTANA: KOOTENAI-FLATHEAD
AREA: WESTERN LINCOLN COUNTY). THE REPORT
DESCRIBES MAPPING AND MINERAL IDENTIFI-
CATION AND POTENTIAL. ROCK FORMATIONS AND
ROCK TYPES ARE DESCRIBED FOR THE PRECAM-
BRIAN BELT SERIES; FOLDING AND RECENT
FAULTING ARE DISCUSSED. THE REPORT FOCUSES
ON THE LOCATION AND DESCRIPTION OF ORE
DEPOSITS: LODS OF GOLD-QUARTZ, SILVER-LEAD-
ZINC, COPPER, AND BARITE VEINS AS WELL AS
NONMETALLIC DEPOSITS.
- J-14**
JOHNS, WILLIS M.
1960.
PROGRESS REPORT ON GEOLOGIC INVESTIGATIONS
IN THE KOOTENAI-FLATHEAD AREA, NORTHWEST
MONTANA: II. SOUTHEAST LINCOLN COUNTY.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY,
MONTANA SCHOOL MINES. BULL. 17. 52 PP.
IN PROGRESS, PART OF A SERIES, GENERAL,
TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (NORTHWEST MONTANA: KOOTENAI-FLATHEAD
AREA: SOUTHEASTERN LINCOLN COUNTY). THE
REPORT DESCRIBES MAPPING AND MINERAL IDEN-
TIFICATION AND POTENTIAL. FIVE GROUPS OF
SEDIMENTARY ROCKS OF THE BELT SERIES AND IG-
NEOUS ROCKS ARE DISCUSSED. THE RESULTS OF
FOLDING AND FAULTING ARE CONSIDERED. GOLD-
QUARTZ, SILVER-LEAD-ZINC, TUNGSTEN-QUARTZ
ASSOCIATIONS AND COPPER VEINS ARE MAPPED.
- J-15**
JOHNS, WILLIS M.
1961.
PROGRESS REPORT ON GEOLOGIC INVESTIGATIONS
IN THE KOOTENAI-FLATHEAD AREA, NORTHWEST
MONTANA. III. NORTHERN LINCOLN COUNTY.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY.
BULL. 23. 57 PP.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL
DATA, STATEWIDE.
- (NORTHERN LINCOLN COUNTY). THIS THIRD PRO-
GRESS REPORT COVERS WORK COMPLETED IN THE
URAL AND YAAK RIVER QUADRANGLES. THIS
REPORT DISCUSSES TOPOGRAPHY AND DRAINAGE,
GLACIATION, ROCK TYPES, THE PRECAMBRIAN BELT
SERIES, QUATERNARY SEDIMENTS, IGNEOUS
ROCKS, SEDIMENTARY ROCK STRUCTURE, AND
FAULTS. DESCRIPTIONS OF ORE DEPOSITS, MINING
PROPERTIES, NONMETALLIC DEPOSITS, AND SUG-
GESTIONS FOR PROSPECTING CONCLUDE THE
BULLETIN.
- J-16**
JOHNS, WILLIS M.
1962.
"BELT SERIES IN LINCOLN AND SOUTHWEST
FLATHEAD COUNTIES, MONTANA."
TRANS. SOCIETY MINING ENGINEERS (JUNE
1962): 184-192.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (FLATHEAD & LINCOLN COUNTIES). THIS PAPER IS
PRIMARILY CONCERNED WITH THE STRATIGRAPHY
OF THE BELT ROCKS ENCOUNTERED IN A GEOLOGIC
MAPPING PROJECT. PREVIOUS WORK IN THE AREA IS
DESCRIBED, PRE-RAVALLI ROCKS AND PRICHARD
FORMATION ARE DISCUSSED, AND THE RAVALLI,
PIEGAN, AND MISSOULA GROUPS ARE EXAMINED.
ECONOMIC CONSIDERATIONS ARE DETAILED.
- J-17**
JOHNS, WILLIS M.
1962.
PROGRESS REPORT ON GEOLOGIC INVESTIGATIONS
IN THE KOOTENAI-FLATHEAD AREA, NORTHWEST
MONTANA: IV. SOUTHWESTERN FLATHEAD COUNTY.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY,
MONTANA SCHOOL MINES. BULL. NO. 29. 38 PP.
IN PROGRESS, GENERAL, TECHNICAL, ORIGINAL
DATA, WITHIN THE BASIN.
- (NORTHWESTERN MONTANA: KOOTENAI-FLATHEAD
AREA: SOUTHWESTERN FLATHEAD COUNTY). THE
REPORT DESCRIBES MAPPING AND MINERAL IDEN-
TIFICATION AND POTENTIAL. ROCK TYPES AND FOR-
MATIONS OF THE PRECAMBRIAN BELT SERIES,
QUATERNARY SEDIMENTS, AND IGNEOUS ROCKS
ARE DISCUSSED. FAULTING AND FOLDING ARE EX-
AMINED. COPPER-BEARING QUARTZ VEINS, GOLD-
QUARTZ VEINS, BARITE, AND NONMETALLIC
DEPOSITS ARE LOCATED.
- J-18**
JOHNS, WILLIS M.
1964.
PROGRESS REPORT ON GEOLOGIC INVESTIGATIONS
IN THE KOOTENAI-FLATHEAD AREA, NORTHWEST
MONTANA: VI. SOUTHEASTERN FLATHEAD COUNTY
AND NORTHERN LAKE COUNTY.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY,
MONTANA SCHOOL MINES. BULL. 42. 66 PP.
IN PROGRESS, PART OF A SERIES, SPECIFIC,
TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (NORTHWESTERN MONTANA: KOOTENAI-FLATHEAD
AREA: SOUTHEASTERN FLATHEAD COUNTY & NOR-
THERN LAKE COUNTY). THE REPORT DESCRIBES
MAPPING AND MINERAL IDENTIFICATION AND
POTENTIAL. ROCK TYPES, STRUCTURAL GEOLOGY,
ORE DEPOSITS, OIL AND GAS, OTHER NONMETALLIC
DEPOSITS, AND GEOCHEMICAL SOIL SAMPLING ARE
COVERED. LITTLE MINERAL PRODUCTION IS NOTED.
- J-19**
JOHNS, WILLIS M.
1970.
GEOLOGY AND MINERAL DEPOSITS OF LINCOLN AND
FLATHEAD COUNTIES, MONTANA.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY.
BULL. 79. 182 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (LINCOLN & FLATHEAD COUNTIES). THE EMPHASIS
OF THIS REPORT IS ON METALLIFEROUS MINERAL
OCCURRENCES AND THE RELATED GEOLOGY, IN AN
ATTEMPT TO DETERMINE THE POTENTIAL FOR
MINERAL DEVELOPMENTS IN THE AREA. THE TEXT
DETAILS THE FOLLOWING TOPICS: GEOGRAPHY,
STRATIGRAPHY, STRUCTURAL GEOLOGY, AND ORE
DEPOSITS BY AREA. DIAGRAMS AND MAPS ARE IN-
CLUDED.
- J-20**
JOHNS, WILLIS M., AND BLOTZ, M. K.
1970.
GEOLOGIC AND MINERAL INVENTORY OF THE
SOUTH FORK, MIDDLE FORK, AND NORTH FORK OF
THE FLATHEAD RIVER.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY.
16 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (NORTH, SOUTH, & MIDDLE FORKS OF THE
FLATHEAD RIVER). THIS INVENTORY COVERS: ROCK
UNITS AND STABILITY, FAULTS, AQUIFERS, WATER
RETENTION CAPABILITIES, MINERAL RESOURCES,
PROSPECTING AND LEASING ACTIVITY FOR THE
NORTH, SOUTH AND MIDDLE FORKS OF THE
FLATHEAD RIVERS.
- J-21**
JOHNS, WILLIS M., AND MCCLERNAN, HENRY G.
1969.
REPORT ON THE CHIEF CLIFF DISTRICT AND ADJA-
CENT AREAS, LAKE COUNTY, MONTANA.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY,
OPEN FILE REPT. 11A. 21 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION: ELMO). THE AREA
OF INVESTIGATION LIES WITHIN A SYNCLINE IN
RAVALLI GROUP (PRECAMBRIAN) ARGILLITE AND
QUARTZITE. DURING THE COURSE OF THE IN-
VESTIGATION VEINS AND COUNTRY ROCK WERE
SAMPLED, A GENERALIZED GEOLOGIC MAP WAS
COMPILED, AND ACCESSIBLE UNDERGROUND
WORKINGS WERE MAPPED. MAPS ARE INCLUDED.

J-22
JOHNS, WILLIS M.; LAWSON, D. C.; AND MCCLERNAN, HENRY G.
1970.

REPORT ON SOIL SAMPLING RESULTS IN THE CHIEF CLIFF DISTRICT AND ADJACENT AREAS, LAKE COUNTY MONTANA.

BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. OPEN FILE REPT. 11B. 62 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION, LAKE COUNTY, & ELMO). SOIL SAMPLES WERE ANALYZED BY THE USE OF AN ATOMIC ABSORPTION SPECTROPHOTOMETER. VALUES FOR COPPER, LEAD, ZINC, AND SILVER WERE ESTABLISHED. ANALYTIC DATA WERE TABULATED AND A COMPUTER PROGRAM WRITTEN TO DETERMINE MEAN VALUES, STANDARD DEVIATION THRESHOLD VALUES, AND ANOMALOUS VALUES FOR THE METALS. RECOMMENDATIONS FOR FURTHER INVESTIGATIONS ARE MADE.

J-23
JOHNS, WILLIS M.; MCCLERNAN, HENRY G.; AND LAWSON, D. C.
1971.

GEOLOGICAL RECONNAISSANCE AND SOIL SAMPLE INVESTIGATION OF THE RAVALLI-DIXON-PERMACAMAS PRAIRIE AREA.

BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. MBMG-10. 40 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SANDERS COUNTY: RAVALLI, DIXON, PERMA, & CAMAS PRAIRIE). THIS REPORT DESCRIBES THE RECONNAISSANCE OF GEOLOGICAL AND GEOCHEMICAL SAMPLING PROGRAMS CONDUCTED IN THE DIXON AREA. BELT (PRECAMBRIAN) SEDIMENTARY ROCKS AMOUNTING TO 45,000 FEET IN THICKNESS UNDERLIE THE AREA, AND ARE HOSTS FOR METAL BEARING ULTRA BASIC DIKES AND BASIC SILLS. THE MAIN PURPOSE OF THE STUDY WAS TO DETERMINE WHETHER GEOCHEMICAL SOIL SAMPLING COULD BE USED AS A PROSPECTING METHOD TO FIND DEPOSITS SIMILAR TO THOSE ON REVAIS CREEK. ANALYTIC RESULTS, A PRELIMINARY GEOLOGIC MAP AND SEVERAL FIGURES ARE ALSO PRESENTED.

J-24
JOHNS, WILLIS M.; SMITH, A. C.; BARNES, W. C.; GILMAR, E. H.; AND PAGE, W. D.
1963.

PROGRESS REPORT V.: GEOLOGIC INVESTIGATIONS IN THE KOOTENAI-FLATHEAD AREA, NORTHWEST MONTANA - WESTERN FLATHEAD COUNTY.

BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY, MONTANA SCHOOL MINES. 68 PP.

IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN FLATHEAD COUNTY & PART OF LINCOLN COUNTY). THIS REPORT IS FIFTH IN A SERIES OF PROGRESS REPORTS OF A MAPPING AND MINERAL IDENTIFICATION PROJECT DESIGNED TO ENCOURAGE MINERAL DEVELOPMENT IN THE AREA. ROCK TYPES, STRUCTURAL GEOLOGY, ORE DEPOSITS, NON-METALLIC DEPOSITS AND GEOCHEMICAL SOIL SAMPLING ARE COVERED.

J-25
JOHNSON, ANN MARY.
1972.

"MONTANA ARCHAEOLOGY: AN ANNOTATED CROSS-REFERENCE BIBLIOGRAPHY."

M.A. THESIS, UNIV. MONTANA, MISSOULA. 167 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS IS A LIST OF ALL AVAILABLE LITERARY SOURCES UP TO 1971

DEALING WITH MONTANA ARCHAEOLOGY, ARRANGED ALPHABETICALLY BY AUTHOR, BY TITLE, AND BY SUBJECT.

J-26
JOHNSON, ARTHUR.
1944-1968.

U.S. GEOLOGIC SURVEY AND U.S. NATIONAL PARK SERVICE GLACIER OPERATIONS, GLACIER NATIONAL PARK, MONTANA, 1944-1967.

WASHINGTON, D.C.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS SERIES OF REPORTS COVERS THE OBSERVATIONAL PROGRAM ON GRINNELL AND SPERRY GLACIERS. ANNUAL CHANGES IN THE SURFACE ELEVATION OF THE GLACIERS ARE DETERMINED BY THE MEASUREMENT OF PROFILES. CHANGES AT SPECIFIC POINTS DURING THE SUMMER MONTHS AND FROM YEAR TO YEAR ARE DETERMINED BY THE PLACEMENT OF, AND SUBSEQUENT MEASUREMENTS AT, ABALATION STAKES. DELINEATION OF THE GLACIER TERMINI IN SELECTED YEARS WAS DONE TO RECORD ADVANCE OR RECESSON.

J-27
JOHNSON, COBURN, ET. AL.
1977.

BIBLIOGRAPHY OF MONTANA LOCAL HISTORIES. MISSOULA, MT.: UNIV. MONTANA AND MONTANA LIBRARY ASSOC. 68 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: KALISPELL). IN AN ATTEMPT TO MAKE THIS BIBLIOGRAPHY AS USEFUL AS POSSIBLE, IT HAS FIVE INDEXES: COMMUNITY, COUNTY, LOCALE, AUTHOR, AND SUBJECT, ALL LISTING REFERENCES TO LOCAL HISTORIES.

J-28
JOHNSON, DOROTHY M.
1975.

"CAREFREE YOUTH AND DUDES IN GLACIER." MONTANA 25:48-50.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE RECALLS EXPERIENCES OF THE AUTHOR IN THE PARK WHERE SHE MET IRVIN S. COBB, MARY ROBERTS RINEHART, AND CHARLIE RUSSELL.

J-29
JOHNSON, F. D., AND GOODELL, S. A.
1980.

"ANNUAL REPORT - ECOLOGY OF WESTERN RED CEDAR GROVES IN THE NORTHERN ROCKY MOUNTAINS."

UNIV. IDAHO, COLL. FORESTRY, WILDLIFE & RANGE SCIENCE, MOSCOW. (TYPEWRITTEN). 1 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ANNUAL REPORT COVERS THE INITIAL PHASE OF AN EXTENSIVE INVESTIGATION OF WESTERN RED CEDAR GROVES THROUGHOUT THE NORTHERN ROCKY MOUNTAINS. OLD GROWTH GROVES ON AVALANCHE CREEK (TRAIL OF CEDARS) AND AROUND LAKE McDONALD IN GLACIER NATIONAL PARK WERE STUDIED; OBSERVATIONS ON HABITAT, SPECIES COMPOSITION, REPRODUCTION AND DISTURBANCE IN THE STANDS WERE RECORDED.

J-30
JOHNSON, HOWARD E.
1981.

"OBSERVATIONS ON THE LIFE HISTORY AND MOVEMENT OF CUTTHROAT TROUT (SALMO CLARKI) IN

FLATHEAD RIVER DRAINAGE, MONTANA." M.S. THESIS, MONTANA STATE COLL., BOZEMAN. 24 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MAIN STEM, NORTH, MIDDLE, & SOUTH FORKS OF THE FLATHEAD RIVER). OBSERVATIONS ON THE LIFE HISTORY AND MOVEMENT OF CUTTHROAT (SALMO CLARKI) IN THE UPPER FLATHEAD RIVER DRAINAGE WERE MADE DURING THE SUMMER OF 1959 AND THE SPRING AND SUMMER OF 1960. CERTAIN TRIBUTARIES WERE OBSERVED DURING SPRING AND EARLY SUMMER TO LOCATE SPAWNING CUTTHROAT TROUT AND TO DETERMINE THE SPAWNING PERIOD. THE FECUNDITY OF SPECIMENS WAS DETERMINED BY ACTUAL EGG COUNTS. THE RATE OF DEVELOPMENT AND INCUBATION PERIOD WERE DETERMINED FROM A STUDY OF FOUR REDDS WHERE ACTUAL EGG DEPOSITION WAS OBSERVED. OBSERVATIONS WERE ALSO MADE ON FRY AND FINGERLINGS. TAG RETURNS WERE RECEIVED AND MOVEMENTS WERE RECORDED. AGE AND GROWTH RATES WERE DETERMINED FOR 766 FISH.

J-31
JOHNSON, HOWARD E.
1983.

"OBSERVATIONS ON THE LIFE HISTORY AND MOVEMENT OF CUTTHROAT TROUT, SALMO CLARKI, IN THE FLATHEAD RIVER DRAINAGE."

PROC. MONTANA ACADEMY SCIENCES 23:96-110.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER DRAINAGE). THIS STUDY WAS CONDUCTED DURING THE SUMMERS OF 1959 AND 1960, MAINLY ON THE NORTH FORK OF THE FLATHEAD RIVER. ASPECTS COVERED IN THIS REPORT INCLUDE: SPAWNING, FECUNDITY, EARLY DEVELOPMENT, FRY AND FINGERLING STAGES, MOVEMENT, AGE, AND GROWTH.

J-32
JOHNSON, M. U., OMANG, R. J.; HULL, J. A.; AND PARRETT, CHARLES.
1956-1979.

ANNUAL PEAK DISCHARGES FROM SMALL DRAINAGE AREAS IN MONTANA, THROUGH SEPTEMBER.

HELENA, MT.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. OPEN FILE REPT. 77-172; 78-219; 79-522; AND OTHERS.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE ANNUAL REPORTS ARE THE RESULT OF A PROGRAM WHICH COLLECTS PEAK-FLOW DATA FROM SMALL DRAINAGE AREAS TO PROVIDE THE MEANS FOR ESTIMATING THE MAGNITUDE AND FREQUENCY OF FLOODS. THE BULK OF THESE REPORTS PRESENT STATION DATA WHICH NOTES: STATION LOCATION, DRAINAGE AREA, AVAILABLE RECORDS, DATA OF GAGE INSTALLATION, ALTITUDE, AND ANNUAL MAXIMUM DATA FOR ALL THE YEARS OF ITS OPERATION.

J-33
JOHNSON, MAXINE C.
1980.

THE EFFECTS OF THE ANACONDA ALUMINUM PLANT ON FLATHEAD COUNTY, MONTANA.

MISSOULA, MT.: MONTANA STATE UNIV., BUREAU BUSINESS & ECONOMIC RESEARCH. R. EG. STUDY NO. 12. 102 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: DEMOGRAPHIC AND STATISTICAL TABLES ARE INCLUDED.

(FLATHEAD COUNTY: COLUMBIA FALLS). THE STUDY ATTEMPTS TO DETERMINE THE MEASURABLE EF-

EFFECTS OF THE ANACONDA ALUMINUM COMPANY'S REDUCTION PLANT ON FLATHEAD COUNTY, AND IN PARTICULAR, COLUMBIA FALLS. CHANGES IN POPULATION, HOUSING, EMPLOYMENT, INCOME, BUSINESS AND INDUSTRY, GOVERNMENT FINANCE, SERVICES, AND SCHOOL DISTRICTS ARE OUTLINED. AN ECONOMIC HISTORY OF THE COUNTY AND THE ALUMINUM INDUSTRY IS INCLUDED.

J-34

JOHNSON, MAXINE C.

1970.

THE INDUSTRIES OF MONTANA. PART 2: AGRICULTURE, THE MINERAL INDUSTRIES. MISSOULA, MT.: UNIV. MONTANA, BUREAU BUSINESS & ECONOMIC RESEARCH. 140 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE STUDY CONSIDERS THE IMPACT OF INDUSTRY ON STATE ECONOMY AND ITS ROLE IN FUTURE DEVELOPMENT. ATTENTION IS GIVEN TO EMPLOYMENT AND EARNINGS. AGRICULTURE AND THE MINERAL INDUSTRIES ARE THE FOCUS OF THIS REPORT. THE CHAPTER ON AGRICULTURE PRESENTS A HISTORY OF THE INDUSTRY, A PICTURE OF IT TODAY, AND ITS OUTLOOK. THE MINERAL INDUSTRIES DISCUSSED ARE THOSE INVOLVED IN METAL MINING, THE EXTRACTION OF COAL, OIL, AND GAS. ANACONDA ALUMINUM COMPANY OPERATIONS ARE DESCRIBED; AND OVERALL OUTLOOK, I.E. FOR COAL, IS ASSESSED.

J-35

JOHNSON, MAXINE C.

1972.

"WOOD PRODUCTS IN MONTANA."

MONTANA BUSINESS QUARTERLY 10(SPRING 1972):41-82.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, SANDERS, LINCOLN, & MISSOULA COUNTIES). THIS REPORT SPELLS OUT THE NUMBER OF JOBS AND AMOUNT OF INCOME GENERATED BY THE WOOD PRODUCTS INDUSTRY STATEWIDE AND IN EIGHT WESTERN COUNTIES. THE REPORT ALSO MAKES PROJECTIONS CONCERNING LOSS OF INCOME AND EMPLOYMENT IF THE INDUSTRY SLOWS DOWN.

J-36

JOHNSON, OLGA W.

1969.

FLATHEAD AND KOOTENAY: THE RIVERS, THE TRIBES, AND THE REGION'S TRADERS.

GLENDAL, CA.: ARTHUR H. CLARK CO. 377+ PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN & ABORIGINAL LANDS OF THE SALISH & KOOTENAY INDIANS). THE STUDY IS THE RESULT OF INTERVIEWS WITH LONG-STANDING TRIBAL MEMBERS. IT DESCRIBES THE INDIANS' EARLY HISTORY, ORGANIZATION OF THEIR SOCIETY, TYPE OF SUBSISTENCE, AND RELATIONSHIP TO WHITE TRADERS, MISSIONARIES, MINERS, AND SETTLERS. A CHAPTER CONCERNING WOMEN IS INCLUDED.

J-37

JOHNSON, PHILIP C.

1950.

"FOREST INSECT CONDITIONS, GLACIER NATIONAL PARK, 1950."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT DESCRIBES AN EXTENSIVE FOREST INSECT SURVEY OF PORTIONS

OF GLACIER NATIONAL PARK, IN WHICH THE PRESENCE AND STATUS OF CURRENT INSECT INFESTATIONS WERE DETERMINED. IN ADDITION, SPECIFIC EXAMINATIONS WERE MADE OF INSECT CONDITIONS CALLED TO THE AUTHOR'S ATTENTION. BARK BEETLES AND DEFOLIATORS ARE DISCUSSED, AND INSECT CONTROL RECOMMENDATIONS ARE MADE. PHOTOGRAPHS ARE INCLUDED.

J-38

JOHNSON, PHILIP C.

1972.

BARK BEETLE RISK IN MATURE PONDEROSA PINE FORESTS IN WESTERN MONTANA.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, INTERMTN. FOREST & RANGE EXPER. STAT. RESEARCH PAPER INT-119. 32 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THE PONDEROSA PINE RATING SYSTEM DEVELOPED IN CALIFORNIA WAS STUDIED IN WESTERN MONTANA TO DETERMINE WHETHER IT COULD EFFECTIVELY IDENTIFY INDIVIDUAL MATURE TREES MOST FREQUENTLY KILLED BY THE WESTERN PINE BEETLE (DENDROCTONUS BREVICOMIS) OR THE MOUNTAIN PINE BEETLE (DENDROCTONUS PONDEROSAE). THIS STUDY ATTEMPTED TO DETERMINE WHETHER THE WESTERN PINE BEETLE HAD AN AFFINITY FOR ATTACKING PONDEROSA PINE TREES CLASSIFIED AS HIGH RISK AND WHETHER SUCH ATTACKS MIGHT BE DIVERTED BY ATTRACTANTS CREATED IN LOW RISK TREES AS A RESULT OF PRIOR INFESTATIONS BY THE MOUNTAIN PINE BEETLE OR THE PINE ENGRAVER (IPS PINI) AND WHETHER THE WESTERN PINE BEETLE CONSTITUTED A SERIOUS THREAT TO MATURE PONDEROSA PINE STANDS IN THE NORTHERN ROCKIES.

J-39

JOHNSON, RICHARD E.

1965.

"REPRODUCTIVE ACTIVITIES OF ROSY FINCHES WITH SPECIAL REFERENCE TO MONTANA."

THE AUK 82(APRIL 1965):190-205.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). THE ARTICLE REPORTS ON A BREEDING ACTIVITIES STUDY OF LEUCOSTICTE TEPHROCOTIS. NEST SITES AT ELEVATIONS FROM 6,400 TO 7,600 FEET WERE LOCATED; TERRITORIAL DEFENSES, FEEDING OF THE YOUNG, AND FLOCKING WERE OBSERVED. NOTES OF PREDATORS AND THE SEX RATIO WERE MADE.

J-40

JOHNSON, RICHARD E.

1968.

"TEMPERATURE REGULATION IN THE WHITE-TAILED PTARMIGAN, LAGOPUS LEUCURUS."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 32 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS AREA). TEMPERATURE REGULATION OF BREEDING ADULT WHITE-TAILED PTARMIGAN (LAGOPUS LEUCURUS) WAS EXAMINED. THE STUDY ATTEMPTED TO DETERMINE THE ROLE OF PHYSIOLOGICAL ADAPTATION TO THE ALPINE ENVIRONMENT. TO DO THIS, METABOLIC RATE AND HEAT LOSS BY EVAPORATION OF WATER WERE MEASURED OVER A WIDE RANGE OF TEMPERATURES IN THE LABORATORY ON BIRDS TAKEN FROM THE STUDY AREA. THESE DATA ARE COMPARED WITH DATA FROM OTHER BIRD SPECIES AND WITH TEMPERATURE DATA FROM THE STUDY AREA.

J-41

JOHNSON, ROBERT B.

1964.

OPPORTUNITIES FOR ECONOMIC DEVELOPMENT IN FLATHEAD COUNTY, MONTANA.

U.S. DEPT. COMMERCE, AREA REDEVELOPMENT ADMINISTRATION, AREA SURVEYS DIV., OFFICE PROGRAM DEVELOPMENT. 11 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE REPORT WAS PREPARED TO ASSIST THE AREA REDEVELOPMENT BOARD TO UNCOVER ACTIONS WHICH SHOULD IMPROVE THE EMPLOYMENT SITUATION IN THE COUNTY. THE GENERAL CATEGORIES COVERED ARE: INDUSTRIAL EXPANSION-WOOD PRODUCTS AND RECREATION ORIENTED, EDUCATION TRAINING AND RE-TRAINING, AGRICULTURE, AND TOURISM AND RECREATION.

J-42

JOHNSON, RONALD DWIGHT.

1954.

"PRE-JURASSIC SEDIMENTATION, TECTONICS AND STRATIGRAPHY IN SOUTHERN ALBERTA AND ADJOINING AREAS OF BRITISH COLUMBIA AND MONTANA."

M.S. THESIS, UNIV. BRITISH COLUMBIA, VANCOUVER, B.C. 151 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(SOUTHERN ALBERTA: BRITISH COLUMBIA & NORTHERN MONTANA). THIS STUDY EXAMINES THE PRESENT STATUS OF PUBLISHED GEOLOGIC THOUGHT IN THE AREA OF PRE-JURASSIC TECTONIC EVENTS. TECTONISM AND ITS CONTROL UPON SEDIMENTATION FROM BELTIAN TO PRE-JURASSIC TIME IS SHOWN AS BELTIAN SEDIMENTATION AND THE SUCCEEDING SEDIMENTARY CYCLES ARE DISCUSSED. TYPE LOCALITIES ARE DEFINED FOR THE BELTIAN AND PALEOZOIC STRATA OF EACH SEQUENCE AS THEY OCCUR IN THE AREA. PROBLEMS OF AGE DETERMINATION FOR THE STRATIGRAPHIC UNITS ARE DISCUSSED AND THE CORRELATION OF THESE UNITS WITHIN AND BEYOND THE AREA ARE PRESENTED. THESE CORRELATIONS SHOW THE RELATIONSHIP OF THE STRATIGRAPHIC NOMENCLATURE OF MONTANA AND ALBERTA.

J-43

JOHNSON, SHERMAN E.

1930.

AN ECONOMIC ANALYSIS OF PRODUCTION PROBLEMS ON THE FLATHEAD IRRIGATION PROJECT.

BOZEMAN, MT.: MONTANA AGRIC. EXPER STAT. BULL. NO. 237.

(FLATHEAD RIVER BASIN). THIS STUDY OF THE ECONOMIC STATE OF THE FLATHEAD IRRIGATION PROJECT CONCLUDES THAT MAJOR CHANGES WOULD BE REQUIRED TO MAKE THE PROJECT A SUCCESS. SKCC.

J-44

JOHNSON, THOMAS H.

1975.

"THE ENOS FAMILY AND WIND RIVER SHOSHONE SOCIETY: AN HISTORICAL ANALYSIS."

PH.D. DISSERTATION, UNIV. ILLINOIS, URBANA-CHAMPAIGN. UNIV. MICROFILMS 76-6812.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). JOHN ENOS, WHO FOUNDED THE ENOS FAMILY, WAS FLATHEAD-IROQUOIS. THIS PAPER INCLUDES MUCH INFORMATION ABOUT THE FLATHEAD IN THE EARLY PART OF THE DISSERTATION, BUT MOST OF THE RECENT INFORMATION IS LIMITED TO THE SHOSHONE PART OF THE FAMILY. SKCC.

J-45
JOINT BONNEVILLE POWER ADMINISTRATION/U.S. FOREST SERVICE WORK GROUP NO. 1.

1977.
LONG RANGE ENERGY CORRIDOR REQUIREMENTS FOR THE PACIFIC NORTHWEST: REPORT TO THE JOINT BONNEVILLE POWER ADMINISTRATION-FOREST SERVICE 1977 MEETING (APRIL 27-28). PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION. 23 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: PORTIONS OF THE FLATHEAD RIVER BASIN). THIS STAFF PAPER IDENTIFIES LONG-TERM ENERGY NEEDS AND LAND AREAS CRITICAL TO THE TRANSMISSION OF ELECTRICITY TO MEET THOSE NEEDS. ALTERNATIVE ENERGY TRANSPORTATION SYSTEMS, THE SYSTEM'S RELIABILITY, AND CORRIDOR REQUIREMENTS AND LOCATIONS ARE DISCUSSED. THE NEED FOR COOPERATIVE LONG-RANGE PLANNING AND PUBLIC CONSIDERATION IS EXAMINED.

J-46
JONES, BENJAMIN E., AND JONES, EDWARD E.
1924.
"POWER POSSIBILITIES OF THE SOUTH FORK, FLATHEAD RIVER."
ENGINEERING NEWS-RECORD 93(17 JULY 1924):96-98.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER). THE ARTICLE DESCRIBES A DAM SITE ON THE OUTLET OF FLATHEAD LAKE AND THE RESULTING INCREASE OF THE LAKE'S HEIGHT, AS WELL AS A SITE FOR A DAM AND RESERVOIR ON THE SOUTH FORK. THE FLOW OF THE SOUTH FORK, ITS GEOLOGIC SETTING, THE POSSIBLE STORAGE, DAM DIMENSIONS, AND THE PROJECT'S ECONOMIC FEASIBILITY AND JUSTIFICATION ARE DISCUSSED.

J-47
JONES, J. A.
1956.
KALISPELL LAW.
BLOOMINGTON, IN.: INDIANA UNIV.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(FLATHEAD INDIAN RESERVATION). THIS STUDY EXAMINES HOW THE LOWER KALISPELL TRIBE DEVELOPED A SYSTEM OF CONTROLLING INDIVIDUAL BEHAVIOR AFTER THEIR LIFESTYLE CHANGED IN RESPONSE TO THE CONSTANT THREAT OF BLACKFEET TRIBAL RAIDS.

J-48
JONES, J. E.
1964.
"TESTOSTERONE-INDUCED NUPTIAL FEATHERS IN PHALAROPES."
THE CONDOR 66:449-455.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: NINEPIPE & PABLO NATL. WILDLIFE REFUGES). THE PURPOSE OF THIS STUDY WAS TO DETERMINE WHAT HORMONES, IF ANY, ARE INVOLVED IN THE CONTROL OF PLUMAGE DIMORPHISM IN NORTHERN AND WILSON PHALAROPES. BIRDS OF BOTH SEXES WERE CAPTURED AND GIVEN INJECTIONS OF VARIOUS HORMONE COMBINATIONS.

J-49
JONES, MARCUS E.
1910.
MONTANA BOTANY NOTES. BIOLOGICAL SERIES, NO. 18.
MISSOULA, MT.: UNIV. MONTANA. BULL. NO. 61. 75 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD & LAKE COUNTIES, GLACIER NATL. PARK, & FLATHEAD LAKE: YELLOW BAY BIOL. STAT.). THE OBJECT OF THIS PAPER WAS TO PUBLISH THE MAIN RESULTS OF THE AUTHOR'S WORK DONE IN CONNECTION WITH THE YELLOW BAY BIOLOGICAL STATION. DETAILED STUDIES OF THE TREES WERE MADE, THE FUNGI ON LIVING LEAVES WERE CAREFULLY STUDIED AND COLLECTED, A COLLECTION OF MOSSES WAS MADE, AND ABOUT 135 SPECIES WERE ADDED TO THE KNOWN FLORA. THE WORK WAS CONDUCTED AROUND FLATHEAD LAKE, FLATHEAD VALLEY, SWAN RIVER, AND GLACIER NATIONAL PARK.

J-50
JONES, THOMAS W.
1909.
THE LAST OF THE BUFFALO, COMPRISING A HISTORY OF THE BUFFALO HERD OF THE FLATHEAD RESERVATION AND AN ACCOUNT OF THE GREAT ROUNDUP. CINCINNATI, OH.: SCENIC SOUVENIRS. 30 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). A BRIEF ACCOUNT OF THE BUILDING OF THE BISON (BISON BISON) HERD BY ALLARD AND PABLO IS PRESENTED, WITH A DESCRIPTION OF THE ROUNDUPS IN 1906, 1907, AND 1908 FOR SHIPMENT TO CANADA. 23 HISTORIC PHOTOGRAPHS OF THE ROUNDUP AND THE PEOPLE WHO PARTICIPATED ARE INCLUDED.

J-51
JONKEL, CHARLES.
1959.
"AN ECOLOGICAL AND PHYSIOLOGICAL STUDY OF PINE MARTEN."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 81 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: ANACONDA & COAL CREEKS). THIS STUDY IS THE THIRD PHASE OF A LONG-TERM STUDY OF THE PINE MARTEN (MARES AMERICANA). ITS OBJECTIVES WERE: 1) TO DETERMINE THE MINIMUM BREEDING AGE OF FEMALE MARTEN IN THE WILD AND CHECK SPERM DEVELOPMENT OF YEARLING MALES, 2) TO DETERMINE THE TIME OF IMPLANTATION OF THE EMBRYOS IN THE FEMALE MARTEN UTERUS AND THE PERIOD OF TIME BETWEEN IMPLANTATION AND PARTURITION, 3) TO FURTHER INVESTIGATE THE RELATIONSHIP BETWEEN SMALL MAMMAL AND MARTEN POPULATION DENSITIES, AND 4) TO CONTINUE GATHERING AND EVALUATING GENERAL LIFE HISTORY INFORMATION ON THE MAMMAL. ASPECTS OF THE ANIMAL'S LIFE HISTORY INVESTIGATED WERE MOVEMENT AND DISPERSAL, AGE AND SEX/COMPOSITION, WEIGHTS AND CONDITION, AND EXTRA-UTERINE PREGNANCY.

J-52
JONKEL, CHARLES.
1964.
"ESTIMATING WHOLE WEIGHTS OF BLACK BEARS FROM HOG-DRESSED WEIGHTS."
J. WILDLIFE MANAGEMENT 28(JULY 1964):581.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH RANGE). WHOLE WEIGHTS AND HOG-DRESSED WEIGHTS WERE RECORDED FOR EIGHT BLACK BEARS. WEIGHT LOSS AS PERCENT OF WHOLE WEIGHT IS REPORTED.

J-53
JONKEL, CHARLES.
1967.
"THE ECOLOGY, POPULATION DYNAMICS, AND MANAGEMENT OF THE BLACK BEAR IN THE SPRUCE-FIR FOREST OF NORTHWESTERN MONTANA."
PH.D. DISSERTATION, UNIV. BRITISH COLUMBIA, VANCOUVER, B.C. 170 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: BIG CREEK AREA). THIS THESIS INVOLVED: 1) THE STUDY OF THE ECOLOGY AND POPULATION DYNAMICS OF BLACK BEARS (URSUS AMERICANUS) IN THE SPRUCE AND FIR FOREST; 2) THE TESTING OF THE HYPOTHESIS THAT EXTRINSIC FACTORS CAUSED FLUCTUATIONS IN POPULATION NUMBERS; AND 3) THE DEVELOPMENT OF BEAR MANAGEMENT PRINCIPLES. THE VARIED ECOLOGICAL CONDITIONS CREATED BY ROUGH TOPOGRAPHY AND MODERATE TO HEAVY PRECIPITATION, THE SERAL AND CLIMAX STANDS OF THE PICEA-ABIESACHISTIMA MYRSINITES ASSOCIATION, AND OTHER VEGETATIVE TYPES ARE DESCRIBED. HOME RANGE SIZES, OVERLAPPING RANGES, SOCIAL INTERACTION AND TERRITORIALITY, THE POSSIBLE EFFECTS OF NUTRITION IN DELAYING PHYSICAL AND SEXUAL MATURITY, LONGER CARE OF THE YOUNG, SMALLER LITTER SIZE, CUB SURVIVAL, AND SUB-ADULTS WHO HAVE LEFT THEIR MOTHERS ARE TOPICS ADDRESSED.

J-54
JONKEL, CHARLES.
1975.
GRIZZLY BEAR BIBLIOGRAPHIES: FOOD HABITS AND HABITAT REQUIREMENTS AND COMPONENTS. MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV. MONTANA. SPEC. REPT. NO. 2. 7 PP.
FINAL, PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(FLATHEAD COUNTY). THESE BIBLIOGRAPHIES LIST WRITTEN MATERIAL PERTINENT TO FOOD HABITS AND HABITAT COMPONENTS OF URSUS ARCTOS.

J-55
JONKEL, CHARLES.
1975.
"OF BEARS AND PEOPLE: OPINION."
WESTERN WILDLANDS, 1975, PP. 30-37.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(ALASKA, WESTERN CANADA, WESTERN MONTANA, & NORTHWESTERN WYOMING). THIS PAPER PRESENTS A DISCUSSION ON THE MANAGEMENT AND PROTECTION OF BEARS, PRIMARILY GRIZZLY BEARS, IN THEIR REMAINING RANGE. INFLUENCES ON BEAR POPULATION STABILITY AND HEALTH ARE PRESENTED AND DISCUSSED IN LIGHT OF RESOURCE MANAGEMENT DECISIONS AND PUBLIC ATTITUDES.

J-56
JONKEL, CHARLES.
1976.
BORDER GRIZZLY PROJECT ANNUAL REPORT NO. 1. MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY. 111 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: MIDDLE FORK OF THE FLATHEAD RIVER). PROJECT OBJECTIVES ARE: TO DETERMINE THE STATUS AND TREND OF URSUS ARCTOS HORRIBILIS POPULATIONS IN NORTHWESTERN MONTANA, TO MAKE QUALITATIVE AND QUANTITATIVE EVALUATION OF HABITAT COMPONENTS WHICH RELATE TO THE CARRYING CAPACITY OF GRIZZLY RANGES, TO EXTRAPOLATE BIOLOGIC INFORMATION FROM OTHER AREAS TO THIS PROJECT, TO CONDUCT COMPARATIVE BEHAVIORAL AND PHYSIOLOGICAL STUDIES OF PENNED AND WILD BEARS, AND TO USE RESEARCH FUNDINGS IN PREPARING DRAFTS OF DETAILED MANAGEMENT TECHNIQUES AND PROCEDURES. SIXTEEN SUBPROJECTS ARE DESCRIBED.

J-57
JONKEL, CHARLES.
1977.

BORDER GRIZZLY PROJECT ANNUAL REPORT NO. 2.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL
FORESTRY. 133 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL
DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA). RESULTS FROM THE
FOLLOWING SUBPROJECTS ARE COVERED: DENN-
ING STUDIES, WILDFIRE STUDIES, GRIZZLY DISTRIBUTION,
HABITAT DISTURBANCE STUDIES, PUBLIC OPINIONS
AND USES IN THE NATIONAL FOREST, FOOD
HABITS, AND SUBDIVISION STUDIES. LISTS OF PROJECT
REPORTS IN PREPARATION AND PUBLISHED
AND UNPUBLISHED REPORTS OF THE PROJECT ARE
INCLUDED.

J-58
JONKEL, CHARLES.
1977.

"LIVING WITH GRIZZLIES."
PROC. SECOND SYMPOSIUM ON ENDANGERED
NORTH AMERICAN SPECIES & HABITAT. 7 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). A GENERAL DISCUSSION
OF THE PRESENT STATUS OF URS ARCTOS IN THE
CENTRAL ROCKY MOUNTAINS, THE PROBLEMS
ASSOCIATED WITH BEAR HUMAN INTERACTIONS,
FORTHCOMING CHANGES WHICH WILL AFFECT THE
GRIZZLIES' STATUS, AND SUGGESTIONS FOR
BENEFICIAL CO-EXISTENCE BETWEEN BEARS AND
HUMANS.

J-59
JONKEL, CHARLES.
1978.

BORDER GRIZZLY PROJECT ANNUAL REPORT NO. 3.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL
FORESTRY. 255 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL
DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA). SUBPROJECTS
REPORTED ON ARE: GRIZZLIES IN THE RATTLESNAKE
MOUNTAINS, GRIZZLY HABITAT UTILIZATION IN THE
NORTH FORK, WILD FIRE AND GRIZZLIES, BEAR
FOODS—A LITERATURE REVIEW; FOOD HABITS, VAC-
CINIUM STUDIES CARRION UTILIZATION, EAST
FRONT STUDIES, GRIZZLY AND BLACK BEAR DENS,
YAAK RELOCATION STUDIES, MISSION MOUNTAIN
STUDIES, HABITAT SELECTION IN THE SOUTH FORK,
MIDDLE FORK STUDIES, AND SUBDIVISION STUDIES.
LISTS OF UNDEVELOPED SUBPROJECTS, PROJECT
REPORTS IN PREPARATION, AND PUBLISHED AND
UNPUBLISHED REPORTS OF THE PROJECT ARE IN-
CLUDED.

J-60
JONKEL, CHARLES, AND GREER, KENNETH R.
1983.

"FALL FOOD HABITS OF SPRUCE GROUSE IN NORTHWEST MONTANA."
J. WILDLIFE MANAGEMENT 27(OCTOBER
1983):593-596.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(WHITEFISH RANGE). 56 CROPS OF SPRUCE GROUSE
(CANACHITES CANADENSIS) WERE COLLECTED FOR
MICROSCOPIC ANALYSES TO DETERMINE THE
GROUSE'S FALL FOOD HABITS. PLANT AND ANIMAL
SPECIES CONSUMED BY THE BIRDS ARE LISTED;
FIGURES NOTING PERCENT OF TOTAL VOLUME AND
FREQUENCY INDEX ARE INCLUDED. SIZES OF A FEW
CROPS ARE MENTIONED.

J-61
JONKEL, CHARLES, AND MCMURRAY, NANCY.
1978.

THE PACIFIC NORTHWEST TRAIL AND GRIZZLY BEARS.
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV.
MONTANA. SPEC. REPT. NO. 15. 6 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, REGIONAL.

(GLACIER NATL. PARK & THE WHITEFISH RANGE).
THIS REPORT OUTLINES POSSIBLE IMPACTS TO
GRIZZLY BEAR POPULATIONS THROUGH THE
DEVELOPMENT OF THE PACIFIC NORTHWEST TRAIL
AND MAKES RECOMMENDATIONS FOR FUTURE USE
OF THE TRAIL BY RECREATIONISTS TO HELP AVOID
BEAR-HUMAN CONFLICTS.

J-62
JONKEL, CHARLES, AND MCMURRAY, NANCY.
1978.

**THE PACIFIC NORTHWEST TRAIL VS. GRIZZLY BEARS:
ALTERNATE ROUTES, PROBLEM AREAS, ETC.**
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV.
MONTANA. SPEC. PROJECT NO. 22. 5 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST TRAIL: WHITEFISH RANGE &
GLACIER NATL. PARK). THIS REPORT EXPANDS ON
THE PROBLEMS DISCUSSED IN SPECIAL REPORT NO.
15 CONCERNING THE PACIFIC NORTHWEST TRAIL
AND INCLUDES COMMENTS ON SPECIFIC AREAS
ALONG OR NEAR TO PROPOSED TRAIL ALTER-
NATIVES.

J-63
JONKEL, CHARLES, AND WECKWERTH, R. P.
1963.

**"SEXUAL MATURITY AND IMPLANTATION OF
BLASTOCYSTS IN THE WILD PINE MARTEN."**
J. WILDLIFE MANAGEMENT 27(JANUARY 1963):6-12.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(WHITEFISH RANGE & GLACIER NATL. PARK). THIS
STUDY SEEKS FURTHER KNOWLEDGE OF THE
MINIMUM BREEDING AGE, TIME OF IMPLANTATION,
AND ELAPSED TIME BETWEEN IMPLANTATION AND
PARTURITION IN MARTES AMERICANA. A REVIEW OF
THE LITERATURE, DESCRIPTION OF METHODS, AND A
DISCUSSION OF THE RESULTS ARE INCLUDED.

J-64
JONKEL, CHARLES; MEALY, STEVE; AND JOSLIN,
GAYLE.
1978.

DELINEATION OF GRIZZLY HABITAT IN THE BORDER GRIZZLY AREA.
MISSOULA, MT.: UNIV. MONTANA, BORDER GRIZZLY
PROJECT. SPEC. REPT. NO. 3. 22 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(FLATHEAD & LAKE COUNTIES). THIS REPORT WAS
INTENDED TO ASSIST IN THE DELINEATION OF GRIZZLY
BEAR RANGE, CRITICAL GRIZZLY BEAR HABITAT,
AND JURISDICTIONAL ANOMALIES IN THE BORDER
GRIZZLY AREA. IT ALSO PROVIDES INFORMATION
THAT CAN BE USEFUL TO MANAGERS IN IDENTIFYING
OR DRAFTING THE NECESSARY SOLUTIONS
UNDER THE ENDANGERED SPECIES ACT OF 1973.
EACH OF THE FOLLOWING TOPICS ARE ADDRESSED
IN THIS REPORT: 1) FEDERAL GUIDELINES FOR
CRITICAL HABITAT, 2) KNOWN COMPONENTS OF
GRIZZLY HABITAT IN THE BORDER GRIZZLY AREA, 3)
CLASSIFICATION OF GRIZZLY HABITAT
(METHODOLOGY), 4) INTERIM DELINEATION OF
GRIZZLY HABITAT, AND 5) MANAGEMENT IMPLICA-
TIONS.

J-65
JONKEL, CHARLES; SERVHEEN, CHRIS; AND LEE,
LYNDON.
1978.

GRIZZLY BEARS AND THE RARE II PROCESS, BORDER GRIZZLY AREA.
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV.
MONTANA. SPEC. REPT. NO. 20. 5 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, REGIONAL.

(NORTHWESTERN U.S.: FLATHEAD NATL. FOREST).
THIS REPORT CONTENDS THAT WILDERNESS OR
ROADLESS CONDITIONS ON A LARGE SCALE ARE OF
CONSIDERABLE IMPORTANCE TO GRIZZLY BEAR
SURVIVAL BECAUSE THEY PROVIDE LARGE BLOCKS
OF RELATIVELY UNDISTURBED HABITAT WHERE
BEAR/PEOPLE CONFLICTS ARE FEW. THEREFORE,
THE RARE II STUDY AREAS WHICH OCCUR IN OR
NEAR OCCUPIED GRIZZLY RANGE SHOULD CONSE-
QUENTLY BE EVALUATED IN THE CONTEXT OF THE
THREATENED STATUS OF THE GRIZZLY UNDER THE
U.S. ENDANGERED SPECIES ACT.

J-66
JONKEL, CHARLES, ET. AL.
1976.

DELINEATION OF GRIZZLY HABITAT IN BORDER GRIZZLY AREA.
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV.
MONTANA. SPEC. REPT. NO. 3. 22 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, REGIONAL.

(NORTHWEST U.S.: FLATHEAD RIVER BASIN). THE
FOLLOWING TOPICS ARE ADDRESSED IN THIS
REPORT: 1) FEDERAL GUIDELINES FOR CRITICAL
HABITAT, 2) KNOWN COMPONENTS OF GRIZZLY
BEAR HABITAT IN THE BORDER GRIZZLY AREA, 3)
CLASSIFICATION OF GRIZZLY HABITAT
(METHODOLOGY), 4) INTERIM DELINEATION OF
GRIZZLY HABITAT, AND 5) MANAGEMENT IMPLICA-
TIONS. MAPS ARE INCLUDED.

J-67
JONKEL, CHARLES, ET. AL.
1976.

GRIZZLY BEAR "CRITICAL HABITAT."
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV.
MONTANA. SPEC. REPT. NO. 4. 8 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, REGIONAL.

(NORTHWEST U.S.: FLATHEAD RIVER BASIN). THIS
REPORT DESCRIBES THE TYPES OF GRIZZLY
HABITAT THE BORDER GRIZZLY PROJECT BELIEVES
ARE VALID TO MAP, CONSIDERING THE DATA CUR-
RENTLY AVAILABLE. THE POSITION OF THE PROJECT
ON VARIOUS ASPECTS OF CRITICAL HABITAT
DELINEATION IS LISTED.

J-68
JONKEL, CHARLES, ET. AL.
1977.

BARK BEETLES, TIMBER, SALVAGE, AND THE GRIZZLY BEAR ON GLACIER VIEW RANGER DISTRICT, USFS, COLUMBIA FALLS, MONTANA.
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV.
MONTANA. SPEC. REPT. NO. 12. 21 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THIS
REPORT ATTEMPTS TO OUTLINE ALTERNATIVES
WHICH ALLOW TIMBER SALVAGE (OF LODGEPOLE
PINE KILLED BY MOUNTAIN PINE BEETLES), BUT
SIMULTANEOUSLY PRESERVE ESSENTIAL GRIZZLY
HABITAT.

J-69

JONKEL, CHARLES, ET. AL.
1977.

COMMENTS ON THE GREAT BEAR WILDERNESS PROPOSAL, FLATHEAD NATIONAL FOREST.
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV. MONTANA. SPEC. REPT. NO. 8. 21 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS PAPER OUTLINES THE BORDER GRIZZLY PROJECT'S COMMENTS ON MAJOR ASPECTS OF THE GREAT BEAR WILDERNESS PROPOSAL.

J-70

JONKEL, CHARLES, ET. AL.
1977.

INTERIM REPORT ON BORDER GRIZZLY PROJECT STUDIES AND PLANS.
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV. MONTANA. SPEC. REPT. NO. 10. 22 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHWEST U.S.: FLATHEAD RIVER BASIN). THIS REPORT IS AN UPDATE COVERING THE CURRENT STATUS OF ONGOING RESEARCH BY THE BORDER GRIZZLY PROJECT. SOME OF THE STUDIES INCLUDE: HUCKLEBERRY STUDIES, SUBDIVISIONS, MIDDLE FORK STUDIES, CAPTURE, RECAPTURE, ECOLOGY, AND POPULATION STUDIES.

J-71

JONKEL, CHARLES, ET. AL.
1979.

"THE REINTRODUCTION OF ORPHANED GRIZZLY BEAR CUBS INTO THE WILD." IN BEARS: THEIR BIOLOGY AND THEIR MANAGEMENT. EDITED BY C. J. MARTINKA AND K. L. MCARTHUR.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH RANGE: SHORTY CREEK). THIS ARTICLE REPORTS ON A SUCCESSFUL ATTEMPT AT FATTENING AND RELEASING AN ORPHANED CUB INTO AN ARTIFICIAL DEN. THE CUB WAS FITTED WITH A RADIO COLLAR AND HER MOVEMENTS ARE RECORDED.

J-72

JONKEL, CHARLES, ET. AL.
1979.

SULLIVAN CREEK GRIZZLIES.
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV. MONTANA. SPEC. REPT. NO. 23. 9 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SPOTTED BEAR RANGER DISTRICT). PROPOSED LARGE SCALE LOGGING, IN THE SULLIVAN CREEK DRAINAGE MAY EMBODY A SERIOUS IMPACT ON RESIDENT GRIZZLIES. THE REPORT DISCUSSES BIOLOGICAL DATA, TIMBER, LOGGING, AND HABITAT; AND MAKES MANAGEMENT RECOMMENDATIONS.

J-73

JONKEL, CHARLES, ET. AL.

THE EXTENT AND STATUS OF BORDER GRIZZLY RANGE AND HABITAT.
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV. MONTANA. NO PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHWEST U.S.: FLATHEAD RIVER BASIN). A DELAY IN THE DESIGNATION OF "CRITICAL HABITAT" FOR THE GRIZZLY BEAR ALLOWED FOR A MORE COMPLETE STUDY OF HABITAT EXTENT AND QUALITY, THE EFFECTS OF DISTURBANCES, SEASONALLY IMPORTANT AREAS, AND HABITAT AND RANGE

TRENDS. WITHIN PRESENTLY OCCUPIED AND POTENTIAL GRIZZLY RANGE, "CRITICAL SITES" WERE IDENTIFIED WHICH REQUIRE THE HIGHEST LEVEL OF MANAGEMENT. LAND ACQUISITION AND AREA ZONING METHODS TO IDENTIFY AND MANAGE SUCH SITES ARE PRESENTED.

J-74

JONKEL, GEORGE MATTHEW.
1954.

"A COMPARATIVE STUDY OF SURVIVAL OF FALL AND SPRING RELEASED CHUKAR PARTRIDGES (ALECTORIS GRAECA CHUKAR)." M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 70 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: APPENDIX CONTAINS PLANT SPECIES FOUND ON RELEASE AREAS.

(WESTERN MONTANA: NATL. BISON RANGE, DAVIS CREEK & PERMA). A FIELD STUDY CONDUCTED TO DETERMINE AND COMPARE FACTORS AFFECTING THE SUCCESS OR FAILURE OF SPRING AND FALL-RELEASED CHUKAR PARTRIDGES (ALECTORIS GRAECA CHUKAR) ON THREE DIFFERENT RELEASE AREAS IS REPORTED. INCLUDED IN THE DISCUSSION OF THE LIFE HISTORY OF THE BIRD ARE: FOOD HABITS, WATER REQUIREMENTS, MOBILITY AND FLIGHT CHARACTERISTICS, CALLS, DUSTING HABIT, ROOSTING, PAIRING, FIGHTING BEHAVIOR, TERRITORIALITY, AND NESTING. MANAGEMENT SUGGESTIONS ARE MADE.

J-75

JOSEPHY, ALVIN M., JR.
1960.

"A MAN TO MATCH THE MOUNTAINS."
AMERICAN HERITAGE 11(OCTOBER 1960):80-83, 81-85.

(FLATHEAD RIVER BASIN). THIS SKETCH OF THE EXPLORING CAREER OF DAVID THOMPSON DISCUSSES HIS ACTIVITIES IN THE FLATHEAD AREA. SKCC.

J-76

JOSLIN, GAYLE.
1976.

PRELIMINARY SURVEY OF PROPOSED LOGAN CREEK-DIRTY FACE CREEK-BONNEVILLE POWER COMPANY POWERLINE CORRIDOR.
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV. MONTANA. FIELD REPT. NO. 10. 9 PP.
PART OF A SERIES, PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: MIDDLE FORK OF THE FLATHEAD RIVER). THIS FIELD REPORT DESCRIBES: POWERLINE CORRIDOR LOCATION OPTIONS, A LIST OF SPECIES ALONG THE PROPOSED ROUTES, TOPOGRAPHY AND HABITAT COMPONENTS, WILDLIFE USE, AND POWERLINE CORRIDOR SPECIFICS. THE FIELD REPORT RECOMMENDS THE DENIAL OF THE SPECIAL USE PERMIT BY THE FOREST SERVICE TO BONNEVILLE POWER.

J-77

JOSLIN, GAYLE.
1977.

THE GREAT BEAR WILDERNESS AND ITS IMPLICATIONS FOR GRIZZLY BEARS.
MISSOULA, MT.: BORDER GRIZZLY PROJECT, UNIV. MONTANA. SPEC. REPT. NO. 5. 6 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GREAT BEAR WILDERNESS AREA). THIS REPORT INCLUDES THE STUDY OF ALL WILDLIFE ENDEMIC TO THE AREA, AND PARTICULARLY THREATENED AND ENDANGERED SPECIES; IT LISTS REPORTS OF GRIZZLY BEAR IN THE WILDERNESS AREA AND DESCRIBES PROBABLE IMPACTS OF THE PROPOSED LOGAN CREEK - DIRTY FACE POWERLINE CORRIDOR.

J-78

JUDSON, KATHERINE B.
1913.

SUBJECT INDEX TO THE HISTORY OF THE PACIFIC NORTHWEST AND OF ALASKA.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE BIBLIOGRAPHY REPRESENTS A LISTING OF U.S. GOVERNMENT DOCUMENTS, CONGRESSIONAL SERIES, AMERICAN STATE PAPERS, AND OTHER DOCUMENTS PERTAINING TO THE HISTORY OF THE REGION. AN ANALYSIS AND INDICATION OF SUBJECT MATTER OF MUCH OF THE MATERIAL HAS BEEN INCLUDED. THE INDEX IS ARRANGED ALPHABETICALLY BY SUBJECT (AGRICULTURE, BANKS, BOUNDARY DISPUTE, EDUCATION, FISHERIES, FUR TRADE, INDIANS, ETC.), NOTING GEOGRAPHICAL AREA (OREGON COUNTRY, MONTANA, ETC.). UNDER EACH SUBJECT THE ENTRIES ARE ARRANGED BY YEAR AND AUTHOR'S NAME. THE PERIOD COVERED IS FROM 1789-1881.

J-79

JUNG, A. M.
1925.

JESUIT MISSIONS AMONG THE AMERICAN TRIBES OF THE ROCKY MOUNTAINS.
SPOKANE, WA.: GONZAGA UNIV.

(ROCKY MTNS.). THIS SHORT BOOKLET DESCRIBES THE HISTORY OF THE JESUIT MISSIONS IN THE ROCKY MOUNTAINS, INCLUDING ST. MARY'S AND ST. IGNATIUS MISSIONS. SKCC.

J-80

JUNG, A. M.
1925.

SKETCH OF THE JESUIT MISSIONS AMONG THE AMERICAN TRIBES OF THE ROCKY MOUNTAIN INDIANS.
SPOKANE, WA.: GONZAGA UNIV. 30 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(NORTHWEST UNITED STATES). A HISTORY OF JESUIT MISSIONARIES AMONG THE AREA'S TRIBES (FLATHEAD, PEND D'OREILLE, AND KALISPEL) IS PRESENTED. INCLUDED ARE THE FOLLOWING ACCOUNTS: THE EXPEDITIONS TO ST. LOUIS FOR MISSIONERIES IN THE 1830'S; FATHER PIERRE DESMET'S ARRIVAL AMONG THE FLATHEADS; AND THE ESTABLISHMENT AND DEVELOPMENT OF ST. MARY'S AND ST. IGNATIUS' MISSIONS.

J-81

JUNG, A. M.
1945.

"ST. IGNATIUS MISSION; ST. IGNATIUS, MONTANA: HISTORICAL GUIDE BOOK AND KEY TO FRESCOES." (TYPEWRITTEN). 24 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: ABRIDGED FROM JESUIT MISSIONS AMONG THE AMERICAN TRIBES OF THE ROCKY MOUNTAIN INDIANS.

(ST. IGNATIUS). THE ESTABLISHMENT AND DEVELOPMENT OF THE ST. IGNATIUS MISSION IS DESCRIBED. INCLUDED IN THE DISCUSSION IS THE ORIGINAL MISSION FOUNDED IN WASHINGTON STATE, ITS TRANSFER TO THE PRESENT LOCATION, THE EDUCATIONAL ACTIVITIES OF THE JESUIT PRIESTS, THE SISTERS OF PROVIDENCE, AND URSULINE NUNS, AND THE DECORATIVE WORK OF J. CARIGNANO. BIOGRAPHIES OF VICTOR, CHARLOT, FATHER ANTHONY RAVALLI, S. J., AND FATHER GREGORY MANGARINI ARE ALSO GIVEN.

J-82
JURE, ALBERT EDWARD.
1930.

"THE PETROGRAPHY OF THE PURCELL SILLS."
PH.D. DISSERTATION, UNIV. WISCONSIN, MADISON.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(SOUTHEASTERN BRITISH COLUMBIA). THIS RESEARCH WAS INITIATED IN THE HOPE OF BEING ABLE TO SUPPLY ADDITIONAL INFORMATION TOWARD THE SOLUTION OF THE PROBLEM OF EXPLAINING THE DIVERSITY OF IGNEOUS ROCKS IN THE SAME REGION. THIS DISSERTATION INCLUDES A STUDY OF THIN SECTIONS, A STUDY OF THE HORN-BLENDE IN THE SILL BY MEANS OF THE MODIFIED UNIVERSAL STAGE WITH THE IMMERSION METHOD INVOLVING TEMPERATURE AND WAVE-LENGTH CONTROL, ALSO A STUDY OF CHEMICAL ANALYSIS FROM DIFFERENT PARTS OF THE SILL.

J-83
JURGENSEN, JOSEPH.
1967.

SALISH LANGUAGE AND CULTURE - A STATISTICAL ANALYSIS OF INTERNAL RELATIONSHIPS, HISTORY AND EVOLUTION.

BLOOMINGTON, IN.: INDIANA UNIV., AND THE HAGUE, NETHERLANDS: MOUTON AND CO. 173 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(FLATHEAD INDIAN RESERVATION). THE MAJOR GOAL OF THIS STUDY WAS TO MEASURE SOME OF THE RELATIONSHIPS BETWEEN LANGUAGE AND CULTURE. THE AUTHOR ATTEMPTED TO DETERMINE WHETHER LANGUAGE AND CULTURAL SIMILARITIES INCREASE AND IF THERE IS A RELATIONSHIP BETWEEN SIMILARITY OF LANGUAGE AND SIMILARITY OF CULTURE.

J-84
JURGENSEN, M. F.; LARSEN, M. J.; AND HARVEY, A. E.
1977.

A SOIL SAMPLER FOR STEEP ROCKY SITES.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH NOTE INT-217. 5 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.: CORAM EXPR. FOREST). THIS PAPER DESCRIBES A PORTABLE, HAND-OPERATED SOIL CORE SAMPLER DEVELOPED FOR SAMPLING SOILS ON STEEP, ROCKY SITES. THE SAMPLER PROVIDES A 10 BY 30 CM SOIL CORE AND CAN BE BUILT BY MOST MACHINE SHOPS.

J-85
JURGENSEN, M. F.; LARSEN, M. J.; AND HARVEY, A. E.
1979.

FOREST SOIL BIOLOGY - TIMBER HARVESTING RELATIONSHIPS.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. TECH. REPT. INT-69. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.: CORAM EXPR. FOREST). THIS PAPER GIVES A PERSPECTIVE ON SOIL BIOLOGY-HARVESTING RELATIONSHIPS WITH EMPHASIS ON THE NORTHERN ROCKY MOUNTAIN REGION. OF SPECIAL SIGNIFICANCE TO FOREST MANAGEMENT OPERATIONS ARE THE EFFECTS OF SOIL MICROORGANISMS ON THE AVAILABILITY OF SOIL NUTRIENTS, PARTICULARLY NITROGEN; THE DECAY OF WOODY PLANT MATERIAL; AND TREE DISEASE INCIDENCE.

J-86
JURGENSEN, M. F.; LARSEN, M. J.; AND HARVEY, A. E.
1979.

"MICROBIAL PROCESSES ASSOCIATED WITH NITROGEN CYCLING AND SOIL DEVELOPMENT." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

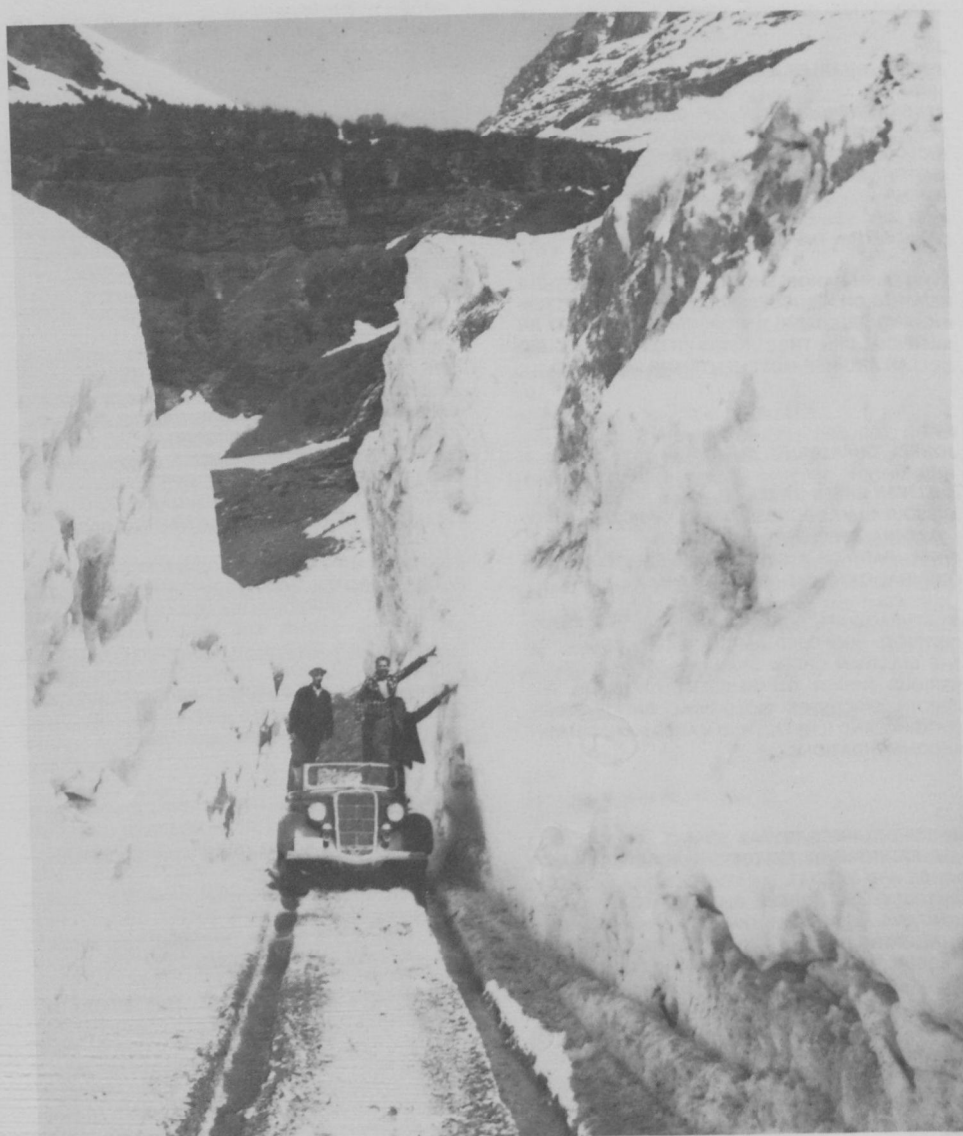
(NORTHERN ROCKY MTNS.: CORAM EXPR. FOREST). SINCE NEARLY ALL NITROGEN IN FOREST SOILS IS PRESENT AS A COMPONENT OF ORGANIC MATTER, NITROGEN LEVELS ARE MORE SUSCEPTIBLE TO MODIFICATION BY SILVICULTURAL PRACTICES THAN ANY OTHER SOIL NUTRIENT. THIS ARTICLE DISCUSSES HOW NATURAL REPLACEMENT OF NITROGEN OCCURS, WHERE THE MAJOR SITE OF NITROGEN FIXATION IS, AND HOW TIMBER HARVESTING AFFECTS NITROGEN TRANSFORMATION WITHIN THE SOIL PROFILE.

J-87
JURGENSEN, M. F., ET. AL.
1979.

"SYMBIOTIC AND NON-SYMBIOTIC NITROGEN FIXATION IN NORTHERN ROCKY MOUNTAIN FOREST ECOSYSTEMS." IN PROCEEDINGS OF SYMBIOTIC NITROGEN FIXATION IN MANAGEMENT OF TEMPERATE FORESTS.

CORVALLIS, ORE.: FOREST RESEARCH LAB., OREGON STATE UNIV.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS.: CORAM EXPR. FOREST). RECENT DEVELOPMENT OF A FOREST, HABITAT-TYPE CLASSIFICATION FOR THE NORTHERN ROCKY MOUNTAINS PROVIDED A SOURCE FROM WHICH INFORMATION ON N-FIXING PLANTS COULD BE OBTAINED. THE RECONNAISSANCE APPROACH USED IN DEVELOPING THESE CLASSIFICATIONS INVOLVED SAMPLING A LARGE NUMBER OF STANDS REPRESENTING THE SPECTRUM OF ENVIRONMENTAL CONDITIONS IN RELATIVELY MATURE FOREST COMMUNITIES IN THIS REGION. AS PART OF THE STAND SAMPLING PROCEDURE, ALL UNDERGROWTH VEGETATION ON REPRESENTATIVE PLOTS WAS IDENTIFIED AND CANOPY COVERAGE OF EACH PLANT SPECIES ESTIMATED. FROM THAT DETAILED STAND INFORMATION, THE DISTRIBUTION PATTERNS OF A N-FIXING PLANT SPECIES IN THOSE FOREST STANDS WERE EXAMINED.



K-1

KAARSTAD, OLA.

1969.

"UNIT HYDROGRAPHS DEVELOPED FOR SELECTED DRAINAGE BASINS IN NORTHCENTRAL AND NORTHWESTERN MONTANA."

M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 97 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHCENTRAL & NORTHWESTERN MONTANA: SOUTH FORK OF THE FLATHEAD RIVER). UNIT HYDROGRAPHS FOR 12 WATERSHEDS WERE DERIVED. THE DATA USED WERE OBTAINED FROM THE JUNE 1964 RAINSTORM AND THE FLOODS WHICH FOLLOWED. A COMPUTER PROGRAM WAS USED TO DERIVE THE UNIT HYDROGRAPH OF "BEST FIT" USING A UNIT TIME OF ONE HOUR FOR EIGHT OF THE WATERSHEDS AND A UNIT TIME OF 20 MINUTES FOR FOUR OF THE WATERSHEDS. THE UNIT HYDROGRAPHS OBTAINED WERE COMPARED WITH UNIT HYDROGRAPHS DERIVED FROM 3 SYNTHETIC UNIT HYDROGRAPH FORMULAS DEVELOPED FOR OTHER GEOGRAPHIC AREAS.

K-2

KALEY, MARK R.

1976.

"SUMMARY OF WOLF OBSERVATIONS SINCE SPRING 1975."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 9 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER). THE REPORT FOLLOWS UP ON WOLF (*CANIS LUPUS IRRENOTUS*) OBSERVATIONS RECEIVED AFTER THE COMPLETION OF "THE HISTORY AND STATUS OF WOLVES IN NORTHERN GLACIER NATIONAL PARK, MONTANA," BY FRANCIS J. SINGER (1975). OBSERVATION BRIEFS, ARRANGED IN CHRONOLOGICAL ORDER, INCLUDE THE SOURCE OF OBSERVATION, DATA, AND A REPORT DESCRIBING THE SIGHTING.

K-3

KALISPELL AND THE FAMOUS FLATHEAD VALLEY. 1894.

KALISPELL, MT.: KALISPELL TOWNSITE CO. 24 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD COUNTY LIBRARY, KALISPELL.

(FLATHEAD VALLEY & KALISPELL). THE BOOKLET PUBLICIZES THE REGION'S AGRICULTURE, TIMBER, MINERAL AND WATER RESOURCES, CLIMATE, AND ITS CITY'S GOVERNMENT AND BUSINESSES. IT EMPHASIZES PRODUCTIVITY AND ADVERTISES FREE HOMES AND CHEAP LANDS.

K-4

KALISPELL CHAMBER OF COMMERCE.

1909.

KALISPELL AND THE FLATHEAD VALLEY, MONTANA. ST. PAUL, MN.: RANDALL-FORD CO. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY, FLATHEAD LAKE, FLATHEAD INDIAN RESERVATION, COLUMBIA FALLS, WHITEFISH, KALISPELL, & POLSON). THE BOOKLET DESCRIBES THE MANUFACTURING, AGRICULTURE, AND TIMBER INDUSTRIES OF THE FLATHEAD VALLEY. FISHING, HUNTING, AND STEAMBOATING ARE THE RECREATIONAL ACTIVITIES DISCUSSED. CHARTS OF TEMPERATURE AND PRECIPITATION DATA FOR 1896 TO 1908 ARE INCLUDED.



K-5

KALISPELL CHAMBER OF COMMERCE.

CIRCA 1910.

KALISPELL - THE GATEWAY TO FLATHEAD INDIAN RESERVATION.

KALISPELL, MT.: KALISPELL CHAMBER OF COMMERCE. 30 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: KALISPELL CITY COUNTY LIBRARY, KALISPELL, MT.

(KALISPELL & FLATHEAD INDIAN RESERVATION). THIS EARLY PROMOTIONAL BROCHURE INCLUDES SECTIONS ON THE OPENING OF THE FLATHEAD INDIAN RESERVATION TO SETTLEMENT, FARMING IN THE FLATHEAD, IRRIGATION, KALISPELL MARKET REPORT, THE LUMBER INDUSTRY, CLIMATE AND HEALTH, THE FRUIT BELT, HUNTING AND FISHING, AND HOW TO REACH KALISPELL. MANY PHOTOGRAPHS ARE INCLUDED.

K-6

KALISPELL CHAMBER OF COMMERCE.

1967.

ASSUMPTIONS REPORT OF THE COMMUNITY DEVELOPMENT COMMITTEE.

KALISPELL, MT.: KALISPELL CHAMBER OF COMMERCE, COMMUNITY DEVELOPMENT COMMITTEE. 53 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL). THE PURPOSE OF THIS REPORT WAS TO ESTABLISH, FROM THE RECORDS OF THE PAST, CERTAIN BASIC CRITERIA AND FROM THESE FACTS TO PROJECT THE FUTURE DEVELOPMENT AND GROWTH OF THE AREA AS A MEANS OF OBTAINING SUGGESTED AREAS OF FURTHER STUDY. THIS REPORT MAKES ASSUMPTIONS IN FOURTEEN REPRESENTATIVE AREAS OF ACTIVITY IN KALISPELL AND FLATHEAD COUNTIES. SOME OF THOSE AREAS ARE: EDUCATION, FOREST PRODUCTS, INDUSTRY, AGRICULTURE, BANKING, TAXES, UTILITIES, TRANSPORTATION, RETAIL TRADE, AND CITY SERVICES.

K-7

KALISPELL CHAMBER OF COMMERCE.

THE FLATHEAD: A PARADISE OF GRANDEUR AND OPPORTUNITY; AND KALISPELL: THE DISTRIBUTING CENTER.

KALISPELL, MT.: O'NEIL PRINTERS. 32 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN & KALISPELL). THIS DESCRIPTION OF THE REGION CONSIDERS ITS INDUSTRIES, RESOURCES, AND NATURAL FEATURES. THE ROADS AND OTHER SERVICES OF KALISPELL ARE DISCUSSED. SEVERAL OTHER TOWNS ARE BRIEFLY PICTURED.

K-8

KALISPELL CHAMBER OF COMMERCE.

KALISPELL DATA BOOK.

KALISPELL, MT.: THE FIRST NATIONAL BANK OF KALISPELL, AND THE CONRAD NATIONAL BANK OF KALISPELL. 16 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL). THIS BOOKLET CONTAINS PROFILES OF: THE COMMUNITY'S POPULATION; CLIMATE; EDUCATION; COMMUNICATIONS; GOVERNMENT AND COMMUNITY FACILITIES; RECREATION; THE KALISPELL TRADE AREA; THE AREA'S ECONOMIC BASE (EMPLOYMENT, TEN LARGEST FIRMS, INDUSTRY AND PERSONAL INCOME); FINANCIAL INSTITUTIONS; UTILITIES; TRANSPORTATION; AND TAXES. PHOTOGRAPHS ACCOMPANY THE TEXT.

K-9

KALISPELL CITY STUDY COMMISSION.

1975.

TENTATIVE PROPOSED REPORT: VOTER REVIEW OF LOCAL GOVERNMENT.

KALISPELL, MT. 20 PP.

PRELIMINARY, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL). THE REPORT PRESENTS RECOMMENDATIONS FOR AN ALTERNATIVE FORM OF GOVERN-

MENT. IT DISCUSSES KEY PROVISIONS OF THE PROPOSED FORM AND COMPARES IT TO EXISTING FORMS. THE ESTABLISHMENT OF THE PROPOSAL UNDER STATE LAW IS CONSIDERED.

K-10
KALISPELL-FLATHEAD COUNTY CITY-COUNTY PLANNING BOARD.
1982.
MASTER PLAN.
KALISPELL, MT. 92 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: KALISPELL). THIS PLAN EXAMINES THE ECONOMIC BASE OF THE AREA: ITS LABOR FORCE, AGRICULTURE, BUSINESS, AND NATURAL RESOURCES. A POPULATION BASE ANALYSIS MAKES POPULATION PROJECTIONS. PARKS AND RECREATION ARE EXAMINED; CURRENT AND FUTURE SCHOOL ENROLLMENT IS CHARTED; AND THE ADEQUACY OF SCHOOL BUILDINGS IS ASSESSED. RECOMMENDATIONS FOR EASING TRAFFIC CONGESTION WITHIN THE CITY ARE MADE.

K-11
KALISPELL JAYCEES.
1961.
COMMUNITY SURVEY.
KALISPELL, MT. 32 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL). THE PUBLICATION INCLUDES A DIRECTORY OF INSTITUTIONS, AGENCIES, ORGANIZATIONS, NEIGHBORHOOD GROUPS, LOCALITY LEADERS, AND FACILITIES. IT PRESENTS INVENTORIES AND DISCUSSIONS OF: POPULATION, ORGANIZATIONS, GOVERNMENT, SOCIAL AGENCIES, CHURCHES, ECONOMY, TOURISTS, APPEARANCE, HEALTH, EDUCATION, AND RECREATION.

K-12
KALISPELL MONTANA WATER DEPARTMENT.
1914-1940.
ANNUAL REPORT OF THE WATER DEPARTMENT.
KALISPELL, MT. VOL. 1-27.
KALISPELL, MT.
PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD COUNTY LIBRARY MONTANA FILES.

(KALISPELL). ANNUAL REPORTS FROM 1914-1940 ON THE FINANCES OF THE KALISPELL WATER DEPARTMENT INCLUDE MANY MISCELLANEOUS ARTICLES OF HISTORICAL INTEREST AND OLD PHOTOGRAPHS.

K-13
KALISPELL NEIGHBORHOOD DEVELOPMENT AUTHORITY.
1970.
PROGRAM SUMMARY - NEIGHBORHOOD DEVELOPMENT BINDER NO. 2.
KALISPELL, MT. 50 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL). BASED ON THE ELIGIBILITY CRITERIA SET FORTH BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, THE CITY OF KALISPELL ESTABLISHED ONE AREA IN NEED OF RENEWAL AND REHABILITATION OVER A PERIOD OF FIVE TO SEVEN YEARS. THE OVERALL PROGRAM GOALS INCLUDED THE ELIMINATION OF DEFICIENCIES WHICH HAMPERED THE FUTURE GROWTH AND IMPROVEMENTS OF THE CITY AND THE DEVELOPMENT OF DECENT, SAFE, AND SANITARY HOUSING. THIS REPORT DETAILS THE PLANNING AND PROGRAM ACTIVITIES, SUCH AS DESIGN AND FEASIBILITY STUDIES, TO BE UNDERTAKEN. MAPS OF THE SELECTED NEIGHBORHOOD ARE INCLUDED.

K-14
KAPLER, JANE E.
1977.
FINAL ENVIRONMENTAL ASSESSMENT: FOREST FIRE MANAGEMENT, GLACIER NATIONAL PARK.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 187 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ENVIRONMENTAL ASSESSMENT DESCRIBES THE PARK ENVIRONMENT AND ITS RELATION TO FIRE. IT DISCUSSES THE VARIOUS FIRE MANAGEMENT PROPOSALS: TOTAL SUPPRESSION OF ALL FIRES, UNCONTROLLED BURNING, SOME BURNING OF LIGHTNING-CAUSED FIRES, AND INTRODUCTION OF FIRE WHERE NEED IS SHOWN. THE EFFECTS OF THESE VARIOUS OPTIONS AND PUBLIC RESPONSE TO FIRE MANAGEMENT ARE TOPICS CONSIDERED.

K-15
KAPPLER, CHARLES J.
1904.
INDIAN AFFAIRS: LAWS & TREATIES. VOL. 2: TREATIES.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.

(FLATHEAD INDIAN RESERVATION). THIS VOLUME INCLUDES A COPY OF THE 1855 TREATY BETWEEN THE UNITED STATES GOVERNMENT AND THE CONFEDERATED SALISH AND KOOTENAI TRIBES. SKCC.

K-16
KAPPLER, CHARLES J.
1904.
"TREATY WITH THE FLATHEADS ETC., 1855." IN INDIAN AFFAIRS: LAWS AND TREATIES. VOL. 2.
U.S. SENATE, 58TH CONGRESS, 2ND SESSION. DOCUMENT NO. 319, PP. 722-725.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE SALISH & KOOTENAI INDIANS). ARTICLES OF THE TREATY OF 1855 AGREED TO BY ISAAC STEVENS AND THE CONFEDERATED TRIBES OF THE FLATHEAD, KOOTENAI, AND UPPER PEND D'OURELLE INDIANS ARE CONTAINED IN THIS DOCUMENT. VICTOR IS RECOGNIZED AS THE HEAD CHIEF OF THE FLATHEADS AND OF THE CONFEDERATED TRIBES.

K-17
KARLIN, JULES A.
1974.
JOSEPH M. DIXON OF MONTANA. PART 1: SENATOR AND BULL MOOSE MANAGER, 1867-1917. PUBLICATIONS IN HISTORY.
MISSOULA, MT.: UNIV. MONTANA.

(FLATHEAD INDIAN RESERVATION). DIXON WAS THE PERSON MOST RESPONSIBLE FOR GETTING THE FLATHEAD RESERVATION OPEN TO WHITE SETTLEMENT. SKCC.

K-18
KARLIN, JULES A.
1974.
JOSEPH M. DIXON OF MONTANA. PART 2: GOVERNOR VERSUS THE ANACONDA, 1917-1934. PUBLICATIONS IN HISTORY.
MISSOULA, MT.: UNIV. MONTANA. 200 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). JOSEPH DIXON'S EMERGENCE INTO STATE POLITICS IN 1920 FROM A BRIEF RETIREMENT AND HIS REPUTATION AS THE STATE'S MOST CONTROVERSIAL GOVERNOR ARE THE TOPICS CONSIDERED IN THE VOLUME. HIS STRUGGLES WITH THE ANACONDA COPPER MINING COMPANY, THE MONTANA POWER COMPANY, AND THEIR ALLIES, AND HIS ULTIMATE DEFEAT ARE TOPICS DISCUSSED.

K-19
KARLSTROM, ERIC T.
1977.
"COMPARISON OF GLACIAL CHRONOLOGIES OF SOUTHERN ALBERTA AND NORTHWESTERN MONTANA."
UNIV. CALGARY. 64 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHWESTERN MONTANA & SOUTHERN ALBERTA). THIS PAPER ATTEMPTS TO TRACE THE EVOLUTION OF OUR PRESENT CONCEPTIONS OF THE PLEISTOCENE HISTORY OF THE REGION BY REVIEWING THE MAJOR WORKS DONE IN THE AREA. AUTHORS COVERED INCLUDE: DAWSON AND MCCONNELL, ALDEN AND STEBINGER, JOHNSTON AND WICKENDON AND RUTHERFORD, HORBERG, WARREN, STALKER, RICHMOND, ALLEY, FORD, HARRIS AND WATERS, STALKER AND HARRISON. MOUNTAIN CHRONOLOGIES OF ALBERTA, BOW VALLEY, NORTH SASKATCHEWAN VALLEY, AND SOUTHWESTERN ALBERTA ARE ALSO COVERED.

K-20
KATZ, MYRON B.
1986.
POTENTIAL FOR THE RECREATION AND TOURIST INDUSTRY IN THE PACIFIC NORTHWEST. PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION. 281 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THE OBJECTIVES OF THIS STUDY WERE: 1) TO DESCRIBE AND ANALYZE HISTORIC AND PRESENT CHARACTERISTICS OF THE PACIFIC NORTHWEST RECREATION AND TOURIST INDUSTRY; 2) TO FORECAST THE FUTURE DEVELOPMENT OF THE PACIFIC NORTHWEST RECREATION AND TOURIST INDUSTRY IN FIVE-YEAR INTERVALS TO 1986, WITH A PROJECTION OF TRENDS BEYOND 1986 TO THE YEAR 2010; 3) TO CONVERT THE HISTORIC, PRESENT AND FUTURE DEVELOPMENT OF THE PACIFIC NORTHWEST RECREATION AND TOURIST INDUSTRY INTO QUANTITATIVE ECONOMIC TERMS (EMPLOYMENT AND INCOME), TO DETERMINE THE PRESENT AND FUTURE IMPACT OF RECREATION AND TOURISM ON THE REGION'S ECONOMY, AND TO COMPARE THE INDUSTRY WITH OTHER BASIC INDUSTRIES AND WITH THE ECONOMY AT LARGE; AND 4) TO DESCRIBE IN QUALITATIVE TERMS THE ECONOMIC DIMENSIONS AND QUALITIES OF THE PACIFIC NORTHWEST RECREATION AND TOURIST INDUSTRY. EXTENSIVE TABLES OF DATA ARE INCLUDED.

K-21
KATZ, MYRON B., ET AL.
1973.
IMPACT STUDY: BPA PROPOSED RATE INCREASE. PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION. 234 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE REPORT ASSESSES THE EFFECT OF RATE CHANGES ON BPA CUSTOMERS AND ANALYZES THE DEMAND FOR ELECTRICITY. ENVIRONMENTAL AND ECONOMIC CONSEQUENCES OF REDUCED GROWTH IN ELECTRICITY DEMAND, ALTERNATIVE RATE LEVELS AND STRUCTURES, AND THE RATE STRUCTURES UNDER CONSIDERATION ARE DISCUSSED.

K-22
KAUFFMAN, JOHN M.
1964.
"GLACIER NATIONAL PARK: A HISTORY OF ITS ESTABLISHMENT AND REVISION OF ITS BOUNDARIES."
WASHINGTON, D.C.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE. 24 PP. (TYPEWRITTEN).
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT DESCRIBES THE FIRST LEGISLATIVE ATTEMPTS TO ESTABLISH GLACIER NATIONAL PARK AND THE PARK BOUNDARIES THAT WERE FINALLY AGREED UPON. SETTLERS ATTEMPTED TO HAVE THE EAST SIDE OF THE NORTH FORK VALLEY EXCLUDED, FIRST IN 1911 AND AGAIN IN 1915. THE PROPOSED ADDITION OF BLACKFEET INDIAN LAND ON THE EASTERN BOUNDARY IS DETAILED. EXTENSIVE QUOTES FROM ORIGINAL DOCUMENTS ARE INCLUDED.

K-23
KAUFMAN, NORMAN B.
1977.
"SANDERS COUNTY CONTINUOUS FOREST INVENTORY PROJECT AND FOREST LAND MANAGEMENT PLAN."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 49 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SANDERS COUNTY). THIS PROJECT WAS INITIATED TO OBTAIN FOREST INVENTORY AND LONG TERM TREE GROWTH INFORMATION ON AN AREA OF PRIVATE AND STATE-OWNED FOREST LANDS IN SANDERS COUNTY. PERMANENT INVENTORY PLOTS WERE ESTABLISHED AND MEASURED IN 1964-65 AND 1969-70. THIS STUDY COMPARES THE DATA COLLECTED FROM THE TWO MEASUREMENT PERIODS. A FOREST MANAGEMENT PLAN IS INCLUDED.

K-24
KAUTZ, DARRELL.
(IN PROGRESS).
"INVENTORY AND ANALYSES OF THE RANGE AND WILDLIFE RESOURCES ON WILDHORSE ISLAND, FLATHEAD LAKE, MONTANA."
M.S. THESIS, UNIV. MONTANA, MISSOULA.
IN PROGRESS, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: WILDHORSE ISLAND). THE PRIMARY PURPOSE OF THIS STUDY WAS TO PROVIDE THE NEEDED BASELINE DATA ON WHICH MANAGEMENT AND DEVELOPMENT ALTERNATIVES MIGHT BE BASED. ISLAND TOPOGRAPHY, SOILS, RANGE SITES, EXISTING VEGETATION, POTENTIAL CLIMAX VEGETATION, AND EXISTING RANGE CONDITIONS WERE CLASSIFIED, DESCRIBED, AND MAPPED. INCLUDED IS AN ANALYSIS OF POTENTIAL MANAGEMENT ALTERNATIVES, INCLUDING THE USE OF FIRE AND NATIVE SPECIES PLANTINGS TO PROMOTE IMPROVED RANGE CONDITIONS. MANAGEMENT RECOMMENDATIONS WILL BE MADE.

K-25
KENOE, THOMAS F.
1968.
"THREE DRY-LAID MASONRY STRUCTURES IN THE NORTHERN ROCKY MOUNTAINS."
AMERICAN ANTIQUITY 23:3-6.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE AUTHOR WAS REQUESTED TO EXAMINE THREE STRUCTURES REPORTED TO HAVE BEEN DISCOVERED IN ROAD CONSTRUCTION THROUGH MARIAS PASS. THE FEATURES CONSISTED OF THREE SMALL HEMISPHERICAL STRUCTURES OF DRY-LAID MASONRY. EACH STRUCTURE IS DESCRIBED AND THE AUTHOR MAKES SOME CONCLUSIONS ABOUT THEIR POSSIBLE ORIGINS. TWO PHOTOGRAPHS ARE INCLUDED.

K-26
KENOE, THOMAS F.
1980.
"A FRAUDULENT PETROGLYPH FROM GLACIER NATIONAL PARK, MONTANA."
PLAINS ANTHROPOLOGIST 5(NOVEMBER 1980):79-80.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE DISCOVERY OF A PETROGLYPH OF QUESTIONABLE AUTHENTICITY IS DISCUSSED. BY SCANNING ETHNOGRAPHIES AND WORKS ON ART, SUBMITTING REPRODUCTIONS OF THE CARVING TO THE STUDENTS OF NORTHWEST AND PLAINS INDIAN ART, AND OBTAINING THE OPINIONS OF BLACKFEET AND VISITING INDIANS AS WELL AS FORMER PARK EMPLOYEES, AN OPINION ON THE ORIGIN OF THE PETROGLYPH IS PRESENTED.

K-27
KEMP, PAUL D., AND DICKERMAN, M. B.
1950.
MONTANA FOREST RESOURCE AND INDUSTRY STATISTICS.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, NORTHERN ROCKY MTN. FOREST & RANGE EXPR. STAT. STATION PAPER NO. 25. 48 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS IS A DETAILED SYSTEMATIC SUMMARY OF MONTANA'S TIMBER RESOURCE. THIS REPORT CONTAINS INVENTORY DATA ON THE AREA OF FOREST LAND, THE TIMBER VOLUME, THE CURRENT ANNUAL NET GROWTH, THE AVERAGE ANNUAL COMMODITY DRAIN, AND FOREST INDUSTRY PRODUCTION.

K-28
KEMPER, THOMAS.
1959.
"NOTES ON THE BREEDING CYCLE OF THE RED CROSSBILL (LOXIA CURVIROSTRA) IN MONTANA."
THE AUK 76(APRIL 1959):181-189.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: YELLOW BAY BIOL. STAT.). IN THIS STUDY ON THE BREEDING CYCLE OF THE RED CROSSBILL (LOXIA CURVIROSTRA), 169 BIRDS WERE EXAMINED. THEIR WINGS WERE MEASURED; THE AMOUNT OF YELLOW IN THE MALES ESTIMATED; THE DEGREE OF MOLTING OBSERVED; AND THE SIZE AND DEVELOPMENT OF GONADS, VASA DEFERENTIA, SEMINAL VESICLES, AND CLOACA NOTED. THE STUDY ATTEMPTS TO DETERMINE WHY RED CROSS BILLS ARE APPROACHING THEIR BREEDING PERIOD WHEN OTHER BIRDS ARE ENDING THEIRS.

K-29
KENDLEY, JOHN E.
THE EFFECTS OF SOIL MEDIUM TEMPERATURE ON INITIAL GERMINATION OF PONDEROSA PINE SEED.
PABLO, MT.: U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS, FLATHEAD INDIAN RESERVATION. 9 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). IN THIS EXPERIMENT, PONDEROSA PINE SEED WERE GERMINATED IN A MEDIUM RANGING FROM 50 TO 85 DEGREES FAHRENHEIT. GERMINATION WAS MONITORED FOR EACH TEMPERATURE GRADIENT IN FIVE DEGREE INCREMENTS BY OBSERVING THE NUMBER OF DAYS REQUIRED FROM INITIAL PLANTING TO THE SHEDDING OF THE SEED CAP AND THE BEGINNING OF THE TRUE "JUVENILE" SEEDLING STAGE. THE GOAL OF THE PROJECT WAS TO DETERMINE WHICH SOIL TEMPERATURE WOULD BE MOST CONDUCTIVE TO THE DEVELOPMENT OF THE JUVENILE STAGE.

K-30
KENNEDY, MICHAEL S., ED.
1965.
THE RED MAN'S WEST: TRUE STORIES OF THE FRONTIER INDIANS.
NEW YORK: HASTINGS HOUSE, PUBL.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS BOOK REPRINTS A NUMBER OF FLATHEAD-RELATED ARTICLES WHICH HAD APPEARED IN THE MONTANA MAGAZINE. SKCC.

K-31
KENNY, L. S. J.
1898.
"THE INDIANS AT ST. IGNATIUS MISSION, MONTANA: EXTRACTS FROM A LETTER OF MR. KENNY."
WOODSTOCK LETTERS 27(1898):82-84.

(ST. IGNATIUS MISSION). THIS ARTICLE DESCRIBES THE ST. IGNATIUS MISSION AND A CHRISTMAS EVE MASS. SKCC.

K-32
KERLEE, THOMAS M.
1982.
"SOME CHAPTERS ON THE FOREST HOMESTEAD ACT WITH EMPHASIS ON WESTERN MONTANA."
M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 165 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA). A HISTORIC ACCOUNT OF FOREST HOMESTEADS (AGRICULTURAL LANDS IN THE FOREST RESERVES) IS PRESENTED. INCLUDED ARE DESCRIPTIONS OF: 1) THE PASSAGE OF THE FOREST RESERVE ACT IN 1891; 2) GIFFORD PINCHOT'S ACTIVITIES TO OPEN RESERVES FOR PUBLIC USE; 3) PUBLIC OPINION TOWARDS RESERVES; 4) THE SETTLEMENT OF ALBERTA, MANITOBA, AND SASKATCHEWAN BY AMERICANS; 5) THE PASSAGE OF THE FOREST HOMESTEAD ACT IN 1906; 6) THE PROCESSING OF HOMESTEAD APPLICATIONS BY THE FOREST SERVICE; 7) THE ATTACKS UPON THE TWO ACTS BY WESTERN POLITICIANS WHO FAVORED THE SETTLEMENT AND DEVELOPMENT OF FOREST RESERVES; AND 8) THE SECOND FOREST HOMESTEAD ACT OF 1912.

K-33
KESSEL, EDWARD L.
1980.
"MICROSANIAS ATTRACTED TO COLD SMOKE (DIPTERA: PLATYPEZIDAE)."
WASMANN J. BIOLOGY 18:312-313.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A BRIEF REPORT ON THE RESPONSE OF MICROSANIAS TO "COLD SMOKE" - AEROSOL-BOMB DISPENSED SMOKE CONCENTRATE WHICH MODERN BEE KEEPERS USE. THE HIVE BOMB WAS TESTED IN GLACIER NATIONAL PARK, AT THE AVALANCHE CREEK AND RISING SUN CAMPGROUNDS.

K-34
KESSELL, STEPHEN R.
1973.
"A MODEL FOR WILDERNESS FIRE MANAGEMENT."
BULL. ECOLOGICAL SOCIETY AMERICA 64:17.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A GRADIENT ANALYSIS OF FLORA, FAUNA, AND FUEL OF GLACIER NATIONAL PARK, COUPLED WITH A MASSIVE COMPUTER-BASED INVENTORY SYSTEM, PROVIDES THE BASIS FOR DEVELOPMENT OF A WILDERNESS FIRE MANAGEMENT PROGRAM. THE INVENTORY SYSTEM DESCRIBES TOPOGRAPHIC, VEGETATIONAL, FAUNAL, FUEL, AND HYDROLOGICAL PARAMETERS FOR EACH HECTARE BASED UPON THE PLOT'S POSITION ALONG FIVE ENVIRONMENTAL GRADIENTS. IT IS SUPPLEMENTED BY NUMERICAL VEGETATIONAL COVER-SPECIES DOMINANCE MAPS.

K-35
KESSELL, STEPHEN R.
1974.
CHECKLIST OF VASCULAR PLANTS OF GLACIER NATIONAL PARK, MONTANA.
ITHACA, N.Y.: CORNELL UNIV. 63 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE CHECKLIST INCLUDES 88 FAMILIES, 365 GENERA, 1,006 SPECIES, AND 1,131 SUBSPECIES AND VARIETIES OF VASCULAR PLANTS REPORTED IN THE PARK.

K-36

KESSELL, STEPHEN R.

1975.

GLACIER NATIONAL PARK BASIC RESOURCE AND FIRE ECOLOGY SYSTEMS MODEL: USER'S MANUAL. 2ND ED.

WEST GLACIER, MT.: GRADIENT MODELING, INC. 44 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PUBLICATION IS A USER'S MANUAL FOR A COMPUTER MODEL. THE MODEL IS AN INTEGRATED RESOURCE MANAGEMENT PACKAGE WHICH PROVIDES RETRIEVAL OF TERRESTRIAL SITE INFORMATION, INTEGRATION OF THESE SITE DATA WITH GRADIENT MODELS TO PROVIDE QUANTITATIVE VALUES FOR VEGETATIVE COMPOSITION AND FUEL LOADINGS, AND SYNTHESIS OF THESE RESULTS WITH WEATHER PARAMETERS TO PROVIDE REAL TIME FIRE BEHAVIOR SIMULATION.

K-37

KESSELL, STEPHEN R.

1976.

"GRADIENT MODELING: A NEW APPROACH TO FIRE MODELING AND RESOURCE MANAGEMENT." IN MODELS AS ECOLOGICAL TOOLS - THEORY AND CASE HISTORIES.

NEW YORK: JOHN WILEY & SONS.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS CHAPTER DESCRIBES THE DEVELOPMENT, IMPLEMENTATION, AND OPERATION OF A GRADIENT MODELING SYSTEM IN GLACIER NATIONAL PARK. THE MODELING SYSTEM LINKS A HECTARE BY HECTARE RESOURCE INVENTORY CODED FROM AERIAL PHOTOS, GRADIENT MODELS OF THE VEGETATION AND FUEL DERIVED FROM FIELD SAMPLING, A MICROCLIMATE MODEL, AND A FIRE BEHAVIOR MODEL. THE LINKING OF THESE COMPONENTS PROVIDES INFORMATION ON THE SITE, VEGETATION, FUEL, AND FIRE BEHAVIOR.

K-38

KESSELL, STEPHEN R.

1976.

"WILDLAND INVENTORIES AND FIRE MODELING BY GRADIENT ANALYSIS IN GLACIER NATIONAL PARK." IN PROCEEDINGS OF TALL TIMBERS FIRE ECOLOGY CONFERENCE.

TALLAHASSEE, FLA.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). IT IS POSSIBLE TO USE A GRADIENT MODEL TO PREDICT THE BEHAVIOR AND RESULTS OF AN INDIVIDUAL FIRE IN A NATURAL AREA, AND TO USE THESE PREDICTIONS TO HELP A FIRE MANAGER DETERMINE THE MANAGEMENT POLICY FOR THAT PARTICULAR FIRE. A SIMPLIFIED MODEL AND THE GLACIER NATIONAL PARK MODEL ARE EXAMINED, AS WELL AS THE HECTARE INVENTORY.

K-39

KESSELL, STEPHEN R.

1977.

"A GRADIENT VEGETATION, RESOURCE, AND FIRE MANAGEMENT MODEL FOR GLACIER NATIONAL PARK."

CORNELL UNIV., ITHACA, N.Y. 577 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE METHODOLOGY IN THIS STUDY LINKS A SIX-DIMENSIONAL HABITAT

HYPERSPACE MODEL OF TERRESTRIAL COMMUNITIES WITH A REMOTE SITE INVENTORY WHICH OFFERS 10-METER RESOLUTION, AND WEATHER AND FIRE BEHAVIOR MODELS BY THE DEVELOPMENT OF SUITABLE DIGITAL COMPUTER SOFTWARE. THE RESULTING GRADIENT MODELS PROVIDE A DETAILED QUANTITATIVE UNDERSTANDING OF THE DISTRIBUTION OF PLANT COMMUNITY CHARACTERISTICS AND THEIR COMPONENT SPECIES POPULATIONS, THE DYNAMIC ECOLOGICAL PROCESSES WHICH CREATE AND MAINTAIN ECOLOGICAL DIVERSITY, AND THE PROCESSES OF PRIMARY AND SECONDARY SUCCESSION WHICH OPERATE ON THE PARK'S LANDSCAPE.

K-40

KETCHAM, WILLIAM H., REV.

1915.

REPORT UPON THE CONDITIONS ON THE FLATHEAD INDIAN RESERVATION.

WASHINGTON, D.C.: BOARD OF INDIAN COMMISSIONERS. 93 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE REPORT EXAMINES THE RESERVATION'S GENERAL CONDITIONS AND NEEDS WITH REGARD TO THE IRRIGATION AND SALE OF SURPLUS INDIAN LANDS. RELIEF OF HOMESTEAD SETTLERS, CHANGE OF LAND SALES AND LEASE POLICIES, HOMESTEAD ENTRY AND/OR RESERVATION OF TIMBER LANDS, IRRIGATION APPROPRIATION, IRRIGATION DURING 1913-1914, AND THE CARE OF OLD INDIANS ARE SOME OF THE SUBJECTS DISCUSSED. STATEMENTS FROM HOMESTEADERS PERTAINING TO APPLICATIONS ARE INCLUDED.

K-41

KETCHAM, WILLIAM H., REV.

1920.

"REPORT OF THE FLATHEAD INDIAN RESERVATION, MONTANA." IN U.S. BOARD OF INDIAN COMMISSIONERS, FIFTIETH ANNUAL REPORT OF THE BOARD OF INDIAN COMMISSIONERS FOR FISCAL YEAR END-ED JUNE 30, 1919.

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.

(FLATHEAD INDIAN RESERVATION). THIS REPORT OF GENERAL CONDITIONS ON THE FLATHEAD INCLUDES MENTION OF THE DETERIORATION OF CONDITIONS ON THE RESERVATION FOLLOWING ITS ALLOTMENT AND OPENING. SKCC.

K-42

KEY, CARL H.

1979.

"MAMMALIAN UTILIZATION OF FLOODPLAIN HABITATS ALONG THE NORTH FORK OF THE FLATHEAD RIVER IN GLACIER NATIONAL PARK."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 151 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER). MAMMALIAN COMMUNITIES ON THE NORTH FORK WERE INVESTIGATED TO PROVIDE BASELINE DATA ON THE SMALL MAMMAL FAUNA TO EVALUATE THE IMPORTANCE OF FLOODPLAINS TO MEDIUM-SIZED CARNIVORES, AND TO ESTABLISH MONITORING PROCEDURES SO THAT PARK RESOURCE MANAGERS MIGHT BETTER ASSESS THE FUTURE IMPACT OF HUMAN DISTURBANCE. THE SPECIFIC OBJECTIVES OF THE STUDY WERE TO: 1) DETERMINE THE COMPOSITION OF SMALL MAMMAL COMMUNITIES ON THE FLOODPLAIN, 2) OBTAIN INFORMATION ON SMALL MAMMAL HABITAT SELECTION AND OTHER NICHE-RELATED PARAMETERS, 3) CONDUCT WINTER SURVEYS OF MEDIUM-SIZED FUR-BEARERS, 4) EXPLORE POSSIBLE RELATIONSHIPS BETWEEN THE SMALL MAMMAL FAUNA OF THE FLOODPLAIN AND WIDER-RANGING CARNIVORES, AND 5) ESTABLISH PERMANENT PLOTS AND PROCEDURES FOR FUTURE MONITORING OF THIS MAMMAL COMMUNITY.

K-43

KEYSER, JAMES D.

1976.

"THE ROCK ART OF WESTERN MONTANA." PLAINS ANTHROPOLOGIST 21:1-12.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

PICTOGRAPHS WITHIN THE FLATHEAD BASIN ARE INCLUDED.

(WESTERN MONTANA). TWENTY NINE PICTOGRAPH SITES, COMPOSED OF PANELS OF SIMPLE RED, YELLOW, OR BLACK PAINTINGS, ARE DISCUSSED. THE STUDY RECOGNIZES TWO STYLE ZONES, EACH REFLECTING A DIFFERENT CULTURAL INFLUENCE. THE RELATIONSHIP OF THE ROCK ART TO COLUMBIA PLATEAU ART IS DEMONSTRATED.

K-44

KHANNA, KULDIP R.

1967.

A CYTOLOGICAL INVESTIGATION OF THE MOSSES OF THE ROCKY MOUNTAINS. UNIVERSITY OF COLORADO SERIES IN BIOLOGY, NO. 28.

BOULDER, CO.: UNIV. COLORADO PRESS. 39 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ROCKY MTS.: GLACIER NATL. PARK). THE PURPOSES OF THIS STUDY WERE TO GATHER CYTOLOGICAL INFORMATION ABOUT UNINVESTIGATED SPECIES GROWING IN THE SOUTHERN ROCKY MOUNTAINS AND TO GET A BROADER APPRECIATION OF THE CYTOLOGICAL RELATIONSHIPS AND VARIABILITY OF THE PREVIOUSLY KNOWN ONES.

K-45

KICKINGBIRD, KIRKE, AND DUCHENEAUS, KAREN.

1973.

ONE HUNDRED MILLION ACRES.

NEW YORK: MACMILLAN PUBL. CO., INC.

(FLATHEAD INDIAN RESERVATION). THIS VOLUME DESCRIBES THE HISTORY OF THE BOUNDARY PROBLEMS ON THE FLATHEAD RESERVATION. POPULAR BUT SERIOUS. SKCC.

K-46

KIDD, DAVID E.

1963.

"THE ALGAL TAXONOMY AND ECOLOGY OF A TRANSCONTINENTAL DIVIDE TRANSECT."

PH.D. DISSERTATION, MICHIGAN STATE UNIV., EAST LANSING. 301 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ALGAL TAXONOMY AND ECOLOGY OF A TRANSCONTINENTAL DIVIDE TRANSECT WAS STUDIED. A CHECKLIST OF ALGAE WAS COMPILED, ALONG WITH THE LOCATION, RANGE OF ALTITUDE, TEMPERATURE, PH, TOTAL ALKALINITY, AMMONIA NITROGEN, NITRITE NITROGEN, NITRATE NITROGEN, AND ORTHOPHOSPHATE FOR EACH SPECIES COLLECTED. SIX LAKES WERE SAMPLED TO DETERMINE THE NET PHYTOPLANKTON FORMS, QUANTITATIVE COUNTS OF PHYTOPLANKTON, AND THE WATER CHEMISTRY. THREE STATIONS ON EACH LAKE WERE SAMPLED.

K-47

KIDD, DAVID E.

1964.

"A QUANTITATIVE ANALYSIS OF PHYTOPLANKTON ALONG A ROCKY MOUNTAIN DIVIDE TRANSECT."

TRANS. AMERICAN MICROSCOPICAL SOCIETY 83(OCTOBER 1964):409-420.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE McDONALD, JOHNS LAKE, BOWMAN LAKE, HIDDEN LAKE, SWIFTCURRENT LAKE, LOST LAKE, & LOWER ST. MARY LAKE). A SURVEY CONDUCTED TO RELATE DIFFERENCES IN PHYTOPLANKTON COMPOSITION WITH VARIATIONS IN LAKE TEMPERATURES AND ELEVATION IS PRESENTED IN THIS ARTICLE. DATA OBTAINED FROM QUANTITATIVE COUNTS IS USED TO DISCUSS BIOLOGICAL SIMILARITY WITHIN A LAKE AND BETWEEN LAKES OF THE SAME SAMPLING PERIOD. FUTURE RESEARCH QUESTIONS ARE RAISED.

K-48
KIDDER, JOHN.
1965.
"MONTANA MIRACLE: IT SAVED THE BUFFALO."
MONTANA 15:52-67.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE ARTICLE DISCUSSES THE EFFORTS OF MICHEL PABLO AND CHARLES P. ALLARD DURING THE YEARS FROM 1885 TO 1890 TO SAVE THE BISON (BISON BISON) FROM EXTINCTION. THE BUILDING UP OF SAMUEL WALKING COYOTE'S SMALL HERD TO 300 HEAD AND ITS DISPERSAL TO PROVIDE STOCK FOR BISON PRESERVES IS DESCRIBED.

K-49
KIKKERT, DOUGLAS W.
1975.
"WINTER WATER QUALITY OF THE BIG MOUNTAIN SKI AREA, WHITEFISH, MT."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 87 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BIG MOUNTAIN SKI AREA). THIS STUDY WAS CONDUCTED TO DETERMINE THE EFFECTS OF A SKI AREA ON THE WATER QUALITY OF A HIGH MOUNTAIN WATERSHED USED AS A CATCHMENT BASIN FOR MUNICIPAL WATER SUPPLY. PARAMETERS INCLUDED: TEMPERATURE, CONDUCTIVITY, TOTAL ALKALINITY, TOTAL HARDNESS, PTL, TURBIDITY, TOTAL PHOSPHATE, ORTHO-PHOSPHATE, NITRATE, NITRITE, AMMONIA, SULFATE, SODIUM, AND POTASSIUM.

K-50
KIMMEY, JAMES W., AND GRAHAM, D. P.
1960.
DWARF MISTLETOES OF THE INTERMOUNTAIN AND NORTHERN ROCKY MOUNTAIN REGIONS AND SUGGESTIONS FOR CONTROL.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH PAPER 60. 19 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(NORTHERN ROCKY MTS.). THIS PAPER WAS PREPARED PRIMARILY FOR THE USE OF FOREST MANAGERS; IT SUMMARIZES PERTINENT PUBLISHED INFORMATION AND PRESENTS OTHER KNOWN FACTS THAT MAY BE USEFUL IN PLANNING CONTROL OF THE PRINCIPAL DWARF MISTLETOES (ARCEUTHOBIVUS SPP.) IN THE REGION. FIVE SPECIES ARE LISTED, THEIR LIFE CYCLES DESCRIBED, AND SYMPTOMS OF INFECTION DISCUSSED. THE TYPE OF DAMAGE INFLICTED AND METHODS OF CONTROL ARE DETAILED. PHOTOGRAPHS ILLUSTRATE VARIOUS ASPECTS OF THE PARASITE'S LIFE CYCLE AND HOW INFECTION IS MANIFESTED IN HOST TREES.

K-51
KING, EVERETT E.
1918.
"GLACIER NATIONAL PARK."
OVELAND MONTHLY, JANUARY 1918, PP. 3-6.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE McDONALD). THE ARTICLE NOTES THE NUMBER OF VISITORS IN THE PARK; AND DESCRIBES ITS ENTRANCES, WAYS OF TRAVEL, SETTING, ANIMALS, AND THE BLACKFEET INDIANS.

K-52
KINGSTON, C.S.
1932.
"BUFFALO IN THE PACIFIC NORTHWEST."
WASHINGTON HISTORICAL QUARTERLY 23(JULY 1932):163-172.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST, WEST OF THE CONTINENTAL DIVIDE). THE SCARCITY OF BUFFALO IN THE AREA IS DOCUMENTED IN THIS DISCUSSION OF THE JOURNALS OF EARLY EXPLORERS AND FUR TRADERS, SUCH AS LEWIS AND CLARK, DAVID THOMPSON, JOHN WORK, DUNCAN MACDONALD, AND MEMBERS OF ISAAC STEVENS SURVEYING PARTY. THE ARTICLE ATTEMPTS TO DETERMINE THE DISTRIBUTION OF THE BUFFALO WEST OF THE DIVIDE DURING THE TIME OF EXPLORATION AND THE TIME OF THE FUR TRADE.

K-53
KINKADE, M. DALE.
1972.
"PROTO-EASTERN INTERIOR SALISH VOWELS."
INTERNATIONAL J. AMERICAN LINGUISTICS 38(JANUARY 1972):26-48.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD INDIAN RESERVATION). INTERIOR SALISH LANGUAGES ARE THE SUBJECT OF THIS ARTICLE. FOLLOWING A BRIEF DISCUSSION OF THE SIMILARITY OF THE LANGUAGES, CHARACTERISTICS OF THEIR VOWEL SYSTEMS ARE DESCRIBED AND ANALYZED. TOPICS OF THE REPORT ARE: VOWEL INVENTORIES; PROTO-EASTERN INTERIOR SALISH VOWEL RECONSTRUCTIONS; COGNATE SETS; THE VOWELS "A," "I," "U,"; CONSONANT CORRESPONDENCES; ABLAUT; AND FINDER LIST.

K-54
KIRKWOOD, J. E.
1918.
"THE BITTER ROOT."
THE INTER-MOUNTAIN EDUCATOR 11(JUNE 1918):45-48.

(ABORIGINAL LANDS OF THE SALISH INDIANS & MISSOULA). THIS BRIEF DESCRIPTION OF THE BITTERROOT PLANT DETAILS ITS USE BY THE SALISH, AND NOTES THAT THE SALISH STILL PICK THE PLANT AROUND MISSOULA DURING THE SPRING. SKCC.

K-55
KIRKWOOD, J. E.
1922.
FOREST DISTRIBUTION IN THE NORTHERN ROCKY MOUNTAINS. STATE UNIVERSITY STUDIES SERIES, NO. 2.
MISSOULA, MT.: UNIV. MONTANA. BULL. NO. 247. 180 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA REGIONAL.

(NORTHERN ROCKY MTS.). THIS IS A GENERAL ACCOUNT OF THE FORESTS OF THE NORTHERN ROCKIES STRESSING INDIVIDUAL CHARACTERISTICS OF THE VARIOUS SPECIES. PHYSICAL CONDITIONS SUCH AS TOPOGRAPHY AND CLIMATE ARE DESCRIBED, AND THIS IS FOLLOWED BY A DISCUSSION OF SOURCES OF VEGETATION, MIGRATIONS, FOSSIL FORMS, AND RANGES OF CURRENT ALPINE FLORA.

K-56
KIRKWOOD, J. E.
1926.
"BOTANY OF THE MONTANA ROCKIES."
TORREYA 26:105-109.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA ROCKIES: GLACIER NATL. PARK). THIS ARTICLE DESCRIBES IN GENERAL TERMS THE FLORA OF THE MONTANA ROCKIES, INCLUDING GLACIER NATIONAL PARK.

K-57
KIRKWOOD, J. E.
1927.
"BOTANICAL EXPLORATIONS IN THE ROCKY MOUNTAINS."
SCIENTIFIC MONTHLY 24(MARCH 1927):236-250.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER). AN ACCOUNT OF A TRIP TO INVESTIGATE NATIVE FLORA IS PRESENTED IN THIS ARTICLE. CAMPING ACTIVITIES, WEATHER, THE SCENERY, AND CHARACTERISTICS OF THE AREA ARE DISCUSSED, ALONG WITH THE VARIOUS PLANT SPECIES ENCOUNTERED. THE ABUNDANCE, DISTRIBUTION, AND LOCATION OF MANY PLANTS ARE INCLUDED IN THIS BRIEF RECONNAISSANCE OF FLORA.

K-58
KIRKWOOD, J. E.
1927.
"THE PACIFIC ELEMENT IN THE ROCKY MOUNTAIN FLORA."
NORTHWEST SCIENCE 1(MARCH 1927):14.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ROCKY MTS.). THE DIVISION OF ATLANTIC AND PACIFIC FLORAS AT THE CREST OF THE ROCKY MOUNTAINS IS DISCUSSED. INCLUDED IN THE ONE-PARAGRAPH PRESENTATION ARE THE CAUSES FOR EXISTING CONDITIONS, SUCH AS CLIMATIC AND TOPOGRAPHIC INFLUENCES.

K-59
KIRKWOOD, J. E., AND YOUNG, R. T.
1929.
"THE BOTANY OF FLATHEAD LAKE."
MONTANA WILDLIFE, JUNE 1929, P. 12.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE ARTICLE DESCRIBES VARIOUS TYPES OF AQUATIC PLANTS, THEIR DISTRIBUTION AND ABUNDANCE. EIGHTY-ONE GENERA ARE IDENTIFIED. THE HIGHER OR FLOWERING PLANTS ARE ALSO DESCRIBED. THE VARIOUS GENERA ARE GROUPED BY THEIR DISTRIBUTION: 1) SHORE FORMS; 2) PLANTS OF SHALLOW BAYS; AND 3) PLANTS OF THE OPEN LAKE.

K-60
KITAHARA, M.
1962.
ACQUILITATION, SURVIVAL AND SYNCRETISM IN BLACKFEET, FLATHEAD AND DAKOTA MUSIC.
JAPANESE J. ETHNOLOGY 28:3-6.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(MONTANA INDIAN RESERVATIONS: FLATHEAD INDIAN RESERVATION). THIS UNTRANSLATED ARTICLE DISCUSSES STIMULUS DIFFUSION AND THE GRASS, RING, OWL, AND SUN DANCES.

K-61
KITCHEN, DAVID W.
1972.
"THE SOCIAL BEHAVIOR AND ECOLOGY OF THE PRONGHORN."
PH.D. DISSERTATION, UNIV. MICHIGAN, ANN ARBOR.
301 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NATL. BISON RANGE). THIS STUDY OF THE SOCIAL BEHAVIOR OF THE PRONGHORN DESCRIBES AND QUANTIFIES SPECIFIC BEHAVIOR PATTERNS AND SOCIAL INTERACTIONS. PRONGHORN VARIATION IN USE BY SEX AND AGE WAS DOCUMENTED. THE DISSERTATION ALSO DESCRIBES CHARACTERISTICS AND FUNCTION OF THE HERD, DEFENSE TERRITORIES, HERD HIERARCHIES, RUT BEHAVIOR, COPULATORY SUCCESS, BIRTH, DOE-FAWN INTERACTIONS, AND THE SIGNIFICANCE OF BODY MARKINGS.

K-62
KITCHEN, DAVID W.
1974.
"SOCIAL BEHAVIOR AND ECOLOGY OF THE PRONGHORN."
WILDLIFE MONOGRAPHS, NO. 38. 96 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NATL. BISON RANGE). A SYNTHESIS OF THE BEHAVIOR OF THE PRONGHORN (*ANTILOPRA AMERICANA*) IS PRESENTED IN THIS MONOGRAPH. THE STUDY ATTEMPTED TO: 1) DESCRIBE THE DYNAMICS OF THE PRONGHORN'S TERRITORIAL SYSTEM AS WELL AS THE ANIMAL'S SOCIAL ORGANIZATION AND BEHAVIORAL REPERTOIRE, 2) COMPARE THE SOCIAL AND BREEDING SYSTEMS OF THE PRONGHORN TO THOSE OF OTHER UNGULATES, AND 3) PLACE ITS BEHAVIOR INTO AN EVOLUTIONARY FRAMEWORK. METHODS EMPLOYED INCLUDED DIRECT OBSERVATIONS, IDENTIFICATION OF INDIVIDUALS, SPOTLIGHT CENSUS AND NIGHT OBSERVATIONS, VEGETATIONAL STUDIES, AND STATISTICAL PROCEDURES.

K-63
KITCHEN, DAVID W.
1975.
"PARTURITION AND EARLY FAWN DEVELOPMENT IN THE PRONGHORN (*ANTILOPRA AMERICANA*)."
ABSTRACT IN PROCEEDINGS OF AMERICAN SOCIETY OF MAMMOLOGISTS, 65TH ANNUAL MEETING.
MISSOULA, MT.: UNIV. MONTANA.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NATL. BISON RANGE). PARTURITION AND EARLY FAWN DEVELOPMENT IN THE PRONGHORN WERE STUDIED DURING THREE FAWNING SEASONS ON THE NATIONAL BISON RANGE, MOIESE, MONTANA. ANALYSIS OF BEHAVIOR WAS BASED ON OBSERVATIONS OF BIRTH IN 17 WILD DOES AND ON THE DEVELOPMENT OF THE 34 FAWNS THEY BORE. DOE BEHAVIOR PRIOR TO, DURING, AND AFTER PARTURITION WAS QUANTIFIED AND RELATED TO PARTURITION BEHAVIOR IN OTHER UNGULATES. FAWN DEVELOPMENT AND SOCIALIZATION IS DESCRIBED AND QUANTIFIED DURING THE PERIOD FROM BIRTH TO TWO TO FOUR WEEKS OF AGE.

K-64
KITCHEN, DAVID W., AND BROMLEY, PETER T.
1971.
"AGONISTIC BEHAVIOR OF TERRITORIAL PRONGHORN BUCKS (*ANTILOPRA AMERICANA*)."
UNIV. MICHIGAN, ANN ARBOR. (TYPEWRITTEN). 17 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

COPIES NOT AVAILABLE FOR DISTRIBUTION BUT ONE COPY IS DEPOSITED AND MAY BE REVIEWED AT THE NATIONAL BISON RANGE.

AVAILABLE FROM: NATIONAL BISON RANGE.

(NATL. BISON RANGE). TERRITORIAL BEHAVIOR OF PRONGHORN BUCKS WAS OBSERVED INDEPENDENTLY FOR SIX SUMMERS, FIVE RUTTING SEASONS, AND ONE FULL WINTER. THIS PAPER DESCRIBES AGONISTIC AND RELATED BEHAVIORS THAT WERE USED TO DEFEND A TERRITORY.

K-65
KLAGES, M. G.; MCCONNELL, R. C., AND NIELSON, G. A.
1976.
SOILS OF THE CORAM EXPERIMENTAL FOREST.
BOZEMAN, MT.: MONTANA AGRIC. EXPR. STAT.,
MONTANA STATE UNIV. RESEARCH REPT. 91. 43 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(CORAM EXPR. FOREST). THIS REPORT COVERS A PROJECT IN WHICH THE SOILS OF CORAM EXPERIMENTAL FOREST WERE CLASSIFIED AND MAPPED. SOIL SAMPLES WERE ANALYZED FOR PHYSICAL AND CHEMICAL PROPERTIES. INCLUDED ARE SOIL DESCRIPTIONS, DIAGRAMS OF SOIL PROFILES, AND LABORATORY DATA FROM SAMPLING SITES.

K-66
KLAYER, ROBERT W.
1977.
"MOUNTAIN GOAT SURVEY FOR THE MISSION AND JOCKO MOUNTAINS. SEPTEMBER AND OCTOBER 1977."
CONFEDERATED SALISH & KOOTENAI TRIBES. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: MISSION MTNS. & JOCKO MTNS.). THE PURPOSE OF THIS SURVEY WAS TO PROVIDE BASIC BIOLOGICAL DATA CONCERNING MOUNTAIN GOAT (*Oreamnos americanus*) POPULATIONS ON THE FLATHEAD RESERVATION. THE RESULTS FROM SEVEN HELICOPTER SURVEYS ARE DISCUSSED AND RECOMMENDATIONS FOR FUTURE SURVEYS ARE MADE. TABLES CLASSIFY MOUNTAIN GOATS, MULE DEER, AND ELK OBSERVED ACCORDING TO DRAINAGE.

K-67
KLEINKOPF, M. DEAN, AND MUDGE, MELVILLE R.
1972.
AEROMAGNETIC, BOUGER GRAVITY, AND GENERALIZED GEOLOGIC STUDIES OF THE GREAT FALLS-MISSION RANGE AREA, NORTHWESTERN MONTANA.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROF. PAPER 726-A. 19 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(GREAT FALLS-MISSION RANGE AREA). AN INTERPRETATION OF AEROMAGNETIC AND GRAVITY ANOMALIES IN TERMS OF FAULT TECTONICS, BASEMENT ROCK UNITS, AND REGIONAL GEOLOGY IS PRESENTED. INCLUDED IS INFORMATION ABOUT THE AREA'S STRUCTURAL FRAMEWORK AND DISTRIBUTION OF NEAR-SURFACE IGNEOUS ROCKS. PROMINENT MAGNETIC AND GRAVITY FEATURES ARE DISCUSSED IN INDIVIDUAL PARAGRAPHS, KEYED TO THE MAP LOCATIONS.

K-68
KLEINKOPF, M. DEAN; HARRISON, J. E.; AND ZARTMAN, R.
1972.
AEROMAGNETIC AND GEOLOGIC MAP OF PART OF NORTHWESTERN MONTANA AND NORTHERN IDAHO. GEOPHYSICAL INVESTIGATIONS MAP GP-636.
WASHINGTON, D.C.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(NORTHWESTERN MONTANA & NORTHERN IDAHO). THIS MAP, DRAWN AT A SCALE OF 1:250,000, ILLUSTRATES QUATERNARY, TERTIARY, CRETACEOUS, PALEOZOIC, AND PRECAMBRIAN ROCK LOCATIONS AND ALSO INCLUDES MAGNETIC CONTOURS. A FIVE-PAGE REPORT ACCOMPANIES THE MAP.

K-69
KLINGER, RICHARD D.
1976.
REPORT TO THE MONTANA DESIGNATED 208 WATER QUALITY PLANNING AGENCIES ON LAWS AFFECTING WATER QUALITY.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT. 172 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS REPORT DISCUSSES AND ANALYZES THE MOST IMPORTANT FEDERAL LAWS AFFECTING WATER QUALITY, FOCUSING UPON THE REQUIREMENTS OF THE FEDERAL WATER POLLUTION CONTROL ACT, BUT ALSO DEALING WITH OTHER RELATED FEDERAL LAWS. THE PURPOSE OF THE FEDERAL LAW SECTION IS TO PROVIDE A DISCUSSION OF THE REQUIREMENTS AND FRAMEWORK OF FEDERAL LAW WITHIN WHICH THE 208S FUNCTION. THE BULK OF THE REPORT DEALS WITH STATE LAW. THE AUTHOR ANALYZED, AGENCY BY AGENCY, THE MANAGERIAL, ADMINISTRATIVE, AND SUBSTANTIVE ASPECTS OF MOST STATE LAWS HAVING AN IMPACT UPON WATER QUALITY. LOCAL GOVERNMENT POWERS ARE DISCUSSED AS WELL AS THE SPECIAL USE DISTRICTS. AREAS OF GREATER CONCERN TO THE 208 FUNCTION ARE CONSIDERED AND ANALYZED. PROCEDURAL REQUIREMENTS OF THE 208S AND OF POTENTIAL IMPLEMENTING AGENCIES ARE ALSO DISCUSSED. THE REPORT CONCLUDES WITH RECOMMENDATIONS ON THE LEGAL CONSIDERATIONS FOR DEVELOPING AND IMPLEMENTING THE PLANS.

K-70
KLUG, PAUL E.
1977.
SILVICULTURAL PRESCRIPTION FOR WINONA RIDGE EAST - MORAN CREEK.
KALISPELL, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, FORESTRY DIV., NORTHWEST AREA. 35 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(WINONA RIDGE EAST: MORAN CREEK). THIS MANAGEMENT PRESCRIPTION IS ORIENTED TOWARD EMPLOYING ALL PRACTICABLE MEANS OF HARVESTING COMMERCIALY VALUABLE SAW TIMBER ON STATE LAND WHICH IS THREATENED BY THE DENDROCTONUS PONDEROSAE EPIDEMIC IN THE NORTH FORK OF THE FLATHEAD RIVER. OPERATIONS WOULD INCLUDE THE SALVAGE OF CURRENTLY DEAD MATERIAL, AS WELL AS PRE-SALVAGE "HIGH RISK" STANDS.

K-71
KLUG, PAUL E.
1978.
KALISPELL UNIT TIMBER STAND IMPROVEMENT (TSI) AND INTRODUCTION TO TSI INVENTORY AND PLANNING METHODS.
KALISPELL, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, FORESTRY DIV., NORTHWEST AREA.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(KALISPELL WORKING UNIT). THIS REPORT CONTAINS A WORKING PLAN FOR TIMBER STAND IMPROVEMENT ACTIVITIES ON THE KALISPELL UNIT, INCLUDING AN INTRODUCTION TO THE METHODS WHICH WERE DEVELOPED FOR DATA COLLECTION, ANALYSIS, AND PLANNING. IN ADDITION, IT PRESENTS A PROPOSAL FOR ADOPTION OF THOSE

METHODS AS A MEANS OF COMPLETING FUTURE INVENTORIES AND PLANNING ON OTHER UNITS. READERS WISHING TO IMPLEMENT THE METHODS USED WILL NEED TO REVIEW THE MATERIAL IN THE APPENDICES.

K-72
KNAPP, GEORGE L.
1963.
"A DIORITE SILL IN THE LEWIS AND CLARK RANGE, MONTANA."
M.S. THESIS, UNIV. MASSACHUSETTS, AMHERST. 63 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA: LEWIS & CLARK RANGE: WOOD CANYON). THIS STUDY WAS UNDERTAKEN TO DETERMINE THE AGE OF THE INTRUSION, THE EXACT STRATIGRAPHIC HORIZON OR HORIZONS INTRUDED, THE STRUCTURAL RELATIONSHIP OF THE SILL, AND THE COMPOSITION AND MAGMATIC HISTORY OF THE SILL ROCK. THE UPPER AND LOWER SILL CONTACTS WERE PLOTTED AND FOUR CAREFULLY MEASURED SECTIONS AND SAMPLE TRAVERSES WERE MADE THROUGH THE SILL. FIELD WORK ALSO INCLUDED A GENERAL RECONNAISSANCE OF OTHER IGNEOUS ROCKS NEAR THE STUDY AREA. LABORATORY WORK INCLUDED CUTTING THIN SECTIONS FROM THE SAMPLES. SIX DETERMINATIONS OF PLAGIOCLASE GRAINS WERE MADE. PYROXENE COMPOSITIONS WERE DETERMINED BY DIRECT MEASUREMENT OF 2V ON THE UNIVERSAL STAGE AND BY MEASUREMENT OF THREE PRINCIPLE REFRACTIVE INDICES.

K-73
KNAPTON, J. R., AND BOCHY, B. M.
1976.
RESULTS OF PHYTOPLANKTON SAMPLING AT NATIONAL STREAM QUALITY ACCOUNTING NETWORK STATIONS IN MONTANA - 1975 WATER YEAR.
HELENA, MT.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. OPEN FILE REPT. 76-219. 27 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(MONTANA: NORTH FORK OF THE FLATHEAD RIVER). TWELVE NATIONAL STREAM QUALITY ACCOUNTING NETWORK STATIONS WERE OPERATED IN MONTANA DURING THE 1975 WATER YEAR. THE NETWORK WAS ESTABLISHED FOR THE PURPOSE OF ACQUIRING A BASE OF HYDROLOGIC DATA FOR USE BY AGENCIES ENGAGED IN WATER RESOURCES PLANNING ON A NATIONAL OR REGIONAL SCALE. ONE OF THE STATIONS IS LOCATED ON THE NORTH FORK OF THE FLATHEAD RIVER, NEAR THE CANADIAN-U.S. BORDER. AMONG THE CHARACTERISTICS ANALYZED WERE PHYTOPLANKTON IDENTIFICATION AND CELL COUNTS.

K-74
KNAUTH, LEROY P.
1973.
"OXYGEN AND HYDROGEN ISOTOPE IN CHERT AND RELATED ROCKS."
PH.D. DISSERTATION, CALIFORNIA INSTITUTE TECHNOLOGY.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE FEASIBILITY OF MAKING MEANINGFUL MEASUREMENTS OF THE DEUTERIUM CONTENT OF WATER EXTRACTED FROM HYDROUS CHERTS WAS EVALUATED BY A SERIES OF DEHYDRATION AND ISOTOPE EXCHANGE EXPERIMENTS. SAMPLES WERE TAKEN IN GLACIER NATIONAL PARK. THIS WORK AIDS IN UNDERSTANDING THE GEOCHEMISTRY OF THE PARK'S SEDIMENTARY ROCKS.

K-75
KNIGHT, RICHARD R.
1970.
"THE SUN RIVER ELK HERD."
WILDLIFE MONOGRAPHS NO. 23. 66 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA: UPPER SUN RIVER DRAINAGE & AREAS JUST WEST OF CONTINENTAL DIVIDE). AN ELK (*Cervus canadensis*) HERD WAS INVESTIGATED OVER A 5-YEAR PERIOD TO DETERMINE CAUSES OF LOW CALF PRODUCTION. INITIAL RESEARCH FOCUSED UPON FORAGE PREFERENCES AND RANGE RELATIONSHIPS. LATER INVESTIGATIVE PHASES INCLUDED THE DEFINITION OF MIGRATION ROUTES AND POPULATION CHARACTERISTICS OF DIFFERENT SEGMENTS OF THE HERD THROUGH THE USE OF INDIVIDUALLY MARKED ANIMALS. DIFFERING RATES OF HARVEST FOR DIFFERENT PARTS OF THE HERD WAS OBTAINED FROM DATA FROM CHECKING STATIONS.

K-76
KNIGHT, RICHARD R.
1970.
"BIOLOGICAL CONSIDERATIONS IN THE DELINEATION OF CRITICAL HABITAT." IN BEARS: THEIR BIOLOGY AND MANAGEMENT. EDITED BY C. J. MARTINKA AND K. L. MCARTHUR.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(RANGE OF THE GRIZZLY BEAR: ROCKY MTS.). THIS PAPER EXAMINES THE ENVIRONMENTAL REQUIREMENTS FOR A VIABLE POPULATION OF GRIZZLIES. IT DISCUSSES FOOD REQUIREMENTS, COVER, AND SPATIAL REQUIREMENTS. MAJOR PHYSICAL MODIFICATIONS AFFECTING GRIZZLY BEAR HABITAT ARE DETAILED.

K-77
KNOERLE, BENDER, STONE AND ASSOCIATES, INC., AND AIRWAYS ENGINEERING CORPORATION.
1974.
MONTANA STATE AIRPORT SYSTEM PLAN. 5 VOLS.
BALTIMORE, MD.: KNOERLE, BENDER, STONE AND ASSOCIATES, INC. AND WASHINGTON, D.C.: AIRWAYS ENGINEERING CORP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). THE MONTANA STATE AIRPORT SYSTEM PLAN IS THE RESULT OF A COMPREHENSIVE STUDY TO PRODUCE A DEFINITIVE PLAN FOR THE DEVELOPMENT OF AN EFFICIENT AIR TRANSPORTATION NETWORK OR SYSTEM OF AIRPORTS IN THE STATE. ITS REPORT IS COMPRISED OF FIVE VOLUMES: 1) A GENERAL SUMMARY OF THE STUDY, INCLUDING ITS PRIMARY FINDINGS, INTENDED FOR USE BY DECISION-MAKERS; 2) MAIN BODY OF THE REPORT, INTENDED FOR USE BY SPECIALISTS WHO WILL EVALUATE AND IMPLEMENT THE PLAN; 3) APPENDIX 1, CONSISTING OF 3 PARTS - AIRPORT CLASSIFICATION; TABLE OF UNIT COSTS AND INDIVIDUAL AIRPORT SUMMARIES INCLUDING DETAILED AVIATION ACTIVITY FORECASTS; SUMMARY AND DETAILED COST ESTIMATES FOR REQUIRED DEVELOPMENT BY PERIODS, ALONG WITH AN AERIAL PHOTOGRAPH OR SKETCH FOR EACH AIRPORT; 4) APPENDIX 2, CONTAINING - HISTORY AND FORECASTS OF DEPENDENT AND INDEPENDENT VARIABLES AND THE FORECASTING EQUATION FOR EACH AIR CARRIER AIRPORT, CIVIL AIRCRAFT TYPES BY USER CATEGORY CLASSIFIED BY SEATING CAPACITY AND OPERATIONAL GROUP, AND INDIVIDUAL AIRPORT FINANCIAL FEASIBILITY ANALYSIS GROUPED BY COUNTY; AND 5) APPENDIX 3, REPRESENTING A COMPUTERIZED DATA BANK OF THE STATE'S AIRPORTS, CONTAINING PHYSICAL AND OPERATIONAL CHARACTERISTICS FOR 1972.

K-78
KNOX, FRANK.
1926.
"FLATHEAD RESERVATION, MONTANA." IN ANNUAL REPORT OF THE BOARD OF INDIAN COMMISSIONERS FOR THE FISCAL YEAR ENDED JUNE 30, 1926.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.

(FLATHEAD INDIAN RESERVATION). MOST OF THE REPORT INVOLVES DETAILS OF ADMINISTRATION OF THE FLATHEAD RESERVATION AND A DISCUSSION OF THE PROBLEMS OF THE FLATHEAD IRRIGATION PROJECT, WHICH UP TO THAT POINT HAD COST \$175 PER ACRE OF LAND IRRIGATED. IT PROPOSES MAKING ARRANGEMENTS WITH MONTANA POWER FOR A BLOCK OF POWER FROM THE KERR DAM SITE WHICH COULD BE USED TO IRRIGATE THE MISSION VALLEY AREA FROM THE FLATHEAD RIVER. SKCC.

K-79
KNUDSEN, CLYDE, AND HURST, J.
1972.
MAYFLIES AND STONEFLIES OF BOWMAN CREEK, AOKALA CREEK, CUT BANK CREEK, IN GLACIER NATIONAL PARK.
41 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK LIBRARY.

(GLACIER NATL. PARK). THE OBJECTIVE OF THIS STUDY WAS TO DETERMINE THE DISTRIBUTION OF EPHEMEROPTERA AND PLECOPTERA IN SELECTED STREAMS AND TO DEVELOP SOME BASIC CONCEPTS CONCERNING THE INSECTS. WATER QUALITY PARAMETERS WERE: TEMPERATURE, DO, CO₂, PH, FREE ACIDITY, TOTAL ACIDITY, TOTAL HARDNESS, AND TOTAL DEKALINITY. LISTS OF SPECIES AND WHERE THEY WERE FOUND ARE INCLUDED.

K-80
KNUDSEN, GERHARD M., ET AL.
1968.
NATURAL DISTRIBUTION OF WESTERN LARCH (*Larix occidentalis*) AND SUBALPINE LARCH (*Larix lyallii*).
MISSOULA, MT.: UNIV. MONTANA, MONTANA FOREST & CONSERVATION EXPR. STAT. RESEARCH NOTE 7. 5 PP.
FINAL, SPECIFIC, TECHNICAL, REGIONAL.

(PACIFIC NORTHWEST). THE PUBLICATION INCLUDES MAPS SHOWING THE TWO SPECIES' NATURAL DISTRIBUTION. THE TWO-PAGE TEXT DESCRIBES THE ZONES OF OCCURRENCE, NOTING RANGE OVERLAP, AND DISCUSSES THE SPECIES' MORPHOLOGICAL DIFFERENCES.

K-81
KOCH, ELSER.
1941.
BIG GAME IN MONTANA FROM EARLY HISTORICAL RECORDS.
J. WILDLIFE MANAGEMENT 5(OCTOBER 1941):367-370.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS PAPER EXAMINES THE JOURNALS OF EARLY MONTANA EXPLORERS FOR REFERENCES TO WILDLIFE. SOME INTERPRETATION OF PROBABLE NUMBERS, DISTRIBUTION, HABITAT CONDITIONS, AND CHANGES IS INCLUDED.

K-82
KOENLER, GARY M.; HORNOKER, MAURICE G.; AND HASH, HOWARD S.
1973.
LYNX HOME RANGE SIZE AND HABITAT USE IN MONTANA.
MOSCOW, ID.: IDAHO COOP. WILDLIFE RESEARCH UNIT, UNIV. IDAHO. 8 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SOUTH FORK OF THE FLATHEAD RIVER & BOB MARSHALL WILDERNESS AREA). LYNX (LYNX CANADENSIS) MOVEMENTS WERE MONITORED BY RADIO TELEMETRY FOR 7.5 MONTHS FOR AN ADULT MALE AND FOR 1 MONTH FOR AN ADULT FEMALE. A TABLE LISTS THE RELATIVE ABUNDANCE OF SNOWSHOE HARE IN FOREST TYPES ALONG THE TRAPLINE.

K-63
KOEHLER, GARY M.; HORNOCKER, MAURICE G.; AND HASH, HOWARD S.
1979.

WOLVERINE MARKING BEHAVIOR.
MOSCOW, ID.: IDAHO COOP. WILDLIFE RESEARCH UNIT, UNIV. IDAHO. 8 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SOUTH FORK OF THE FLATHEAD RIVER & BOB MARSHALL WILDERNESS AREA). OBSERVATIONS ON WOLVERINE (GULO GULO) MARKING WERE MADE DURING A WOLVERINE STUDY IN MONTANA. MARKING INVOLVED MAKING VISUAL AND OLFACTORY SIGNS ON THE GROUND OR ON THE TRUNK OF A TREE. THE FUNCTION OF MARKING AS A SPACING MECHANISM AND FOR OTHER PURPOSES IS DISCUSSED.

K-64
KOEHLER, GARY M.; MOORE, WILLIAM R.; AND TAYLOR, ALAN R.
1975.
"PRESERVING THE PINE MARTEN: MANAGEMENT GUIDELINES FOR WESTERN FORESTS."
WESTERN WILDLANDS 2 SUMMER 1975:37-38.
FINAL, ORIGINAL DATA, SPECIFIC, TECHNICAL, REGIONAL.

(WESTERN MONTANA). THE PINE MARTEN, MARTES AMERICANUS, AN INDICATOR OF THE HEALTH OF THE CONIFEROUS FOREST ECOSYSTEM, IS THE FOCUS OF THIS ARTICLE. A STUDY DOCUMENTING THE FOOD HABITS OF THE MARTEN AND DESCRIBING ITS HABITAT AND THE IMPACT OF FIRE IS DISCUSSED TO DEMONSTRATE THE BENEFITS OF FOREST COMMUNITY DIVERSITY. MANAGEMENT GUIDELINES CONSIDERING THE MARTEN ARE PRESENTED.

K-65
KOEHN, PETER, AND LOPACH, J.
1976.
PROFILE OF MONTANA LOCAL GOVERNMENT STUDY COMMISSIONER.
MISSOULA, MT.: UNIV. MONTANA, BUREAU GOVERNMENT RESEARCH. OCCASIONAL SERIES. 87 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS STUDY PROVIDES A DETAILED PROFILE OF THE SOCIAL AND POLITICAL BACKGROUNDS OF 505 MONTANA LOCAL GOVERNMENT STUDY COMMISSIONERS. THE PROFILE IS BASED ON DATA OBTAINED FROM A MAILED SURVEY QUESTIONNAIRE.

K-66
KOEHN, PETER, AND PAYNE, T., EDs.
1976.
LOCAL GOVERNMENT: PROBLEMS AND PROSPECTS: PROCEEDINGS OF AN ACADEMIC SYMPOSIUM HELD AT THE UNIVERSITY OF MONTANA.
MISSOULA, MT.: UNIV. MONTANA, BUREAU GOVERNMENT RESEARCH. OCCASIONAL SERIES. 178 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS SYMPOSIUM WAS DESIGNED TO GIVE LOCAL GOVERNMENT REVIEW COMMISSIONERS ADDITIONAL KNOWLEDGE OF THE THEORY AND PRACTICE OF LOCAL GOVERNMENT. PANEL PRESENTATIONS, INVOLVING ACADEMICIANS AND DECISION MAKERS FROM GOVERNMENT AND THE

PRIVATE SECTOR, COVERED THE FOLLOWING TOPICS: IMPROVING LOCAL GOVERNMENT; STRUCTURE AND AESTHETICS, FINANCING LOCAL GOVERNMENT; SIGNIFICANCE OF CITIZENS' ATTITUDES; AND COPING WITH A CHANGING ENVIRONMENT.

K-67
KOELBEL, LENORA.
1972.
MISSOULA THE WAY IT WAS: A PORTRAIT OF AN EARLY WESTERN TOWN.
MISSOULA, MT.: GATEWAY PRINTING & LITHO.

(MISSOULA & FLATHEAD INDIAN RESERVATION). THIS HISTORY OF MISSOULA INCLUDES FREQUENT REFERENCES TO THE TRIBES OF THE FLATHEAD RESERVATION AND INDIAN-WHITE RELATIONS IN MISSOULA. SKCC.

K-68
KOELSCH, PATRICK K.
1975.
"SPECIES DIVERSITY OF STREAM INSECTS AS A MEASURE OF ECOLOGICAL STRESS, POST CREEK, LAKE COUNTY, MT."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 175 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY: POST CREEK). THE PURPOSE OF THIS STUDY WAS TO RELATE CHANGES IN STANDING CROP, PRODUCTIVITY, AND SPECIES DIVERSITY OF BENTHIC INSECTS AS A MEASURE OF ECOLOGICAL STRESS WITH RESPECT TO CHANGES IN THE PHYSICAL AND CHEMICAL NATURE OF THE STREAM BROUGHT ABOUT BY MAN'S ACTIVITIES. BOTTOM SAMPLES WERE TAKEN WEEKLY, AND STANDING CROP AND SHANNON DIVERSITY INDICES WERE CALCULATED FROM THESE COMPOSITE SAMPLES.

K-69
KOHLE, STEVE.
1976.
DOUGLAS-FIR TUSsock MOTH DETECTION SURVEY USING PHEROMONE-BAITED STICKY TRAPS.
MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY. INSECT & DISEASE REPT. NO. 76-2.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD RIVER BASIN). PHEROMONE-BAITED STICKY TRAPS WERE PLACED AT 125 LOCATIONS THROUGHOUT THE HOST RANGE OF DOUGLAS FIR TUSsock MOTH ORGYIA PSEUDOT-SUGATA IN WESTERN MONTANA. TWO TYPES OF PHEROMONE-IMPREGNATED BAITS WERE EVALUATED. THE APPENDIX CONTAINS TABLES DISPLAYING THE SPECIFIC RESULTS AT THE VARIOUS TRAP SITES. THIS SURVEY SHOWED THE PRINCIPAL DISTRIBUTION OF THE MOTH IN MONTANA TO BE IN THE NORTHWEST PORTION OF THE STATE. THE RANGE INCLUDES THE FLATHEAD AND SWAN VALLEYS.

K-70
KOHLE, STEVE.
1977.
DOUGLAS-FIR TUSsock MOTH DETECTION SURVEY USING PHEROMONE-BAITED STICKY TRAPS - 1976.
MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY, COOP. FOREST MANAGEMENT. REPT. 77-2. 7 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD VALLEY & SWAN VALLEY). IN AN ATTEMPT TO REFINER THE KNOWN DISTRIBUTION OF THE MOTH IN MONTANA, TRAPS WERE PLACED AT 43 LOCATIONS. METHODS AND RESULTS ARE INCLUDED.

K-81
KOHLE, STEVE.
1977.
GROUND APPLICATION OF FOUR INSECTICIDES ON DOUGLAS FIR TUSsock MOTH AND WESTERN SPRUCE BUDWORM POPULATIONS IN MONTANA.
MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY, COOP. FOREST MANAGEMENT. REPT. 77-1. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ST. IGNATIUS). THIS PAPER PRESENTS THE RESULTS OF A STUDY TESTING SEVIN, ORTHENE, PYROCIDE GROWERS SPRAY, AND DIMLIN AGAINST THE LARVAE OF ORGYIA PSEUDOT-SUGATA AND CHORISTONEURA OCCIDENTALIS, USING HYDRAULIC SPRAY EQUIPMENT.

K-82
KOHLE, STEVE.
ANNUAL.
FOREST INSECT AND DISEASE CONDITIONS IN MONTANA - INSECT AND DISEASE REPORT.
MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY. 7 PP.
FINAL, PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: STILLWATER, COAL CREEK, & SWAN RIVER STATE FORESTS). THESE REPORTS GIVE A BRIEF REVIEW OF THE CURRENT CONDITIONS OF VARIOUS INFESTATIONS. THEY DESCRIBE THE MOUNTAIN PINE BEETLE, PINE ENGRAVER BEETLE, SPRUCE BEETLE, FIR ENGRAVER, WESTERN SPRUCE BUD WORM, DOUGLAS FIR TUSsock MOTH, LARCH CASE BEARER, PINE BARK APHID, PONDEROSA PINE NEEDLE MINER, FIR-FIREWEED RUST, PINE NEEDLE CAST FUNGUS, AND DUTCH ELM DISEASE. MAPS DESCRIBE THE LOCATIONS OF INFESTATIONS.

K-83
KONIZESKI, RICHARD L.
1972.
GROUND WATER OCCURRENCE ON THE "MANY LAKES" DISTRICT, NORTHWESTERN MONTANA.
KALISPELL, MT.: FLATHEAD LAND CONSULTANTS. 26 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: MANY LAKES DISTRICT, EAST OF KALISPELL). THIS SURVEY COVERS THE CLIMATE, GEOLOGY, AND HYDROLOGY OF THE AREA, AND GIVES WELL DRILLING LOGS FOR THREE TEST WELLS. DEVELOPMENTAL CONSIDERATIONS WITH RESPECT TO WATER QUALITY FOR THE MANY LAKES VACATION VILLAGE ARE DISCUSSED.

K-84
KONIZESKI, RICHARD L.
1978.
THE MONTANANS' FISHING GUIDE: MONTANA WATERS WEST OF CONTINENTAL DIVIDE. VOL. 1.
MISSOULA, MT.: MOUNTAIN PRESS PUBL. CO. 310 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

ILLUSTRATED WITH MAPS AND PHOTOGRAPHS.

(WESTERN MONTANA: MAINSTEM, MIDDLE, NORTH, & SOUTH FORKS OF THE FLATHEAD RIVER; SWAN RIVER; BOB MARSHALL WILDERNESS AREA; & GLACIER NATL. PARK). THIS BOOK, COMPILED FROM INTERVIEWS WITH LANDOWNERS, FISHERMEN, AND FOREST SERVICE AND FISH AND GAME PERSONNEL, DETAILS FISHING POTENTIALS AND ACCESS ROUTES TO THE AREA'S LAKES AND STREAMS. LAKE AND STREAM DESCRIPTIONS INCLUDE THE WATER'S SIZE, APPEARANCE, AND GENERAL FISH SPECIES COMPOSITION AND AVERAGE SIZE.

K-95

KONLANDE, J. E., AND ROBSON, J. R. K.
1972.
"THE NUTRITIVE VALUE OF COOKED CAMAS AS CONSUMED BY FLATHEAD."
IN *ECOLOGY OF FOOD AND NUTRITION*. VOL. 2.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE ARTICLE DISCUSSES THE NUTRITIVE VALUE OF CAMAS (CAMASSIA QUAMASH), ONE OF THE MAJOR PLANT ROOTS USED BY FLATHEAD INDIANS. THE QUANTITY AND QUALITY OF THE AVAILABLE CARBOHYDRATE IN CAMAS WAS DETERMINED BEFORE, AND AFTER, IT WAS COOKED BY METHODS USED BY THE INDIANS.

K-96

KOO, WON W., AND COX, LINDA.
1978.
PROJECTED QUANTITIES OF GRAIN PRODUCTION AND GRAIN REQUIRING TRANSPORTATION SERVICE IN MONTANA, 1984-1988, 1989-1990, AND 1990-2000.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. RESEARCH REPORT. 132. 26 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE OBJECTIVE OF THIS REPORT WAS TO PROVIDE PROJECTIONS OF FUTURE QUANTITIES OF GRAIN PRODUCTION AND SURPLUS GRAIN THAT WILL REQUIRE TRANSPORTATION SERVICES. THIS DATA WILL BE USEFUL FOR DECISION MAKERS TO EVALUATE EXISTING STORAGE AND HANDLING FACILITIES AND TRANSPORTATION REQUIREMENTS IN RELATION TO THE POTENTIAL FUTURES OF MONTANA AGRICULTURE.

K-97

KOOTENAI CULTURE COMMITTEE.
1978.
COYOTE AND TROUT.
BEAVERTON, ORE.: EDUCATIONAL SYSTEMS, INC.

THIS TRADITIONAL KOOTENAI COYOTE STORY WITH ILLUSTRATIONS IS TOLD AT THE THIRD GRADE READING LEVEL. SKCC.

K-98

KOOTENAI CULTURE COMMITTEE.
1978.
HOW MARTIN GOT HIS SPOTS.
BEAVERTON, ORE.: EDUCATIONAL SYSTEMS, INC.

THIS TRADITIONAL KOOTENAI STORY WITH ILLUSTRATIONS IS TOLD AT THE THIRD GRADE READING LEVEL. SKCC.

K-99

KOPLIN, JAMES R.
1982.
"COMPETITION AND NICHE SEGREGATION IN THE GENUS MICROTUS"
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 66 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NATL. BISON RANGE). THIS STUDY TESTS THE HYPOTHESIS THAT ARTIFICIAL REDUCTION OF A POPULATION OF MEADOW VOLES (MICROTUS PENNSYLVANICUS) IN A HYDROSECE COMMUNITY WILL RESULT IN MOVEMENT OF MONTANE VOLES (M. MONTANUS) INTO THE VACATED NICHE. CONTROL AND EXPERIMENTAL LIVE TRAPPING PLOTS WERE LOCATED IN TWO AREAS ON THE RANGE WITH SYMPATRIC POPULATIONS OF M. PENNSYLVANICUS AND M. MONTANUS. THE POSSIBLE OCCURRENCE OF INTERSPECIFIC COMPETITION IS DISCUSSED, ALONG WITH MODELS OF COMPETITIVE NICHE EXPLOITATION AND NON-COMPETITIVE NICHE OCCUPANCY IN SYMPATRIC CONGENERIC SPECIES.

K-100

KOPLIN, JAMES R.
1989.
FLATHEAD LAKE OSPREY STUDY.
ARCATA, CA.: HUMBOLDT STATE COLL., SCHOOL NATURAL RESOURCES. PROG. REPT. NO. 1.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & THE MAINSTEM & LOWER FLATHEAD RIVER). THIS PROGRESS REPORT DISCUSSES: NEST UTILIZATION, NESTING ACTIVITY, NESTING PRODUCTIVITY, FOOD RESOURCES, HUMAN DISTURBANCE, PESTICIDE CONTAMINATION, AND SOURCE OF CONTAMINATION. TABLES ILLUSTRATE MEASUREMENTS OF NESTING SUCCESS, VARIATIONS IN SHELL THICKNESS, AND LEVELS OF DDT RESIDUES IN EGGS.

K-101

KOPLIN, JAMES R., ET. AL.
1972.
"FOOD RESOURCES AND FLEDGLING PRODUCTIVITY OF CALIFORNIA AND MONTANA OSPREY."
TRANS. NORTH AMERICAN OSPREY RESEARCH CONFERENCE. SERIES NO. 2. 9 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). THE PURPOSE OF THIS PAPER IS TO PROVIDE INFORMATION ON THE RELATIONSHIP BETWEEN DIFFERENT LEVELS OF FOOD RESOURCES AND FLEDGLING PRODUCTIVITY OF PANDION HALIAETUS. QUANTITATIVE STUDIES TO DETERMINE THE RELATIVE INFLUENCE OF HIGH VERSUS LOW FOOD RESOURCES ON REPRODUCTIVE PERFORMANCE OF OSPREYS WERE MADE.

K-102

KOPLIN, JAMES R.; MCCARTER, D. L.; AND MCCARTER, D. S.
1971.
FLATHEAD LAKE OSPREY STUDY. FINAL REPORT.
ARCATA, CA.: HUMBOLDT STATE COLL., SCHOOL NATURAL RESOURCES. 30 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). THE FINDINGS OF A FOUR YEAR STUDY ARE DETAILED IN THIS FINAL REPORT. NEST UTILIZATION, NESTING SUCCESS, NESTING PRODUCTIVITY, POPULATION TRENDS, AND FOOD ARE EXAMINED IN THE TEXT. A HISTORY OF NESTING ACTIVITY AT EACH OF THE 50 NESTS STUDIED IS INCLUDED. TABLES ILLUSTRATE THE ESTIMATED STATUS OF THE FLATHEAD LAKE OSPREY POPULATION AS COMPARED TO TWO OTHER WESTERN POPULATIONS, THE COMPARATIVE FISHING SUCCESS OF FLATHEAD LAKE OSPREYS, AVERAGE DAILY QUANTITIES OF FISH DELIVERED TO OSPREY NESTS, AND AVERAGE GROWTH RATE PER NESTLING.

K-103

KOPPE, ROBERT K., AND ADAMS, D. F.
1989.
DISPERSION OF PRESCRIBED FIRE SMOKE.
PULLMAN, WA.: WASHINGTON STATE UNIV. PAPER 89-AP-38. 21 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: MILLER CREEK DRAINAGE NEAR OLN). IN THIS ARTICLE, RESULTS OF AIRBORNE SAMPLING FOR AEROSOL DETECTION AND FOR CARBON DIOXIDE ANALYSIS OF TWO TYPICAL PRESCRIBED BURNS ARE DESCRIBED. RATE OF PLUME SPREAD WAS CALCULATED FOR ONE BURN AS THE PLUME WAS CARRIED DOWNWIND BY THE WINDS ALOFT. SIMULTANEOUS AEROSOL AND CARBON DIOXIDE MEASUREMENTS SHOWED CORRELATION BETWEEN SMOKE PARTICLES AND INCREASED CARBON DIOXIDE CONCENTRATION FOR

APPROXIMATELY 25 KM DOWNWIND FROM BURN PLOTS. CO2 MEASUREMENTS WERE ALSO TAKEN FROM 25 KM TO 55 KM DOWNWIND. AERIAL INTERCEPTS OF THE EDGE OF THE CONVECTION COLUMN DURING THE INITIAL BUILDUP PHASE OF THE FIRE REVEALED CO2 CONCENTRATIONS OF UP TO 500 PPM.

K-104

KOTERBA, WAYNE D.
1988.
"AN ANALYSIS OF THE NORTH FORK VALLEY GRASSLANDS IN GLACIER NATIONAL PARK, MONTANA."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 80 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTH FORK VALLEY & GLACIER NATL. PARK). THE OBJECTIVES OF THIS STUDY WERE: 1) TO DEVELOP A QUANTITATIVE DESCRIPTION OF THE COMPOSITION OF THE GRASSLAND COMMUNITIES, AND 2) TO ESTABLISH AND INTERPRET THE INTERRELATIONSHIPS BETWEEN COMMUNITY STRUCTURE AND FACTORS OF THE PHYSICAL ENVIRONMENT.

K-105

KOTERBA, WAYNE D., AND HABECK, J. R.
1971.
"GRASSLANDS OF THE NORTH FORK VALLEY, GLACIER NATIONAL PARK, MONTANA."
CANADIAN J. BOTANY 49:10-20.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK VALLEY). A SERIES OF 40 GRASSLAND COMMUNITIES WAS SUBJECTED TO DETAILED PHYTOSOCIOLOGICAL INVESTIGATION. THE FOUR MAJOR GRASS SPECIES ACHIEVING DOMINANCE ARE AGROPYRON SPICATUM, FESTUCA IDAHOENSIS, FESTUCA SCABRELLA, AND DANTHONIA INTERMEDIA. ENVIRONMENTAL FACTORS POSSIBLY IMPORTANT IN THE DISTRIBUTION, COMPOSITION, AND MAINTENANCE OF THESE GRASSLANDS ARE DISCUSSED.

K-106

KOTOK, EDWARD S.
1973.
WESTERN LARCH - AN AMERICAN WOOD.
WASHINGTON, D.C.: U.S. DEPT. AGRICULTURE, FOREST SERVICE. FS-243. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(NORTHWESTERN U.S.: MONTANA). THIS ARTICLE DESCRIBES THE DISTRIBUTION, GROWTH, COMMON NAMES, RELATED COMMERCIAL SPECIES, SUPPLY, PRODUCTION CHARACTERISTICS, AND PRINCIPLE USES OF LARIX OCCIDENTALIS.

K-107

KRUEGAR, JOHN R.
1980.
"MISCELLANEA SELICA I: A FLATHEAD SUPPLEMENT TO VOGT'S SALISHAN STUDIES."
ANTHROPOLOGICAL LINGUISTICS 2(OCTOBER 1980):33-38.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE SUPPLEMENTS HANS VOGT'S WORK, WHICH INCLUDED A PAMPHLET CONTAINING A LIST OF 200 KALISPELL WORDS, BY ADDING THE FLATHEAD EQUIVALENTS OF THE 200 WORDS. THE WORDS ARE LISTED UNDER THE FOLLOWING CATEGORIES: HUMAN SOCIETY, HUMAN BODY, MAN-MADE THINGS, NATURE, ANIMALS, PLANTS AND FOOD, ATTRIBUTES, ACTIVITIES, AND NUMBERS.

K-108

KRUEGAR, JOHN R.
1961.

"MISCELLANEA SELICA II: SOME KINSHIP TERMS OF THE FLATHEAD SALISH."

ANTHROPOLOGICAL LINGUISTICS 3(FEBRUARY 1961):11-18.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE DISCUSSES PREVIOUS LINGUISTICAL WORK REGARDING THE SALISH LANGUAGE BY H. VOGT, H. TURNER-HIGH, AND H. BAHAR. IT PRESENTS KINSHIP TERMS AND NOTES CHARACTERISTICS OF THE FLATHEAD KINSHIP SYSTEM. SEVEN TABLES OF KINSHIP TERMINOLOGY ARE INCLUDED.

K-109

KRUEGAR, JOHN R.
1961.

"MISCELLANEA SELICA III: FLATHEAD ANIMAL NAMES AND ANATOMICAL TERMS."

ANTHROPOLOGICAL LINGUISTICS 3(DECEMBER 1961):43-52.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE PAPER BEGINS BY DISCUSSING GEORGE F. WEISEL'S ARTICLE, "ANIMAL NAMES, ANATOMICAL TERMS, AND SOME ETHNOZOOLOGY OF THE FLATHEAD INDIANS." THE AIM OF THE PAPER IS TO ESTABLISH THE CORRECT PHONETIC AND PHONEMIC FORM OF ENTRIES AND ITEMS PREVIOUSLY IDENTIFIED BY WEISEL. REMARKS MADE BY INFORMANTS AS TO WHAT ANIMAL WAS USUALLY MEANT ARE REPORTED.

K-110

KRUEGAR, JOHN R.
1967.

"MISCELLANEA SELICA V: ENGLISH-SALISHAN INDEX AND FINDER LIST."

ANTHROPOLOGICAL LINGUISTICS 9(FEBRUARY 1967):12-25.

PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE PAPER PRESENTS AN ENGLISH-TO-SALISHAN INDEX AND FINDER LIST, SO THAT THE SALISH EQUIVALENT OF ENGLISH WORDS AND EXPRESSIONS CAN BE LOCATED IN THE WORKS CITED IN THE ARTICLE. THE INDEX FOCUSES ON NOUNS AND SIMPLE VERB FORMS, BUT LISTS INCOMPLETELY WORDS OCCURRING IN LONGER PHRASES AND SENTENCES CITED AS EXAMPLES IN THE GRAMMAR AND SYNTAX PORTIONS OF VOGT'S BOOK.

K-111

KUCERA, DANIEL R., AND SCOTT, D. O.
1965.

BIOLOGICAL EVALUATION OF A DOUGLAS FIR BEETLE INFESTATION, TALLY LAKE RANGER DISTRICT, FLATHEAD NATIONAL FOREST, MONTANA.

MISSOULA, MT.: U.S. DEPT AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY, FOREST PEST CONTROL BRANCH. 2 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: TALLY LAKE RANGER DISTRICT & TALLY LAKE). A BRIEF TECHNICAL REPORT DESCRIBING A BIOLOGICAL EVALUATION OF A DOUGLAS FIR BEETLE (DENDROCTONUS PSEUDOTSUGA) INFESTATION. THE INFORMATION INCLUDES: TYPE OF DAMAGE, BIOLOGICAL DATA, ENVIRONMENTAL FACTORS, LOCATION AND EXTENT OF OUTBREAK, AND MANAGEMENT RECOMMENDATIONS.

K-112

KRUEGAR, CRAIG R.
1977.

"SOME ASPECTS OF THE BEHAVIOR AND ECOLOGY OF HARLEQUIN DUCKS BREEDING IN GLACIER NATIONAL PARK."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 163 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE SPECIFIC OBJECTIVES OF THIS STUDY INCLUDED: 1) DETERMINATION OF THE CHRONOLOGY OF BREEDING AND BROOD-REARING ACTIVITIES; 2) OBSERVATION OF BEHAVIORS AND THOSE ACTIVITIES WHICH MAY INFLUENCE BREEDING DENSITY AND HABITAT SELECTION; 3) DETERMINATION OF POPULATION NUMBERS, LOCAL DISTRIBUTION, AND DAILY AND SEASONAL MOVEMENTS; 4) EVALUATION OF REPRODUCTIVE SUCCESS, AND DESCRIPTION OF THE DEVELOPMENT AND SURVIVAL OF YOUNG; 5) IDENTIFICATION OF HABITAT REQUIREMENTS OF HISTRIONICUS HISTRIONICUS ON MCDONALD CREEK; AND 6) PROVISION OF MANAGEMENT SUGGESTIONS.

K-113

KUIPERS, BERT H.
1970.

"TOWARDS A SALISH ETYMOLOGICAL DICTIONARY."

LINGUA 26:46-72.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA.

(PACIFIC NORTHWEST: INTERIOR AND COASTAL SALISH). A LIST OF 157 ROOTS COMMON TO SQUAMISH (COASTAL SALISH), SHUSWAP, COEUR D'ALENE, AND KALISPELL (INTERIOR SALISH) IS PRESENTED. THE ROOTS ARE QUOTED IN RECONSTRUCTED PROTO-SALISH FORM (SEMANTIC SHIFTS IN INDIVIDUAL LANGUAGES ARE INCLUDED), AND THE ENGLISH MEANING IS GIVEN. ALSO INCLUDED IN THE LIST IS THE SQUAMISH FORM, SEPARATED BY A DASH FROM THE INTERIOR SALISH FORMS. A DISCUSSION OF COMPARATIVE PHONOLOGY CONSIDERS CONSONANT-

CORRESPONDENCES BETWEEN THE LANGUAGES ALONG WITH VOWEL-CORRESPONDENCES, STRESS, AND ALTERNATIONS.

K-114

KUNTZ, GAIL.
1979.

1978 MONTANA ENERGY ALMANAC.

HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, ENERGY DIV. 145 PP. FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE PUBLICATION IS AN ENERGY REFERENCE SOURCE OF INFORMATION ON ENERGY LEGISLATION, POLICIES AND PROGRAMS. IT SUMMARIZES ENERGY PRODUCTION, CONSUMPTION AND SUPPLY DATA, PROSPECTIVE ENERGY DEVELOPMENT PLANS, AND REGIONAL, FEDERAL, AND PRIVATE-SECTOR ENERGY-RELATED ACTIVITIES.

K-115

KVALE, VELMA R.
1976.

WHERE THE BUFFALO ROAMED. EDITED BY MARGARET S. BROOKE.

ST. IGNATIUS, MT.: MISSION VALLEY NEWS. 185 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: RONAN). THE HISTORY OF SETTLEMENT ON THE RESERVATION IS DESCRIBED IN THIS BOOK. IT INCLUDES ACCOUNTS OF THE ESTABLISHMENT OF THE STERLING FAMILY IN RONAN; THE EARLY HISTORY OF RONAN; THE BEGINNING OF THE FLATHEAD INDIAN IRRIGATION PROJECT; THE ALLARD-PABLO BUFFALO HERD; THE EARLY SETTLERS (THE SLOAN FAMILY, THE PIEDALES, AND OTHERS); THE FOUNDING OF THE MISSION VALLEY CONSERVATORY; THE ESTABLISHMENT OF VARIOUS BUSINESSES; GOVERNMENT SCHOOLS; SOCIAL LIFE AND RECREATION; AND LAW ENFORCEMENT.





L-6
LAFROMBOISE, JEFF, ET. AL.
1972.
"AND ALL WAS QUIET IN THE TEEPEES:....INDIAN
LEGENDS."
DOVETAIL MAGAZINE, SUMMER 1972, PP. 39-53.

A SELECTION OF INDIAN FOLKLORE. SKCC.

L-7
LAKE COUNTY PLANNING BOARD.
1977.
THE POPULATION AND ECONOMY OF LAKE COUNTY,
MONTANA. REVISED.
POLSON, MT. 26 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(LAKE COUNTY: POLSON, RONAN, & ST. IGNATIUS).
DATA CONTAINED IN THIS REPORT INCLUDE:
AGE/SEX PROFILES, ETHNIC CHARACTERISTICS,
EDUCATION, OCCUPATION, INCOME, EMPLOYMENT-
UNEMPLOYMENT, TOTAL EARNINGS, POPULATION
GROWTH, POPULATION DYNAMICS, ECONOMIC
GROWTH PROJECTIONS BASED ON HISTORICAL
TRENDS, AND PROJECTIONS BASED ON CURRENT
POPULATION STATISTICS.

L-8
LAKE COUNTY SOIL AND WATER CONSERVATION
DISTRICT.
1946.
DISTRICT PROGRAM, LAKE COUNTY SOIL AND
WATER CONSERVATION DISTRICT.
POLSON, MT. 17 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(LAKE COUNTY). THE PURPOSE OF THIS REPORT WAS
TO BRIEFLY DESCRIBE THE CONDITIONS WITHIN THE
DISTRICT THAT DIRECTLY OR INDIRECTLY AFFECT
FULL USE OF SOIL, WATER, AND PLANT RESOURCES.
IN ADDITION TO PRODUCTION OF FOOD AND FIBER,
SUCH THINGS AS RECREATION, SPACE FOR HOMES,
FACTORIES, SCHOOLS, CHURCHES, SUBDIVISIONS,
AND HIGHWAYS ARE CONSIDERED.

L-9
LAKE COUNTY TECHNICAL ACTION PANEL.
1968.
AN APPRAISAL OF POTENTIAL OUTDOOR RECREA-
TIONAL DEVELOPMENTS IN LAKE COUNTY, MON-
TANA.
POLSON, MT. 28 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(LAKE COUNTY). OUTDOOR RECREATIONAL
DEVELOPMENTS WERE INVENTORIED AND APPRAIS-
ED IN THIS REPORT. IT INCLUDES ALL MAJOR
RECREATION FACILITIES AND AREAS.

L-10
LANDSCAPES LIMITED.
1974.
PERMITS METHODOLOGY PHASE 2, BPA.
PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE
POWER ADMINISTRATION. 85 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(PACIFIC NORTHWEST). THIS REPORT OUTLINES THE
SECOND PHASE OF THE PERMITS PROCESS OF
TRANSMISSION LOCATION. PHASE II CONCENTR-
ATES UPON TWO ASPECTS OF THE METHOD THAT
ARE SIGNIFICANT FOR IMPLEMENTATION, IN-
CLUDING: 1) ORGANIZING THE BPA SERVICE AREA IN-
TO SUBREGIONS AND 2) DEVELOPING RELEVANT
CORRIDOR LOCATION MODELS. CHAPTERS COVER: A
REVIEW OF PERMITS, SUBREGIONAL DELINEATION,
DEVELOPING DETERMINANTS, PERMITS IMPLEMEN-
TATION, CONCLUSIONS, AND RECOMMENDATIONS.

L-1
LA POINTE, DENNIS J.
1971.
"GEOLOGY AND GEOPHYSICS OF THE
SOUTHWESTERN FLATHEAD LAKE REGION, MON-
TANA."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 110 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). IN ORDER TO INTERPRET THE
STRUCTURE AND GEOLOGY OF THE FLATHEAD LAKE
REGION, A COMBINATION GRAVITY SURVEY AND
RECONNAISSANCE GEOLOGIC MAP WERE COM-
PLETED. THE GRAVITY SURVEY COVERS OVER 800
SQUARE MILES AROUND FLATHEAD LAKE WHILE THE
GEOLOGIC MAP COVERS 300 SQUARE MILES WEST
OF THE SOUTHERN PART OF THE LAKE.

L-2
LA POINTE, DENNIS J.
1973.
"GRAVITY SURVEY AND GEOLOGY OF THE FLATHEAD
LAKE REGION."
NORTHWEST GEOLOGY 2:8-16.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE REGION). IN ORDER TO BETTER IN-
TERPRET THE STRUCTURE AND THE GEOLOGY OF
THE AREA, A COMBINATION OF GRAVITY SURVEY
AND RECONNAISSANCE GEOLOGIC MAPPING WERE
COMPLETED. THE GRAVITY SURVEY COVERS OVER
800 SQUARE MILES AROUND THE LAKE AND
SOUTHWEST OF THE LAKE, WHEREAS MAPPING WAS
COMPLETED FOR SIX 7.5 MINUTE QUADRANGLES
SOUTHWEST OF THE LAKE.

L-3
LA VAN, MARTINEAU.
1973.
THE ROCKS BEGIN TO SPEAK.
LAS VEGAS, NEV.: DESERT PRESS, KC PUBL. 210 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
REGIONAL.

(WESTERN USA). THIS COLLECTION OF
PETROGLYPHS AND PICTOGRAPHS CONTAINS A PIC-
TOGRAPH FROM FLATHEAD COUNTY, MONTANA. IT
APPEARS TO BE AN UPSIDE DOWN BUFFALO.

L-4
LACKMAN, JACK; HARSTON, C. R.; NELSON, A.; AND
RUST, C.
1964.
ECONOMIC FEASIBILITY STUDY OF A PROPOSED
LIVESTOCK AUCTION MARKET AT KALISPELL, MON-
TANA.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA
AGRIC. EXPER. STAT., COOP. EXTEN. SERVICE.
RESEARCH REPT. 22. 57 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD, LAKE, LINCOLN, & SANDERS COUNTIES
& KALISPELL). THE STUDY ATTEMPTS TO DETERMINE
THE FEASIBILITY OF AN AUCTION MARKET SERVING
LIVESTOCK PRODUCERS. INCLUDES A LIVESTOCK IN-
VENTORY, AVERAGE MONTANA MARKETINGS, AND
EXAMPLES OF RANCHERS' ESTIMATED MARKETINGS
AND AUCTION SALES. THE TOTAL COST OF A LOCAL
AUCTION IS JUDGED BY CONSIDERING THE CON-
STRUCTION AND OPERATING COSTS OF OTHER AUC-
TIONS.

L-5
LACKSHEWICTZ, KLAUS H., AND GRAY, B.
LIST OF WOODY PLANTS OCCURRING IN WESTERN
MONTANA AND ADJACENT AREAS.
MISSOULA, MT.: UNIV. MONTANA. 26+ PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA,
STATEWIDE.

(WESTERN MONTANA). THIS LIST IS ARRANGED IN
STRICT BOTANICAL ORDER, WITH THE EXCEPTION
THAT SPECIES WITHIN GENERA HAVE BEEN
GROUPED ACCORDING TO OBVIOUS DIFFERENCES.
A BRIEF DESCRIPTION OF THE PLANTS, A DRAWING,
AND BOTH THE SCIENTIFIC AND COMMON NAMES
ARE INCLUDED.

- L-11
LANG, SAMUEL V., JR.
1985.
"CHILDREN OF THE FLATHEAD: A STUDY OF CULTURE AND PERSONALITY." IN A CHANGING SOCIETY.
M.A. THESIS, UNIV. MONTANA, MISSOULA. 136 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION: ARLEE & OXON). THE STUDY OF THE PERSONALITY STRUCTURE OF INDIAN AND WHITE CHILDREN ATTENDING SCHOOL WITHIN A RESERVATION ENVIRONMENT EXAMINES PATTERNS OF ACCULTURATION, HISTORICAL BACKGROUND, AND RESULTS OF TWO PSYCHOLOGICAL TESTS. THE FOLLOWING PERSONALITY VARIABLES WERE INVESTIGATED: 1) BELIEF IN IMMINENT JUSTICE, 2) BELIEF IN ANIMISM, 3) EXPERIENCES AND INTERESTS OF THE CHILDREN, AND 4) ACCEPTANCE OF WHITE CULTURE AMONG INDIAN CHILDREN.
- L-12
LANG, SAMUEL V., JR.
1979.
"THE BELIEF IN IMMINENT JUSTICE AMONG CONTEMPORARY FLATHEAD INDIAN CHILDREN." IN LIFEWAYS OF INTERMONTANE AND PLAINS MONTANA INDIANS.
BOZEMAN, MT.: MONTANA STATE UNIV., MUSEUM OF THE ROCKIES. OCCASIONAL PAPERS NO. 1. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). THIS PAPER IS A COMPARATIVE STUDY OF THE BELIEF IN IMMINENT JUSTICE AMONG CONTEMPORARY FLATHEAD INDIAN AND NON-INDIAN CHILDREN WHO LIVE AND ATTEND SCHOOL ON THE FLATHEAD INDIAN RESERVATION. THE RESULTS OF THIS STUDY ARE COMPARED WITH THE FINDINGS OF OTHER RESEARCHERS, NOTABLY PIAGET (1948). TWO HYPOTHESES SUGGESTED BY ANALYSIS OF PAST STUDIES OF THE BELIEF IN IMMINENT JUSTICE ARE TESTED: 1) THAT AMONG FLATHEAD CHILDREN THERE IS A SIGNIFICANT INCREASE OR LACK OF DECREASE OF BELIEF IN IMMINENT JUSTICE WITH INCREASING AGE, AND 2) THAT THERE IS A SIGNIFICANTLY HIGHER DEGREE OF BELIEF IN IMMINENT JUSTICE WITH INCREASING AGE AMONG INDIAN CHILDREN THAN AMONG NON-INDIAN CHILDREN.
- L-13
LANG, SAMUEL V., JR.
1979.
"CULTURAL ECOLOGY AND THE HORSE IN FLATHEAD CULTURE." IN LIFEWAYS OF INTERMONTANE AND PLAINS MONTANA INDIANS.
BOZEMAN, MT.: MONTANA STATE UNIV., MUSEUM OF THE ROCKIES. OCCASIONAL PAPERS NO. 1. 10 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). THIS PAPER EXPLORES THE NATURE AND CONSEQUENCE OF THE ADOPTION AND UTILIZATION OF THE HORSE BY THE FLATHEAD, ESPECIALLY IN THE CONTEXT OF BUFFALO HUNTING. THIS UNDERTAKING INVOLVES A PRESENTATION OF 1) THE APPLIED THEORETICAL FRAMEWORK AND METHODOLOGY, 2) PRE-HORSE FLATHEAD CULTURAL ECOLOGY, 3) FLATHEAD ACQUISITION AND UTILIZATION OF THE HORSE (POST-HORSE CULTURAL ECOLOGY), AND 4) THE CONCLUSIONS REACHED IN THIS STUDY.
- L-14
LANGE, IAN M.
1977.
METALLIC MINERAL DEPOSITS OF WESTERN MONTANA: MAP AND ACCOMPANYING LEGEND AND LIST OF MINING DISTRICTS WITH SELECTED REFERENCES.
MISSOULA, MT.: UNIV. MONTANA, DEPT. GEOLOGY. 21 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.
- (WESTERN MONTANA: FLATHEAD RIVER BASIN). THE MAP IS DRAWN AT A SCALE OF 1:500,000. A LISTING OF REFERENCES USED TO CONSTRUCT THE MAP IS INCLUDED.
- L-15
LANGFIELD, PETER M.
1987.
"GEOLOGY OF FORD CREEK AREA: SAWTOOTH RANGE, MONTANA."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 80 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (SAWTOOTH RANGE: FORD CREEK AREA). THIS THESIS DESCRIBES THE AREA'S GEOMORPHOLOGY, STRATIGRAPHY, IGNEOUS ROCKS, AND STRUCTURAL GEOLOGY. IT INVOLVED THE PLOTTING OF GEOLOGIC DATA ON AERIAL PHOTOGRAPHS AT A SCALE OF 1:20,000 AND ON PLANIMETRIC MAPS AT A SCALE OF 2 INCHES TO THE MILE. THE THESIS DESCRIBES THE TOPOGRAPHY AND DRAINAGE; GLACIATION; THE PRECAMBRIAN HORNE FORMATION; CAMBRIAN SANDSTONE, LIMESTONE, SHALE, AND DOLOMITE; THE MADISON GROUP; THE ELLIS GROUP AND MORRISON GROUP; THE KOOTENAI FORMATION; NORMAL AND THRUST FAULTS; THE LEWIS THRUST; AND THE LARAMIDE DEFORMATION. A GEOLOGIC MAP AND CROSS SECTIONS ARE INCLUDED.
- L-16
LANGSTROTH, WARD T.
1984.
RE-EVALUATION OF THE DISTURBED BELT OF MONTANA.
BILLINGS, MT.: BILLINGS GEOLOGICAL SOCIETY PAPERS. NO. 2. 15 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.
- (SOUTHERN ALBERTA & NORTHWESTERN MONTANA). ERRORS IN AMERICAN OIL AND GAS EXPLORATION IN THE DISTURBED BELT ARE DESCRIBED AND AREAS WHERE FUTURE DRILLING MAY PROVE FRUITFUL ARE SUGGESTED. CANADIAN PRODUCTION AND THE STATE'S EXPLORATION TO DATE ARE DISCUSSED. THE SEQUENCE OF GEOLOGIC EVENTS EXPLAINING THE CURRENT STRUCTURE OF THE DISTURBED BELT IS EXAMINED.
- L-17
LANGTON, CLAUDE M.
1931.
"GEOLOGY ALONG THE LEWIS THRUST IN THE SCHAFER MEADOWS DISTRICT, MONTANA."
M.S. THESIS, CORNELL UNIV., ITHACA, N.Y.. 41 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD COUNTY: SCHAFER MEADOWS). THE PURPOSE OF THIS INVESTIGATION WAS TO STUDY IN SOME DETAIL THE PROBLEMS OF GEOLOGIC IMPORTANCE IN SCHAFER MEADOWS. TOPICS COVERED INCLUDE: STRATIGRAPHY, THE BELT SERIES IN MONTANA, DIVISIONS OF THE UPPER BELT ROCKS IN THE AREA, PRECAMBRIAN EROSION INTERVAL, PALEOZOIC ROCKS, MESOZOIC ROCKS, IGNEOUS ROCKS, STRUCTURAL GEOLOGY, AND THE LEWIS THRUST.
- L-18
LARSEN, J. A.
1930.
"FOREST TYPES OF THE NORTHERN ROCKY MOUNTAINS AND THEIR CLIMATIC CONTROLS."
ECOLOGY 11 OCTOBER 1930: 631-672.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.
- (NORTHERN ROCKY MTS.). THE PURPOSE OF THE REPORT IS TO DESCRIBE THE ARBA'S FOREST TYPES, POINT OUT THEIR DISTRIBUTION AND CHIEF SILVICULTURAL CHARACTERISTICS, AND SHOW TO WHAT DEGREE THEY ARE CONTROLLED BY DIFFERENCES IN TOPOGRAPHY AND CLIMATE. THE AREA IS DIVIDED INTO THREE TOPOGRAPHIC DIVISIONS: 1) WASHINGTON AND IDAHO WEST OF THE BITTERROOT MOUNTAINS, 2) FLATHEAD AND BITTERROOT VALLEYS BETWEEN THE BITTERROOT MOUNTAINS AND THE MAIN CONTINENTAL DIVIDE, AND 3) CENTRAL MONTANA EAST OF THE DIVIDE. FOR EACH DIVISION THE FOREST TYPES ARE DESCRIBED. INCLUDED IN THE DESCRIPTIONS OF FOREST TYPES ARE LISTS OF THE MOST COMMON SPECIES OF GRASSES, HERBS, AND SHRUBS. CONCLUSIONS REGARDING THE REQUIREMENTS OF PERMANENT (CLIMAX) FOREST TYPES ARE PRESENTED.
- L-19
LARSEN, J. A., AND DELAVAN, C. C.
1922.
"CLIMATE AND FOREST FIRES IN MONTANA AND NORTHERN IDAHO, 1900 TO 1919." IN U.S. DEPT. AGRICULTURE WEATHER BUREAU MONTHLY WEATHER REVIEW. VOL. 50.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.
- (MONTANA & NORTHERN IDAHO). THIS IS A STUDY OF THE RELATIONSHIP BETWEEN CLIMATE AND FOREST FIRES. IT INVESTIGATED THE TOPOGRAPHIC AND CLIMATIC CAUSES OF FOREST FIRES, ANALYZED FIRE AND CLIMATE RECORDS FOR DIFFERENT YEARS TO OBTAIN A BETTER UNDERSTANDING OF THE KIND OF SEASON THAT RESULTED IN BAD FOREST FIRES, COMPARED FIRE AND WEATHER RECORDS FOR INDIVIDUAL MONTHS TO DETERMINE THE AMOUNT OF RAINFALL REQUIRED TO ALLAY FIRES, AND DETERMINED DANGEROUS FIRE WEATHER AND THE LENGTH AND INTENSITY OF THE FIRE SEASON. THE REPORT ALSO EXAMINED RECORDS FOR THE PRECEDING 40 YEARS TO DISCOVER IF THE PREVIOUS THREE YEARS WERE UNUSUAL.
- L-20
LARSEN, MICHAEL J.; JURGENSEN, M. F.; AND HARVEY, A. E.
1978.
"DINITROGEN FIXATION ASSOCIATED WITH SPOROPOHORES OF FOMITOPSIS PINICOLA, FOMES FOMENTARIUS AND ECHINODONTIUM TINCTORIUM."
MYCOLOGIA 70 (NOVEMBER-DECEMBER 1978): 1217-1222.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (CORAM EXPR. FOREST). FIXATION OF ATMOSPHERIC DINITROGEN BY BACTERIA ASSOCIATED WITH CONTEXTUAL TISSUES OF THREE SPOROPOHORES IS REPORTED. TABLES LIST THE MEAN NUMBER OF MOLES PER GRAM DRY WEIGHT OF FUNGAL TISSUE OF NET ETHYLENE PRODUCED IN 24 HOURS IN SPOROPOHORES OF FOMITOPSIS PINICOLA ON DOUGLAS-FIR; WESTERN HEMLOCK, AND SUBALPINE FIR; FOMES FOMENTARIUS ON PAPER BIRCH; AND ECHINODONTIUM TINCTORIUM ON WESTERN HEMLOCK.
- L-21
LARSEN, MICHAEL J.; JURGENSEN, M. F.; AND HARVEY, A. E.
1978.
"N₂ FIXATION ASSOCIATED WITH WOOD DECAYED BY SOME COMMON FUNGI IN WESTERN MONTANA."
CANADIAN J. FOREST RESEARCH 8:341-345.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (CORAM EXPR. FOREST). DECAY CAUSED BY SOME COMMON WOOD-DESTROYING FUNGI IN SEVERAL ASSOCIATED TREE HOSTS OF THE INTERMOUNTAIN FORESTS OF WESTERN MONTANA WAS EVALUATED AS A POTENTIAL ENVIRONMENT FOR THE FIXATION OF DINITROGEN. DIFFERENCES IN THE RATES OF FIXATION WERE DEMONSTRATED BETWEEN VARIOUS DECAY STAGES, TREE SPECIES, DECAY FUNGI, AND BROWN AND WHITE ROT.

L-22

LARSEN, MICHAEL J.; JURGENSEN, M. F.; AND HARVEY, A. E.
1979.
"RESIDUE DECAY PROCESSES AND ASSOCIATED ENVIRONMENTAL FUNCTIONS IN NORTHERN ROCKY MOUNTAIN FORESTS." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPER. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTNS. CORAM EXPER. FOREST). THIS STUDY DESCRIBES THE PROCESSES ASSOCIATED WITH BROWN-ROT ORGANISMS; PARTICULARLY BROWN CUBICLE DECAY. THE RELATIONSHIP OF INITIAL RESIDUE SIZE TO THE DECAY FUNCTION IS DISCUSSED.

L-23

LARSON, WAYNE L.
1971.
A COMPARATIVE ANALYSIS OF INDIAN AND NON-INDIAN PARENTS INFLUENCE ON EDUCATIONAL ASPIRATIONS, EXPECTATIONS, PREFERENCES, AND BEHAVIOR OF INDIAN AND NON-INDIAN HIGH SCHOOL STUDENTS.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. BULL. 680. 26 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE GENERAL OBJECTIVE OF THIS STUDY WAS TO IDENTIFY PERSONS WHO INFLUENCE STUDENTS, THE DEGREE OF INFLUENCE, AND WAYS IN WHICH THEY INFLUENCE STUDENTS.

L-24

LARSON WAYNE L.
1971.
A COMPARISON OF THE DIFFERENTIAL EFFECT OF ETHNICITY AND PERCEPTION OF FAMILY INCOME ON EDUCATIONAL ASPIRATIONS, PREPARATION, AND PARENTAL INFLUENCE OF INDIAN AND NON-INDIAN STUDENTS.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. BULL. NO. 659. 19 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE PRIMARY PURPOSE OF THIS REPORT IS TO COMPARE DIFFERENCES BETWEEN INDIAN AND NON-INDIAN STUDENTS ON SEVERAL MEASURES RELATED TO ATTITUDINAL AND PERFORMANCE DIMENSIONS OF THE EDUCATIONAL EXPERIENCES OF THESE STUDENTS.

L-25

LARSON, WAYNE L.
1975.
VARIATION IN EDUCATIONAL GOALS AND PREFERENCES BY TRIBAL AFFILIATION OF INDIAN STUDENTS FROM SIX SCHOOLS IN RURAL MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. RESEARCH REPT. 80. 27 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE MAJOR OBJECTIVE OF THIS STUDY WAS TO DETERMINE THE DEGREE OF SIMILARITY IN THE VALUES AND PREFERENCES OF INDIAN HIGH SCHOOL STUDENTS CLASSIFIED BY TRIBAL AFFILIATION. STUDENTS' RESPONSES TO QUESTIONS ABOUT VALUES AND PREFERENCES WERE TABULATED AND ANALYZED ACCORDING TO TRIBE.

L-26

LASSEY, WILLIAM R., AND WILLIAMS, ANNE S., EDS.
1970.
COMMUNITY DEVELOPMENT IN MONTANA: RESOURCES, METHODS, CASE STUDIES.
BOZEMAN, MT.: BIG SKY BOOKS. 92 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: SANDERS COUNTY). THE PAPERS CONTAINED IN THIS PUBLICATION ARE LARGELY BASED ON THE PROCEEDINGS OF A COMMUNITY DEVELOPMENT SEMINAR THAT WAS INTENDED TO DOCUMENT AND EVALUATE EFFORTS IN COMMUNITY DEVELOPMENT AS WELL AS IDENTIFY THE RESOURCES AVAILABLE TO ASSIST COMMUNITIES IN DEVELOPMENT EFFORTS.

L-27

LASSEY, WILLIAM R.; WILLIAMS, ANNE; AND HUFFMAN, HOWARD.
1970.
MULTI-COUNTY AREAS AS A TOOL FOR DEVELOPMENT IN MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV., AGRIC. EXPER. STAT., CENTER FOR PLANNING & DEVELOPMENT, DEPT. SOCIOLOGY. RESEARCH REPT. NO. 2. 153 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE FORMATION OF A VARIETY OF MULTI-COUNTY AND SPECIAL DEVELOPMENT ORGANIZATIONS, IN RESPONSE TO THE NEED FOR WAYS TO ENCOURAGE ECONOMIC AND SOCIAL DEVELOPMENT, IS THE SUBJECT OF THIS REPORT. DESCRIPTIONS AND ANALYSES OF EACH MAJOR MULTI-COUNTY PROGRAM ARE GIVEN, INCLUDING THE FLATHEAD ECONOMIC DEVELOPMENT PLANNING PROJECT.

L-28

LATUSZYNSKI, FELIX V.
1962.
"GEOLOGY OF THE SOUTHWEST PLEASANT VALLEY QUADRANGLE, MONTANA."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 51 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SALISH MTNS: S.W. PLEASANT VALLEY QUADRANGLE). THIS STUDY INVOLVED A GEOLOGIC RECONNAISSANCE AND MAPPING OF THE AREA. THE REPORT DESCRIBES THE AREA'S GEOMORPHOLOGY AND GLACIATION AND CONSIDERS ITS STRATIGRAPHY, STRUCTURE, AND ECONOMIC GEOLOGY. THE PETROGRAPHY AND CORRELATION OF THE PRICHARD FORMATION, RAVALLI GROUP, AND PIEGAN GROUP ARE DESCRIBED. THE STUDY ALSO INVESTIGATED QUATERNARY SEDIMENTS AND THE CHEMICAL COMPOSITIONS AND METAMORPHISM OF THE BELT SERIES ROCKS.

L-29

LAUFF, GEORGE H.
1963.
"A CONTRIBUTION TO THE WATER CHEMISTRY AND PHYTOPLANKTON RELATIONSHIPS OF ROGER'S LAKE, FLATHEAD COUNTY, MONTANA."
PROC. MONTANA ACADEMY SCIENCES 13:5-19.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: ROGER'S LAKE). THE PHYSICAL, CHEMICAL, AND BIOLOGICAL CHARACTERISTICS OF ROGER'S LAKE WERE STUDIED. 47 GENERA OF ALGAE WERE IDENTIFIED, AND THE ABUNDANCE AND DIVERSITY OF THE PHYTOPLANKTON WERE NOTED. A BACTERIOLOGICAL STUDY IS ALSO DISCUSSED. OTHER WATER QUALITY DATA OBTAINED INCLUDED: FREE CO₂, ALKALINITY, PH, TURBIDITY, AND WATER TEMPERATURE. THE POSSIBLE CORRELATION BETWEEN PHYTOPLANKTON COUNTS AND THE WATER CHEMISTRY OF THE LAKE, FLUCTUATIONS IN HYDROGEN-ION CONCENTRATIONS, AND THE DIFFICULTY IN CLASSIFYING THE LAKE ARE CONSIDERED.

L-30

LAUT, AGNES C.
1914.
"THE SWITZERLANDS IN AMERICA."

AMERICAN FORESTRY 20:829-857.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN NATL. PARKS: GLACIER NATL. PARK). THIS EARLY ACCOUNT OF TRIPS THROUGH THE WESTERN NATIONAL PARKS INCLUDES GLACIER NATIONAL PARK. MANY PHOTOGRAPHS ARE INCLUDED.

L-31

LAUT, AGNES C.
1926.
ENCHANTED TRAILS OF GLACIER PARK.
ROBERT M. MCBRIDE & CO. 251 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS IS A NARRATIVE BY THE AUTHOR DESCRIBING HER EXPERIENCES TOURING THE PARK. BEGINNING IN THE EASTERN PART OF THE PARK, NEAR TWO MEDICINE LAKES, HER TRAVELS ALONG THE CONTINENTAL DIVIDE TO LAKE MCDONALD ARE DESCRIBED. SHE RECOUNTS TRAVELLING MOTOR-HIGHWAYS, RIDING AND HIKING TRAILS, PLANTS, ANIMALS, AND SCENERY. NUMEROUS PHOTOGRAPHS OF CHALETES AND BLACKFEET INDIANS ARE INCLUDED.

L-32

LAW, HENRY G., AND ALBRIGHT, J.
1977.
HISTORIC RESOURCE STUDY. PART II: ARCHITECTURAL SURVEY, GLACIER NATIONAL PARK, MONTANA.
DENVER, CO.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, HISTORIC PRESERVATION DIV., DENVER SERVICE CENTER. 170 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT EXAMINES THE ARCHITECTURAL SIGNIFICANCE OF THE HISTORIC STRUCTURES SCATTERED THROUGHOUT THE PARK. TOPICS COVERED INCLUDE THE FOLLOWING: DEVELOPMENT BY THE GREAT NORTHERN RAILROAD, LAKE MCDONALD LODGE HISTORIC DISTRICT, PRIVATE INHOLDINGS, NATIONAL PARK SERVICE DEVELOPMENT, LANDSCAPE DEVELOPMENT, RANGER STATIONS, PATROL CABINS, LOOKOUTS, HEADQUARTERS/RESIDENTIAL HISTORIC DISTRICT, MISCELLANEOUS STRUCTURES, LIST OF CLASSIFIED STRUCTURES, RECOMMENDATIONS, SUMMARY, AND A BIBLIOGRAPHY. PHOTOGRAPHS ARE INCLUDED.

L-33

LAW, KATHRYN.
1971.
SALISH FOLK TALES.
BILLINGS, MT.: MONTANA INDIAN PUBLICATIONS.

THESE STORIES OF THE FLATHEAD AND SPOKANE INDIANS COLLECTED BY MRS. LAW ARE AT A 2ND GRADE READING LEVEL. SKCC.

L-34

LAW, KATHRYN.
1971.
TALES FROM THE BITTERROOT VALLEY AND OTHER SALISH FOLK STORIES.
BILLINGS, MT.: MONTANA INDIAN PUBLICATIONS.

THESE COYOTE STORIES AS TOLD BY AGNES VANDERBURG, JEROME LUMPRY, IGNACE PIERRE, AND ADELE ADAMS ARE AT A 2ND GRADE READING AND INTEREST LEVEL. SKCC.

L-35

LAWRENCE, E. I.
1925.
"A VACATION TRIP THROUGH GLACIER NATIONAL PARK."
SIERRA CLUB BULL. 12:115-120.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE IS AN ACCOUNT OF A VACATION TRIP THROUGH THE PARK WHICH INVOLVED 210 MEMBERS OF SIERRA CLUB. HIKING AND CAMPING IN THE FOLLOWING AREAS IS DESCRIBED: LAKE McDONALD, LOGGING CREEK, BOWMAN LAKE, BROWNS PASS, WATERTON LAKE, INDIAN PASS, CROSSLEY LAKE, RED GAP PASS, LAKE McDERMOTT, GRANITE PARK, SWIFTCURRENT PEAK, ST. MARY'S LAKE, AND GUNSIGHT PASS.

L-36
LAWRENCE, J. B.
1963.

"LITHIC SPECIMENS FROM DAYTON, MONTANA." IN *ARCHAEOLOGICAL SITES IN THE FLATHEAD LAKE REGION, MONTANA; A SYMPOSIUM*. MISSOULA, MT.: MONTANA STATE UNIV. ANTHROPOLOGY & SOCIOLOGY PAPERS NO. 15. 5 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(DAYTON). PRIMARILY DRAWINGS OF THE POINTS, MAULS, SCRAPERS, AND PESTLE FOUND ON THE BEACH OF FLATHEAD LAKE. THIS COLLECTION ILLUSTRATES ONE OF THE BASIC EFFECTS OF WAVE ACTION ON CULTURAL ACCUMULATIONS AT LAKESIDE OCCUPATION SITES. EDITORS COMMENTS FOLLOW.

L-37
LAWSON, DON C., AND SONDEREGGER, J. L.
1978.
GEOTHERMAL DATA-BASE STUDY: MINE-WATER TEMPERATURES. BUTTE, MT.: MONTANA BUREAU OF MINES & GEOLOGY, MONTANA COLL. MINERAL SCIENCE & TECH. SPEC. PUBL. 79. 38 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA.

(MONTANA). THE STUDY PROVIDES A DATA BASE USED TO EVALUATE GEOTHERMAL POTENTIAL BY MEASURING TEMPERATURE, PH, AND SPECIFIC CONDUCTANCE AT SPRINGS AND SITES OF MINE DISCHARGE. THE APPENDIX LISTS 80 SITES AND FINDINGS AT EACH SITE.

L-38
LAWSON, DON C., COMP.
1979.
DIRECTORY OF MINING ENTERPRISES FOR 1978. BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY, MONTANA COLL. MINERAL SCIENCE & TECH. BULL. 109. 53 PP. FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). ACTIVE MINING ENTERPRISES, INCLUDING METAL MINES, NONMETAL MINES, QUARRIES AND PITS, ARE LISTED. THE TYPE OF ORE OR MINERAL PRODUCED, THE COUNTY WHERE THE MINE IS LOCATED, THE NAME OF THE MINE, A LEGAL DESCRIPTION OF THE PROPERTY, THE MINING DISTRICT, THE NUMBER OF EMPLOYEES, MILL CAPACITY, AND YEARLY STATUS ARE GIVEN FOR EACH ENTERPRISE. THE PUBLICATION ALSO CONTAINS AN INCOMPLETE LIST OF CURRENTLY INACTIVE MINES.

L-39
LEAGUE OF WOMEN VOTERS OF FLATHEAD COUNTY, MONTANA.
1977.
KNOW YOUR COMMUNITY: A SURVEY OF FLATHEAD COUNTY GOVERNMENT. KALISPELL, MT. 47 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE PURPOSE OF THIS COMMUNITY HANDBOOK IS TO PROVIDE A FAIRLY COMPREHENSIVE GUIDE TO THE COUNTY'S GOVERNMENTAL STRUCTURE AND SERVICES. IT INCLUDES INFORMATION ABOUT THE ECONOMIC, POLITICAL, SOCIAL, AND CULTURAL CHARACTERISTICS OF THE COUNTY AND ITS CITIES. THE FOLLOWING OFFICES AND SER-

VICES ARE INCLUDED IN THE DISCUSSION: COMMISSIONERS, AREA-WIDE PLANNING ORGANIZATION, COUNTY ACCESSOR, MAYOR, CITY COUNCIL, COUNTY ATTORNEY, SHERIFF, PROBATION, SCHOOL BOARDS, SPECIAL EDUCATION SERVICES, FAMILY SERVICES, WELFARE, AND PUBLIC HEALTH.

L-40
LEBARRON, RUSSELL.
1948.
REVIEW OF PUBLISHED INFORMATION ON THE LARCH/DOUGLAS-FIR FOREST TYPE. MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, NORTHERN ROCKY MOUNTAIN FOREST & RANGE EXPR. STAT. STATION PAPER NO. 15. 15 PP. FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(NORTHERN ROCKY MTNS.). THIS PAPER SUMMARIZES EARLY REPORTS COVERING ALL ASPECTS OF DOUGLAS FIR-LARCH FOREST TYPE RESEARCH. INCLUDED IS A BIBLIOGRAPHY WITH REFERENCES FROM 1911 TO 1948.

L-41
LECHLEITNER, ROBERT R.
1953.
"AN ANALYSIS OF SOME AGE CRITERIA IN A DOMESTIC AND A WILD POPULATION OF MINK (*MUSTELA VISON*)."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 54 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THE PURPOSE OF THIS STUDY WAS THE INVESTIGATION OF CERTAIN CRITERIA AVAILABLE FROM THE CARCASSES OF MINK TO DETERMINE THE CRITERIA'S USE IN AGE DETERMINATION. RANCH-RAISED MINK OF KNOWN AGE WERE EXAMINED TO DETERMINE THE CRITERIA AND WILD MINK WERE COLLECTED TO TEST THE APPLICABILITY OF THE CRITERIA. THE FOLLOWING CHARACTERISTICS WERE INVESTIGATED: BODY WEIGHT, TOTAL LENGTH, BACULUM WEIGHT AND MORPHOLOGY, FEMUR LENGTH AND MORPHOLOGY, SKULL MEASUREMENTS CHARACTERIZING DIFFERENT ASPECTS OF CRANIAL DEVELOPMENT, AND THE GENERAL MORPHOLOGY OF THE SKULL. RELIABLE CHARACTERISTICS WERE DETERMINED.

L-42
LECHLEITNER, ROBERT R.
1964.
"AGE CRITERIA IN MINK, *MUSTELA VISON*."
J. MAMMOLOGY 35(NOVEMBER 1964):496-503. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). A SAMPLE OF 280 CARCASSES OF WILD MINK WAS COLLECTED FROM TRAPPERS THROUGHOUT WESTERN MONTANA. A SERIES OF 370 CARCASSES OF RANCH MINK OF KNOWN AGE WAS COLLECTED AND STUDIED. CHARACTERISTICS INVESTIGATED INCLUDED: SKINNED CARCASS WEIGHT, TOTAL LENGTH, BACULUM WEIGHT AND MORPHOLOGY, FEMUR LENGTH AND MORPHOLOGY, TWENTY SKULL MEASUREMENTS CHARACTERIZING VARIOUS ASPECTS OF CRANIAL DEVELOPMENT, AND GENERAL MORPHOLOGY OF THE SKULL. THE STUDY EVALUATED THE VALUE OF THESE CHARACTERISTICS AS CRITERIA FOR AGING.

L-43
LECONTE, JOHN L.; COOPER, J. G.; SUCKLEY, G.; AND COOPER, WILLIAM.
1960.
NARRATIVE AND FINAL REPORT OF EXPLORATIONS FOR A ROUTE FOR A PACIFIC RAILROAD, NEAR THE FORTY-SEVENTH AND FORTY-NINTH PARALLELS OF NORTH LATITUDE, FROM ST. PAUL TO PUGET SOUND: ZOOLOGICAL REPORT. VOL. 12, BOOK 3. WASHINGTON, D.C.: U.S. WAR DEPT. 369 PP. PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). SEVEN REPORTS PERTAINING TO INSECTS, MAMMALS, BIRDS, REPTILES, FISHES, MOLLUSCA, AND CRUSTACEA COLLECTED ON ISAAC STEVEN'S SURVEY ARE PRESENTED. IN EACH REPORT DESCRIPTIONS OF GENERA AND SPECIES ARE GIVEN. THE ANIMAL'S MORPHOLOGY, PHYSICAL MEASUREMENTS AND SIZE, MARKINGS, GENERAL CHARACTERISTICS OF HABITAT, SUMMER/WINTER RANGE, FOOD, AND ABUNDANCE ARE NOTED.

L-44
LEE, J. M., JR.
1978.
ELECTRICAL AND BIOLOGICAL EFFECTS OF TRANSMISSION LINES, A REVIEW. PORTLAND, ORE.: U.S. DEPT. ENERGY, BONNEVILLE POWER ADMINISTRATION. 75 PP. FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE REPORT DESCRIBES THE ELECTRICAL EFFECTS OF TRANSMISSION LINES AND THE EFFECTS THE LINES HAVE ON HUMANS AND THEIR ENVIRONMENT. SOME WAYS TO REDUCE OR ELIMINATE THE EFFECTS ARE ALSO DISCUSSED.

L-45
LEE, SHIRLEY W.
1967.
A SURVEY OF ACCULTURATION IN THE INTERMONTANE AREA OF THE UNITED STATES. POCATELLO, ID.: IDAHO STATE UNIV. MUSEUM. OC-CASIONAL PAPERS, NO. 19.

(INTERMONTANE AREA). THIS REPORT INCLUDES THE SALISH AND KOOTENAI AMONG THE TRIBES CONSIDERED. IT TRIES TO MEASURE THE ADAPTATION TO ACCULTURATION OR CULTURE CHANGE THROUGH CHANGES IN POPULATION GROWTH. IT ASSUMES THAT AN INCREASING POPULATION MEANS THE TRIBE HAS BEEN ADAPTING WELL. SKCC.

L-46
LEEDY, ROBERT R.
1972.
"THE STATUS OF PRAIRIE FALCONS IN WESTERN MONTANA: SPECIAL EMPHASIS ON POSSIBLE EFFECTS OF CHLORINATED HYDROCARBON INSECTICIDES."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 96 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: LOWER FLATHEAD RIVER & BOB MARSHALL WILDERNESS AREA). THIS STUDY WAS DEVOTED TO FINDING AS MANY EVIDENCES OF PRAIRIE FALCONS (*FALCO MEXICANUS*) AS POSSIBLE, DETERMINING CLUTCH SIZES AND THE FATE OF EGGS, RECORDING FLEDGLING SUCCESS OF ALL NESTING PAIRS, AND GATHERING ADDLED EGGS FOR ANALYSES OF PESTICIDE RESIDUES. THICKNESSES OF SHELLS OF ADDLED AND HATCHED EGGS WERE COMPARED WITH THICKNESSES REPORTED IN AN EARLIER STUDY OF EGGSHELLS IN THIS REGION PRIOR TO WIDESPREAD USE OF PESTICIDES. DATA ON NESTING SITES WAS COLLECTED AND EXAMINED IN AN EFFORT TO FIND POSSIBLE CORRELATIONS BETWEEN THE DATA AND THE STATUS OF THE POPULATION.

L-47
LEIFER, NANCY.
1974.
PUBLIC INVOLVEMENT FROM A PUBLIC PERSPECTIVE. HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, WATER RESOURCES DIV., RESOURCES & PLANNING BUREAU. 34 PP. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). WITH A BASIN PLANNING EFFORT UNDERWAY ON THE FLATHEAD RIVER BASIN, IT WAS DECIDED TO INITIATE A PILOT STUDY ON PUBLIC INVOLVEMENT IN CONJUNCTION WITH THE PLANNING. THE OBJECTIVES OF THE PILOT STUDY WERE: TO DETERMINE PUBLIC INTEREST AND CONCERN ABOUT WATER AND RELATED LAND RESOURCES PLANNING, TO IDENTIFY THE VARIOUS "PUBLICS" AND THOSE WILLING TO PARTICIPATE, AND TO MAKE RECOMMENDATIONS CONCERNING FUTURE PUBLIC INVOLVEMENT PROGRAMS ASSOCIATED WITH WATER PLANNING.

L-48

LENIHAN, MARY L.
1979.

"A BRIEF LOOK AT MONTANA'S SKI INDUSTRY."
MONTANA BUSINESS QUARTERLY 17:5-10.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: BIG MOUNTAIN SKI AREA, WHITEFISH). THIS ARTICLE EXAMINES THE NUMBER OF SKIER VISITS AND LIFT TICKET PRICES IN AN ATTEMPT TO ESTABLISH HOW THE SKI INDUSTRY IN THE STATE HAS FARED OVER THE LAST SEVEN YEARS. DATA FOR BIG MOUNTAIN IS INCLUDED.

L-49

LENT, ELIZABETH.

"SIN YAL MIN, THE SELISH SHANGRI LA."
(TYPEWRITTEN). 12 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

UNIV. MONTANA LIBRARY, MISSOULA. MONTANA COLLECTION.

(MISSION RANGE). THIS DESCRIPTION OF THE ATTRACTIONS OF THE AREA CONSIDERS ITS ACCESSIBILITY, RUSTIC ACCOMMODATIONS, GEOLOGIC HISTORY, THE SALISH REQUEST FOR JESUIT MISSIONARIES, SUCH MISSIONARY ACTIVITIES.

L-50

LESTER, AMY.

"NUMERICAL RESPONSE OF WOODPECKERS AND THEIR EFFECTS ON MOUNTAIN PINE BEETLES IN LODGEPOLE PINE."

M.S. THESIS, UNIV. MONTANA, MISSOULA. (FORTHCOMING).

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER). AN EPIDEMIC OF MOUNTAIN PINE BEETLE (DENDROCTONUS PONDEROSAE) BEGAN IN LODGEPOLE PINE (PINUS CONTORTA V. LATIFOLIA) FORESTS IN NORTHWESTERN MONTANA IN THE EARLY 1970'S. THIS STUDY WAS CONDUCTED TO ASSESS THE NUMERICAL RESPONSE OF THE WOODPECKERS AND THEIR EFFECT ON THE BEETLES. THE LIFE HISTORY OF THE BEETLE IS DESCRIBED. THE STUDY METHODS ARE OUTLINED, AND THE RESULTS ARE DISCUSSED.

L-51

LESTER, AMY; MCCLELLAND, B. RILEY; AND LOWE, J. H., JR.

1979.

"NUMERICAL RESPONSE OF WOODPECKERS AND THEIR EFFECTS ON MOUNTAIN PINE BEETLES IN LODGEPOLE PINE IN NORTHWESTERN MONTANA." IN PROCEEDINGS OF SECOND CONFERENCE ON SCIENTIFIC RESEARCH IN THE NATIONAL PARKS, NOV. 28, SAN FRANCISCO, CA., 18 PP. (FORTHCOMING).

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER). AN EPIDEMIC OF MOUNTAIN PINE BEETLE (DENDROCTONUS PONDEROSAE) BEGAN IN LODGEPOLE PINE (PINUS CONTORTA V. LATIFOLIA) FORESTS IN NORTHWESTERN MONTANA IN THE EARLY

1970'S. THIS STUDY WAS CONDUCTED TO ASSESS THE NUMERICAL RESPONSE OF THE WOODPECKERS AND THEIR EFFECT ON THE BEETLES. THE LIFE HISTORY OF THE BEETLE IS DESCRIBED, THE STUDY METHODS OUTLINED, AND THE RESULTS DISCUSSED.

L-52

LEVI, LORNA, AND LEVI, HERBERT W.
1953.

SPIDERS OF GLACIER NATIONAL PARK.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 9 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). LISTINGS OF THE SCIENTIFIC NAME, WHEN AND WHERE THE SPECIES WAS COLLECTED.

L-53

LEVI, LORNA, AND LEVI, HERBERT W.
1955.

SPIDERS AND HARVESTMEN FROM WATERTON AND GLACIER NATIONAL PARKS.

CANADIAN FIELD NATURALIST 69 (APRIL-JUNE 1955): 11-22.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A LISTING OF SPECIMENS COLLECTED, WHEN THEY WERE FIRST IDENTIFIED, WHERE THEY WERE LOCATED, AND THE ELEVATION OF THE DISCOVERY SITE.

L-54

LEVY, RICHARD S.

"A CROSS-CULTURAL ASSESSMENT OF SIMILARITIES IN INTERIOR SALISH MYTH CONTENT."

PH.D. DISSERTATION, UNIV. BRITISH COLUMBIA, VANCOUVER. 290 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ABORIGINAL LANDS OF THE SALISH INDIANS). DESCRIPTIVE STATISTICAL TECHNIQUES WERE APPLIED TO THE CROSS CULTURAL STUDY OF INTERIOR SALISH MYTH CONTENT. A COMPUTER WAS UTILIZED TO FACILITATE THE ANALYSIS OF A LARGE BODY OF MYTH DATA. THIS WORK IS A DEPARTURE FROM TRADITIONAL HISTORICALLY ORIENTED CROSS-CULTURAL STUDIES IN THAT THE ENTIRE MYTHOLOGIES, RATHER THAN MOTIFS OR TALETYPES, OF PEOPLES ARE COMPARED. EIGHT CULTURES WERE INCLUDED IN THE ANALYSIS. FREQUENTIAL ANALYSIS OF THE MYTH DATA WAS LIMITED TO THREE SEMANTIC AREAS: RELIGION, SOCIAL ORGANIZATION, AND TECHNOLOGY. ANALYSIS RESULTED IN RECOGNITION OF TWO CULTURAL GROUPS.

L-55

LEWIS, H. G.

1917.

REPORT OF THE INTENSIVE LAND CLASSIFICATION, BLACKFEET NATIONAL FOREST - NORTH FORK PROJECT.

WASHINGTON, D.C.: U.S. BUREAU SOILS. 55 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORDS CENTER, GENERAL SERVICES ADMINISTRATION, DENVER, CO.

(NORTH FORK OF THE FLATHEAD RIVER). AGRICULTURAL VALUES WERE USED TO DIVIDE THE LAND STUDIED INTO FIVE DIFFERENT CLASSES. THE DISTINCTION BETWEEN CLASSES WAS BASED ON: TEXTURE AND STRUCTURE OF SOIL, DEPTH OF SOIL, ROCK CONTENT, EASE OF TILLAGE, SLOPE, TOPOGRAPHY, AND DRAINAGE. THE CLASSES ARE DESCRIBED, AND FURTHER DIVIDED INTO TYPES. PHOTOGRAPHS ARE INCLUDED.

L-56

LEWIS, WILLIAM S., AND PHILLIPS, P.
1923.

THE JOURNAL OF JOHN WORK: A CHIEF TRADER OF THE HUDSON'S BAY CO. DURING HIS EXPEDITION FROM VANCOUVER TO THE FLATHEADS AND BLACKFEET OF THE PACIFIC NORTHWEST. EARLY WESTERN JOURNALS, NO. 10.

CLEVELAND, OH.: ARTHUR H. CLARK CO. 208 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(LOWER FLATHEAD RIVER BASIN). THIS JOURNAL COVERING WORKS' FLATHEAD EXPEDITION OF 1826 OUTLINES THE ROUTE THE HUDSON'S BAY TRADER COVERED THROUGH PARTS OF THE PRESENT DAY FLATHEAD INDIAN RESERVATION. THE GROUP HAD SOME FLATHEAD INDIAN GUIDES AND TRADED EXTENSIVELY WITH THE FLATHEADS. REFERENCES ARE MADE TO FORT CONNAH, THE COMPANY'S LAST TRADING POST. A HISTORY OF THE FUR TRADE IN THE NORTHWEST IS INCLUDED.

L-57

LEWIS, WILLIAM S., ED.
1931.

"RED MAN'S FAREWELL SONG AS HE WENT FORTH TO BATTLE."

THE FRONTIER, MAY 1931, PP. 378-380.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: ABORIGINAL LANDS OF THE BLACKFEET & FLATHEAD INDIANS). TRIBAL "SIN-KA-HAS" (SONGS ON THE DEPARTURE OF BRAVES FOR BATTLE) ARE TRANSLATED INTO ENGLISH BY CHRISTINA MCDONALD, DAUGHTER OF THE EXPLORER ANGUS MCDONALD. A BRIEF DISCUSSION PRIOR TO THE PRESENTATION OF THE SONGS DESCRIBES THE SETTING WHEN THE SONGS WOULD BE SUNG AND THE SPIRITUAL SIDE OF THE INDIAN WHICH IS DEMONSTRATED BY THE SONGS. A BLACKFEET, FLATHEAD AND NEZ PERCE, AND SNAKE WARRIOR'S SIN-KA-HAS ARE INCLUDED.

L-58

LIN, PETER C., AND CHASE, S. B., JR.
1970.

"INDIAN POVERTY IN MONTANA: FINDINGS OF THE 1960 CENSUS." IN INDIANS IN MONTANA.

MISSOULA, MT.: UNIV. MONTANA, BUREAU BUSINESS & ECONOMIC RESEARCH.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD INDIAN RESERVATION & LAKE COUNTY). THE STUDY OF INDIAN POVERTY IS BASED ON 1960 CENSUS DATA. IT DISCUSSES AVERAGE INCOME LEVELS, INCOME DISTRIBUTION AMONG FAMILIES, THE INEQUALITY AMONG NON-WHITE FAMILIES, AND URBAN-RURAL DIFFERENCES. INDIAN EDUCATION AND OTHER FACTORS RELATING TO INCOME FOR SEVEN RESERVATION COUNTIES ARE REPRESENTED.

L-59

LIN, PETER C.; CHASE, S. B., JR.; AND BIGART, R. J.
1970.

INDIANS IN MONTANA.

MISSOULA, MT.: UNIV. MONTANA, BUREAU BUSINESS & ECONOMIC RESEARCH. 56 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD INDIAN RESERVATION & LAKE COUNTY). THREE ARTICLES ARE PRESENTED: 1) "INDIAN POVERTY IN MONTANA: FINDINGS OF THE 1960 CENSUS," 2) "AMERICAN INDIANS IN THE 'MELTING POT,'" AND 3) "INDIAN CULTURE AND INDUSTRIALIZATION." THEY STUDY THE ECONOMIC PICTURE AND CULTURAL CONTEXT OF INDIAN RESERVATIONS.

- L-60**
LIND, ROBERT W.
1971.
"FAMILISTIC ATTITUDES AND MARRIAGE ROLE EXPECTATIONS OF AMERICAN INDIAN AND WHITE ADOLESCENTS."
PH.D. DISSERTATION, FLORIDA STATE UNIV., GAINESVILLE. 122 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA). THE PURPOSE OF THIS STUDY WAS TO DETERMINE THE EXTENT TO WHICH AMERICAN INDIAN AND WHITE ADOLESCENTS DIFFER IN THEIR FAMILISTIC ATTITUDES AND MARRIAGE ROLE EXPECTATIONS AND TO ASCERTAIN SOME OF THE SOCIOLOGICAL FACTORS WHICH INFLUENCE THEIR FORMATION.
- L-61**
LINDERMAN, FRANK B.
1928.
KOOTENAI WHY STORIES.
NEW YORK: CHARLES SCRIBNER'S SONS. 186 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.
- (ABORIGINAL LANDS OF THE KOOTENAI INDIANS). A COLLECTION OF FIFTEEN KOOTENAI INDIAN STORIES AND MYTHS DEALS WITH ANIMALS AND BIRDS, FORESTS AND MOUNTAINS LOCAL TO THE KOOTENAI OF WESTERN MONTANA, NORTHERN IDAHO, AND BRITISH COLUMBIA.
- L-62**
LINDERMAN, FRANK B.
1968.
MONTANA ADVENTURE: THE RECOLLECTIONS OF FRANK B. LINDERMAN. EDITED BY H. G. MERRIAM. LINCOLN, NEB.: UNIV. NEBRASKA.
- (FLATHEAD INDIAN RESERVATION). DURING THE EARLY YEARS OF THIS NARRATIVE, LINDERMAN WAS RESIDING IN THE FLATHEAD LAKE COUNTRY AND WAS A PARTICIPANT IN SOME OF THE KOOTENAI-WHITE TROUBLES ABOUT THE TURN OF THIS CENTURY. MOST OF LINDERMAN'S DEALINGS WITH THE SALISH AND KOOTENAI ARE MENTIONED ONLY IN PASSING. POPULAR. SKCC.
- L-63**
LINDLER, BERT.
1977.
"THE FLATHEAD'S FUTURE: WILL SOMEBODY PAY \$2 MILLION PER YEAR TO KEEP IT FREE FLOWING?" MONTANA OUTDOORS, NOVEMBER/DECEMBER 1977, PP. 39-43.
- (FLATHEAD RIVER). THE DISCUSSION OF THE POSSIBILITY OF DAMMING THE LOWER FLATHEAD RIVER INCLUDES INTERVIEWS AND QUOTES FROM A NUMBER OF TRIBAL LEADERS. SKCC.
- L-64**
LINDQUIST, G. E. E.
1923.
THE RED MAN IN THE UNITED STATES.
NEW YORK: GEORGE H. DORAN CO.
- (FLATHEAD INDIAN RESERVATION). THIS VOLUME RECORDS A PROTESTANT MISSIONARY VIEW OF THE ECONOMIC AND MORAL SITUATION ON THE FLATHEAD RESERVATION IN THE 1920'S. SKCC.
- L-65**
LINSLEY, N. C.
1880.
"THE PEND D'OREILLE COUNTRY."
FIELD AND STREAM, OCTOBER 10, 1880, PP. 227-228.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD RIVER BASIN). AN EARLY ACCOUNT OF A HUNTING TRIP ALONG THE PEND D'OREILLE (FLATHEAD) RIVER WHICH LISTS THE TYPES OF ANIMALS SIGHTED AND KILLED. ANIMALS NOTED INCLUDED: GRIZZLY BEARS, BLACK BEARS, WOLVES, CARIBOU, MOUNTAIN SHEEP, FISHERS, AND OTTERS.
- L-66**
LISTER, JAMES C.
1980.
"THE SEDIMENTOLOGY OF GLACIAL LAKE MISSOULA FLOOD DEPOSITS IN CAMAS PRAIRIE, MONTANA." M.S. THESIS, UNIV. MONTANA, MISSOULA. (FORTHCOMING: 1980).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (CAMAS PRAIRIE). THIS PAPER ATTEMPTS TO SUPPLY SUBSEQUENT WORKERS WITH PHYSICAL MEASUREMENTS OF GRAIN SIZE, BEDFORM DIMENSIONS, DELTA VOLUME, TRANSPORT DISTANCE, SORTING, AND EVENT TIMING FOR STUDIES OF HYDRAULICS. IT ALSO PROVIDES OBSERVATIONS, WITH INTERPRETIVE CONCLUSIONS, OF THE STRATIGRAPHY OF CAMAS PRAIRIE FOR GEOLOGISTS STUDYING THE PLEISTOCENE.
- L-67**
LITTLE, ARTHUR D., INC.
1978.
A REGIONAL ANALYSIS: ECONOMIC AND FISCAL IMPACTS OF THE ALUMINUM INDUSTRY IN THE PACIFIC NORTHWEST.
ARTHUR D. LITTLE, INC.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.
- AVAILABLE FROM: FLATHEAD COUNTY LIBRARY, KALISPELL, MT.
- (PACIFIC NORTHWEST: COLUMBIA FALLS). THIS REPORT ANALYZES SOME OF THE ISSUES WHICH MUST BE ADDRESSED IN THE DEVELOPMENT OF A SUITABLE COMPROMISE SOLUTION TO THE PROBLEM OF FUTURE UTILIZATION OF THE HYDROELECTRIC ENERGY BASED IN THE REGION.
- L-68**
LIVEZEY, KENT B.
1979.
"SOCIAL BEHAVIOR OF ROCKY MOUNTAIN ELK AT THE NATIONAL BISON RANGE." M.S. THESIS, UNIV. MONTANA, MISSOULA. 143 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (NATL. BISON RANGE). THIS THESIS DESCRIBES AND QUANTIFIES THE SOCIAL BEHAVIOR OF AN ISOLATED ELK HERD (CERVUS ELAPHUS NELSONI). THE FUNCTIONS OF THE SOCIAL DISPLAYS ARE DISCUSSED AND THE LITERATURE ON ELK BEHAVIOR IS REVIEWED. INCLUDED IN THE TYPES OF BEHAVIOR OBSERVED AND ANALYZED ARE COW-CALF INTERACTIONS AND THE RUTTING BEHAVIOR OF BULLS. DIFFERENCES IN ACTIVITY BETWEEN SEX-AGE CLASSES AND BETWEEN DIFFERENT TIMES OF DAY ARE DEMONSTRATED FROM THE ANALYSIS OF OVER 22,500 BITS OF DATA FROM SCAN AND INSTANTANEOUS SAMPLING.
- L-69**
"LOCALITY THAT PRESENTS EVERY ATTRACTION FOR HOMESEEKERS."
THE WESTERN HOMESSEKER, JANUARY 1906, P. 25.
- (FLATHEAD INDIAN RESERVATION). THIS ARTICLE OUTLINES PROGRESS AT PLAINS AND SUGGESTS THE POSSIBILITY OF LOCATING IN THE AREA OF THE RESERVATION NEAR THAT TOWN. SKCC.
- L-70**
LOGAN, GEORGE.
1909.
HISTORIES OF THE NORTH MONTANA MISSION, KALISPELL MISSION, AND MONTANA DEACONESSE HOSPITAL WITH SOME BIOGRAPHICAL AND AUTOBIOGRAPHICAL SKETCHES.
BY THE AUTHOR. 158 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.
- NOTE: HISTORIC PHOTOGRAPHS ARE INCLUDED
- (KALISPELL & COLUMBIA FALLS). MISSIONARY WORK ACCOMPLISHED BY THE METHODIST CHURCH AND BIOGRAPHIES OF CHURCH LEADERS ARE PRESENTED. A HISTORY OF THE KALISPELL MISSION IS DESCRIBED. INCLUDED ARE ACCOUNTS OF THE FIRST TRIP OF A PRESIDING ELDER TO THE FLATHEAD; THE ESTABLISHMENT OF CHURCHES, SUNDAY SCHOOLS, AND CLASSES IN KALISPELL AND COLUMBIA FALLS; AND THE APPROPRIATION OF MISSIONARY MONEY BY THE CHURCH.
- L-71**
LOKEMOEN, JOHN T.
1962.
"THE PRODUCTIVITY OF THE RED-HEAD (AYTHA AMERICANA) IN THE FLATHEAD VALLEY, MONTANA." M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 120 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (WESTERN MONTANA: NINEPIPE NATL. WILDLIFE REFUGE). THE ECOLOGY OF THE REDHEAD DUCK (AYTHA AMERICANA) WAS THE SUBJECT OF THIS STUDY. THE PRIMARY OBJECTIVES WERE TO DETERMINE REDHEAD PRODUCTION ON THE AREA'S POTHOLE AND GATHER INFORMATION TO MAKE RECOMMENDATIONS FOR INCREASING PRODUCTION. A CENSUS SURVEY COUNTING THE BREEDING POPULATION AND DEFINING SEX RATIO WAS CONDUCTED, ALONG WITH TRAPPING AND MARKING OF SOME 150 BIRDS. THESE MARKED BIRDS WERE OBSERVED TO OBTAIN GENERAL MOVEMENTS AND INFORMATION ON TERRITORIES AND HOME RANGE. OBSERVATIONS WERE ALSO MADE ON: NESTING OCCURRENCES, NESTING PREFERENCES, NEST SUCCESS AND LOSS, AND BROOD UTILIZATION OF POTHOLE.
- L-72**
LOKEMOEN, JOHN T.
1966.
"BREEDING ECOLOGY OF THE REDHEAD DUCK IN WESTERN MONTANA." J. WILDLIFE MANAGEMENT 30(OCTOBER 1966):13-26.
TYIF FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD VALLEY: NINEPIPE NATL. WILDLIFE REFUGE). THIS STUDY WAS CONDUCTED TO DETERMINE BREEDING BEHAVIOR, HABITAT PREFERENCES, AND NESTING SUCCESS OF AYTHA AMERICANA. ECOLOGICAL INFORMATION WAS GATHERED ON EACH POTHOLE IN THE AREA AND THEN CORRELATED WITH REDHEAD USE TO DETERMINE HABITAT PREFERENCES. NESTING SUCCESS AND PRODUCTION AS AFFECTED BY HABITAT CONDITIONS, REDHEAD PARASITISM, WEATHER, AND OTHER ENVIRONMENTAL FACTORS WERE INCLUDED AS MAJOR FEATURES OF THE STUDY.
- L-73**
LONG, BILL.
1978.
A SURVEY OF THE MONTANA BANKING COMMUNITY REGARDING PARTICIPATION IN THE RENEWABLE RESOURCES DEVELOPMENT LOAN PROGRAM.
HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, WATER RESOURCES DIV. 9 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: KALISPELL, COLUMBIA FALLS, & POLSON). THERE WERE TWO PORTIONS TO THE RENEWABLE RESOURCES DEVELOPMENT LOAN SURVEY CONDUCTED BY THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION. FIRST MAIL SURVEY QUESTIONNAIRES WERE SENT TO 64 BANKS THROUGHOUT MONTANA, THE MONTANA BANKERS ASSOCIATION, AND THREE STATE SENATORS. SECOND FOLLOW-UP PHONE CALLS WERE MADE TO EIGHT BANKERS. THE RESULTS FROM THE QUESTIONNAIRE ARE INCLUDED IN THE APPENDIX, AS WELL AS AN OUTLINE OF ADMINISTRATIVE COSTS OF THE RENEWABLE RESOURCES DEVELOPMENT LOAN PROGRAM ADMINISTERED BY DNRC.

L-74
LONG, GEORGE W.
1966.
"MANY SPLENDORED GLACIERLAND."
NATIONAL GEOGRAPHIC, MAY 1956.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE TRAVELOGUE OF A VACATION TRIP IN GLACIER NATIONAL PARK INCLUDES MANY COLOR PHOTOGRAPHS.

L-75
LONNER, TERRY N.
1972.
"AGE DISTRIBUTIONS AND SOME RELATIONSHIPS OF KEY BROWSE PLANTS ON BIG GAME RANGES IN MONTANA."
M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 79 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD COUNTY). THIS STUDY DETERMINED THE AGES OF 1,975 BROWSE PLANTS ASSOCIATED WITH 506 KEY UTILIZATION AND CONDITION TREND TRANSECTS ON BIG GAME RANGES THROUGHOUT MONTANA. DATA WERE OBTAINED FOR 20 SPECIES, 11 OF WHICH WERE SUFFICIENTLY REPRESENTED TO PERMIT ANALYSES OF AGE DISTRIBUTIONS AND GENERAL AGE RELATIONSHIPS. THE FOLLOWING SPECIES WERE STUDIED IN DETAIL: ROCKY MOUNTAIN MAPLE, WESTERN SERVICEBERRY, SILVER SAGEBRUSH, BIG SAGEBRUSH, RUBBER RABBIT BRUSH, CURL LEAF MOUNTAIN MAHOGANY, COMMON JUNIPER, CREEPING JUNIPER, COMMON CHOKECHERRY, ANTELOPE BITTERBRUSH, AND SKUNKBRUSH SUMAC. CORRELATION OF ASSIGNED AGES WITH CERTAIN OTHER PLANT PARAMETERS AND MEASUREMENTS INCLUDING PLANT CROWN VOLUME, CROWN AREA, PERCENT OF CROWN DEAD ROOT/STEM CROSS SECTIONAL AREA AND DIAMETER, UTILIZATION OF CURRENT LEADER GROWTH, FORM CLASS, AND AGE CLASS PROVIDED AN OPPORTUNITY TO EXTEND THE STUDY TO INCLUDE AN ANALYSIS OF BASIC AGE RELATIONSHIPS.

L-76
LOPACH, JAMES J.
1975.
"FORMS OF LOCAL GOVERNMENT IN MONTANA: A CITIZENS' GUIDE."
BOZEMAN, MT.: MONTANA STATE UNIV., COOP. EXTENSION SERVICE. 11 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

NO DIRECT REFERENCE TO FLATHEAD.

(MONTANA). A SUMMARY OF LOCAL GOVERNMENT OPTIONS AVAILABLE TO LOCAL GOVERNMENT REVIEW COMMISSIONS.

L-77
LOPACH, JAMES J., AND MCKINSEY, L.
1975.
"HANDBOOK OF MONTANA FORMS OF LOCAL GOVERNMENT."

MISSOULA, MT.: UNIV. MONTANA, BUREAU GOVERNMENT RESEARCH. PUBL. NO. 10. 226 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). A HANDBOOK INTENDED TO PROVIDE INFORMATION FOR THE MANDATED LOCAL GOVERNMENT REVIEW. STUDY COMMISSIONS ARE PROVIDED WITH A COMPREHENSIVE GUIDE TO CRITERIA FOR EVALUATING BOTH THE EXISTING FORM OF GOVERNMENT AND COMMUNITY OBJECTIVES. A THOROUGH DESCRIPTION OF OPTIONAL FORMS OF LOCAL GOVERNMENT MADE AVAILABLE BY THE 1975 LEGISLATURE IS INCLUDED.

L-78
LOTT, DALE F.
1977.
"SEXUAL AND AGGRESSIVE BEHAVIOR OF ADULT MALE AMERICAN BISON (BISON BISON)." IN PROCEEDINGS OF THE BEHAVIOR OF UNGULATES AND ITS RELATION TO MANAGEMENT.
ALBERTA, CAN.: UNIV. CALGARY, INTERNATIONAL UNION FOR CONSERVATION OF NATURE & NATURAL RESOURCES. PAPER NO. 19.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(CALIFORNIA: CATALINA ISLAND & NATL. BISON RANGE). THE DATA REPORTED IN THIS ARTICLE WERE COLLECTED PRIMARILY ON THE NATIONAL BISON RANGE. THE ARTICLE COVERS: GENERAL SOCIAL ORGANIZATION, PHYSICAL CHARACTERISTICS OF MATURE BISON, SEXUAL BEHAVIOR, AGGRESSIVE BEHAVIOR, THREATS, AND SUBMISSION.

L-79
LOTT, DALE F.
1972.
"THE WAY OF THE BISON - FIGHTING TO DOMINATE" IN MARVELS OF ANIMAL BEHAVIOR.
WASHINGTON, D.C.: NATIONAL GEOGRAPHIC SOCIETY. 422 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS CHAPTER, ACCOMPANIED BY PHOTOGRAPHS, DEPICTS HOW DOMINANCE AMONG MALE BISON IS ESTABLISHED THROUGH FIGHTING AND SUBSTITUTES FOR FIGHTING SUCH AS POSTURES AND VOCALIZATIONS.

L-80
LOTT, DALE F.
1979.
"HAIR DISPLAY LOSS IN MATURE MALE AMERICAN BISON: A TEMPERATE ZONE ADAPTATION?"
Z. TIERPSYCHOL 49:71-76.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). MATURE MALE BISON (BISON BISON) FROM SIX TO THIRTEEN YEARS OF AGE WERE PHOTOGRAPHED BEFORE AND AFTER THE RUT TO DETERMINE IF HAIR LOSS IS THE RESULT OF SOME PHYSIOLOGICAL PROCESS THAT IS CYCLIC OR IF IT IS GENERATED OR TRIGGERED BY THE SOCIAL EVENTS OF THE RUT.

L-81
LOUNDERBACK, H. M.
1980.
"THE ROCK STORY OF GLACIER NATIONAL PARK."
SPOKANE PUBLIC SCHOOLS, SPOKANE, WA. (TYPEWRITTEN). 11 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT OUTLINES THE HISTORICAL GEOLOGY OF GLACIER NATIONAL PARK, AND DIAGRAMS THE PHYSICAL GEOLOGY. A BRIEF DESCRIPTION OF ROCKS AND FOSSILS FOUND WITHIN THE PARK COVERS: WATERTON LIMESTONE,

ALTYN LIMESTONE, APEKUNNY ARGILLITES, GRINNELL ARGILLITES, SIYEH LIMESTONE, SPOKANE ARGILLITE, SHEPPARD LIMESTONE, AND KINTLA ARGILLITE.

L-82
LOW, FREDERICK C.
1969.
"SOME BASIC CHARACTERISTICS OF RECREATION AND THE RECREATIONIST, STILLWATER STATE FOREST, MONTANA."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 64 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(STILLWATER STATE FOREST). THE OBJECTIVES OF THIS STUDY WERE: TO DESCRIBE THE RECREATION RESOURCE ON THE STILLWATER STATE FOREST AND NEARBY OWNERSHIPS; TO MAKE AN ESTIMATE OF PRESENT RECREATIONAL USE OF THE STILLWATER STATE FOREST; TO LEARN CHARACTERISTICS, ATTITUDES AND ACTIVITIES OF STILLWATER FOREST VISITORS; AND TO DETERMINE IF EXISTING CAMPGROUNDS ON THE STILLWATER FOREST ARE OF ADEQUATE SIZE TO ACCOMMODATE PRESENT VISITOR PRESSURE. A LITERATURE REVIEW AND A COPY OF THE QUESTIONNAIRE USED ARE INCLUDED.

L-83
LUCAS, ROBERT C.
1970.
"PRELIMINARY TABULATIONS - 1970 SURVEY OF VISITORS TO SEVEN WILDERNESS AND RELATED AREAS IN MONTANA."
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, INTERMOUNTAIN FOREST & RANGE EXPER. STAT., FORESTRY SCIENCES LAB.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(JEWEL BASIN HIKING AREA, MIDDLE FORK OF THE FLATHEAD RIVER, BOB MARSHALL WILDERNESS AREA, & MISSION MTNS. WILDERNESS AREA). MOST OF THESE TABLES ARE BASED ON A REPRESENTATIVE SAMPLE OF VISITORS 16 YEARS OR OLDER TO THE SEVEN STUDY AREAS. A COPY OF THE QUESTIONNAIRE IS INCLUDED ALONG WITH DATA EXTRACTED FROM THE RESPONSES.

L-84
LUCAS, ROBERT C.
1974.
"FOREST SERVICE WILDERNESS RESEARCH IN THE ROCKIES: WHAT WE'VE LEARNED SO FAR."
WESTERN WILDLANDS 1(SPRING 1974):5-12.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(NORTHERN ROCKY MTNS.). THIS PUBLICATION DISCUSSES A U.S. FOREST SERVICE WILDERNESS MANAGEMENT RESEARCH PROGRAM. IT DESCRIBES A FIRE ECOLOGY PROJECT STUDYING THE VEGETATION HISTORY OF THE DANAHAR CREEK BASIN IN THE BOB MARSHALL WILDERNESS, AN INVESTIGATION OF CAMPSITE POTENTIAL IN THE SPANISH PEAKS AREA, AND A STUDY OF TRAIL DETERIORATION IN THE SELWAY BITTERROOT WILDERNESS. THE PAPER ADDRESSES RECREATIONAL CARRYING CAPACITY, MEASURING VISITOR USE, WILDERNESS PERMITS, CHARACTERISTICS OF VISITORS, A USE SIMULATOR, AND USE DISTRIBUTION. CONCLUSIONS EMPHASIZE THE NEED FOR FURTHER STUDY.

L-85
LUCAS, ROBERT C.
1979.
"A COMPARATIVE ANALYSIS OF USE PATTERNS AND VISITOR CHARACTERISTICS, ATTITUDES AND PREFERENCES IN NINE WILDERNESS AND RELATED AREAS."
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, INTERMOUNTAIN FOREST & RANGE EXPER. STAT. 128 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(BOB MARSHALL WILDERNESS AREA; JEWEL BASIN HIKING AREA; MISSION MTNS. WILDERNESS AREA; SCAPEGOAT WILDERNESS AREA; GREAT BEAR WILDERNESS AREA). THE OBJECTIVE OF THIS STUDY WAS TO OBTAIN COMPREHENSIVE COMPARABLE DATA ON WILDERNESS AREA VISITORS. INFORMATION COLLECTED INCLUDED: TYPES OF USE, CHARACTERISTICS OF VISITORS, AND VISITOR ATTITUDES. THE SURVEY IS INTENDED TO AID MANAGERS OF EACH STUDY AREA; HELP DEVELOP OVERALL MANAGEMENT POLICIES BASED ON DIFFERENCES AND SIMILARITIES BETWEEN AREAS; ESTABLISH A BASE FOR FUTURE MANAGEMENT OF TRENDS; AID IN THE SELECTION OF RESEARCH PROBLEMS; AND HELP GUIDE THE APPLICATION OF RESULTS OF FUTURE, MORE SPECIFIC STUDIES FROM THE AREAS STUDIED TO OTHER SIMILAR AREAS.

L-86
LUCAS, ROBERT C.; SCHREUDER, HANS T.; AND JAMES, GEORGE A.
1971.

WILDERNESS USE ESTIMATION: A PILOT TEST OF SAMPLING PROCEDURES ON THE MISSION MOUNTAINS PRIMITIVE AREA.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH PAPER INT-108. 44 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTN. WILDERNESS AREA). THE REPORT ASSESSES METHODS FOR ESTIMATING WILDERNESS RECREATIONAL USE, WHICH WERE PILOT TESTED IN THE THEN-PRIMITIVE AREA. THE MAIN BASIS FOR THE ESTIMATING METHODS WAS TRAIL REGISTER INFORMATION. INTENSIVE FIELD SAMPLING PROVIDED DATA ON ACTUAL USE TO RELATE TO REGISTRATION DATA. THE PRODUCTION OF ESTIMATES USING RATIO AND REGRESSION METHODS IS DISCUSSED; THE TERMS OF ERROR AND THE ADVANTAGE OF ONE METHOD OVER THE OTHER ARE CONSIDERED. VARIATIONS IN REGISTRATION RATES ASSOCIATED WITH SUCH FACTORS AS TYPE OF ACTIVITY, MODE OF TRAVEL, LENGTH OF STAY, AND WEATHER ARE NOTED. SUGGESTIONS ARE MADE FOR INCREASING THE EFFECTIVENESS OF TRAIL REGISTRATION SYSTEMS.

L-87
LUFT, LEROY D., AND SCHAEFER, J.
1977.
CUSTOM RATES FOR FARM WORK IN MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV., COOP. EXTEN. SERVICE CIRC. 242. 8 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: NORTHWEST CROP REPORTING DISTRICT). THE RATES ON THE TABLES IN THIS REPORT WERE OBTAINED FROM CUSTOM OPERATORS, FARMERS, AND COUNTY EXTENSION AGENTS. THE RATES ARE GIVEN BY CROP REPORTING DISTRICTS WHERE AVAILABLE DATA WERE SUFFICIENT TO DO SO. STATE AVERAGES ARE ALSO REPORTED.

L-88
LUKES, ANTHONY JAMES.
1976.
"A SILVICULTURAL PRESCRIPTION FOR THE NAPA SPECIAL MANAGEMENT UNIT ON THE SWAN RIVER STATE FOREST."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 87 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER STATE FOREST). INCLUDED WITHIN THIS PRESCRIPTION ARE: THE MANAGEMENT DIRECTION; A STAND DESCRIPTION; MANAGEMENT CONSIDERATIONS; MANAGEMENT ALTERNATIVES; THE PROPOSED PRESCRIPTION (CULTURAL TREATMENTS DURING THE ROTATION); AND IMPACTS OF THE PRESCRIPTION (BIOLOGICAL, ECOLOGICAL, SOCIAL FOREST PRODUCT YIELDS, AND ECONOMIC).

L-89
LUNAN, JAMES S.
1972.
"PHYTOSOCIOLOGY AND FUEL DESCRIPTION OF PINUS PONDEROSA COMMUNITIES IN GLACIER NATIONAL PARK."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 62+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK AREA). THE STUDY DESCRIBES THE COMPOSITION OF PINUS PONDEROSA COMMUNITIES AND FUEL ACCUMULATION. THE QUADRANT METHOD WAS USED TO DETERMINE UNDERSTORY VEGETATION; THE QUARTER METHOD TO DETERMINE THE OVERSTORY. AN ESTIMATE OF THE POTENTIAL FIRE BEHAVIOR IN EACH STAND IS GIVEN ALONG WITH MANAGEMENT RECOMMENDATIONS FOR A FIRE POLICY ALLOWING FOR A MORE NATURAL INCIDENCE OF FIRE.

L-90
LUNAN, JAMES S., AND HABECK, J. R.
1973.
"THE EFFECTS OF FIRE EXCLUSION ON PONDEROSA PINE COMMUNITIES IN GLACIER NATIONAL PARK, MONTANA."
CANADIAN J. FOREST RESEARCH 3:6-12.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS INVESTIGATION IN THE PINUS PONDEROSA COMMUNITIES WAS DIRECTED TOWARD A BETTER UNDERSTANDING OF THE EFFECTS OF LONG PERIODS OF FIRE EXCLUSION ON A FIRE-DEPENDENT VEGETATION TYPE. CURRENT COMPOSITIONAL STATUS OF THE PINE COMMUNITIES AND CURRENT ORGANIC FUEL LOADINGS IN THE STANDS WERE EMPHASIZED IN THE STUDY.

L-91
LUNDEEN, LLOYD J., AND HALL, J. L.
1984.
FLOOD DAMAGE REPORT-FLATHEAD NATIONAL FOREST.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 31 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE PURPOSE OF THIS REPORT WAS TO DISCUSS THE CONTRIBUTING FACTORS TO THE JUNE 1984 FLOOD, THE CHARACTERISTICS OF THE FLATHEAD WATERSHED, THE DAMAGES CAUSED BY THE FLOOD, AND RESTORATION ACTION NECESSARY TO REPAIR THESE DAMAGES.

L-92
LUTHY, FORREST N., AND ZWICKEL.
1949.
"SUMMER FOOD HABITS OF THE MOOSE IN GLACIER NATIONAL PARK."
19 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK LIBRARY.

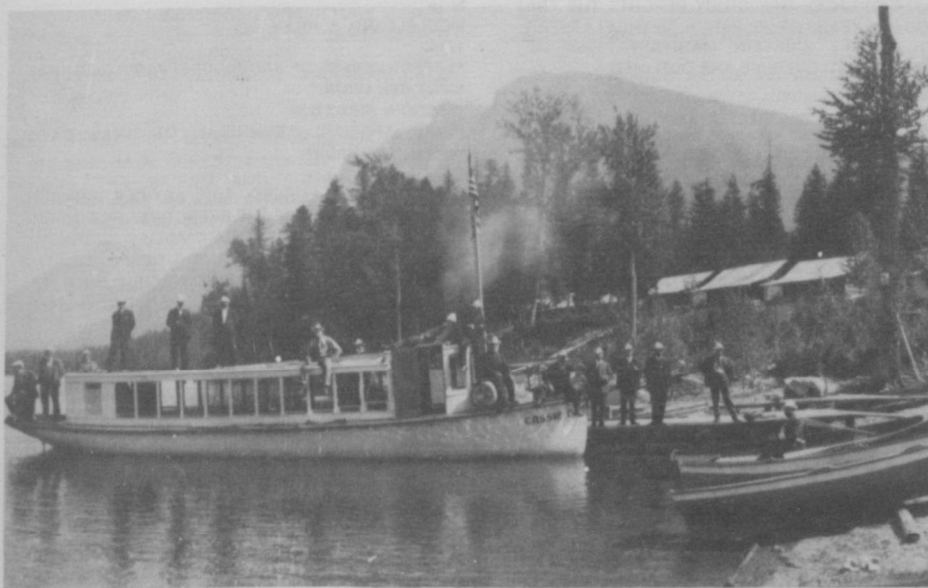
(GLACIER NATL. PARK). THE OBJECT OF THIS STUDY WAS TO OBSERVE THE SUMMER FOOD HABITS OF ALCEA AMERICANUS SHIRAZI IN THE PARK WITH A SPECIAL EMPHASIS UPON AQUATIC VEGETATION. AS A SECONDARY OBJECTIVE, SOME OF THE GENERAL LIFE HISTORY WAS TO BE OBTAINED. GENERAL FEEDING HABITS AND PLANT UTILIZATION BY AREA ARE DESCRIBED. PLANT SPECIES LISTS AND CONCLUSIONS ARE INCLUDED.

L-93
LYNCH, DONALD W.
1958.
EFFECTS OF STOCKING ON SITE MEASUREMENT AND YIELD OF SECOND GROWTH PONDEROSA PINE IN THE INLAND EMPIRE.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH PAPER NO. 58. 36 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(EASTERN WASHINGTON, NORTHERN IDAHO, & WESTERN MONTANA). THE OBJECTIVES OF THIS STUDY WERE: 1) TO SHOW THE MAGNITUDE OF THE EFFECTS OF STOCKING ON THE HEIGHT OF PONDEROSA PINE AND TO DEVELOP ADJUSTED SITE INDEX CURVES FOR USE IN STANDS HAVING VARIOUS DEGREES OF STOCKING, AND 2) TO PRESENT A METHOD OF GROWTH PREDICTION FOR SECOND GROWTH PONDEROSA PINE WHICH IS ESPECIALLY APPLICABLE TO UNDERSTOCKED STANDS. DATA WERE GATHERED FROM TEMPORARY SAMPLE PLOTS LOCATED IN EVEN-AGED STANDS OF SECOND GROWTH PONDEROSA PINE THROUGHOUT THE INLAND EMPIRE.

L-94
LYNGSTAD, MIKE.
1977.
FLATHEAD COUNTY PARKS AND RECREATION COMPREHENSIVE FACILITY REVIEW.
KALISPELL, MT.: FLATHEAD COUNTY PARKS & RECREATION DEPT. 123 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: KALISPELL, WHITEFISH, & COLUMBIA FALLS). THIS PLAN ATTEMPTS TO ASSURE THAT ALL SEGMENTS OF SOCIETY WILL HAVE OUT-DOOR RECREATION OPPORTUNITIES AVAILABLE. TOPICS COVERED ARE: RECREATION IN GENERAL, COUNTY PARK DEFINITIONS, PARK PLANNING, CITY PARKS, SCHOOL FACILITIES BY DISTRICT, AND DEVELOPED AND UNDEVELOPED COUNTY-OWNED PARKS.



M-1
MCLEAR, J. F.
 1962.
THE FABULOUS FLATHEAD.
 POLSON, MT.: THE RESERVATION PIONEERS. 224 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
 WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE PRIMARY PURPOSE OF THE BOOK IS TO COMPILE AND PERPETUATE ANY AND ALL HISTORICAL DATA PERTINENT TO THE FLATHEAD INDIAN RESERVATION. HISTORIES OF ALL THE TOWNS ON THE RESERVATION ARE INCLUDED. CHAPTERS COVER THE ORIGINAL INHABITANTS, EXPLORERS AND FUR TRADERS, MISSIONARIES, INDIAN AGENTS, THE PABLO-ALLARD BUFFALO HERD, LAND TRANSPORTATION, HYDROPOWER DEVELOPMENT, AND THE LUMBER INDUSTRY.

M-2
MCARTHUR, KATHERINE L.
 1978.
USE OF BEAR OBSERVATIONS TO QUANTIFY AND PREDICT BEAR HAZARDS, GLACIER NATIONAL PARK, DOCUMENTATION OF SYSTEM DEVELOPMENT.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, RESEARCH DIV. 12 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). IN 1977, GLACIER PARK ADOPTED A BEAR MONITORING SYSTEM IN WHICH ALL BEAR SIGHTINGS REPORTED WERE STORED ON A COMPUTER. LISTS OF SIGHTINGS WERE DISTRIBUTED DAILY AND SUMMARIZED WEEKLY. IN ORDER TO QUANTIFY THE SEVERITY OF BEAR HAZARDS IN DIFFERENT AREAS, AND TO PROVIDE A BASIS FOR COMPARISON FROM DAY TO DAY AND WEEK TO WEEK, THE BEAR/HUMAN CONTACT INDEX SYSTEM WAS DEVELOPED. ITS PURPOSE WAS TO ENABLE MANAGERS TO RECOGNIZE HAZARDS AND TAKE PREVENTIVE ACTION BEFORE SERIOUS BEAR/HUMAN CONFRONTATIONS WERE LIKELY TO TAKE PLACE.

M-3
MCARTHUR, KATHERINE L.
 1979.
"APGAR TERRESTRIAL RESOURCES INVENTORY."
 U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. 57 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: APGAR). THE GOAL OF THIS STUDY WAS TO PROVIDE INFORMATION ABOUT THE AREA SO THAT IMPACTS ON ITS NATURAL INTEGRITY MAY BE MINIMIZED. SPECIFIC OBJECTIVES WERE TO SECURE QUANTITATIVE AND QUALITATIVE DATA ON THE DISTRIBUTION OF SOILS, VEGETATION, AND WILDLIFE POPULATIONS IN THE STUDY AREA; TO IDENTIFY PLANT AND ANIMAL SPECIES FOR WHICH THE APGAR/WEST GLACIER AREA PROVIDES ESPECIALLY SENSITIVE OR CRITICAL HABITAT; AND TO DETERMINE THE EFFECTS OF HUMAN DEVELOPMENTS AND ACTIVITIES ON THESE SPECIES. THE STUDY AREA WAS DIVIDED INTO 24 AREAS BASED ON SOIL AND VEGETATION TYPES, EACH OF WHICH IS DESCRIBED. PLANT AND ANIMAL SPECIES ARE LISTED IN TABLES.

M-4
MCARTHUR, KATHERINE L.
 1979.
THE BEAR HAZARD INDEX SYSTEM: GLACIER NATIONAL PARK.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. PROGRESS REPT.
 PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). IN ORDER TO ESTABLISH WEEKLY COMPARISONS OF BEAR REPORTS SO THAT DEVELOPING HAZARDS CAN BE DETECTED, THE SYSTEM OF BEAR HAZARD INDEXES WAS DEVELOPED. THE INDEXES NUMERICALLY EVALUATE THE DANGER TO A PERSON WHO HIKES OR CAMPS IN A GIVEN AREA, AND ARE INTENDED TO ASSIST FIELD MANAGERS IN DETECTING HAZARDS BEFORE THEY BECOME SERIOUS.

M-5
MCARTHUR, KATHERINE L.
 1979.
THE BEHAVIOR OF GRIZZLY BEARS IN RELATION TO PEOPLE IN GLACIER NATIONAL PARK. A LITERATURE REVIEW.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, RESEARCH DIV. 70 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). KNOWLEDGE OF THE BEHAVIOR OF GRIZZLY BEARS (URSUS ARCTOS) IS ESSENTIAL IN UNDERSTANDING THE RELATIONSHIPS BETWEEN GRIZZLIES AND PEOPLE IN NATIONAL PARKS. THIS REVIEW OF EXISTING INFORMATI-

ON ABOUT GRIZZLY BEAR BEHAVIOR ALSO DISCUSSES ASPECTS OF THE EVOLUTION AND BIOLOGY OF GRIZZLY BEARS THAT ARE RELEVANT TO GRIZZLY BEHAVIOR.

M-6
MCARTHUR, KATHERINE L.
 1980.
"HABITUATION OF GRIZZLY BEARS TO PEOPLE: A HYPOTHESIS." IN BEARS: THEIR BIOLOGY AND MANAGEMENT. EDITED BY E. C. MESLOW.
 IN PRESS.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). REPORTS OF GRIZZLY BEAR OBSERVATIONS BETWEEN 1977 AND 1979 IN GLACIER PARK WERE EXAMINED TO TEST THE HYPOTHESIS THAT THE BEHAVIOR OF GRIZZLIES IS DIFFERENT IN AREAS WITH HIGH LEVELS OF HUMAN ACTIVITY THAN IN AREAS WITH RELATIVELY LITTLE HUMAN ACTIVITY.

M-7
MCARTHUR, KATHERINE L.
"METHODS IN THE STUDY OF GRIZZLY BEAR BEHAVIOR IN RELATION TO PEOPLE."
 PAPER PRESENTED AT THE SECOND CONFERENCE ON SCIENTIFIC RESEARCH IN THE NATIONAL PARKS, NOVEMBER 26-30, 1979, SAN FRANCISCO, CALIFORNIA. 14 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER PRESENTS SOME METHODS CURRENTLY BEING USED TO TEST THE HYPOTHESIS THAT GRIZZLY BEARS HABITUATE TO PARK VISITORS IN MUCH THE SAME WAY THAT THEY HABITUATE TO OTHER BEARS IN FEEDING AGGREGATIONS: BEAR/HUMAN HABITUATION MAY RESULT IN CIRCUMSTANCES THAT ARE CONDUCTIVE TO INCREASED CONFRONTATION RATES. THE BEHAVIORAL FLEXIBILITY OF GRIZZLY BEARS AND PRELIMINARY STUDY RESULTS FROM A COMPUTERIZED BEAR INFORMATION MANAGEMENT SYSTEM ARE DISCUSSED.

M-8
MACAULEY, G.
 1963.
"REGIONAL FRAMEWORK OF PALEOZOIC SEDIMENTATION IN WESTERN CANADA AND NORTHWESTERN UNITED STATES."
 THIRD INTERNATIONAL WILLISTON BASIN SYMPOSIUM. PP. 7-36.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN CANADA & NORTHWESTERN U.S.: FLATHEAD RIVER BASIN). THE ANALYSIS OF A REGIONAL FRAMEWORK OF SEDIMENTATION REQUIRES KNOWLEDGE AND INTERPRETATION OF BOTH THE TECTONIC FEATURES CONTROLLING THE RATE OF SUBSIDENCE AND THE SOURCE AND AMOUNT OF TERRIGENOUS MATERIAL AVAILABLE FOR DEPOSITION. REGIONAL RELATIONSHIPS ARE THE RESULTANTS OF VARYING COMBINATIONS OF THE ABOVE FACTORS.

M-9
MCBEE, RICHARD H., JR., AND HENDRICKS, D. PAUL.
 1973.
"HELMINTH PARASITES IN THE YELLOW PINE CHIPMUNK - EUTAMIAS AMOENUS FROM NORTHWESTERN MONTANA."
 J. PARASITOLOGY 59:322.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: WEST APAGAR RIDGE). TWENTY-ONE EUTAMIAS AMOENUS WERE COLLECTED, THEIR CARCASSES FROZEN, AND A NECROPSY PERFORMED. THREE PARASITES PREVIOUSLY UNREPORTED FOR THE CHIPMUNK WERE FOUND AND LISTED IN THIS REPORT.

M-10
MACCANNELL, EARLE H., AND GILCHRIST, C. JACK.
 1973.
SELECTED CHARACTERISTICS OF MONTANA POPULATION, 1960-1970.
 MONTANA STATE UNIV. AGRIC. EXPER. STAT. RESEARCH REPT. NO. 39. 27 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). ASPECTS OF THE 1970 U.S. CENSUS OF POPULATION AND HOUSING FOR THE STATE AND THEIR RELATIONSHIP TO PREVIOUS CENSUS DATA ARE PRESENTED. INCLUDED ARE: POPULATION CHARACTERISTICS AND TRENDS, MIGRATION, REGIONAL PATTERNS WITHIN THE STATE, EASTERN VS. WESTERN COUNTIES, IMPACT OF UNIVERSITY STUDENT ENROLLMENTS, CONGRESSIONAL DISTRICTS, AND FORECASTS.

M-11
MACCARTER, DONALD L.
 1972.
"REPRODUCTIVE PERFORMANCE AND POPULATION TRENDS OF OSPREYS AT FLATHEAD LAKE, MONTANA."
 M.S. THESIS, HUMBOLDT STATE COLL., ARCATA, CA. 80 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE PRIMARY PURPOSE OF THIS STUDY WAS TO MONITOR THE REPRODUCTIVE PERFORMANCE OF A WESTERN POPULATION OF OSPREYS TO DETERMINE IF THEY REPRODUCED AT RATES SIMILAR TO THOSE OF EASTERN POPULATIONS.

M-12
MACCARTER, DONALD L., AND MACCARTER, DOUGLAS S.
 1979.
"TEN YEAR NESTING STATUS OF OSPREYS AT FLATHEAD LAKE, MONTANA."
 THE MURRELET 60(SUMMER 1979):42-49.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE INTENT BEHIND THIS STUDY WAS TO DETERMINE IF A WESTERN POPULATION OF PANDION HALIAETUS REPRODUCED AT RATES SIMILAR TO THOSE IN THE EAST. THIS PAPER PRESENTS DATA ON REPRODUCTIVE SUCCESS AND POPULATION TRENDS OF OSPREYS BREEDING AT FLATHEAD LAKE.

M-13
MACCARTER, DOUGLAS S.
 1972.
"FOOD HABITS OF OSPREYS AT FLATHEAD LAKE, MONTANA."
 M.S. THESIS, HUMBOLDT STATE COLL., ARCATA, CA. 80 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE PURPOSE OF THIS STUDY WAS TO EVALUATE THE RELATIONSHIP OF THE QUANTITY AND QUALITY OF FOOD ON REPRODUCTIVE INHIBITION. THE IMPORTANCE OF FOOD QUANTITY ON REPRODUCTIVE PERFORMANCE OF OSPREYS WAS ASSESSED BY MEASURING FISHING SUCCESS, RELATIVE RATES OF FISH DELIVERY TO NESTS, DIFFERENCES IN BROOD SIZE, AND RELATIVE GROWTH RATES OF CHICKS IN NESTS DIFFERING IN BROOD SIZES. FOOD QUALITY WAS ASSESSED BY MEASURING PESTICIDE CONTAMINATION FROM SAMPLES OF FOOD FISHES COLLECTED.

M-14
MACCARTER, DOUGLAS S., AND MACCARTER, DONALD L.
"FINAL CALL FOR MONTANA'S FINEST FISHERMEN."
 MONTANA OUTDOORS, MARCH-APRIL, 1973, PP. 6-12.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS STUDY REPORTS THE FINDINGS OF 5 YEARS OF RESEARCH ON THE FLATHEAD LAKE OSPREY. CERTAIN MANIFESTATIONS OF PESTICIDE (DDT) OVERUSE ARE OUTLINED.

M-15
MCCLELLAND, B. RILEY.
 1967.
BALD EAGLE CONCENTRATIONS IN GLACIER NATIONAL PARK.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 11 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: MIDDLE FORK OF THE FLATHEAD RIVER). THIS PAPER RELATES A BRIEF HISTORY OF THE BALD EAGLE (HALIAETUS LEUCOCEPHALUS) AND KOKANEE SALMON (ONCORHYNCHUS NERKA) RELATIONSHIP AND REPORTS OBSERVATIONS ON NUMBERS AND BEHAVIOR OF EAGLES DURING 1965-1966. COUNT MECHANICS ARE EXPLAINED. TABLES OF MAXIMUM ANNUAL COUNTS ARE INCLUDED.

M-16
MCCLELLAND, B. RILEY.
 1970.
ECOSYSTEMS OF GLACIER NATIONAL PARK.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 115 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER DIVIDES GLACIER PARK INTO FOUR ECOSYSTEMS: WEST SLOPE FOREST, EAST SLOPE FOREST-BUNCHGRASS, ALPINE, AND AQUATIC. AN ECOSYSTEM DIAGRAM IS PROVIDED FOR ALL FOUR SYSTEMS, AS WELL AS A HISTORICAL PERSPECTIVE ON EACH.

M-17
MCCLELLAND, B. RILEY.
 1971.
CHARACTERISTICS OF BALD EAGLE CONCENTRATIONS IN GLACIER NATIONAL PARK.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 13 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER REPORTS THE RESULTS OF A STUDY THAT TOOK PLACE FROM 1965-1970 TO OBTAIN QUANTITATIVE DATA ON THE BEHAVIOR OF HALIAETUS LEUCOCEPHALUS, AND TO IDENTIFY ASPECTS OF THE CONCENTRATION NEEDING MORE INTENSIVE STUDY. A DESCRIPTION OF THE STUDY AREA AND A HISTORY OF THE SALMON RUN ARE INCLUDED. PHOTOGRAPHS AND GRAPHS OF THE NUMBERS OF BIRDS SIGHTED ARE INCLUDED.

M-18
MCCLELLAND, B. RILEY.
 1973.
"AUTUMN CONCENTRATIONS OF BALD EAGLES IN GLACIER NATIONAL PARK."
 THE CONDOR 75(SPRING 1973):3-6.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: MIDDLE FORK OF THE FLATHEAD RIVER). THIS PAPER RELATES A BRIEF HISTORY OF THE BALD EAGLE (HALIAETUS LEUCOCEPHALUS) AND KOKANEE SALMON (ONCORHYNCHUS NERKA) RELATIONSHIP AND REPORTS OBSERVATIONS ON NUMBERS AND BEHAVIOR OF EAGLES DURING 1965-1975.

M-19
MCCLELLAND, B. RILEY.
 1975.
"EFFECTIVENESS OF BROWN CREEPER'S CONCEALMENT BEHAVIOR."
 WESTERN BIRDS 6:24.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPER. FOREST). THIS ARTICLE REPORTS ON OBSERVATIONS OF THE EFFECTIVENESS OF THE BROWN CREEPER'S (CERTHIA FAMILIARIS) CRYPTIC COLOR PATTERN AND BEHAVIOR RESPONSE. THE COMBINATION MADE THE BIRD NEARLY UNDETECTABLE NEAR ITS NEST SITE ON AN ENGELMANN SPRUCE SNAG.

M-20
MCCLELLAND, B. RILEY.
 1975.
"WILDFIRE INFLUENCES ON AESTHETIC VALUES IN GLACIER NATIONAL PARK."
 WESTERN WILDLANDS (SUMMER 1975):7-14.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE AUTHOR CONTENTS THAT ALL NATURAL COMPONENTS INCLUDING FIRE BELONG IN A NATIONAL PARK ECOSYSTEM, THE PRESERVATION OF NATURALNESS IN GLACIER NATIONAL PARK CAN ONLY BE ACCOMPLISHED BY PRESERVING NATURAL CHANGE. A HISTORICAL PERSPECTIVE AND FIRE SEASONS OF SPECIAL INTEREST ARE INCLUDED.

M-21
MCCLELLAND, B. RILEY.
 1976.
"FIRST VERIFIED NEST OF CHESTNUT-BACKED CHICKADEE IN MONTANA."
 THE MURRELET 57(SUMMER 1976):18.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPER. FOREST). THIS NOTE REPORTS ON AN ACTIVE CHESTNUT-BACKED CHICKADEE NEST FOUND DURING AN INTENSIVE STUDY OF HOLE-NESTING BIRDS IN 1975. IT DESCRIBES THE SITE AND NESTING TREE IN DETAIL.

M-22
MCCLELLAND, B. RILEY.
 1977.
"RELATIONSHIPS BETWEEN HOLE-NESTING BIRDS, FOREST SNAGS, AND DECAY IN WESTERN LARCH/DOUGLAS-FIR FORESTS OF THE NORTHERN ROCKY MOUNTAINS."
 PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 496 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST, GLACIER NATL. PARK, AND CORAM EXPER. FOREST). THE STUDY INVESTIGATES NEST TREE AND NEST SITE PREFERENCES OF HOLE-NESTING BIRDS IN WESTERN LARCH (LARIX OCCIDENTALIS)/DOUGLAS-FIR (PSEUDOTSUGA MENZIESII) FOREST COVER TYPE. ACTIVE NEST TREES ARE LOCATED AND CHARACTERIZED; HABITAT CHARACTERISTICS INFLUENCING BIRD DENSITY AND DISTRIBUTION IDENTIFIED. 20 BIRD SPECIES AND 14 TREE SPECIES ARE REPRESENTED. MANAGEMENT RECOMMENDATIONS ARE INCLUDED.

M-23
MCCLELLAND, B. RILEY.
 1979.
"INFLUENCES OF HARVESTING AND RESIDUE MANAGEMENT ON CAVITY NESTING BIRDS." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPER. STAT., FORESTRY SCIENCES LAB. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHERN ROCKY MTS.: CORAM EXPER. FOREST, FLATHEAD NATL. FOREST, & GLACIER NATL. PARK). DURING THE SPRING AND SUMMER OF 1977 THROUGH 1979, CORAM EXPERIMENTAL FOREST PLOTS WHICH HAD BEEN CUT IN 1974 AND SUBSEQUENTLY SUBJECTED TO DIFFERENT LEVELS OF WOOD-FIBER UTILIZATION WERE STUDIED TO DETERMINE THE IMPACTS ON NESTING AND FEEDING ACTIVITIES OF WOODPECKERS (PRIMARY CAVITY NESTERS). UNCUT CONTROLS ADJACENT TO THE PLOTS AND ON NEARBY SITES IN THE FLATHEAD NATIONAL FOREST AND GLACIER NATIONAL PARK WERE ALSO STUDIED.

M-24
MCCLELLAND, B. RILEY.
1979.

"THE PILEATED WOODPECKER IN FORESTS OF THE NORTHERN ROCKY MOUNTAINS." IN THE ROLE OF INSECTIVOROUS BIRDS IN FOREST ECOSYSTEMS, PP. 283-299. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: CORAM EXPER. FOREST, GLACIER NATL. PARK, & FLATHEAD NATL. FOREST). A STUDY OF NESTING HABITAT OF THE PILEATED WOODPECKER (*DRYOCOPUS PILEATUS*) WAS CONDUCTED IN NORTHWESTERN MONTANA FROM 1974 TO 1978. EMPHASIS OF THE STUDY WAS PLACED ON WESTERN LARCH/DOUGLAS-FIR FORESTS BECAUSE OF THEIR IMPORTANCE TO TIMBER PRODUCTION AND THEIR ROLE AS HABITAT FOR HOLE-NESTING BIRDS. METHODS, RESULTS, AND A DISCUSSION ARE INCLUDED.

M-25
MCCLELLAND, B. RILEY, AND FRISSELL, S. S.
1975.
"IDENTIFYING FOREST SNAGS USEFUL FOR HOLE-NESTING BIRDS."
J. FORESTRY (JULY 1975): 414-417.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPER. FOREST). THIS REPORT PRESENTS SOME OF THE RESULTS OF A STUDY CONDUCTED ON CORAM EXPERIMENTAL FOREST EXAMINING THE IMPORTANCE OF SNAGS AS HABITAT FACTORS FOR HOLE-NESTING BIRDS. ACTIVE SNAGS WERE LOCATED AND DESCRIBED IN DETAIL; THE SPECIES OF THE SNAG AND THE BIRDS USING THEM WERE NOTED. SOME TENTATIVE MANAGEMENT GUIDELINES ARE SUGGESTED.

M-26
MCCLELLAND, B. RILEY, AND LOWE, J.
(IN PROGRESS).
RESPONSE OF WOODPECKERS AND THEIR EFFECT ON MORTALITY OF MOUNTAIN PINE BEETLE IN LODGEPOLE PINE.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL OF FORESTRY.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). STUDY OBJECTIVES WERE: 1) DETERMINE THE FEEDING DENSITIES OF WOODPECKERS IN AREAS OF EPIDEMIC AND ENDEMIC POPULATIONS OF MOUNTAIN PINE BEETLE; 2) DETERMINE THE NUMBERS OF NESTING PAIRS; 3) ASSESS WOODPECKER-CAUSED MORTALITY OF BEETLES; 4) CHARACTERIZE ACTIVE WOODPECKER NEST TREES, RELATING FINDINGS TO FOREST MANAGEMENT PRACTICES; AND 5) DETERMINE DENSITIES OF OTHER BIRDS FEEDING ON BEETLES.

M-27
MCCLELLAND, B. RILEY, AND SHEA, DAVID S.
1977.
LOCAL AND LONG RANGE MOVEMENTS OF BALD EAGLES ASSOCIATED WITH AUTUMN CONCENTRATIONS IN GLACIER NATIONAL PARK.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 3 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE McDONALD). THE OBJECTIVES OF THIS STUDY WERE TO: DETERMINE LONG-RANGE MOVEMENT PATTERNS OF *HALIAEETUS LEUCOCEPHALUS* ARRIVING AT AND DEPARTING FROM THE AUTUMN CONCENTRATIONS IN GLACIER NATIONAL PARK; AND TO RECORD DAILY MOVEMENT PATTERNS OF EAGLES IN AND NEAR THE PARK DURING AUTUMN CONCENTRATIONS. THIS REPORT COVERS THE FEASIBILITY OF CAPTURING AND MARKING EAGLES WITHOUT SERIOUS HARM TO THE BIRDS OR UNACCEPTABLE DISRUPTION OF THE CONCENTRATION.

M-28
MCCLELLAND, B. RILEY, ET. AL.
"MOVEMENT PATTERNS, MORPHOLOGY, AND NUMBERS OF BALD EAGLES ASSOCIATED WITH THE AUTUMN CONCENTRATIONS IN GLACIER NATIONAL PARK, MONTANA." PAPER PRESENTED AT THE 2ND CONFERENCE ON SCIENTIFIC RESEARCH IN THE NATIONAL PARKS, SAN FRANCISCO, CALIFORNIA, NOVEMBER 26-30, 1979.
ARLINGTON, VA.: AMERICAN INSTITUTE BIOLOGICAL SCIENCES. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). MIGRATING BALD EAGLES CONGREGATE ALONG LOWER McDONALD CREEK EACH AUTUMN TO FEED ON SPAWNING KOKANEE SALMON. LOCAL AND LONG RANGE MOVEMENTS, MORPHOLOGY, AND NUMBERS OF THE MIGRATING EAGLES WERE STUDIED DURING 1977-1979. 65 EAGLES WERE CAPTURED AND TAGGED. EAGLES WERE CENSUSED ONCE A WEEK ALONG A 11 KM CANOE ROUTE. THE STUDY EMPHASIS IS ON THE IDENTIFICATION OF ESSENTIAL HABITAT AND MANAGEMENT PROBLEMS.

M-29
MCCLELLAND, B. RILEY, ET. AL.
HABITAT MANAGEMENT FOR HOLE-NESTING BIRDS IN FORESTS OF WESTERN LARCH AND DOUGLAS-FIR.
J. FORESTRY (AUGUST 1979): 480-483.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPER. FOREST). DURING A THREE YEAR STUDY IN NORTHWESTERN MONTANA, 273 ACTIVE NESTS OF 20 HOLE-NESTING BIRD SPECIES WERE LOCATED AND STUDIED. RECOMMENDATIONS FOR MANAGEMENT ARE MADE.

M-30
MCCONNEN, RICHARD J.
1972.
PROBLEMS AND OPPORTUNITIES OF WATER RESOURCE UTILIZATION IN THE UPPER COLUMBIA AND MISSOURI BASINS.
BOZEMAN, MT.: MONTANA STATE UNIV., DEPT. AGRICULTURAL ECONOMICS. COMPLETION REPT. (PB-205-608). 18 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). TWO INDEPENDENT STUDIES ARE REPORTED: 1) A CASE STUDY OF WATER MANAGEMENT PROBLEMS IN THE GALLATIN VALLEY, AND 2) A SURVEY OF INDUSTRIAL WATER USE IN MONTANA. THE SURVEY IS A RECORD OF WATER USE BY INDUSTRY SOURCES AND AN ESTIMATION OF FUTURE INDUSTRIAL NEEDS.

M-31
MCCULLOUGH, BARRIE.
EVALUATION OF THE MARKET FOR MONTANA COMMERCIALLY PRODUCED TROUT.
BOZEMAN, MT.: MONTANA STATE UNIV., CENTER FOR INDUSTRIAL DEVELOPMENT & MANAGEMENT SERVICES, DEPT. INDUSTRIAL & MANAGEMENT ENGINEERING. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE PURPOSE OF THIS STUDY WAS TO ANALYZE THE EXISTING AND POTENTIAL MARKET FOR MONTANA COMMERCIALLY PRODUCED TROUT. THE CLIENTS OF THIS REPORT FELT THE PRODUCTION OPERATIONS WERE WITHIN THEIR CAPABILITIES BUT THEY LACKED MARKET INFORMATION. THIS REPORT THEREFORE INCLUDES AN ANALYSIS OF LOCAL TROUT MARKETS IN MONTANA AND THE TOTAL FISH MARKET IN THE UNITED STATES.

M-32
MCCULLOUGH, YVETTE BLAZZARD.
1980.
"NICHE SEPARATION OF SEVEN NORTH AMERICAN UNGULATES ON THE NATIONAL BISON RANGE, MONTANA."
M.S. THESIS, UNIV. MICHIGAN, ANN ARBOR.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). NICHE RELATIONSHIPS OF BISON BISON, *ANTILOCAPRA AMERICANA*, *CERVUS CANADENSIS*, *OVIS CANADENSIS*, *ODOCOILEUS VIRGINIANUS*, *ODOCOILEUS HEMIONUS*, AND *OREAMNOS AMERICANUS* WERE STUDIED. SPATIAL DISTRIBUTION, FOOD HABITS, BEHAVIORAL INTERACTIONS, AND CHARACTERISTICS OF THE HABITAT WERE EVALUATED.

M-33
MCCUNE, BRUCE.
1979.
"COMPARATIVE ECOLOGY OF STRUCTURAL GROUPS: COMPOSITIONAL PATTERNS IN THE SWAN VALLEY FORESTS, MONTANA."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 94 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN VALLEY). THIS RESEARCH WAS DIRECTED TOWARDS THE FOLLOWING PROBLEMS: 1) COMPOSITIONS OF FOREST LAYERS ARE NOT NECESSARILY CORRELATED WITH EACH OTHER WITHIN THE HYPERSPACE OF ENVIRONMENTAL GRADIENTS, AND 2) A GIVEN SITE MAY BE CAPABLE OF SUPPORTING DIFFERENT COMMUNITIES OF SHADE-TOLERANT PLANTS DEPENDING UPON THE HISTORY OF DISTURBANCE AND DISPERSED EVENTS. THE COMPOSITIONAL PATTERNS OF STRUCTURAL GROUPS IN THE VALLEY WERE FOUND TO BE WEAKLY CORRELATED. SEVERAL REASONS FOR THE POOR CORRELATION ARE SUGGESTED.

M-34
MCCUNE, BRUCE, AND ANTOS, JOSEPH A.
CORRELATIONS BETWEEN FOREST LAYERS IN THE SWAN VALLEY, MONTANA.
IN PRESS.
SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: DEPT. BOTANY, UNIV. MONTANA, MISSOULA.

(SWAN VALLEY). THE DEGREE TO WHICH COMPOSITIONAL CHANGES IN VEGETATION LAYERS ARE CORRELATED IS AN IMPORTANT ECOSYSTEM PARAMETER. THIS STUDY WAS DESIGNED TO ASSESS OBJECTIVELY COMPOSITIONAL PARALLELS BETWEEN LAYERS. THE PROBLEM WAS APPROACHED QUANTITATIVELY BY USING STATISTICAL COM-

PARISONS BETWEEN FIVE SETS OF STAND SIMILARITY VALUES, A SET FOR EACH OF FIVE STRUCTURAL GROUPS.

M-35
MCCURDY, EDWARD B.
1975.
WILDHORSE ISLAND: YESTERDAY, TODAY AND TOMORROW.
POLSON, MT.: TREASURE STATE PUBL. CO., INC. 34 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: WILDHORSE ISLAND). A HISTORY OF THE ISLAND - WITH EMPHASIS ON OWNERSHIP. CHAPTERS COVER ALLOTMENTS, HOMESTEADING, COLONEL A. WHITE, ROBERT EDGINGTON, LEWIS PENWELL, DR. J. C. BURNETT, R. BOURKE MCDONALD AND WILDLIFE.

M-36
MCCURDY, EDWARD B.
1976.
FRONTIER DAYS IN THE FLATHEAD COUNTRY.
POLSON, MT.: TREASURE STATE PUBL. CO., INC. 92 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY: COLUMBIA FALLS TO RAVALLI). THE ACCOUNT OF THE REGION'S HISTORY FOR THE PAST 200 YEARS DESCRIBES DEMERSVILLE, FREIGHT TRANSPORTATION, MCCARTHYVILLE, THE PABLO BUFFALO HERD, THE KUTENAI INDIANS, THE GREAT NORTHERN RAILROAD, KALISPELL, SOMERS, AND FORT CONNAH. FACTUAL INFORMATION AND HUMAN INTEREST STORIES ARE INCLUDED.

M-37
MCCURDY, EDWARD B.
1977.
DMM TRACKS ALONG THE TRAILS.
POLSON, MT.: TREASURE STATE PUBL. CO. 70 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD VALLEY: CHARLO). PERSONAL RECOLLECTIONS OF LIFE IN MONTANA PRIMARILY IN THE FIRST HALF OF THE 20TH CENTURY. CHAPTERS COVER THE GEOLOGY OF FLATHEAD VALLEY AND AUTHOR'S LIFE IN CHARLO AS A SCHOOL ADMINISTRATOR.

M-38
MCCUTCHEN, HENRY E.
"AGE DETERMINATION OF PRONGHORNS BY THE INCISOR CEMENTUM."
J. WILDLIFE MANAGEMENT 33(JANUARY 1969):172-175.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS PAPER REPORTS ON THE RESULTS OF A STUDY IN WHICH THE ANNULAR STRUCTURE OF THE CEMENTUM IN THE FIRST PERMANENT INCISOR TEETH OF PRONGHORN ANTELOPE WAS CORRELATED WITH AGE. TEN KNOWN AGE PRONGHORN FROM 1.5 TO 6.3 YEARS WERE USED TO CONFIRM THE TECHNIQUE.

M-39
MCDERMOTT, LOUISA.
1901.
"FOLK-LORE OF THE FLATHEAD INDIANS OF MONTANA."
J. AMERICAN FOLKLORE 14:240-251.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, BASIN-WIDE.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). 11 MYTHS, MOST INVOLVING "COYOTE" AS A PRIMARY CHARACTER, ARE PRESENTED: 1) HOW SPOKANE

FALLS WERE MADE, 2) COYOTE KILLS THE GIANT, 3) COYOTE AND THE TWO SHELLS, 4) COYOTE KILLS ANOTHER GIANT, 5) COYOTE AND THE CRYING BABY, 6) COYOTE AND THE WOMAN, 7) THE MEDICINE TREES, 8) COYOTE AND ROCK, 9) COYOTE IN BUFFALO COUNTRY, 10) COYOTE AND FOX SEPARATE, AND 11) COYOTE AND LITTLE PIG.

M-40
MCDERMOTT, LOUISA.
1904.
"ETHNOLOGY AND FOLKLORE—SELISH PROPER."
M.A. THESIS, UNIV. CALIFORNIA, BERKELEY. (FLATHEAD INDIAN RESERVATION). MCDERMOTT WAS THE TEACHER OF THE GOVERNMENT SCHOOL AT JOCKO FOR A YEAR AROUND THE TURN OF THE CENTURY. THIS THESIS REPRESENTS THE INFORMATION AND STORIES SHE OBTAINED BY QUESTIONING SOME OF THE LOCAL INDIANS. SKCC.

M-41
MCDONALD, ANGUS.
1917.
"ANGUS MCDONALD: A FEW ITEMS OF THE WEST."
EDITED BY F. W. HOWAY, WILLIAM S. LEWIS, AND JACOB A. MEYERS.
WASHINGTON HISTORICAL QUARTERLY 8(JULY 1917):188-229.

(PACIFIC NORTHWEST). THE MANUSCRIPT IS A DESCRIPTION OF A TRIP FROM FLATHEAD TO VICTORIA, B. C. THE EDITORS SUGGEST THAT THE TRIP DESCRIBED IN THE PAPER IS ACTUALLY A COMBINATION OF MCDONALD'S EXPERIENCES IN VARIOUS TRIPS BETWEEN 1860 AND 1881. SKCC.

M-42
MCDONALD, JOE.
1970.
"FUNDING PROBLEMS FOR INDIAN EDUCATION: A RESERVATION SCHOOL ADMINISTRATOR LOOKS AT THE SITUATION."
MONTANA BUSINESS QUARTERLY 8(AUTUMN 1970):41-43.

(FLATHEAD INDIAN RESERVATION). MCDONALD IS A MEMBER OF THE CONFEDERATED SALISH AND KOOTENAI TRIBES AND IN 1970 WAS A SCHOOL ADMINISTRATOR AT ROMAN, MONTANA. SKCC.

M-43
MCDONALD, JOE.
1976.
NEEDS ASSESSMENT 1976: A REPORT TO FLATHEAD VALLEY COMMUNITY COLLEGE.
MISSOULA, MT.: UNIV. MONTANA, DIV. EDUCATIONAL RESEARCH & SERVICES. 99 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY COMMUNITY COLL.). THE DIVISION OF EDUCATIONAL RESEARCH AND SERVICES (DERS) WAS CONTRACTED BY FLATHEAD VALLEY COMMUNITY COLLEGE (FVCC) TO DEVELOP, DISTRIBUTE, ANALYZE, REPRODUCE, AND EVALUATE A COMMUNITY NEEDS QUESTIONNAIRE. DERS WAS ASKED TO SUPPLY INFORMATION TO THE RURAL AND NATIVE AMERICAN EXTENSION PROGRAM OF FVCC TO HELP ANSWER THE FOLLOWING QUESTIONS: WHAT COURSES SHALL BE PROVIDED, HOW SHALL THEY BE DELIVERED, WHERE AND WHEN SHALL THE COURSES BE TAUGHT, AND HOW SHALL INSTRUCTION BE PROVIDED?

M-44
MCDONALD, MARIE P., AND CHAMBERS, HAROLD L.
1972.
MONTANA IN PRINT.
HELENA, MT.: MONTANA STATE LIBRARY. 36 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE BOOKLET IS A SELECTED LIST OF ADULT FICTION, JUNIOR FICTION, NON-FICTION, AND PERIODICALS ABOUT MONTANA. BIBLIOGRAPHIC INFORMATION PROVIDED INCLUDES AUTHOR, TITLE, PUBLISHER, DATE, AND COST.

M-45
MCDONALD, RICHARD J.
1977.
ESTIMATE OF NATIONAL HYDROELECTRIC POWER POTENTIAL AT EXISTING DAMS: A REPORT SUBMITTED TO THE PRESIDENT OF THE UNITED STATES OF AMERICA.
WASHINGTON, D.C.: U.S. DEPT. DEFENSE, ARMY CORPS OF ENGINEERS, INSTITUTE FOR WATER RESOURCES. 71 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, NATIONAL.

(UNITED STATES). THIS DOCUMENT REPORTS ON A 90-DAY STUDY TO DETERMINE THE PHYSICAL POTENTIAL OF EXISTING DAMS AND THE CONSTRAINTS TO THE DEVELOPMENT OF THIS POTENTIAL. TURBINE AND GENERATOR INSTALLATION, POWER HOUSE CONSTRUCTION, AND DEMONSTRATION SMALL-SCALE HYDROPOWER FACILITIES ARE DISCUSSED.

M-46
MACDONALD, RITA.
1982.
BOOKS ABOUT MONTANA AND THE WEST: A SELECTED LIST.
MISSOULA, MT.: MONTANA STATE LIBRARY COMMISSION. 31 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(WESTERN U.S. & MONTANA). NONFICTION AND FICTION BOOKS ARE LISTED. THE NONFICTION COLLECTION INCLUDES BOOKS SPECIFIC TO MONTANA OR ACCOUNTS OF INCIDENTS CONNECTED WITH THE STATE'S HISTORY. MOST OF THE FICTION HAS A DEFINITE MONTANA SETTING OR IS WRITTEN BY MONTANA AUTHORS WHO GIVE A MONTANA FLAVOR TO THEIR WRITING.

M-47
MCDONALD, TOM.
"THE VOICE OF AN INDIAN MILITANT: SO YOU WANT TO KNOW ABOUT MY HEAD." PUBL. MONTANA BUSINESS QUARTERLY 8(AUTUMN 1970):48-51.

(FLATHEAD INDIAN RESERVATION). MCDONALD, A SALISH INDIAN, WAS ACTIVE IN MONTANA INDIAN AFFAIRS FOR A NUMBER OF YEARS IN SEVERAL POSITIONS AND IN THIS STATEMENT HE TELLS HIS EXPERIENCES AND PERSONAL VIEWS ON INDIAN AFFAIRS. SKCC.

M-48
MACDOUGAL, DANIEL T.
1901.
"NOTES, NEWS AND COMMENTS."
J. NEW YORK BOTANICAL GARDENS 2(SEPTEMBER 1901):143.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA). A BRIEF MENTION OF D. T. MACDOUGAL'S COLLECTING EXPEDITION IS MADE. A LARGE NUMBER OF LIVING PLANTS AND OVER 900 HERBARIUM AND MUSEUM SPECIMENS WERE OBTAINED.

M-49
MACDOUGAL, DANIEL T.
1902.
"REPORT OF DR. D. T. MACDOUGAL, FIRST ASSISTANT, ON EXPLORATIONS IN MONTANA IN 1901."
J. NEW YORK BOTANICAL GARDENS 3(JANUARY 1902):8-13.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: WESTERN MISSION & KOOTENAY MTS., EASTERN FLATHEAD LAKE). AN ACCOUNT OF A COLLECTING EXPEDITION WHICH OBTAINED ABOUT 3,000 HERBARIUM SPECIMENS IS PRESENTED. INCLUDED IS A DESCRIPTION OF THE MAIN ROUTE, AN OBSERVATION CONCERNING THE RICHNESS OF THE MATERIAL SECURED, AND MENTION OF MOUNTAINS CLIMBED AND THE ESTABLISHMENT OF A BASE OF OPERATIONS.

M-50
MACE, RICHARD D., AND JONKEL, CHARLES.
THE EFFECTS OF A LOGGING ACTIVITY ON GRIZZLY BEAR MOVEMENTS.
 MISSOULA, MT.: UNIV. MONTANA, BORDER GRIZZLY PROJECT.
 FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER). INFORMATION OBTAINED ON THE DAILY AND ANNUAL MOVEMENT RESPONSE OF INSTRUMENTED GRIZZLY BEARS TO LOGGING ACTIVITY IN THE SOUTH FORK OF THE FLATHEAD RIVER SUGGESTED THAT LOGGING ACTIVITIES DO AFFECT BOTH TYPES OF MOVEMENT PATTERNS.

M-51
MCGILL, GEORGE E., AND SOMMERS, DAVID A.
 1957.
"STRATIGRAPHY AND CORRELATION OF THE PRECAMBRIAN BELT SUPERGROUP OF THE SOUTHERN LEWIS AND CLARK RANGE, MONTANA."
 GEOLOGICAL SOCIETY AMERICA BULL. 78:343-352.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTHERN LEWIS & CLARK RANGE). BELT STRATIGRAPHY IS DESCRIBED AND CORRELATIONS WITH THE OTHER, WELL KNOWN SECTIONS NEAR BONNER, HELENA AND GLACIER NATIONAL PARK ARE PROPOSED. SIMILARITY OF THE SECTIONS AS WELL AS FACIES CHANGES ARE CONSIDERED. INDICATIONS OF PRIMARY WESTWARD OR SOUTHWESTWARD THICKENING OF THE BELT IN THE LEWIS AND CLARK RANGE ARE DISCUSSED.

M-52
MACGREGOR, GORDON.
 1939.
"THE SOCIAL ASPECTS OF THE ECONOMY OF THE FLATHEAD RESERVATION."
 BUREAU OF INDIAN AFFAIRS, FLATHEAD AGENCY PAPERS, FEDERAL RECORDS CENTER, SEATTLE, WA. (TYPEWRITTEN).

(FLATHEAD INDIAN RESERVATION). MACGREGOR WAS ASSOCIATE SUPERVISOR OF INDIAN EDUCATION WHEN HE WROTE THIS REPORT. IT INCLUDES A SURVEY OF RESERVATION EFFORTS TO DESTROY THE INDIAN COMMUNITY, THE 1930'S SOCIAL AND ECONOMIC SITUATION ON THE RESERVATION, AND RECOMMENDATIONS FOR MORE EFFECTIVE ASSISTANCE TO THE INDIAN COMMUNITY ON FLATHEAD RESERVATION. SKCC.

M-53
MACGREGOR, M. D., AND QUARLES, T.
 1971.
DAMAGE TO SPRUCE REGENERATION BY A TERMINAL WEEVIL, FLATHEAD NATIONAL FOREST, MONTANA.
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, NORTHERN REGION, DIV. STATE & PRIVATE FORESTRY. REPT. NO. 71-9. 7 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST & GLACIER NATL. PARK). THIS IS AN EVALUATION MEASURING THE DEGREE OF DAMAGE CAUSED TO ENGELMANN SPRUCE REPRODUCTION BY A WEEVIL, *MISSODUS STROBI*, ON THE FLATHEAD NATIONAL FOREST. DATA WAS ALSO OBTAINED ON THE PARASITE-PREDATOR COMPLEX

AFFECTING THE WEEVIL. DAMAGE MEASUREMENTS WERE TAKEN TO DETERMINE IF WEEVILS PREFER TO ATTACK A SPECIFIC AGE, HEIGHT, OR DIAMETER SIZE CLASS.

M-54
MCGREGOR, M. D.; GIBSON, K. E.; AND BENNETT, D. D.
 1979.
BARK BEETLE CONDITIONS IN THE NORTHERN REGION, 1978.
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. STATE & PRIVATE FORESTRY REPT. NO. 79-4. 13 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST & GLACIER NATL. PARK). THIS REPORT DETAILS THE LEVEL OF INFESTATION OF MOUNTAIN PINE BEETLE, PINE ENGRAVER BEETLE, AND FIR ENGRAVER BEETLES ON THE FLATHEAD NATIONAL FOREST AND GLACIER NATIONAL PARK.

M-55
MCGREGOR, M. D.; HAMEL, D. R.; AND KOHLER, S.
 1978.
STATUS OF MOUNTAIN PINE BEETLE INFESTATIONS, GLACIER NATIONAL PARK AND GLACIER VIEW RANGER DISTRICT, FLATHEAD NATIONAL FOREST, MONTANA.
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. STATE & PRIVATE FORESTRY REPT. NO. 78-6. 14 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK & FLATHEAD NATL. FOREST: GLACIER VIEW RANGER DISTRICT). IN THIS STUDY, TREE AND VOLUME LOSS ESTIMATES AND BUILDUP RATIOS PER YEAR WERE BASED ON 100 ONE-TENTH ACRE PLOTS LOCATED IN 16 DRAINAGES. ALL TREES WERE CLASSIFIED ACCORDING TO DEGREE OF INFESTATION AND DATA WAS ANALYZED TO ESTIMATE NUMBER OF INFESTED TREES PER ACRE AND ESTIMATED VOLUME LOSS. MANAGEMENT ALTERNATIVES ARE DISCUSSED.

M-56
MCGREGOR, M. D.; HAMEL, D. R.; AND OAKES, R. D.
 1978.
STATUS OF BARK BEETLE POPULATIONS IN WIND-THROW, FLATHEAD NATIONAL FOREST, MONTANA.
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. STATE & PRIVATE FORESTRY REPT. 78-13. 8 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS PAPER REPORTS ON AN EVALUATION TO DETERMINE POTENTIAL FOR DEVELOPMENT OF SPRUCE BEETLE AND DOUGLASS FIR BEETLE OUTBREAKS. ALL AREAS EXAMINED WERE CLASSIFIED AS HAVING LOW OR MEDIUM POTENTIAL FOR OUTBREAK DEVELOPMENT. RECOMMENDATIONS FOR REDUCTION OF OUTBREAK POTENTIAL ARE MADE.

M-57
MCGREGOR, M. D.; HAMEL, D. R.; LOOD, R. C.; AND MEYER, H. E.
 1975.
STATUS OF MOUNTAIN PINE BEETLE INFESTATIONS, GLACIER NATIONAL PARK, 1974.
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, STATE & PRIVATE FORESTRY. REPT. NO. 75-10. 7 PP.
 PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). WITHIN STUDY PLOTS TREES WERE CLASSIFIED ACCORDING TO DEGREE OF DAMAGE INFLICTED BY THE BEETLE, IN AN ATTEMPT TO ESTABLISH ESTIMATES OF RANGE OF INFESTA-

TION. IN ADDITION, DIAMETER AND PHLOEM RELATIONSHIPS WERE EXAMINED. RESULTS ARE TABULATED AND A DISCUSSION INCLUDED.

M-58
MCGREGOR, M. D.; WILLIAMS, R. E.; AND CARLSON, C. E.
DROUGHT EFFECTS ON FOREST INSECTS AND DISEASES.
 MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. STATE & PRIVATE FORESTRY REPT. NO. 77-15. 14 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD NATL. FOREST). A SUMMARY OF THE DIRECT EFFECTS OF DROUGHT ON BARK BEETLES, DEFOLIATORS, AND PARASITIC AND NON-PARASITIC DISEASES. MORE ATTENTION IS GIVEN TO THE INDIRECT EFFECTS OF DROUGHT ON: MOUNTAIN PINE BEETLES IN LODGEPOLE AND PONDEROSA PINE, FIR ENGRAVER BEETLES, FLATHEADED BORERS, AND WESTERN SPRUCE BUDWORMS.

M-59
MCGREW, PAUL C.
 1978.
"BUFFALO SURVIVAL A NEAR MIRACLE."
 THE PACIFIC NORTHWESTERN, WINTER 1978, PP. 1-14.

THIS SURVEY OF THE EFFORTS TO SAVE THE BUFFALO FROM EXTINCTION GIVES WALKING COYOTE, A PEND D'OREILLE, A PROMINENT PLACE AMONG THOSE WHO MADE THE SURVIVAL OF THE ANIMAL POSSIBLE. WALKING COYOTE FOUNDED THE PABLO-ALLARD HERD ON THE FLATHEAD RESERVATION. SKCC.

M-60
MCHUGH, TOM.
 1972.
THE TIME OF THE BUFFALO.
 NEW YORK: ALFRED A. KNOPF.

(NATL. BISON RANGE). THIS HISTORY OF THE BUFFALO IN AMERICA INCLUDES A NUMBER OF REFERENCES TO THE FLATHEAD INDIANS, THE PABLO-ALLARD BUFFALO HERD, AND THE NATIONAL BISON RANGE. SKCC.

M-61
MCKAY, MAURICE.
 1940.
"A SOCIAL AND ECONOMIC SURVEY OF SANDERS COUNTY, MONTANA."
 M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 88 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SANDERS COUNTY). THIS PROJECT WAS SET UP TO DETERMINE THE SOCIAL AND ECONOMIC CONDITIONS IN SANDERS COUNTY; TO ANALYZE THE FACTORS CONTRIBUTING TO THOSE CONDITIONS; AND TO CREATE SUGGESTIONS FOR A PROGRAM TO RELIEVE THE ECONOMIC AND SOCIAL MALADJUSTMENT IN THE COUNTY.

M-62
MCKELVEY, G. E.
 1968.
"BIBLIOGRAPHY OF THE BELT SUPERGROUP AND RELATED ROCKS."
 (TYPEWRITTEN).
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

AVAILABLE FROM: MONTANA BUREAU MINES & GEOLOGY.

(WESTERN U.S. & CANADA). A BIBLIOGRAPHY OF PUBLISHED INFORMATION PERTAINING TO THE BELT SUPERGROUP. LISTINGS ARE ALPHABETICAL BY AUTHOR.

M-63
MCKELVEY, GREGORY E.
1968.

DEPOSITIONAL ENVIRONMENT OF MIDDLE CARBONATE UNITS OF BELT SUPERGROUP, MONTANA AND IDAHO.
AMERICAN ASSOC. PETROLEUM GEOLOGISTS 52(MAY 1968):858-864.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(WESTERN MONTANA AND IDAHO). THIS PAPER SUMMARIZES AN INVESTIGATION OF REGIONAL TRENDS OF THICKNESS AND LITHOLOGY OF PART OF THE PRECAMBRIAN BELT SUPERGROUP. STRUCTURAL AND TEXTURAL FEATURES OF THE WALLACE FORMATION ARE DESCRIBED. INCLUDED IN THE DISCUSSION ARE: THE OCCURRENCE OF OOLITES, MUDCHIP BRECCIAS, AND STROMATOLITES IN THE EASTERN FACIES; THE ABUNDANCE OF RIPPLE MARKS, CHANNEL STRUCTURES, GRADED BEDDING AND CROSSBEDDING IN THE WESTERN FACIES; AND FACIES CHANGES FROM CLASTIC SEDIMENTS IN THE WESTERN PART OF THE BASIN TO CARBONATE ROCKS IN THE EASTERN PART. THE PAPER NOTES A NEED FOR MORE CURRENT-DIRECTION INDICATORS IN THE ANALYSIS OF THE DISTRIBUTION OF SEDIMENTS TO PROVE A POSSIBLE WESTERLY SOURCE OF THE CLASTIC SEDIMENTS.

M-64
MCKEOGH, THOMAS C.
1897.

"THE NEW SCHOLASTICATE AMID THE ROCKIES: A LETTER FROM MR. T. MCKEOGH TO A WOODSTOCK THEOLOGIAN."
WOODSTOCK LETTERS 20(1897):71-85.

(ST. IGNATIUS MISSION). THIS DESCRIPTION OF THE ST. IGNATIUS MISSION COMMUNITY AND SCHOOLS DETAILS THE EVENTS SURROUNDING THE FIRE WHICH DESTROYED THE BOYS' DORMITORY AT THE SCHOOL. IT IS AN INTERESTING AND PERSONABLE LETTER. SKCC.

M-65
MACKIE, RICHARD J., AND YEAGER, H. W.
1968.
A BIBLIOGRAPHY OF MONTANA WILDLIFE LITERATURE. GAME RESEARCH REPORT.
HELENA, MT.: MONTANA DEPT. FISH & GAME. SPEC. REPT. NO. 1. 74 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS COMPILATION WAS UNDERTAKEN IN AN ATTEMPT TO PROVIDE RESEARCHERS, GAME MANAGERS, ETC., WITH REFERENCES TO PUBLICATIONS, UNPUBLISHED RESEARCH REPORTS, AND OTHER LITERATURE CONCERNING WILDLIFE IN MONTANA. TITLES ARE LISTED UNDER THE APPROPRIATE SUBJECT HEADING.

M-66
MCKILLOP, WILLIAM.
(IN PROGRESS).
ECONOMETRIC ANALYSIS OF DEMAND FOR WILDERNESS RECREATION.
BERKELEY, CA.: UNIV. CALIFORNIA, FOREST RESEARCH UNIT.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CALIFORNIA WILDERNESS AREAS & GLACIER NATL. PARK). THE OBJECTIVES OF THIS STUDY WERE TO CONSTRUCT MODELS TO EXPLAIN RECREATIONAL ACTIVITY ON WILDLANDS, TO TEST THESE MODELS, AND TO UTILIZE THEM TO PREDICT RECREATION USE.

M-67
MCKINSEY, LAUREN S.
1978.
"FEDERALISM ON THE FLATHEAD RESERVATION." IN FEDERALISM: THE AMERICAN EXPERIENCE. EDITED BY LOUIS D. HAYES.
MISSOULA, MT.: UNIV. MONTANA, BUREAU GOVT. RESEARCH. BUREAU PUBL. NO. 11.

(FLATHEAD INDIAN RESERVATION). THIS CHAPTER DISCUSSES SOME OF THE PROBLEMS INVOLVED IN INDIAN-WHITE RELATIONS AND THEIR COMPLICATIONS IN STATE AFFAIRS. SKCC.

M-68
MCKINSEY, LAUREN S., AND KOEHM, PETER H.
1975.
LAKE COUNTY MONTANA: GROWTH OF A SMALL GOVERNMENT.
UNIV. MONTANA, BUREAU GOVT. RESEARCH. OCCASIONAL PAPERS IN LOCAL GOVERNMENT, NO. 9. 84 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY). THE COUNTY'S TRADITIONAL, ELECTED OFFICIALS FORM OF GOVERNMENT IS THE SUBJECT OF THIS REPORT. THE ABILITY OF THIS FORM OF GOVERNMENT TO ADAPT TO CHANGING CIRCUMSTANCES WAS INVESTIGATED. THE OPERATION OF THE GOVERNMENT IS DESCRIBED AND CONCLUSIONS ABOUT ITS ADVANTAGES AND DISADVANTAGES ARE DRAWN.

M-69
MCLANE, NANCY B.
1978.
DIRECTORY OF MONTANA ENERGY RESEARCH AND DEVELOPMENT PROJECTS.
HELENA, MT.: MONTANA ENERGY OFFICE. 436 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD VALLEY). THIS DIRECTORY PROVIDES A CURRENT INVENTORY OF ONGOING AND RECENTLY COMPLETED (SINCE 1974) ENERGY-RELATED RESEARCH PROJECTS AND PROGRAMS. EACH PROJECT IS CLASSIFIED INTO ONE OF THE FOLLOWING PRIMARY CATEGORIES: COAL, OTHER ENERGY SOURCES, RENEWABLE ENERGY SOURCES, ENERGY UTILIZATION, AND ENERGY MANAGEMENT AND POLICY. FOR EACH PROJECT THE FOLLOWING INFORMATION IS PRESENTED: PROJECT TITLE, INVESTIGATOR(S), FUNDING SOURCE(S), FUNDING AMOUNT, DURATION, LOCATION, DESCRIPTION, AND PUBLICATION(S).

M-70
MCLAUGHLIN, WILLARD T.
1935.
"NOTES ON FLORA OF GLACIER NATIONAL PARK."
RHODORA 37:4-8.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER GIVES A LISTING OF THE SCIENTIFIC NAMES OF VARIOUS PLANTS, AND THE SITES AT WHICH THEY ARE MOST COMMONLY FOUND.

M-71
MCLAUGHLIN, WILLIAM J.
(IN PROGRESS).
WILD AND SCENIC RIVER VISITOR USE STUDY.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, AND KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FLATHEAD NATIONAL FOREST.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THE OBJECT OF THIS STUDY IS TO DETERMINE BOTH THE BIOLOGICAL AND SOCIAL CARRYING CAPACITY OF THE RIVER. A QUESTIONNAIRE WILL BE USED TO DETERMINE USERS' PERCEPTIONS. CAMPSITES WILL BE INVENTORIED AND MONITORED.

M-72
MACLAY, DAVID J.
1939.
"PLANTING EYED EGGS IN WILDERNESS WATERS." IN FIELD NOTES ON WILDLIFE. VOL. 1.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOMERS FISH HATCHERY, SWAN VALLEY). THE MANY PROBLEMS CONNECTED TO THE TRANSPLANTING OF LIVE TROUT FRY OR FINGERLINGS BY PACK STRINGS INTO REMOTE BACKCOUNTRY STREAMS LED TO THIS STUDY. THE REPORT DISCUSSES THE TRAVELING LOGISTICS AND SUCCESSFUL HATCH RATE OF TROUT EGGS IN THE "EYE" STAGE OF DEVELOPMENT.

M-73
MACLEAN, J. D.
1920.
"REPORT ON VISIT TO VARIOUS WESTERN TREATING PLANTS, AUGUST 1-SEPTEMBER 4, 1920."
U.S. DEPT. AGRICULTURE, FOREST SERVICE, FOREST PRODUCTS LAB., MADISON, WI. 42 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

AVAILABLE FROM: FEDERAL ARCHIVES & RECORDS CENTER, GSA, SEATTLE.

(WESTERN U.S.: SOMERS). THE PURPOSE OF THIS TRIP WAS TO OBTAIN INFORMATION ON THE RESULTS BEING SECURED BY DIFFERENT PLANTS IN THE TREATMENT OF RAILROAD TIES OF WESTERN SPECIES. THE GREAT NORTHERN RAILROAD'S PLANT IN SOMERS WAS ONE OF THE PLANTS VISITED.

M-74
MCLEMORE, CLYDE.
1935.
"FICKLIN'S EXPEDITION TO THE FLATHEAD COUNTRY IN 1888."
FRONTIER AND MIDLAND, AUTUMN 1935, PP. 66-69.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY: ST. IGNATIUS). THE ARTICLE IS PRIMARILY A NARRATIVE OF AN ARMY OFFICER WHO JOURNEYED TO THE FLATHEAD TO PURCHASE HORSES AND CATTLE FOR THE UTAH ARMY. THE WEATHER, THE UNEASY MORMON SITUATION, THE FLATHEAD INDIANS, AND ST. IGNATIUS MISSION ARE TOPICS ADDRESSED.

M-75
MCMURTRIE, DOUGLAS C.
1937.
MONTANA IMPRINTS, 1864-1880.
CHICAGO: THE BLACK CAT PRESS. 82 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). A LIST OF BOOKS, PAMPHLETS, AND BROADSIDES PRINTED WITHIN THE STATE FROM 1864 THROUGH 1880 IS PRESENTED. THE PUBLICATIONS ARE ARRANGED IN CHRONOLOGICAL ORDER.

M-76
MCNEAL, F. H.
1972.
"GRAIN AND PLANT NITROGEN RELATIONSHIPS IN EIGHT SPRING WHEAT CROSSES, TRITICUM AESTRIVUM L."
CROP SCIENCE 12(SEPTMBER-OCTOBER 1972):599-602.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: PART OF THE STUDY WAS CONDUCTED AT CRESTON.

(MONTANA: BOZEMAN, CRESTON, & HUNTLEY). THE STUDY COMPARES PROTEIN CONTENT OF EIGHT SPRING WHEAT CROSSES AND DESCRIBES THEIR SEEDING AT THREE LOCATIONS. THE COMPOSITES ARE EVALUATED FOR AGRONOMIC CHARACTERISTICS, I.E., HEADING, PLANT HEIGHT, GRAIN-STRAW RATIOS, TEST WEIGHTS, CULM NUMBER, KERNAL VALUES, YIELD AND NITROGEN CONTENT. NITROGEN CONTENT WAS RELATED TO GRAIN YIELD AND GRAIN-STRAW RATIO AS WELL AS PLANT GROWTH CHARACTERISTICS.

M-77
MCNEAL, F. H.; BERG, M. A.; STEWART, V. R.; AND BALDRIDGE, D. E.
1972.
"AGRONOMIC RESPONSE OF THREE HEIGHT CLASSES OF SPRING WHEAT (TRITICUM AESTIVUM L.) COMPARED AT DIFFERENT YIELD LEVELS."
AGRONOMY JOURNAL 64:362-364.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: CRESTON). THE ARTICLE REPORTS ON STUDIES OF SPRING WHEAT GROWN IN YIELD NURSERIES AND IN 22 MONTANA LOCATIONS IN 1969 AND 17 LOCATIONS IN 1970. DUE TO THE NEED TO DEFINE THE LIMITATIONS OF SEMIDWARF SPRING WHEAT, STUDY OBJECTIVES INVOLVED DETERMINING GENOTYPE MAGNITUDE BY ENVIRONMENT INTERACTIONS OF 3 HEIGHT CLASSIFICATIONS WHEN GROWN UNDER MONTANA CONDITIONS.

M-78
MCNEAL, F. H.; QUALSET, C. O.; BALDRIDGE, D. E.; AND STEWART, V. R.
1978.
"SELECTION FOR YIELD AND YIELD COMPONENTS IN WHEAT."
CROP SCIENCE 18(SEPTMBER-OCTOBER 1978):705-709.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: BOZEMAN, HUNTLEY, & CRESTON). THE STUDY INVOLVED THE SELECTION FOR GRAIN YIELD AND INDIVIDUAL YIELD COMPONENTS FOR SEVEN GENERATIONS IN A WHEAT CROSS (TRITICUM AESTIVUM L.). SELECTIONS ARE EVALUATED IN A PERFORMANCE TRIAL TO ESTABLISH THE VALUE OF YIELD COMPONENT SELECTION AND THE NATURE AND MAGNITUDE OF CORRELATED RESPONSES.

M-79
MCNEAL, F. H.; STEWART, V. R.; BERG, M. A.; AND MCQUINRE, C. F.
1971.
"AGRONOMIC AND QUALITY CHARACTERISTICS OF SOME GLABROUS AND PUBESCENT-GLUMED SPRING WHEAT POPULATIONS."
CANADIAN J. PLANT SCIENCE 51(JANUARY 1971):25-38.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THE ARTICLE DESCRIBES NEAR-ISOGENIC POPULATIONS OF SPRING WHEAT (TRITICUM AESTIVUM L.) EVALUATED AT TWO LOCATIONS FOR GRAIN YIELD AND QUALITY. FINDINGS OF AGRONOMIC DATA (HEAD, PLANT HEIGHT, CULMS, KERNEL, TEST WEIGHT, YIELD) INDICATE THE EFFECT OF THE GENE GOVERNING GLUME PUBESCENCE ON PLANT PRODUCTIVITY.

M-80
MCNICKLE, D'ARCY.
1938.
THE SURROUNDED.
NEW YORK: DODD, MEAD, & CO. REPRINTED BY UNIV. NEW MEXICO PRESS, ALBUQUERQUE, 1978.

(FLATHEAD INDIAN RESERVATION). MCNICKLE GREW UP ON THE FLATHEAD RESERVATION DURING THE EARLY PART OF THE TWENTIETH CENTURY AND IN THIS NOVEL EXAMINES THE CULTURAL CONFLICTS WHICH CONFRONTED THE MIXED BLOOD YOUNG PEOPLE DURING THAT PERIOD. SKCC.

M-81
MCNICKLE, D'ARCY.
1978.
WIND FROM AN ENEMY SKY.
NEW YORK: HARPER & ROW, PUBL., INC.

(FLATHEAD INDIAN RESERVATION). THIS NOVEL WAS SET ON THE FLATHEAD INDIAN RESERVATION DURING THE YEARS SHORTLY AFTER THE BUILDING OF KERR DAM. SKCC.

M-82
MACOMBER, BEATRICE M.
1978.
COLUMBIA FALLS YESTERYEARS.
40 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD COUNTY LIBRARY, KALISPELL.

(COLUMBIA FALLS, WHITEFISH, & KALISPELL). THE HISTORIC ACCOUNT DESCRIBES THE COMING OF THE RAILROAD TO THE FLATHEAD VALLEY, THE RISE OF DEMERSVILLE AND THE RUSH OF SETTLERS AFTER 1891. THE BEGINNING OF COLUMBIA FALLS, KNOWN AS COLUMBIA, IS DISCUSSED. INFORMATION ON ITS FIRST SETTLERS, NORTH FORK COAL, JAMES A. TALBOT, ITS FIRST BUSINESSES AND BUILDINGS AND A HISTORY OF SCHOOLS IS PRESENTED.

M-83
MCQUILLAN, ALAN G.
1974.
"FREE TRADE AND ITS EFFECTS ON FOREST-BASED EMPLOYMENT IN WESTERN MONTANA."
WESTERN WILDLANDS (JANUARY 1974):5-10.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD, LINCOLN, SANDERS, POWELL & MISSOULA COUNTIES). THE REPORT EXAMINES THE RELATIONSHIP OF LOCAL FOREST PRODUCT FIRMS TO REGIONAL, NATIONAL AND INTERNATIONAL COMPETITION. THE REGION'S DEPENDENCE ON WOOD PRODUCTS AND RECREATION IS DISCUSSED.

M-84
MACSTOCKER, DAVID P., S. J.
1927.
"FOLLOWERS OF OLD IGNACE."
JESUIT MISSIONS 1(SEPTMBER 1927):157-158.

(ST. IGNATIUS). THIS ARTICLE CONTAINS A SKETCH OF THE HISTORY OF ST. IGNATIUS AND ALSO A COPY OF A LETTER FROM FATHER LOUIS TAEIEMAN, S.J., RELATIVE TO THE CURRENT RELIGIOUS STATE OF THE FLATHEADS. IT INCLUDES THE STORY OF MICHEL PIEL, A 22-YEAR-OLD FLATHEAD WHO INSISTED ON BEING WHIPPED TO ATONE FOR HIS SINS BEFORE DEATH. SKCC.

M-85
MACTAVISH, NEWTON.
"THE LAST GREAT ROUND-UP."
CANADIAN MAGAZINE, OCTOBER 1908, PP. 432-497.

THIS ARTICLE TELLS THE STORY OF THE ROUNDUP OF THE PABLO-ALLARD BUFFALO HERD.

M-86
MCWHORTER, LUCILLUS V.
"FLATHEAD TRADITION OF A FLOOD."
WASHINGTON STATE UNIV., PULLMAN. MCWHORTER MSS. COLLECTION 1515.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS IS AN ACCOUNT OF THE TRADITIONAL INDIAN EXPLANATION FOR HOW FLATHEAD LAKE WAS CREATED.

M-87
MAGADDINO, ROBIN.
1978.
"BROWSE CONDITION AND TREND SURVEY ON THE NATIONAL BISON RANGE."
NATIONAL BISON RANGE, MOIESE, MT. (TYPEWRITTEN). 8 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE OBJECTIVES OF THIS STUDY WERE TO EVALUATE THE CONDITION AND TREND OF THE SHRUB COMMUNITY, TO ESTABLISH WHAT KEY SPECIES CAN BE USED AS PERMANENT TRANSECTS, AND TO DETERMINE THE SHRUB SPECIES COMPOSITION.

M-88
MAGDALEN, M., MOTHER.
"A FAITHFUL OLD TIMER."
INDIAN SENTINEL 28(APRIL 1948):64.

THIS ARTICLE TELLS OF AGATHA, A DEVOUT FLATHEAD INDIAN WOMAN. SKCC.

M-89
MAQUIRE, BASSETT.
1939.
"DISTRIBUTION NOTES CONCERNING PLANTS OF GLACIER NATIONAL PARK. PART II."
RHODORA 41:5-10.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER GIVES A LISTING OF THE SCIENTIFIC NAMES OF PLANTS, THE ELEVATION AND TYPE OF SITE AT WHICH THEY ARE MOST FREQUENTLY FOUND.

M-90
MAILLET, EUGENE.
1936.
"JOCKO'S WINDY NIGHT."
INDIANS AT WORK, FEBRUARY 15, 1936, P. 30.

THIS ARTICLE DESCRIBES EFFORTS TO RUSH A CHILD FROM THE JOCKO EMERGENCY WORK CAMP TO THE ST. IGNATIUS HOSPITAL THROUGH A ROAD CLOSED BY BLOWDOWN TIMBER IN 1933. SKCC.

M-91
MAINS, E. E.
1948.
"TWO UNUSUAL FUNGI FROM GLACIER NATIONAL PARK, MONTANA."
MYCOLOGIA 40(NOVEMBER-DECEMBER 1948):7-14.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). DETAILED DESCRIPTIONS OF MESOPHORA HYPERICORUM AND MITRULA GRACILIS SPECIMENS FOUND AT 1000 FEET ALONG THE CONTINENTAL DIVIDE. PHOTOGRAPHS ARE INCLUDED.

M-92
MALAN, VERNON D.
1945.
"LANGUAGE AND SOCIAL CHANGE AMONG THE FLATHEAD INDIANS."
M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 204 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). LINGUISTIC BEHAVIOR IS STUDIED AS AN INDEX TO OTHER ASPECTS OF THE SOCIAL BEHAVIOR OF THE SALISH

PEOPLE. AFTER PRESENTING A SOCIOLOGICAL FRAME OF REFERENCE, THE THESIS DISCUSSES SALISH CULTURE BEFORE THE INTRODUCTION OF WHITE CULTURE, HISTORICAL DEVELOPMENT OF THE TRIBE TO 1948, AN ANALYSIS OF TRIBAL SOCIAL ECONOMY, THE LINGUISTIC BEHAVIOR PATTERNS CURRENTLY EVIDENT, THE PROCESS OF ACCULTURATION IN LANGUAGE, AND LANGUAGE USE IN VARIOUS SOCIAL CLASSES.

M-93

MALLET, EDMUND, MAJOR.

1888.

"THE ORIGIN OF THE FLATHEAD MISSION OF THE ROCKY MOUNTAINS."

U.S. CATHOLIC HISTORICAL MAGAZINE, MAY 1889, PP. 174-205.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES & RECORDS CENTER, GSA, SEATTLE, WA.

(FLATHEAD INDIAN RESERVATION). THIS EARLY ACCOUNT OF THE FLATHEADS BEGINS WITH LEWIS AND CLARK'S ENCOUNTER WITH THE TRIBE AND ENDS WITH FATHER DE SMET'S WORK AMONG THEM.

M-94

MALONE, MICHAEL P., AND ROEDER, R. B.

1975.

"1876 ON THE RESERVATIONS: THE INDIAN 'QUESTION'."

MONTANA MAGAZINE OF WESTERN HISTORY, SUMMER 1975, PP. 52-61.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD INDIAN RESERVATION). THIS ACCOUNT OF THE MOUNTING PROBLEMS FACING THE THREE MONTANA INDIAN RESERVES IN 1876 INCLUDES THE REFUSAL OF CHIEF CHARLO TO ACCEPT THE FORGED 1872 GARFIELD TREATY AND THE MOVE OF THE FLATHEADS TO THE JOCKO VALLEY RESERVATION.

M-95

MALONE, MICHAEL P., AND ROEDER, R. B.

1976.

MONTANA: A HISTORY OF TWO CENTURIES.

SEATTLE: UNIV. WASHINGTON PRESS. 352 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD VALLEY). THE GENERAL INTERPRETIVE HISTORY OF MONTANA FOCUSES ON THE HISTORICAL TRENDS/PERSONALITIES WHICH SHAPED PRESENT-DAY MONTANA. REFERENCE IS MADE TO CONFEDERATED SALISH-KOOTENAI TRIBES, THE FLATHEAD RESERVATION AND THE ST. IGNATIUS MISSION.

M-96

MALOUF, CARLING T.

1962.

"EARLY KOOTENAI HISTORY."

MONTANA MAGAZINE OF WESTERN HISTORY 2:5-9.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS PAPER CONTRIBUTES ADDITIONAL DATA TO THE SMALL AMOUNT OF INFORMATION AVAILABLE ON HOW THE "TREATY OF 1855" AFFECTED THE LIFE OF THE KOOTENAI. MOST OF THE INFORMATION WAS OBTAINED FROM A VERBAL ACCOUNT GIVEN BY AN AGED KOOTENAI LIVING NEAR ELMO, MONTANA.

M-97

MALOUF, CARLING T.

1952.

"ECONOMY AND LAND USE BY THE INDIANS OF WESTERN MONTANA, U.S.A." IN FLATHEAD INDIAN NOTES.

MISSOULA, MT.: UNIV. MONTANA, MONTANA STUDY GROUP. 64 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THIS MANUSCRIPT EXAMINES THE SALISH AND KOOTENAI LINGUISTIC ORIGINS, CUSTOMS CONNECTED WITH FOOD GATHERING, LISTINGS OF PLANTS AND ANIMALS USED AS FOOD, AND THE USES OF ROCKS AND MINERALS. INCLUDED ARE MAPS OF FAVORED FOOD GATHERING LOCATIONS, MAIN AND MIGRATORY CAMPS, AND PRIMARY ROUTES OF TRAVEL.

M-98

MALOUF, CARLING T.

1953.

"PICTOGRAPHS AND A ROCK SHELTER NEAR DAYTON, MT." IN ARCHAEOLOGICAL SITES IN THE FLATHEAD LAKE REGION.

MISSOULA, MT.: UNIV. MONTANA. ANTHROPOLOGY AND SOCIOLOGY PAPERS, NO. 15. 5 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(DAYTON). A DESCRIPTION AND DRAWINGS OF THE SITE INCLUDE A REPRESENTATION OF THE PICTOGRAPHS. COMPARISONS ARE DRAWN BETWEEN THIS SITE AND ANOTHER PICTOGRAPH SITE ON THE LAKE. EDITOR'S COMMENTS FOLLOW.

M-99

MALOUF, CARLING T.

1956.

"THE CULTURAL CONNECTIONS BETWEEN THE PREHISTORIC INHABITANTS OF THE UPPER MISSOURI AND COLUMBIA RIVER SYSTEMS."

PH.D. DISSERTATION, COLUMBIA UNIV. 322 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: WESTERN MONTANA). THE PURPOSE OF THIS STUDY WAS TO DETERMINE WHAT RELATIONSHIPS MIGHT HAVE EXISTED DURING PREHISTORIC TIMES AND EARLY HISTORIC TIMES BETWEEN THE ANCIENT INHABITANTS OF THE UPPER COLUMBIA RIVER BASIN AND THE NORTHERN PLAINS. IT CONSIDERS FOUR SEPARATE REGIONS WITH DISTINCTIVE COMPLEXES (THE NORTHERN PLAINS REGION, THE NORTHWESTERN PLAINS REGION, THE MONTANA WESTERN REGION, AND THE MIDDLE COLUMBIA REGION) AND FOCUSES UPON THE MONTANA WESTERN AND NORTHWESTERN PLAINS REGIONS. PERIODS IN THE PREHISTORY OF THE REGIONS (THE EARLY HUNTERS, THE FORAGERS, THE LATE HUNTERS) ARE OUTLINED: THE CULTURAL DIFFERENCES BETWEEN THE REGIONS DURING THE VARIOUS PERIODS ARE DISCUSSED. THE OCCURRENCE OF ARTIFACTS AND ASSOCIATED FEATURES ARE CITED AS EVIDENCE. CHARACTERISTICS OF THE MONTANA REGION DISCUSSED INCLUDE: THE REGION AS A MEETING PLACE OF PLAINS AND COLUMBIAN TRAITS, SHIFTING CULTURAL BOUNDARIES, THE HEAVY INCURSIONS OF PLAINS TRAITS INTO THE COLUMBIA RIVER BASIN, ADVENT OF WHITE COLONIZATION, MIGRATIONS OF THE PLAINS KUTENAI AND CERTAIN SALISH GROUPS.

M-100

MALOUF, CARLING T.

1956.

"MONTANA WESTERN REGION."

RESEARCH STUDIES OF THE STATE COLLEGE OF WASHINGTON 24(MARCH 1956):45-53.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD LAKE AREA: DAYTON CREEK). THE ARTICLE DESCRIBES ARCHAEOLOGICAL SITES AROUND THE LAKE, THE ONLY CLUES TO CULTURAL SEQUENCE IN WESTERN MONTANA. OCCUPATION SITES ON THE THREE LOWEST LAKE TERRACES NEAR DAYTON CREEK ARE INCLUDED. A BRIEF DISCUSSION OF THE KINDS OF ARCHAEOLOGICAL SITES IN WESTERN MONTANA (OCCUPATION, CAMPSITE, PICTOGRAPHS, BURIALS, BATTLE PITS, ROCK CAIRNS, AND TRAILS) CONCLUDES THE ARTICLE.

M-101

MALOUF, CARLING T.

1957.

"LOUIS PIERRE'S AFFAIR." IN HISTORICAL ESSAYS ON MONTANA AND THE NORTHWEST, PP. 224-230.

HELENA, MT.: THE WESTERN PRESS. HISTORICAL SOCIETY OF MONTANA.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE ESSAY EXPLAINS THE DEGENERATION OF MANY OF CHIEF CHARLO'S BAND BY RELATING AN INDIVIDUAL'S ACCOUNT, LOUIS PIERRE.

M-102

MALOUF, CARLING T.

1960.

"A BRIEF INVENTORY OF SPECIMENS AND FEATURES OF MONTANA PREHISTORY,"

ARCHAEOLOGY IN MONTANA 2:2-20.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). AN OUTLINE OF DATA CONCERNING THE STATE'S PREHISTORY IDENTIFIES THREE MAJOR ARCHAEOLOGICAL REGIONS: THE WESTERN REGION, NORTHWESTERN PLAINS REGION, AND NORTHERN PLAINS REGION. AN INVENTORY OF POINTS FROM THE EARLIEST TO THE LATEST TYPES IS PRESENTED. INCLUDED IN THE INVENTORY ARE DRAWINGS OF THE POINTS, THEIR AGE, REGIONS WHERE THE POINTS HAVE BEEN LOCATED, ANIMALS HUNTED WITH THE POINTS, AND ANY ASSOCIATED ARTIFACTS. A SUMMARY CONSIDERS SEQUENCES, PREHISTORIC TRIBAL DISTRIBUTIONS, AND EXCAVATION TECHNIQUES.

M-103

MALOUF, CARLING T.

1961.

"PICTOGRAPHS AND PETROGLYPHS."

ARCHAEOLOGY IN MONTANA 3(NOVEMBER 1961):1-13.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: MENTION IS MADE OF PICTOGRAPHS WITHIN THE FLATHEAD BASIN.

(MONTANA). THE ARTICLE DISCUSSES THE TYPES OF PICTOGRAPHS, THEIR DISTRIBUTION, USE, AND PURPOSE. THE REPRESENTATIVE TYPE OF PICTOGRAPH FOUND IN WESTERN MONTANA IS DESCRIBED AS A SIMPLE REALISTIC PAINTING WHICH REPRESENTS ANIMALS AND A FEW HUMAN FIGURES. THE PAINTINGS ARE USUALLY RED IN COLOR AND SOLID WITH NO OUTLINING. PETROGLYPHS OF THE PLAINS AREA ARE BRIEFLY CONSIDERED.

M-104

MALOUF, CARLING T.

1962.

"PESTLES."

ARCHAEOLOGY IN MONTANA 4(JUNE 1962):3-6.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA). STONE PESTLES, USED FOR POUNDING AND GRINDING FOOD STUFFS, ARE DESCRIBED. THESE PESTLES ARE CONSIDERED TO BE LATE PREHISTORIC AND OCCUR AT TWO DIFF.

FERENT LEVELS AT FLATHEAD LAKE, THE PRESENT LAKE LEVEL AND 30 FEET ABOVE THE PRESENT LEVEL. THE PAPER DISCUSSES THE WESTERN ORIGIN OF PESTLES AND THEIR SPREAD EASTWARD. THE ASSOCIATION OF BASALT AND QUARTZITE CORNER-NOTCHED POINTS WITH CONICAL PESTLES, THE NEW INFUSION OF COLUMBIAN TRAITS ABOUT THE TIME OF EUROPEAN OCCUPATION OF NORTH AMERICA AND THE TYPE OF PESTLE USED BY THE FLATHEAD AND PEND D'OREILLE ARE OTHER SUBJECTS ADDRESSED.

M-105
MALOUF, CARLING T.
1962.
"A WESTERN MONTANA MYSTERY OBJECT,"
ARCHAEOLOGY IN MONTANA 4(JUNE 1962):9-12.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE VICINITY). THE ARTICLE DESCRIBES TEN LONG, PESTLE-LIKE GROUND STONE OBJECTS, THEIR DESIGN ELEMENTS AND POSSIBLE USE. THE AGE OF THE OBJECTS IS UNDETERMINED.

M-106
MALOUF, CARLING T.
1964.
"SLATE KNIVES OR SCRAPERS,"
ARCHAEOLOGY IN MONTANA 9(FEBRUARY 1964):1-4.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE ARTICLE DESCRIBES THE FORM AND MANUFACTURE OF A SCRAPER. THE SURVIVAL OF TOOLMAKING AMONG THE FLATHEAD INDIANS IS DISCUSSED. PICTURES AND PHOTOGRAPHS OF THE OBJECTS ARE INCLUDED.

M-107
MALOUF, CARLING T.
1965.
ARCHAEOLOGICAL RECONNAISSANCE, VICINITY OF WEST GLACIER, GLACIER NATIONAL PARK. (1963).
MISSOULA, MT. 36 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PAPER DISCUSSES A SURVEY FOR ARCHAEOLOGICAL SITES ALONG ROAD CONSTRUCTION OPENING THE CAMAS CREEK ENTRANCE, LAKE MACDONALD AND THE NORTH FORK OF THE FLATHEAD. NOTES TOOL FINDINGS AND TIPI RINGS. THE INDIAN OCCUPATION AND EXPECTED PREHISTORIC TRAITS OF THE PARK ARE DESCRIBED.

M-108
MALOUF, CARLING T.
1967.
"HISTORIC TRIBES AND ARCHAEOLOGY,"
ARCHAEOLOGY IN MONTANA 8(JANUARY-MARCH 1967):1-16.
FINAL, GENERAL, TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA: ABORIGINAL LANDS OF THE SALISH & KOOTENAI INDIANS). THE DIFFICULT PROBLEM IN REGIONAL ARCHAEOLOGY OF ASSOCIATING SPECIFIC SITES WITH INDIAN TRIBES IS DISCUSSED. TRIBAL MIGRATION AND THE LACK OF PRECISE TRIBAL BOUNDARIES ARE TWO OF THE DIFFICULTIES FACING ARCHAEOLOGISTS. THE KNOWN HISTORY OF THE KUTENAI, PEND D'OREILLE, AND FLATHEAD IS BRIEFLY EXAMINED, FOLLOWED BY A GENERAL DISCUSSION OF TRIBAL MOVEMENTS.

M-109
MALOUF, CARLING T., AND PHILLIPS, PAUL C.
1962.
FLATHEAD, KUTENAI AND UPPER PEND D'OREILLE GENEALOGIES.
MISSOULA, MT.: UNIV. MONTANA, THE MONTANA STUDY GROUP. 19 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). FAMILY TREES OF SELECTED FAMILIES WITHIN THE CONFEDERATED TRIBES ARE TRACED. BIBLIOGRAPHICAL NOTATIONS ARE INCLUDED ON THE CHARLOS, VANDERBERGS, MICHELLES, PIERRES, FINLEYS, AND ASHLEYS.

M-110
MALOUF, CARLING T., AND PHILLIPS, PAUL C.
1974.
"FLATHEAD, KUTENAI, AND UPPER PEND D'OREILLE GENEALOGIES," IN INTERIOR SALISH AND EASTERN WASHINGTON INDIANS III.
NEW YORK: GARLAND PUBL. INC.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). INDIVIDUAL NAMES ARE LISTED AND ARE ACCOMPANIED BY BRIEF BIOGRAPHIES AND ANY DIRECT OR INDIRECT DESCENDANTS. A FAMILY TREE WAS CONSTRUCTED FOR SOME INDIVIDUALS OR FAMILIES.

M-111
MALOUF, CARLING T., AND WHITE, T.
1950.
EARLY KUTENAI HISTORY.
LAKESIDE, MT.: FLATHEAD LAKE LOOKOUT MUSEUM.
NO. 10.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD & LAKE COUNTIES). IT WAS THE PURPOSE OF THIS PAPER TO CONTRIBUTE ADDITIONAL DATA TO THE SMALL AMOUNT OF INFORMATION GAINED FROM A VERBAL ACCOUNT GIVEN BY BAPTISE MATHIAS, LAST OF THE SUN DANCE CHIEFS OF THE FLATHEAD LAKE KOOTENAI. THE SELECTION OF CHIEFS, INTERACTIONS WITH THE BLACKFEET INDIANS, AND THE COMING OF THE "FRENCHMEN" ARE DESCRIBED.

M-112
MALOUF, CARLING T., AND WHITE, T.
1953.
"THE ORIGIN OF ARCHAEOLOGICAL SPECIMENS ON THE WEST SHORE OF FLATHEAD LAKE," IN ARCHAEOLOGICAL SITES IN THE FLATHEAD LAKE REGION. A SYMPOSIUM.
MISSOULA, MT.: MONTANA STATE UNIV. ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 15. 1 P.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(WEST SHORE OF FLATHEAD LAKE). A BRIEF NARRATIVE TOLD TO THE AUTHORS BY KOOTENAI INFORMANTS. EDITOR'S COMMENTS FOLLOW.

M-113
MALOUF, CARLING T., AND WHITE, T.
KUTENAI MESSAGE SERVICE.
LAKESIDE, MT.: FLATHEAD LAKE LOOKOUT MUSEUM.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE ARTICLE DESCRIBES HOW A SPECIAL EVENT LIKE A SUN DANCE WAS ANNOUNCED. USES OF A PIECE OF DEER HIDE, FEATHERS AND STICKS, THE ROLE OF THE RUNNER, AND THE WAY TO ACCEPT AN INVITATION IS DISCUSSED.

M-114
MALOUF, CARLING T., AND WHITE, T.
RECOLLECTIONS OF LASSO STASSO.
LAKESIDE, MT.: FLATHEAD LAKE LOOKOUT MUSEUM.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). AN ACCOUNT OF THE LIFE OF A KOOTENAI INDIAN, LASSO STASSO, WHO HAD LIVED THE OLD WAY OF LIFE. THE MAN TALKS ABOUT HIS GRANDMOTHER WHO LIVED IN A

TIME OF LITTLE WHITE CONTACT, HIS EXPERIENCES WITH GUARDIAN SPIRITS AND AS A MEDICINE MAN. INDIAN-WHITE RELATIONS DURING HIS LIFE TIME AND HIS ACCEPTANCE OF WHITE WAYS IS DESCRIBED.

M-115
MALOUF, RICHARD T.
1980.
CAMAS AND THE FLATHEAD INDIANS OF MONTANA.
MISSOULA, MT.: UNIV. MONTANA, DEPT. ANTHROPOLOGY. 68 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE PURPOSE OF THIS PAPER WAS TO BRING TOGETHER FOR THE FIRST TIME ALL AVAILABLE INFORMATION ON THE SUBJECT OF CAMAS, PARTICULARLY AS IT PERTAINS TO THE FLATHEAD INDIANS. TOPICS COVERED INCLUDE: A SKETCH OF FLATHEAD HISTORY, CAMAS CLASSIFICATION AND DISTRIBUTION, SEASONALITY AND DEMOGRAPHY, DIGGING AND PREPARING CAMAS, DANCES AND FOLKLORE, AND COMPETITION FOR CAMAS.

M-116
MANK, EDITH W.
1934.
"THE COLEOPTERA OF GLACIER PARK, MONTANA,"
THE CANADIAN ENTOMOLOGIST (APRIL 1934):9-18.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER IS A LIST OF 315 SPECIES DISTRIBUTED AMONG 35 FAMILIES WITH THE EARLIEST AND LATEST DATES OF CAPTURE.

M-117
MANVILLE, RICHARD.
1956.
"SUMMER WILDLIFE IN THE MONTANA ROCKIES,"
THE JACK-PINE WARBLER 34(JUNE 1956):7-14.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). A GENERAL DESCRIPTION OF THE PHYSICAL FEATURES OF THE PARK AND LISTINGS OF THE MOST FREQUENTLY ENCOUNTERED WILDLIFE. PHOTOGRAPHS ARE INCLUDED.

M-118
MANVILLE, RICHARD.
1957.
"AMPHIBIANS AND REPTILES OF GLACIER NATIONAL PARK, MONTANA,"
COPEIA (1957):308-309.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS LIST OF TEN SPECIES REPRESENTED BY SPECIMENS COLLECTED WITHIN THE PARK WAS COMPILED FROM PARK COLLECTIONS AS WELL AS FROM WIDESPREAD EXPLORATORY TRIPS. IT DESCRIBES OBSERVATIONS AND COLLECTION SITES FOR EACH SPECIES LISTED.

M-119
MAP OF FLATHEAD COUNTY. 1900.
KALISPELL, MT.: U.S. LAND OFFICE. 1 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD COUNTY & FLATHEAD INDIAN RESERVATION). THIS MAP OF THE COUNTY CIRCA 1900 SHOWS RAILROAD LINES, BASIC TOPOGRAPHY, AND BORDERS OF FLATHEAD INDIAN RESERVATION.

- M-120**
MARBLE, BESSIE YOUNG.
 1937.
"THE INTELLIGENCE AND ACHIEVEMENT OF WHITE AND SALISH INDIAN CHILDREN."
 M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 62 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). TECHNIQUES USED IN THIS STUDY WERE: HISTORICAL, INTERVIEW, MEASUREMENT, LETTERS, CASE STUDY, AND QUESTIONNAIRE. AN EXAMINATION OF THE SOCIAL AND ECONOMIC BACKGROUND OF THE SALISH TRIBE IS INCLUDED.
- M-121**
MARKHAM, ALOYSIUS J., S. J.
"ST. IGNATIUS MISSION, MONTANA."
MESSENGER OF THE SACRED HEART 27(JULY 1892):516-526.
- (ST. IGNATIUS MISSION). THIS ARTICLE DESCRIBES THE HISTORY, THE FACILITIES, AND THE PERSONNEL OF THE MISSION. SKCC.
- M-122**
MARRIS, H. E.; BOOTH, W. E.; PAYNE, G. F.; AND STOTT, R. E.
IMPORTANT GRASSES ON MONTANA RANGES.
 BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT. BULL. 500. 58 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.
- (MONTANA). A SUMMARY OF THE PHYSICAL CHARACTERISTICS, FORAGE VALUE AND DISTRIBUTION OF THE MAJOR GRASS SPECIES IN THE STATE.
- M-123**
MARSH, HADLEIGH.
 1938.
"PNEUMONIA IN ROCKY MOUNTAIN BIG HORN SHEEP."
 J. MAMMALOGY 19(14 MAY 1938):6-12.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (NATL. BISON RANGE & GLACIER NATL. PARK). A REPORT ON THE FINDINGS OF INVESTIGATIONS INTO DISEASE LOSSES OF OVIS CANADENSIS HERDS. VERMINOUS PNEUMONIA AND PASTEURILLOSIS ARE REPORTED ON.
- M-124**
MARSH, PHYLLIS S.
 1974.
"SEDIMENTATION RATES IN SMALL HEADWATER RESERVOIRS IN MONTANA."
 PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 187 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: LAKE COUNTY: KELLY & McDONALD RESERVOIRS, & FLATHEAD COUNTY: HARDY RESERVOIR). THE STUDY ATTEMPTED TO DETERMINE THE SEDIMENTATION RATES AND LIFE EXPECTANCIES OF SMALL HEADWATER RESERVOIRS. RECOMMENDATIONS CONCERNING DAM AND RESERVOIR SITINGS, BASED ON SEDIMENTATION RATES, ARE INCLUDED.
- M-125**
MARSH, PHYLLIS S., AND KONIZESKI, RICHARD.
 1975.
SILTATION RATES AND LIFE EXPECTANCIES OF SMALL HEADWATER RESERVOIRS IN MONTANA.
 HELENA, MT.: MONTANA UNIV. JOINT WATER RESOURCES RESEARCH CENTER. REPT. NO. 65. 71 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: LAKE COUNTY. KELLY & McDONALD RESERVOIRS, & FLATHEAD COUNTY. HARDY RESERVOIR). SEDIMENTATION RATES AND LIFE EXPECTANCIES OF SMALL HEADWATER RESERVOIRS WERE DETERMINED IN THIS STUDY, WHICH SAMPLED 35 RESERVOIRS IN DETAIL. DATA USED IN THE STUDY INCLUDED ORIGINAL RESERVOIR CAPACITY, AMOUNT OF SEDIMENT FILL, NUMBER OF YEARS FOR ACCUMULATION OF SEDIMENT, AND FACTORS CONTROLLING SEDIMENT PRODUCTION.
- M-126**
MARSHALL, GEORGE E.
 1978.
ELECTRICAL ENERGY IN THE PACIFIC NORTHWEST.
 SEATTLE: U.S. DEPT. DEFENSE, ARMY CORPS OF ENGINEERS, SEATTLE DISTRICT. 45 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.
- (PACIFIC NORTHWEST). THIS BULLETIN REVIEWS FIVE MAJOR FORECASTS OF REGIONAL ELECTRICAL ENERGY DEMAND, DISCUSSES THE METHODS USED TO MAKE EACH FORECAST, PRESENTS THE ADVANTAGES AND DISADVANTAGES OF EACH METHOD, HIGHLIGHTS THE ASSUMPTIONS USED IN EACH FORECAST, AND GRAPHICALLY SHOWS HOW THE VARIOUS DEMAND FORECASTS COMPARE WITH THE ANTICIPATED INCREASES IN SUPPLY OF ELECTRICAL ENERGY.
- M-127**
MARSHALL, WILLIAM H.
 1946.
TITL "WINTER FOOD HABITS OF THE PINE MARTEN IN MONTANA."
 J. MAMMALOGY 27(FEBRUARY 1946):63-84.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (NORTH FORK OF THE FLATHEAD RIVER). SIXTY-FOUR PINE MARTEN (MARTES AMERICANA) SCATS WERE COLLECTED DURING THE WINTER OF 1942-43. A TABLE SUMMARIZES THE FREQUENCY OF OCCURRENCE OF FOOD ITEMS FOUND IN THE SCATS. OBSERVATIONS OF TRACKS LEADING TO KILLS ARE ALSO REPORTED.
- M-128**
MARTIN, PATRICIA.
 1979.
"PRODUCTIVITY AND TAXONOMY OF THE VACCINIUM GLOBULARE, V. MEMBRANACEUM COMPLEX IN WESTERN MONTANA."
 M.S. THESIS, UNIV. MONTANA, MISSOULA. 136 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN
- (NORTHWESTERN MONTANA: NORTH & SOUTH FORKS OF THE FLATHEAD RIVER). BECAUSE OF THE ROLE VACCINIUM GLOBULARE AND V. MEMBRANACEUM PLAY AS A FOOD SOURCE FOR THE THREATENED GRIZZLY (URBUS ARCTOS), THIS STUDY WAS UNDERTAKEN TO CLARIFY THEIR IMPORTANCE IN GRIZZLY RANGE, AND TO OBTAIN BASIC DATA ABOUT HUCKLEBERRY DISTRIBUTION, PRODUCTIVITY, PHYSIOLOGICAL REQUIREMENTS, AND RESPONSES TO DISTURBANCES SUCH AS FIRE AND LOGGING.
- M-129**
MARTINKA, CLIFFORD J.
 1967.
BEAR MANAGEMENT ACTIVITIES, GLACIER NATIONAL PARK, 1967.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 8 PP.
 PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THIS REPORT PRESENTS A SUMMARY OF BEAR INCIDENTS AND MANAGEMENT ACTIVITIES IN THE PARK, MANAGEMENT ACTIONS WERE IN ACCORDANCE WITH THE APPROVED 1967 BEAR MANAGEMENT PLAN WHICH INCLUDED TWO MAJOR PHASES 1) A PUBLIC INFORMATION PROGRAM AND 2) A DIRECT ACTION PROGRAM. THE BASIC OBJECTIVE IN MANAGING BEARS WAS TO PROVIDE SAFETY FOR PARK VISITORS. BACKCOUNTRY MANAGEMENT RECOMMENDATIONS ARE MADE.
- M-130**
MARTINKA, CLIFFORD J.
 1968.
TERRESTRIAL ECOLOGY STUDIES, GLACIER NATIONAL PARK: NATIONAL PARK SERVICE PROGRESS REPORT, 1967-68.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 58 PP.
 IN PROGRESS, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK: ELK WINTER RANGE ADJACENT TO THE MIDDLE FORK OF THE FLATHEAD RIVER). THE REPORT DISCUSSES RESEARCH INVOLVING PARK VEGETATION AS WELL AS VARIOUS ASPECTS OF GRIZZLY BEAR (URBUS ARCTOS HORRIBILIS) AND WINTER UNGULATE ECOLOGY. VEGETATION ZONES AND TYPES; GRIZZLY BEAR POPULATION DISTRIBUTION, DENSITY, SIZE, COMPOSITION AND MOVEMENTS; HABITAT RELATIONSHIPS; AND THE EFFECTS AND FURTHER RECOMMENDATIONS OF BEAR MANAGEMENT ARE TOPICS CONSIDERED. QUANTITATIVE DATA ON DISTRIBUTIONS, MOVEMENTS, POPULATION DYNAMICS, HABITAT RELATIONSHIPS AND INTERRELATIONSHIPS OF ELK (CERVUS CANADENSIS) AND ASSOCIATED SPECIES IS INCLUDED.
- M-131**
MARTINKA, CLIFFORD J.
 1969.
GRIZZLY ECOLOGY STUDIES-GLACIER NATIONAL PARK.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. N.P.S. PROGRESS REPT. 1969. 43 PP.
 PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). RESEARCH OBJECTIVES WERE TO OBTAIN QUANTITATIVE DATA ON HABITS, HABITAT RELATIONSHIPS, MOVEMENTS, POPULATION DYNAMICS, ECOLOGY AND MANAGEMENT. A MONITORING SYSTEM WHICH COMPILED RECORDS OF REPORTED GRIZZLY OBSERVATIONS WAS THE PRINCIPLE SOURCE OF DATA. RESULTS OF IMMOBILIZING BLACK BEARS WITH M99 ETORPHINE ARE PRESENTED IN THE APPENDIX. MANAGEMENT RECOMMENDATIONS ARE MADE.
- M-132**
MARTINKA, CLIFFORD J.
 1969.
UNGULATE WINTER ECOLOGY STUDIES, GLACIER NATIONAL PARK: NATIONAL PARK SERVICE PROGRESS REPORT, 1968-69.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 71 PP.
 IN PROGRESS, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK: MIDDLE FORK OF THE FLATHEAD RIVER). THE REPORT PRESENTS RESULTS OF UNGULATE WINTER ECOLOGY STUDIES. THE RESEARCH OBJECTIVES WERE AS FOLLOWS: TO OBTAIN QUANTITATIVE DATA ON WINTER DISTRIBUTION, MOVEMENTS, POPULATION DYNAMICS, HABITAT RELATIONSHIPS AND ECOLOGY OF ELK (CERVUS CANADENSIS) AND MULE DEER (ODOCOILEUS HEMIONUS). FOOD HABITS DATA FROM THE ST. MARY ELK HERD ARE PRESENTED IN THE APPENDIX.

M-133
MARTINKA, CLIFFORD J.
1969.
VEGETATION STUDIES, GLACIER NATIONAL PARK: NATIONAL PARK SERVICE PROGRESS REPORT, 1968. WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 18 PP. IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE REPORT PRESENTS RESULTS OF VEGETATION STUDIES CONDUCTED TO CLASSIFY AND DESCRIBE NATURAL UNITS OF PARK VEGETATION AND DOCUMENT SUCCESSIONAL PROCESSES. 5 PRINCIPAL HABITAT ZONES AND VEGETATION TYPES ARE NOTED. SECONDARY SUCCESSION IS QUANTITATIVELY INVESTIGATED ON TWO BURNED SITES, FLATHEAD AND GLACIER WALL BURNS. THE EFFECTS OF VISITATION AND MANAGEMENT RECOMMENDATIONS ARE INCLUDED.

M-134
MARTINKA, CLIFFORD J.
1970.
GRIZZLY ECOLOGY STUDIES IN GLACIER NATIONAL PARK. WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. (GLAC-N-16). 3 PP. IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PROGRESS REPORT PRESENTS THE PARK'S STUDY OBJECTIVE TO OBTAIN QUANTITATIVE DATA ON DISTRIBUTION, MOVEMENTS, POPULATION DYNAMICS, HABITS, HABITAT RELATIONSHIPS, ECOLOGY AND MANAGEMENT OF GRIZZLY BEARS (*URSUS ARCTOS*). THE USE OF A MONITORING PROGRAM WHICH DOCUMENTED REPORTED OBSERVATIONS TO OBTAIN DATA ON LOCATIONS, NUMBERS, SEX, AND AGE CLASSES IS NOTED. THE GATHERING OF OTHER DATA, SUCH AS THE ANALYSIS OF SCATS AND EVALUATION OF FEEDING SITES, IS BRIEFLY DESCRIBED. A SHORT SUMMARY OF STUDY RESULTS AND CONCLUSIONS ARE INCLUDED.

M-135
MARTINKA, CLIFFORD J.
1970.
"WINTER FOODS OF WHITE-TAILED DEER IN GLACIER NATIONAL PARK, MONTANA." PAPER PRESENTED AT THE WESTERN ASSOC. OF STATE GAME & FISH COMMISSIONERS, 50TH ANNUAL CONFERENCE, VICTORIA, B.C. FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK LIBRARY.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER & McDONALD CREEK). FROM 1935-1940 A STUDY WAS CONDUCTED TO DETERMINE WINTER FOODS OF WHITE-TAILED DEER IN CONIFEROUS FORESTS OF THE PARK'S WEST SIDE. THIS PAPER REPORTS ON AN ANALYSIS OF 134 RUMEN SAMPLES.

M-136
MARTINKA, CLIFFORD J.
1971.
"POPULATION CHARACTERISTICS OF GRIZZLY BEARS IN GLACIER NATIONAL PARK, MONTANA." PAPER PRESENTED TO AMERICAN ASSOC. FOR THE ADVANCEMENT OF SCIENCE, SYMPOSIUM ON RESEARCH IN THE NATIONAL PARKS, PHILADELPHIA, PA., DECEMBER 29, 1971. 22 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER PRESENTS DATA FROM A STUDY CONDUCTED FROM 1967 THROUGH 1971 TO OBTAIN QUANTITATIVE DATA ON STATUS,

DYNAMICS, HABITAT RELATIONSHIPS, AND MANAGEMENT OF THE GRIZZLY BEAR POPULATION WHICH INHABITS GLACIER NATIONAL PARK. THE EFFECTS OF MANAGEMENT ON THE BEAR POPULATION AND THE PARK'S STATUS AS A NATURAL AREA ARE ALSO DISCUSSED.

M-137
MARTINKA, CLIFFORD J.
1971.
"STATUS AND MANAGEMENT OF GRIZZLY BEARS IN GLACIER NATIONAL PARK, MONTANA." IN 36TH NORTH AMERICAN WILDLIFE AND NATURE CONFERENCE. WASHINGTON, D.C.: WILDLIFE MANAGEMENT INSTITUTE. 11 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER PRESENTS RESULTS OF A STUDY RELATING TO THE STATUS OF THE GRIZZLY POPULATION BETWEEN 1967-1970. ADDITIONAL DATA ON PARK VISITATION, HUMAN CONFRONTATIONS WITH GRIZZLIES, AND BEAR MANAGEMENT PROCEDURES FOR THE 25-YEAR PERIOD FROM 1946-1970 ARE SUMMARIZED AND EVALUATED.

M-138
MARTINKA, CLIFFORD J.
1972.
"GRIZZLY BEARS IN NATIONAL PARKS." PACIFIC SEARCH, 1 PP. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). AN OVERVIEW OF THE HABITS, DYNAMICS, AND ECOLOGY OF *URSUS ARCTOS*. DATA WAS OBTAINED THROUGH RESEARCH BEGUN IN 1967 IN GLACIER PARK.

M-139
MARTINKA, CLIFFORD J.
1972.
HABITAT RELATIONSHIPS OF GRIZZLY BEARS IN GLACIER NATIONAL PARK, MONTANA: NATIONAL PARK SERVICE PROGRESS REPORT, 1972. WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 19 PP. IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS IS A REPORT ON A STUDY OF HABITAT USE AND FOOD PREFERENCE OF GRIZZLY BEARS (*URSUS ARCTOS HORRIBILIS*). PARK PHYSIOGRAPHY AND VEGETATION ARE DESCRIBED. 353 SIGHTINGS WERE ANALYZED TO SHOW HABITAT TYPES FREQUENTED BY BEARS; 340 SCATS WERE ANALYZED TO SHOW WHAT DIET PREDOMINATED AT WHAT TIME. RELATIONSHIPS BETWEEN GRIZZLIES AND PARK ECOSYSTEMS ARE DISCUSSED.

M-140
MARTINKA, CLIFFORD J.
1973.
"CURRENT ENVIRONMENTAL PROBLEMS IN RELATION TO MANAGEMENT OBJECTIVES IN GLACIER NATIONAL PARK." PAPER PRESENTED TO THE ECONOMIC STUDIES COMMITTEE, PACIFIC NORTHWEST RIVER BASINS COMMISSION, SEPTEMBER 26, 1973, IN KALISPELL, MONTANA. VANCOUVER, WA. (TYPEWRITTEN). 3 PP. FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PAPER BRIEFLY OUTLINES PARK MANAGEMENT CONCERN OVER INDUSTRIAL FLUORIDE EMISSIONS AND MODIFICATION OF CLIMATIC REGIMES FOR POWER PRODUCTION. INCLUDED IS A DISCUSSION OF STUDIES OF EMISSIONS FROM AN ALUMINUM PLANT IN THE FLATHEAD VALLEY AND STUDIES OF WINTER UNGULATE ECOLOGY DOWNWIND FROM CLOUDSEEDING TARGET AREAS THAT SUGGEST REDUCED POPULATION STABILITY.

M-141
MARTINKA, CLIFFORD J.
1973.
INTERIM REPORT ON GRIZZLY BEAR RESEARCH. WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 12 PP. PRELIMINARY, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT PRESENTS A CURSORY REVIEW OF GRIZZLY BEAR RESEARCH CONDUCTED IN THE PARK FROM 1967 THROUGH 1973. THE PURPOSE IS TO PROVIDE A SOURCE OF CURRENT REFERENCE DATA RELATING TO POPULATION PARAMETERS AND MANAGEMENT ACTIVITIES. INFORMATION IS PRIMARILY IN TABULAR FORM.

M-142
MARTINKA, CLIFFORD J.
1974.
"ECOLOGICAL ROLE AND MANAGEMENT OF *URSUS ARCTOS* (CARNIVORA) IN GLACIER NATIONAL PARK, MONTANA." PAPER PRESENTED AT THE THIRD INTERNATIONAL CONFERENCE ON BEAR RESEARCH AND MANAGEMENT, BINGHAMTON, NY. 21 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER UTILIZES DATA AND OBSERVATIONS FROM CURRENT STUDIES TO DISCUSS A POPULATION OF GRIZZLY BEARS RELATIVE TO HISTORICAL STATUS, CURRENT POPULATION DYNAMICS, ECOLOGICAL RELATIONSHIPS AND MANAGEMENT REQUIREMENTS. MANAGEMENT REQUIREMENTS INCLUDE THE REDUCTION OF POTENTIAL CONFLICTS WITH HUMANS AS WELL AS THE MAINTENANCE OF NATURAL ENVIRONMENTAL RELATIONSHIPS.

M-143
MARTINKA, CLIFFORD J.
1974.
"POPULATION CHARACTERISTICS OF GRIZZLY BEARS IN GLACIER NATIONAL PARK, MONTANA." J. MAMMOLOGY 55(30 MARCH 1974):21-29. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS STUDY WAS CONDUCTED FROM 1967 TO 1971 TO OBTAIN QUALITATIVE DATA ON STATUS, DYNAMICS, HABITAT RELATIONSHIPS AND MANAGEMENT OF THE PARK'S GRIZZLY POPULATION. THE EFFECTS OF MANAGEMENT ON THE BEAR POPULATION AND THE PARK'S STATUS AS A NATURAL AREA ARE ALSO DISCUSSED.

M-144
MARTINKA, CLIFFORD J.
1974.
"PRESERVING THE NATURAL STATUS OF GRIZZLIES IN GLACIER NATIONAL PARK." WILDLIFE SOCIETY BULL. 2(SPRING 1974):5-10. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER EVALUATES GRIZZLY BEAR MANAGEMENT IN THE PARK FROM 1968 THROUGH 1972, EMPHASIZING SIGNIFICANT TRENDS IN VISITATION, CONFLICTS BETWEEN GRIZZLIES AND VISITORS, AND THE EFFECTS OF MANAGEMENT PRACTICES ON BOTH HUMAN VISITORS AND THE BEAR POPULATION.

M-145
MARTINKA, CLIFFORD J.
1974.
"RELATIONSHIPS OF PROPOSED WEATHER MODIFICATION TO NATURAL RESOURCES MANAGEMENT IN GLACIER NATIONAL PARK." PRESENTATION AT A PUBLIC MEETING ON "THE CITIZENS ROLE IN DECISION MAKING CLOUD SEEDING IN THE FLATHEAD'S SOUTH FORK," SEPTEMBER 12, 1974, COLUMBIA FALLS, MT. 3 PP. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER BRIEFLY EXAMINES THE POTENTIALLY SIGNIFICANT CONFLICTS BETWEEN PARK POLICY AND A PROPOSED CLOUD SEEDING PROJECT.

M-148

MARTINKA, CLIFFORD J.
1975.

"THE ROLE OF NATURAL AREAS IN WILDLIFE MANAGEMENT PROGRAMS." PUBL. PAPER PRESENTED TO SYMPOSIUM ON RECONCILING PRIORITIES OF RESOURCE USERS 26TH ANNUAL CONFERENCE, NORTHWEST SECTION, WILDLIFE SOCIETY, ANCHORAGE, ALASKA. 9 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER EXAMINES THE POTENTIAL CONTRIBUTIONS OF NATURAL AREAS TO REGIONAL WILDLIFE MANAGEMENT PROGRAMS. THE CHARACTERISTICS OF NATURAL AREAS ARE DESCRIBED, A PROGRAM IN GLACIER PARK TO EVALUATE AND MONITOR ECOLOGICAL EFFECTS IS DETAILED, AND BASELINE VALUES OF NATURAL AREAS IN REGIONAL WILDLIFE MANAGEMENT PROGRAMS ARE DESCRIBED.

M-147

MARTINKA, CLIFFORD J.
1975.

"WOLVES AND WILDLIFE IN GLACIER'S NORTH FORK." OFF BELAY 21:1. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER). A SHORT ARTICLE OUTLINING RESEARCH DONE ON THE WOLF POPULATION IN THE AREA, AND THE EFFECTS THE CABIN CREEK COAL MINE WOULD HAVE ON THE POPULATION.

M-146

MARTINKA, CLIFFORD J.
1976.

BLACK BEAR MANAGEMENT IN THE NATIONAL PARK SYSTEM IN 1976. WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 20 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN

(U.S. NATL. PARKS: GLACIER NATL. PARK). THE REPORT PRESENTS A REVIEW OF THE CURRENT STATUS OF THE BLACK BEAR IN NATIONAL PARKS. OBJECTIVES INCLUDE EVALUATING PROGRESS IN ACCOMPLISHING MANAGEMENT GOALS AND PROVIDING A SCIENTIFIC BASE FOR DETERMINING PROGRAM DIRECTION. BEAR INCIDENTS, GEOGRAPHIC DISTRIBUTION, AND RELATIVE INTENSITY OF BEAR PROBLEMS ARE DISCUSSED AND ARE FOLLOWED BY MANAGEMENT RECOMMENDATIONS.

M-146

MARTINKA, CLIFFORD J.
1976.

"COMPARATIVE MERITS OF NATURAL AREAS IN EVALUATING DEER HARVEST PROGRAMS." PAPER PRESENTED AT ANNUAL MEETING OF MISSOULA CHAPTER OF THE WILDLIFE SOCIETY, 1976. MISSOULA, MT.: WILDLIFE SOCIETY. 4 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER PROPOSES THAT NATURAL AREAS ASSUME A MORE IMPORTANT ROLE IN HELPING TO EVALUATE AND REDESIGN DEER MANAGEMENT PROGRAMS. AN UNHARVESTED POPULATION OF ODOCOILEUS HEMIONUS WHOSE NUMBERS WERE CONTROLLED ALMOST EXCLUSIVELY BY NATURAL ENVIRONMENTAL FACTORS WAS STUDIED.

M-150

MARTINKA, CLIFFORD J.

1976.

"FIRE AND ELK IN GLACIER NATIONAL PARK." IN TALL TIMBERS FIRE ECOLOGY CONFERENCE NO. 14 AND INTERMOUNTAIN FIRE RESEARCH COUNCIL FIRE AND LAND MANAGEMENT SYMPOSIUM. 12 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). DATA AND OBSERVATIONS FROM ONGOING STUDIES WERE UTILIZED TO DISCUSS ECOLOGICAL RELATIONSHIPS BETWEEN CERVUS CANADENSIS AND FIRE IN THE PARK. INFORMATION WAS EVALUATED WITH RESPECT TO FIRE HISTORY, ELK POPULATION TRENDS, HABITAT RELATIONSHIPS, AND EFFECTS ON ASSOCIATED SPECIES.

M-151

MARTINKA, CLIFFORD J.

1976.

"PLANNING GUIDELINES FOR THE CONSERVATION OF NORTHERN ROCKY MOUNTAIN WOLVES IN GLACIER NATIONAL PARK." WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. (MIMEO). 3 PP. FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE GUIDELINES EXPLAIN THE MANAGEMENT PLAN, RESEARCH PROGRAM AND PLANNING SCHEDULE TO PROVIDE FOR THE PROTECTION AND CONSERVATION OF THE EXISTING POPULATION OF WOLVES AS WELL AS TO PROVIDE FOR THE RESTORATION OF A MORE NATURAL AND SECURE POPULATION OF WOLVES.

M-152

MARTINKA, CLIFFORD J.

1978.

"UNGULATE POPULATIONS IN RELATION TO WILDERNESS IN GLACIER NATIONAL PARK, MONTANA." PROC. 43RD NORTH AMERICAN WILDLIFE & NATURAL RESOURCES CONFERENCE, PHOENIX, ARIZONA, MARCH 18-22. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER ADDRESSES THE VARIED VALUES AND BENEFITS OF WILDERNESS WILDLIFE, AS EXHIBITED BY WINTERING UNGULATES IN GLACIER NATIONAL PARK. UNGULATES WERE SELECTED ON THE BASIS OF THEIR SIGNIFICANT AESTHETIC, SCIENTIFIC, AND ECOLOGICAL ROLES IN THE WILDERNESS SETTING. DISCUSSIONS ARE DEVELOPED FROM CONTINUING STUDIES OF WINTERING ELK (CERVUS CANADENSIS) AND MULE DEER (ODOCOILEUS HEMIONUS) INITIATED IN 1967.

M-153

MARTINKA, CLIFFORD J.

1979.

"MEASURING EFFECTS OF HUMAN PRESENCE ON WINTERING WILDLIFE IN NATIONAL PARKS." 2ND CONFERENCE ON SCIENTIFIC RESEARCH IN THE NATIONAL PARKS, SAN FRANCISCO, CA., NOV. 26-30. 13 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. PARK SYSTEM: GLACIER NATL. PARK). THE PURPOSE OF THIS PAPER IS TO PROVIDE AN ECOLOGICAL RATIONALE FOR CONDUCTING RESEARCH RELATED TO THE EFFECTS OF HUMAN PRESENCE ON WINTERING WILDLIFE, AND INCORPORATING RESULTS IN PARK MANAGEMENT PROGRAMS. DISCUSSIONS FOCUS ON NATIONAL PARK POLICY, A WORKING RESEARCH HYPOTHESIS, FIELD STUDY DESIGN, AND MANAGEMENT IMPLICATIONS. APPLICATION IS INTENDED FOR THE LARGER NATIONAL PARKS WITH SIGNIFICANT PROPORTIONS IN NATURAL PLANNING ZONES.

M-154

MARTINKA, CLIFFORD J.

"GRIZZLY BEARS, PEOPLE, AND A NATURAL AREA." GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER PRESENTS A DESCRIPTION OF URSUS ARCTOS HABITAT WITHIN GLACIER NATIONAL PARK, PREFERRED FOODS, ENCOUNTERS WITH PARK VISITORS, PARK MANAGEMENT POLICIES, AND DATA ON THE PARK'S GRIZZLY POPULATION DENSITY.

M-155

MARTINSON, ALBIN H.

1972.

"FLATHEAD RIVER STUDY: LAND FORMS AND SOIL INTERPRETATIONS." U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST, KALISPELL, MT. (TYPEWRITTEN). 25 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: NORTH, MIDDLE, & SOUTH FORKS OF THE FLATHEAD RIVER). THIS IS A LAND FORM INVENTORY OF THE THREE FORKS OF THE FLATHEAD RIVER SYSTEM. THE OBJECTIVE WAS TO PROVIDE SOIL INTERPRETATIONS FOR THE SCENIC AND WILD RIVER CLASSIFICATION STUDY. ELEVEN CLASSIC LAND FORMS ARE DESCRIBED AND INTERPRETIVE SOIL AND CLIMATE CHARACTERISTICS ARE INFERRED.

M-156

MARTINSON, ALBIN H.

(IN PROGRESS).

DESCRIPTIVE LEGEND OF FLATHEAD NATIONAL FOREST LAND TYPES. U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. IN PROGRESS, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS PUBLICATION WILL DESCRIBE LANDTYPES FOREST WIDE. IT WILL INCLUDE A NARRATIVE DESCRIPTION OF THE SETTING, DIFFERENT AND COMPETING LAND TYPES, VEGETATION PATTERNS, GENERAL SOILS AND CLASSIFICATION, ACCESSORY CHARACTERISTICS, MANAGEMENT IMPLICATIONS, AND MAPPING UNIT DESCRIPTIONS.

M-157

MARTINSON, ALBIN H.

(IN PROGRESS).

"LANDTYPE AND GEOLOGIC MAP OVERLAYS." U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST, KALISPELL, MT. IN PROGRESS, SPECIFIC, ORIGINAL DATA,

(FLATHEAD NATL. FOREST). THIS OVERLAY MAP SYSTEM UTILIZES GEOLOGICAL SURVEY 7.5 MINUTE QUADS AS BASEMAPS. THE LANDTYPE OVERLAYS ARE BASED ON SOILS, LANDFORM, AND HABITAT TYPE INFORMATION AND DELINEATE PERMANENT ELEMENTS OF THE ECOSYSTEM THAT HAVE PREDICTABLE BEHAVIOR FOR USE IN COMPREHENSIVE PLANNING.

M-158

MARTINSON, ALBIN H.

(IN PROGRESS).

LANDTYPE ASSOCIATION INVENTORY OF THE SCAPEGOAT PORTION OF THE BOB MARSHALL WILDERNESS. IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THIS LANDTYPE ASSOCIATION INVENTORY INCLUDES 166,000 ACRES OF THE FLATHEAD NATIONAL FOREST AND

LANDS ON THE HELENA, LOLO, AND LEWIS AND CLARK NATIONAL FORESTS. IT UTILIZES ASSOCIATIONS OF HABITAT TYPES, SOILS, AND LANDFORMS TO DELINEATE AREAS IN SIMILAR STAGES OF DEVELOPMENT WHICH REFLECT HAZARDS AND/OR CAPABILITIES. INTERPRETATIONS ARE DIRECTED TOWARD WILDERNESS MANAGEMENT AND FIRE MANAGEMENT IMPLICATIONS.

M-159

MARTINSON, ALBIN H.

(IN PROGRESS).

SOIL MONITORING STUDY.

U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST, KALISPELL, MT. IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(TALLY LAKE & SWAN LAKE RANGER DISTRICTS). THIS STUDY IS MEASURING SOIL MOISTURE AND SOIL TEMPERATURE AT 15 STATIONS ON FIVE REPRESENTATIVE LAND TYPES. EACH LANDTYPE HAS THREE STATIONS: ONE IN A CLEARCUT ON DISTURBED SOILS, ONE IN A CLEARCUT WITH UNDISTURBED SOILS, AND ONE IN A CONTROL PLOT. MEASUREMENTS WILL BE TAKEN EVERY TEN DAYS FOR THE NEXT THREE TO FIVE YEARS. STUDY RESULTS WILL BE GIVEN IN MONTHLY UNPUBLISHED REPORTS STARTING JANUARY 1980.

M-160

MARTINSON, ALBIN H.

(IN PROGRESS).

"SOIL PROFILE DESCRIPTIONS."

U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST, KALISPELL, MT. IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL

(FLATHEAD NATL. FOREST). THIS IS A KEY CARD FILE GIVING TECHNICAL DESCRIPTIONS OF 1,200 SOIL PROFILES FOREST-WIDE. CARD COPIES AND MICROFILM COPIES ARE UNPUBLISHED AND ON FILE AT THE FLATHEAD NATIONAL FOREST SUPERVISOR'S OFFICE.

M-161

MARTINSON, ALBIN H.; DELK, ROBERT; AND VENTURI, DENNIS.

1973.

SPOTTED BEAR COUNTRY.

KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 150 PP. PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: THE REPORT IS THE FIRST PART OF WATER RESOURCES RECONNAISSANCE OF THE SOUTH FORK FLATHEAD RIVER.

(FLATHEAD NATL. FOREST: SPOTTED BEAR MANAGEMENT AREA). THIS REPORT IS AN INVENTORY AND ANALYSIS OF SOIL, WATER, AND OTHER RESOURCES FOR USE AS A GUIDE FOR BROAD LAND USE ALLOCATION. THE INVENTORY SECTION HAS DATA ON BEDROCK GEOLOGY AND STRUCTURE, VEGETATIVE HABITAT TYPES, SOILS, LANDFORMS AND WATER RESOURCES. THE BASIC MAPPING UNIT IS CALLED AN ECOLOGICAL LAND UNIT (ELU) WHICH IS AN AREA WITH UNIQUE LANDFORM, GEOLOGY, SOIL AND VEGETATIVE HABITAT-TYPE CHARACTERISTICS. MEASURED AND OBSERVED LAND QUALITIES PERTINENT TO EACH ELU ARE PRESENTED IN THE INVENTORY SECTION. THE LAND EVALUATION SECTION IS AN EVALUATION OF THE INVENTORIED DATA TO DETERMINE CONSTRAINTS AND POTENTIALS OF EACH ELU. A POSSIBLE MANAGEMENT OPTION IS PRESENTED TO EXEMPLIFY WHAT MIGHT BE DONE WITH THE DATA.

M-162

MARTS, M. E.

1964.

"UPSTREAM STORAGE PROBLEMS IN COLUMBIA RIVER POWER DEVELOPMENT."

ANNALS ASSOC. AMERICAN GEOGRAPHERS 44:43-50. FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THIS PAPER DISCUSSES MEETING ELECTRICAL ENERGY NEEDS UTILIZING HYDROPOWER RESOURCES AND INCREASING UPSTREAM STORAGE CAPACITY. CURRENT DEVELOPMENT AND UNDEVELOPED PROJECTS, THEIR ADVANTAGES AND PROBLEMS, ARE EXAMINED. PROPOSALS THAT MIGHT IMPROVE THE PROSPECTS FOR UPSTREAM STORAGE ARE PRESENTED, ALONG WITH ALTERNATIVE PROPOSALS TO MEET ENERGY REQUIREMENTS.

M-163

MARTS, M. E.

1961.

"BASIN DEVELOPMENT APPROACHES AND GEOGRAPHIC DIVERSITY IN THE COLUMBIA RIVER BASIN."

ANNALS ASSOC. AMERICAN GEOGRAPHERS 51(DECEMBER 1961):416.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THIS ABSTRACT SUMMARIZES THE RELATIONSHIPS BETWEEN THE VARIOUS APPROACHES TO THE PROBLEMS OF DEVELOPMENT AND MANAGEMENT OF THE BASIN AND THE CONFLICTS OF INTEREST STEMMING FROM GEOGRAPHIC DIVERSITY. OBSERVATIONS ON THE RELATIVE COMPATIBILITY OF THE APPROACHES WITH EACH OTHER AND WITH THE GEOGRAPHY OF THE REGION ARE MADE. PROGRESS TOWARDS AN OPERABLE INTERNATIONAL ARRANGEMENT, THE ESTABLISHMENT OF A VALLEY AUTHORITY, AND CONCLUSION OF AN INTERSTATE COMPACT IS CONSIDERED.

M-164

MASON, H. C., AND ASSOCIATES, INC.

1972.

ECONOMIC FEASIBILITY STUDY, PACK RIVER TREE FARMS, INC., POLSON, MONTANA.

BILLINGS, MT.: U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS.

PART OF A SERIES, FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(POLSON). IN THIS REPORT, ECONOMIC EVALUATIONS WERE MADE OF THE PACK RIVER TREE FARMS, INC., THE DUPUIS BROTHERS SAWMILL, AND THE PACK RIVER PLYWOOD PLANT. ECONOMIC ANALYSES WERE MADE FOR BOTH THE ACTUAL OPERATING PERIOD OF 1967-1971 AND FOR A PROJECTED PERIOD 1973-1987.

M-165

MASON, H. C., AND ASSOCIATES, INC.

1972.

ECONOMIC FEASIBILITY STUDY, PACK RIVER TREE FARMS, INC. APPRAISAL OF MANUFACTURING FACILITIES.

BILLINGS, MT.: U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS. 55 PP.

PART OF A SERIES, FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(POLSON). THE OBJECTIVE OF THIS REPORT WAS TO PRESENT AN ESTIMATE OF THE REPLACEMENT VALUE OF THE DUPUIS BROTHERS SAWMILL AND PACK RIVER PLYWOOD PLANT. ALSO INCLUDED IS AN ESTIMATE OF THE SALVAGE VALUE OF EACH PLANT.

M-166

MAT, RICHARD M.

1961.

"SURVEY OF THE BUILDING NEEDS IN JOINT SCHOOL DISTRICT NO. 8."

M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 70 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ARLEE). CURRENT (1951) BUILDING FACILITIES OF JOINT SCHOOL DISTRICT NO. 8 WERE EXAMINED IN LIGHT OF COMMUNITY NEEDS. DATA REGARDING THE GENERAL ECONOMIC CONDITIONS OF THE COMMUNITY AND THE PUPIL POPULATIONS WERE OBTAINED. A FISCAL ANALYSIS, INVOLVING TAXABLE VALUE, COST PER PUPIL, SOURCE OF SCHOOL REVENUE, BONDING LIMITATIONS, ETC., CONCLUDES THE THESIS.

M-167

MATHER, STEPHEN.

"THE STORY OF GLACIER NATIONAL PARK."

MID-PACIFIC MAGAZINE, AUGUST, PP. 146-149.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE DESCRIBES THE SCENIC ATTRACTIONS OF GLACIER NATIONAL PARK AND GIVES A BRIEF OUTLINE OF THE HISTORY OF THE AREA.

M-168

MATHEWS, JULIE A., AND FROST, ANGELA L.

1972.

"ARCHAEOLOGICAL SURVEY OF THE GRAVE CREEK TRAIL."

ARCHAEOLOGY IN MONTANA 13:21-32.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LINCOLN COUNTY: GRAVE CREEK). THIS PAPER REPORTS ON AN ARCHAEOLOGICAL INVESTIGATION OF SITES LOCATED IN THE GRAVES CREEK AREA. TEST PITS WERE DUG; MAULS, FLAKES, AND PROJECTILE POINTS WERE DISCOVERED. AN HYPOTHESIS ACCOUNTING FOR THE SMALL AMOUNT OF CULTURAL MATERIAL RECOVERED IS PROPOSED.

M-169

MATHIAS, CHIEF BAPTISTE.

1952.

"FIRSTS" AMONG THE FLATHEAD LAKE KUTENAI AS TOLD TO THAIN WHITE.

MISSOULA, MT.: MONTANA STATE UNIV. ANTHROPOLOGY AND SOCIOLOGY PAPERS, NO. 8. 4 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE KOOTENAI INDIANS). KUTENAI STORIES CONCERNING THEIR INITIAL CONTACT WITH WHITE CIVILIZATION ARE PRESENTED AND INCLUDE FIRST MILK, FIRST BEANS, FIRST BUTTER, FIRST PAID, AND FIRST PANTS. THEY ARE TOLD BY MATHIAS WHO FIRST HEARD THE STORIES AS A YOUNG BOY.

M-170

MATHIAS, CHIEF BAPTISTE.

1953.

THE ORIGIN OF PICTOGRAPHS. AS TOLD TO CARLING MALOUF AND T. WHITE.

MISSOULA, MT.: MONTANA STATE UNIV. ANTHROPOLOGY AND SOCIOLOGY PAPERS, NO. 15. 4 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WEST SHORE OF FLATHEAD LAKE). A MYTH OF THE KOOTENAI INDIANS ATTEMPTS TO EXPLAIN THE ORIGIN OF THE PICTOGRAPHS ON PAINTED ROCKS. AS RELATED BY BAPTISTE MATHIAS, THE LAST OF THE SUN DANCE CHIEFS OF THE FLATHEAD LAKE KOOTENAI, THEY ANTEDATE THE COMING OF MAN TO THIS AREA. EDITOR'S COMMENTS FOLLOW.

M-171

MATSON, G. ALBIN.

1930.

"BLOOD GROUPS AND AGEUSIA IN INDIANS OF MONTANA AND ALBERTA."

AMERICAN J. PHYSICAL ANTHROPOLOGY 24:81-89.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ALBERTA AND MONTANA: FLATHEAD INDIAN RESERVATION). THIS ARTICLE IS CONCERNED WITH THE DISTRIBUTION OF THE HEREDITARY CHARACTERS: THE FOUR BLOOD GROUPS (O, A, B, AND AB) AMONG NATIVE AMERICANS. BLOOD SAMPLE TESTS WERE MADE AS WELL AS TESTS TO OBSERVE THE INCIDENCE OF ANOTHER HEREDITARY FACTOR, THE TASTE REACTION TO A CHEMICAL SUBSTANCE P-ETHOXYPHENYL-THIO-UREA. 53 FULLBLOOD AND 691 MIXED BLOOD FLATHEAD INDIANS WERE TESTED.

M-172
MATSON, OTIS T.
1899.

"POINTED BARK CANOES OF THE KUTENAI AND AMUR." IN REPORT OF THE U.S. NATIONAL MUSEUM FOR 1899.
WASHINGTON, D.C.: THE SMITHSONIAN INSTITUTION.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(ABORIGINAL LANDS OF THE KUTENAI INDIANS). THIS PAPER EXAMINES THE UNIQUE SHAPE OF THE KUTENAI CANOE AND ITS EVOLUTION AND DISTRIBUTION.

M-173
MATTHEW, F. E.
1904.
"THE ALPS OF MONTANA."
APPALACHIA, APRIL 1904, PP. 255-276.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE RECOUNTS THE AUTHOR'S EXPERIENCES DURING THE EARLY YEARS OF THE PARK AND PRESENTS A GENERAL SKETCH OF THE PARK'S FEATURES.

M-174
MATTHEWS, JOHN W.
1973.
"ECOLOGY OF BIGHORN SHEEP ON WILDHORSE ISLAND, FLATHEAD LAKE, MONTANA."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 88 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: WILDHORSE ISLAND). THE SPECIFIC OBJECTIVES OF THE STUDY WERE: TO OBTAIN AN ACCURATE CENSUS OF THE SHEEP AND DEER POPULATIONS, ASSESS SEX AND AGE DISTRIBUTION OF THE SHEEP POPULATION, DESCRIBE POPULATION FLUCTUATIONS IN TERMS OF NATALITY AND MORTALITY, MAP AND QUANTITATIVELY DESCRIBE THE HABITAT, DETERMINE USE OF THE HABITAT, AND COMPARE FINDINGS WITH THOSE OF EARLIER INVESTIGATORS.

M-175
MATTSO, URSULA, AND REAM, ROBERT.
1978.
CURRENT STATUS OF THE GRAY WOLF (CANIS LUPUS) IN THE ROCKY MOUNTAIN FRONT.
MISSOULA, MT.: UNIV. MONTANA, WOLF ECOLOGY PROJECT. 16 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LEWIS & CLARK NATL. FOREST, ROCKY MOUNTAIN FRONT PLANNING UNIT, ADJACENT TO BOB MARSHALL WILDERNESS AREA). THE REPORT INCLUDES A DESCRIPTION OF THE AREA, PREY SPECIES, REPRODUCTION AND MORTALITY, METHODS OF RANKING WOLF REPORTS, AND ESTIMATES OF SIZE OF POPULATION. THREE GENERAL MANAGEMENT CONSIDERATIONS ARE RECOMMENDED.

M-176
MAXON, WILLIAM R.
1921.
"NEW SELAGINELLAS FROM THE WESTERN UNITED STATES." IN EXPLORATIONS AND FIELD WORK OF THE SMITHSONIAN INSTITUTION IN 1920.
SMITHSONIAN INSTITUTION. MISC. COLL. 72:10.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN U.S.: GLACIER NATL. PARK). THIS PAPER GIVES DETAILED DESCRIPTIONS OF SIX SPECIES OF SELAGINELLA WHICH INCLUDE DRAWINGS OF EACH. SELAGINELLA STANDLEYI MAXON, SP. NOV. WAS FOUND NEAR GUNSIGHT PASS, ALONG THE TRAIL FROM MANY GLACIER HOTEL TO PIEGAN PASS, AND NEAR ICEBERG AND PTARMIGAN LAKES.

M-177
MAXWELL, DWIGHT T.
1965.
"DIAGENETIC-METAMORPHIC TRENDS OF LAYER SILICATES IN THE PRECAMBRIAN BELT SERIES."
PH.D. DISSERTATION, MONTANA STATE UNIV., MISSOULA. 94 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN MONTANA & NORTHERN IDAHO: SAMPLE SITES INCLUDED GLACIER NATL. PARK AND THE ROCKY MOUNTAIN TRENCH AREA). THIS STUDY WAS AN INVESTIGATION OF LATE DIAGENETIC AND EARLY METAMORPHIC CHANGES IN LAYER SILICATES AS REFLECTED BY THEIR DISTRIBUTION IN AN ANCIENT ROCK SERIES (PRECAMBRIAN BELT ARGILLITE). CHANGES IN LAYER SILICATE MINERALOGY AND CHANGES OF STRUCTURE AND CHEMISTRY WITHIN CERTAIN LAYER SILICATES WERE EXAMINED. THE ROLE OF INCREASED TEMPERATURE AND PRESSURE, RESULTING FROM STRATIGRAPHIC OVERBURDEN, IN DIAGENETIC TRANSFORMATIONS WAS CONSIDERED AS WELL AS THE FUNCTION OF AGE. RESEARCH METHODOLOGY INVOLVED THE COLLECTION OF 500 SAMPLES AND STRATIGRAPHIC IDENTIFICATIONS OF THE SAMPLE SITES. X-RAY DIFFRACTION TECHNIQUES WERE USED TO DETERMINE THE COMPOSITION AND MINERALOGIC VARIATIONS OF THE LAYER SILICATES. FINDINGS REGARDING THE PRESENCE OR ABSENCE OF DIOCAHEDRAL MICAS, CHLORITE, BIOTITE, KAOLINITE, EXPANDABLE LAYER SILICATES, FELDSPAR AND OTHERS ARE DISCUSSED.

M-178
MAXWELL, DWIGHT T., AND HOWER, JOHN.
1967.
"HIGH-GRADE DIAGENESIS AND LOW-GRADE METAMORPHISM OF ILLITE IN THE PRECAMBRIAN BELT SERIES."
THE AMERICAN MINERALOGIST 52(MAY-JUNE 1967):943-957.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN MONTANA & NORTHERN IDAHO: GLACIER NATL. PARK). THE RESPONSE OF ILLITE TO INCREASING STRATIGRAPHIC DEPTH WAS INVESTIGATED IN THE PRECAMBRIAN BELT SERIES. THE ANALYTICAL PROCEDURES USING X-RAY DIFFRACTION ARE EXPLAINED, THE NATURE OF THE 10A MINERAL IN THE BELT ARGILLITES IS DISCUSSED. TABLES PRESENT THE RESULTS OF THE INVESTIGATION.

M-179
MEAGHER, THOMAS F.
"RIDES THROUGH MONTANA."
HARPER'S NEW MONTHLY MAGAZINE, OCTOBER 1867, PP. 568-585.

(MONTANA: FLATHEAD INDIAN RESERVATION & ST. IGNATIUS). MEAGHER USES A FICTIONAL TRAVELOGUE TO GIVE HIS OBSERVATIONS ABOUT VARIOUS AREAS OF MONTANA INCLUDING THE FLATHEAD RESERVATION AND THE ST. IGNATIUS

MISSION. THE ENGRAVINGS ILLUSTRATING THE ARTICLE ARE BASED ON FIRST HAND PAINTINGS DONE BY PETER TOFFT AND ARE THE FIRST PUBLISHED REPRESENTATIONS OF A NUMBER OF MONTANA LANDMARKS. SKCC.

M-180
MEALEY, STEPHEN; JONKEL, C.; AND DEMARCHI, R.
1977.
"HABITAT CRITERIA FOR GRIZZLY BEAR MANAGEMENT."
13TH INTERNATIONAL CONGRESS OF GAME BIOLOGISTS, ATLANTA, GA., MARCH 13, 1977. 15 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: NORTHWESTERN MONTANA IS INCLUDED WITHIN THE STUDY AREA.

(CURRENT GEOGRAPHICAL RANGE OF THE GRIZZLY BEAR: NORTHWESTERN MONTANA: NORTH FORK OF THE FLATHEAD). THE PURPOSE OF THIS STUDY WAS TO PROVIDE HABITAT GUIDELINES FOR IMMEDIATE GRIZZLY MANAGEMENT DECISIONS INVOLVING CRITICAL HABITAT DELINEATION, GAS AND OIL LEASING FIRE MANAGEMENT, TIMBER PRODUCTION, LIVESTOCK GRAZING AND RECREATION. THE OBJECTIVES WERE TO DEVELOP INTERIM DEFINITIONS OF GRIZZLY HABITAT COMPONENTS AND TO ESTIMATE THE QUALITY AND DISTRIBUTION OF COMPONENTS.

M-181
MEANY, EDMOND S.
1914.
"LAND OF THE OPEN SPACES."
THE MOUNTAINEER 7:52.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A POEM PRAISING THE PARK AS A PLACE TO "MEET YOUR OWN SOUL."

M-182
MEGLEN, JOSEPH FRANCIS.
1975.
"GEOLOGY OF THE PERMA AREA, SANDERS COUNTY, MONTANA."
M.S. THESIS, UNIV. OKLAHOMA, NORMAN. 79 PP.

(LOWER FLATHEAD VALLEY: PERMA AREA). THE OBJECTIVES OF THIS THESIS WERE: 1) TO CONDUCT A DESCRIPTIVE ANALYSIS OF THE ROCK UNITS AND STRUCTURAL FEATURES, 2) TO CONSTRUCT A STRUCTURAL ANALYSIS OF A STRUCTURAL ANOMALY NEAR PERMA, AND 3) TO DETERMINE THE RELATIONSHIP OF THE STUDY AREA STRUCTURE TO THE REGIONAL STRUCTURE.

M-183
MEHRER, CLIFFORD F.
1972.
"THE INCIDENCE OF LEPTOSPIROSIS AND BRUCELLOSIS IN MULE AND WHITE-TAILED DEER AND BISON IN THE CENTRAL AND UPPER MIDWEST."
M.S. THESIS, UNIV. NORTH DAKOTA, GRAND FORKS. 77 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(CENTRAL & UPPER MIDWEST: NATL. BISON RANGE). THE INCIDENCE OF BRUCELLA ABORTUS AND OF SIX SEROTYPES OF LEPTOSPIRA INTERROGANS WAS DETERMINED IN AMERICAN BISON (BISON BISON) FROM SEVEN AREAS OF THE UNITED STATES AND IN MULE DEER AND WHITE-TAILED DEER FROM SOUTHWESTERN NORTH DAKOTA.

M-184

MEINERS, WILLIAM, AND SCURLOCK, R.

1977.

LAND CAPABILITY FOR SUITABILITY FOR SEPTIC TANK INSTALLATION AND EROSION HAZARD RATING.

KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT. 63 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THIS REPORT WAS PREPARED TO ACCOMMODATE BROAD PLANNING REQUIREMENTS. IT PROVIDES AN OVERVIEW OF DATA AVAILABILITY, DATA GAPS AND NOTES PROBABLE HAZARDS REQUIRING FURTHER ON-SITE INVESTIGATIONS. THE DATA BASE UPON WHICH THE REPORT WAS PREPARED DID NOT PROVIDE A LEVEL OF DETAIL SUFFICIENT TO MEET SITE SPECIFIC PLANNING REQUIREMENTS. PERCOLATION TEST RESULTS AND SOIL RATINGS FOR SEPTIC TANK SUITABILITY AND EROSION HAZARDS ARE INCLUDED.

M-185

MEINZER, OSCAR E.

1917.

ARTESIAN WATER FOR IRRIGATION IN LITTLE BITTERROOT VALLEY, MONTANA.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. WATER SUPPLY PAPER 700. PP. 9-37.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LITTLE BITTERROOT VALLEY). THIS PAPER INVESTIGATES THE QUESTION OF TO WHAT EXTENT COULD ARTESIAN WATER BE SUBSTITUTED FOR OR USED IN CONNECTION WITH SURFACE WATERS FOR IRRIGATION IN THE VALLEY. PHYSIOGRAPHY AND DRAINAGE, GEOLOGIC FORMATIONS OF BEDROCK AND VALLEY FILL, GEOLOGIC HISTORY, AND SURFACE WATER OF THE AREA IS EXAMINED. THE DISCUSSION OF ARTESIAN WATER CONSIDERS WELL RECORDS, THE OCCURRENCE OF THE PRINCIPAL ARTESIAN-WATER BED, THE FLOWING WELL AREA AND HEAD OF THE FLOWING WELLS, THE YIELD OF THE WELLS, WATER QUALITY ANALYSIS, TEMPERATURE, AND SOURCE. METHODS AND COSTS OF DRILLING ARE EVALUATED. REASONS WHY THE WELLS SHOULD BE OWNED AND CONTROLLED AS PART OF THE FLATHEAD IRRIGATION PROJECT ARE PRESENTED.

M-186

MEJSTRICK, PETER F.

1975.

"PETROGENESIS OF THE PURCELL SILL, GLACIER NATIONAL PARK, MONTANA."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 74 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PURCELL SILL OF GLACIER NATIONAL PARK WAS CHOSEN FOR EXAMINATION BECAUSE OF ITS EXTENSIVE ASSIMILATION OF XENOLITHS. THE OBJECT OF THIS REPORT IS TO DESCRIBE THE INHERENT CHEMICAL, MINERALOGICAL, AND PETROGRAPHIC TRANSFORMATIONS ASSOCIATED WITH THESE ASSIMILATION PROCESSES AND THEREBY DEVELOP A DETAILED PETROGENESIS FOR THIS SILL AS WELL AS A GENERAL MODEL FOR SIMILARLY AFFECTED BASALTIC ROCKS.

M-187

MENAGER, GABRIEL M., S. J.

1941.

"OLD FRIENDS ON THE MOCASSIN TRAIL."

INDIAN SENTINEL 21(NOVEMBER 1941):136-137.

THIS ARTICLE DESCRIBES THE WORK OF FATHER AMBROSE SULLIVAN AND THE PRESENT RELIGIOUS SITUATION OF THE FLATHEAD RESERVATION. SKCC.

M-188

MENAGER, GABRIEL M., S. J.

1942.

"REMINISCENCES OF A MISSIONARY SISTER."

INDIAN SENTINEL 22(APRIL 1942):59-61.

MOTHER LAURENTIA RELATES SOME OF HER EXPERIENCES AS A TEACHER AT THE SCHOOL THE CATHOLIC CHURCH OPERATED IN THE JOCKO VALLEY DURING THE EARLY 1890's.

M-189

MENASCO-MCGUINN ASSOCIATES.

1971.

MONTANA HIGHWAY FUNCTIONAL CLASSIFICATION AND NEEDS STUDY (1970-1990).

HELENA, MT.: MONTANA STATE HIGHWAY COMMISSION, PLANNING SURVEY SECTION. 100 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS STUDY ENCOMPASSES ALL EXISTING MILEAGE AND PROPOSED MILEAGE TO THE YEAR 1990. THE PRINCIPAL OBJECTIVE OF THIS STUDY WAS TO PROVIDE INFORMATION TO THE DEPARTMENT OF TRANSPORTATION SO THAT A REALIGNMENT OF THE FEDERAL-AID HIGHWAY SYSTEM BASED ON FUNCTIONAL CONSIDERATIONS COULD BE INVESTIGATED.

M-190

MENASCO-MCGUINN ASSOCIATES.

1974.

MONTANA HIGHWAY FUNCTIONAL CLASSIFICATION AND NEEDS STUDY: 1974 UPDATE.

HELENA, MT. 92 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

AVAILABLE FROM: MONTANA DEPT. HIGHWAYS, PLANNING & RESEARCH BUREAU, HELENA.

(MONTANA). THE RESULTS OF A HIGHWAY NEEDS STUDY FOR 1970-1990 ARE REFINED IN THIS 1974 UPDATE. THE PRINCIPAL OBJECTIVE WAS TO PROVIDE INFORMATION TO THE DEPARTMENT OF TRANSPORTATION SO THAT A REALIGNMENT OF A FEDERAL AID HIGHWAY SYSTEM BASED ON FUNCTIONAL CONSIDERATIONS COULD BE INVESTIGATED.

M-191

MENGARINI, GREGORY, S. J.

1961.

A SELISH OR FLATHEAD GRAMMAR.

NEW YORK: CRAMOISY PRESS. 122 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: REPRINTED IN SHEA'S LIBRARY OF AMERICAN LINGUISTICS, VOL. 2. AMS PRESS, NEW YORK. 1970.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS COMPREHENSIVE GRAMMAR OF THE SALISH (FLATHEAD) LANGUAGE IS IN LATIN.

M-192

MENGARINI, GREGORY, S. J.

1877.

RECOLLECTIONS OF THE FLATHEAD MISSION: CONTAINING BRIEF OBSERVATIONS BOTH ANCIENT AND CONTEMPORARY CONCERNING THIS PARTICULAR NATION. TRANSLATED AND EDITED BY GLORIA R. LOTHROP.

GLENDAL, CA.: THE ARTHUR H. CLARK COMPANY. 250 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION, INCLUDING ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE BOOK INCLUDES OBSERVATIONS OF THE

FLATHEAD INDIANS BY A JESUIT MISSIONARY DURING THE 1840'S. THE LANGUAGE AND RELIGION OF THE INDIANS, THEIR MEDICINE MEN, CUSTOMS, THE COMING OF CATHOLICISM AND ITS EFFECT IS DESCRIBED.

M-193

MENGARINI, GREGORY, S. J.

"INDIANS OF OREGON, ETC."

J. ANTHROPOLOGICAL INSTITUTE OF NEW YORK 1(1871-1872):81-88.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE INCLUDES REFERENCES TO SOME FLATHEAD CUSTOMS, NOTES ABOUT THE LANGUAGE, THE CREATION STORY OF THE FLATHEADS, AND DESCRIPTIONS OF SOME FLATHEAD RELIGIOUS BELIEFS. MENGARINI WAS A MISSIONARY AMONG THE FLATHEADS DURING THE 1840'S. SKCC.

M-194

MERRIAM, ALAN P.

1951.

"FLATHEAD INDIAN INSTRUMENTS AND THEIR MUSIC."

THE MUSICAL QUARTERLY 37(JULY 1951):368-375.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). TWO MUSICAL INSTRUMENTS OF THE FLATHEAD INDIANS, THE FLAGEOLET AND DRUM, ARE CHARACTERIZED. THE MATERIAL AND MAKING OF THE INSTRUMENTS IS DISCUSSED ALONG WITH THE TYPES OF THE INSTRUMENTS. IN THE CASE OF THE FLAGEOLET, THE TYPES INCLUDE LONG WOODEN, SHORT WOODEN AND METAL TYPE; IN THE CASE OF THE DRUM, A HAND DRUM AND LARGE "WAR" DRUM. SONGS PLAYED WITH THE FLAGEOLET ARE EXAMINED AND ONE IS TRANSCRIBED. DRUM PERFORMANCE, POUNDING PATTERNS, AND THE PURPOSES OF THE DRUM IN DANCE AND MUSIC ARE CONSIDERED. THE INFLUENCE FROM THE PLAINS INDIAN AREA IS DISCUSSED.

M-195

MERRIAM, ALAN P.

1953.

"SONGS AND DANCES OF THE FLATHEAD INDIANS." ETHNIC FOLKWAYS LIBRARY, NEW YORK.

(FLATHEAD INDIAN RESERVATION). THIS SET OF ALBUM NOTES FOR A 12-INCH LONG-PLAYING RECORD CONTAINS A SELECTION OF THE SONGS AND DANCE MUSIC OF THE FLATHEAD INDIANS WITH NOTES. SKCC.

M-196

MERRIAM, ALAN P.

1955.

"THE HANDGAME OF THE FLATHEAD INDIANS."

J. AMERICAN FOLKLORE 68(JULY-SEPTEMBER 1955):313-324.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS ACCOUNT OF HAND GAME DESCRIBES A HISTORY OF GAMBLING AMONG THE FLATHEADS AS WELL AS THE GAME ITSELF. INCLUDED IN THE DESCRIPTION ARE THE GAME'S PRELIMINARIES, BETTING, THE NUMBER OF PLAYERS, THE SETS OF STICKS IN USE, GAME INITIATION, PLAY, THE PANTOMIME ACCOMPANYING THE GAME, GUESS INDICATION, AND WHAT IT TAKES TO WIN. HISTORIC AND CONTEMPORARY VERSIONS OF THE GAME ARE COMPARED.

M-197
MERRIAM, ALAN P.
 1967.
ETHNOMUSICOLOGY OF FLATHEAD INDIANS.
 CHICAGO: ALDINE PUBL. CO. 403 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: ARLEE). EXPANDED BOOK VERSION OF 2 PREVIOUS PUBLICATIONS BY SAME AUTHOR. INCLUDES TEXTS AND ANALYSIS OF HUMOROUS SONGS.

M-198
MERRIAM, ALAN P.
 1967.
"MUSIC AND THE ORIGIN OF THE FLATHEAD INDIANS: A PROBLEM IN CULTURAL HISTORY." IN MUSIC IN THE AMERICAS. EDITED BY GEORGE LIST AND JUAN ORRIGO-SALAS. INTER-AMERICAN MUSIC MONOGRAPH SERIES. VOL. 1.
 BLOOMINGTON, IN.: INDIANA UNIV. RESEARCH CENTER IN ANTHROPOLOGY, FOLKLORE, & LINGUISTICS.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: THE BOOK CONTAINS PAPERS READ AT THE FIRST INTER-AMERICAN SEMINAR OF COMPOSERS AND THE SECOND INTER-AMERICAN CONFERENCE ON ETHNOMUSICOLOGY, HELD AT INDIANA UNIVERSITY, APRIL 24-28, 1965.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE PAPER REPORTS ON AN INVESTIGATION OF FLATHEAD MUSIC AS IT RELATES TO THE GENERAL VIEW THAT THE FLATHEAD ARE A PLATEAU PEOPLE HAVING A WESTERN NON-PLAINS ORIGIN. THE FLATHEAD LANGUAGE IS SALISH IN ORIGIN AND THUS AFFILIATED WITH THE PLATEAU CULTURE AREA; WHILE FLATHEAD MUSIC SHOWS AFFILIATION WITH A DIFFERENT CULTURE AREA, THE PLAINS. QUESTIONS RAISED REGARDING THIS SITUATION ARE CONSIDERED.

M-199
MERRIAM, ALAN P.
"MUSIC OF THE FLATHEAD INDIAN."
TOMORROW 4(1959):103-107.

THIS ARTICLE PROVIDES AN INTRODUCTION TO FLATHEAD INDIAN MUSIC. SKCC.

M-200
MERRIAM, ALAN P.
"THE USE OF MUSIC IN THE STUDY OF A PROBLEM OF ACCULTURATION."
AMERICAN ANTHROPOLOGIST 57(FEBRUARY 1955):26-34.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE DISCUSSES THE INFLUENCE OF WHITE MUSIC ON THE MUSIC OF THE FLATHEAD INDIANS. SKCC.

M-201
MERRIAM, ALAN P., AND MERRIAM, BARBARA W.
 1950.
"FLATHEAD INDIAN MUSIC: REPORT ON FIELD RESEARCH."
 MONTANA STATE UNIV. MUSIC SCHOOL FOUNDATION, MISSOULA, MT. (TYPEWRITTEN). 66 PP.
 PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS STUDY INVOLVED THE FIELD RECORDING OF 226 FLATHEAD SONGS. ALTHOUGH A LABORATORY PROJECT TRANSCRIBING AND ANALYZING THE COLLECTED MUSIC WAS NOT COMPLETED WITH THE WRITING OF THIS REPORT, TENTATIVE CONCLUSIONS CONCERNING THE FIELD OF COMPARATIVE MUSICOLOGY ARE DISCUSSED. THIS REPORT DESCRIBES GENERAL CHARACTERISTICS OF THE MUSIC, MUSICAL IN-

STRUMENTS, AND FUNCTIONS OF THE MUSIC. THE MUSICIANS STATUS AND TRAINING, STANDARDS OF EXCELLENCE IN PERFORMANCE, THE ORIGIN OF THE MUSIC, SONG TEXTS OF THE MUSIC AND VOICE QUALITY ARE ALSO DISCUSSED. SONGS ARE LISTED AS THEY WERE RECORDED, NOTING PLACE, SINGERS AND THE TYPE OF SONG.

M-202
MERRIAM, ALAN P., AND MERRIAM, BARBARA W.
 1955.
"THE ETHNOGRAPHY OF FLATHEAD INDIAN MUSIC."
WESTERN ANTHROPOLOGY NO. 2. 24 PP.
 FINAL, SPECIFIC, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: ARLEE). A TOTAL OF 226 FLATHEAD SONGS WERE RECORDED AND TRANSCRIBED DURING FIELD RESEARCH, FOR A REPRESENTATIVE CROSS SECTION OF THE TRIBES MUSIC. THE MUSIC WAS ANALYZED BY METHODS OF COMPARATIVE MUSICOLOGY AND RESULTS COMPARED WITH STANDARD WORKS IN THE FIELD. INCLUDED ARE DESCRIPTIONS OF SEVERAL SONGS AND DANCES.

M-203
MERRIAM, HAROLD G.
 1942.
NORTHWEST BOOKS: REPORT OF THE COMMITTEE ON BOOKS OF THE INLAND EMPIRE COUNCIL OF TEACHERS OF ENGLISH. 2ND ED.
 PORTLAND, ORE.: BINFORDS AND MORT. 356 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS LITERARY BIBLIOGRAPHY REVIEWS OVER 1100 BOOKS AND INCLUDES SELECT MAGAZINES. PART ONE CONTAINS AN AUTHOR LIST, TITLE INDEX, AND SPECIAL INDEXES OF TITLES ACCORDING TO LOCALE, AND OF AUTHORS ACCORDING TO RESIDENCE. BOTH OF THE LATTER TWO INDEXES INCLUDE MONTANA. BOOK SUMMARIES AND COMMENTARIES, INCLUDED. PART TWO LISTS MAGAZINE CONTRIBUTIONS BY AUTHOR-TITLE.

M-204
MERRIAM, HAROLD G.
 1970.
THE UNIVERSITY OF MONTANA, A HISTORY.
 MISSOULA, MT.: UNIV. MONTANA PRESS.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MISSOULA: UNIV. MONTANA, & FLATHEAD LAKE). THIS DESCRIPTIVE AND INTERPRETIVE HISTORY OF THE UNIVERSITY IS ORGANIZED BY THE TENURES OF THE PRESIDENTS, CRAIG, DUNIWAY, CRAIGHEAD, SISSON, CLAPP, SIMMONS, MELBY, MCCAIN, MCFARLAND, NEWBURN, JOHNS, AND PANTZER. INCLUDED IS A HISTORY OF THE ESTABLISHMENT AND DEVELOPMENT OF THE BIOLOGICAL STATION.

M-205
MERRIAM, L. C., JR.
 1963.
A LAND USE STUDY OF THE BOB MARSHALL WILDERNESS AREA OF MONTANA.
 MISSOULA, MT.: MONTANA STATE UNIV., MONTANA FOREST & CONSERVATION EXPR. STAT., SCHOOL FORESTRY. BULL. NO. 26. 190 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: THIS PAPER WAS DONE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

(BOB MARSHALL WILDERNESS AREA). A SOCIO-ECONOMIC EVALUATION OF WILDERNESS USE AND USERS. THE WILDERNESS STATUS IS COMPARED WITH OTHER POSSIBLE MULTIPLE USES SUCH AS

DEVELOPED RECREATION AND TIMBER PRODUCTION. INTERVIEWS WITH USERS CONDUCTED TO DISCOVER THEIR CHARACTERISTICS, ATTITUDES, AND MOTIVES ARE PRESENTED. A GENERAL DESCRIPTION AND HISTORY OF THE WILDERNESS IS INCLUDED.

M-206
MERRIAM, L. C., JR.
 1964.
"THE BOB MARSHALL WILDERNESS AREA OF MONTANA - SOME SOCIO-ECONOMIC CONSIDERATIONS."
J. FORESTRY 1964(7):789-792.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THE ARTICLE REPORTS ON A THREE-YEAR LAND USE STUDY TO DETERMINE THE BEST SOCIO-ECONOMIC USE OF THE WILDERNESS FOR THE YEAR 1960. THE AREA, ITS HISTORY, AND ITS CLASSIFICATION AS A WILDERNESS ARE DESCRIBED AS WELL AS SOME USER CHARACTERISTICS. THE BEST USE OF THE AREA SERVING THE PUBLIC INTEREST WAS DETERMINED.

M-207
MERRIAM, L. C., JR., AND AMMONS, R. B.
 1967.
THE WILDERNESS USER IN THREE MONTANA AREAS.
 MINNEAPOLIS: UNIV. MINNESOTA, SCHOOL FORESTRY. 56 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK, BOB MARSHALL & MISSION MTN. WILDERNESS AREAS). FROM THE USERS' STANDPOINT THE STUDY DETERMINES THE CHARACTERISTICS OF THE WILDERNESS EXPERIENCE. AN INTERVIEW SCHEDULE OF OPEN-END QUESTIONS WAS UTILIZED TO OBTAIN THE USERS' BACKGROUND, WILDERNESS EXPERIENCE AND ATTITUDES. FINDINGS ARE RELATED TO FUTURE MANAGEMENT.

M-208
MERRIAM, L. C., JR., AND AMMONS, R. B.
 1968.
"WILDERNESS USERS AND MANAGEMENT IN THREE MONTANA AREAS."
J. FORESTRY 66(MAY 1968):390-395.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: BOB MARSHALL WILDERNESS AREA; GLACIER NATL. PARK; AND MISSION MOUNTAIN WILDERNESS (PRIMITIVE) AREA). THIS STUDY CONCERNING THE WILDERNESS VISITOR HAD THREE OBJECTIVES 1) TO INVESTIGATE AND COMPARE THE ATTRACTIONS, FEATURES, AND MANAGEMENT OF THE THREE AREAS 2) TO ANALYZE USERS' CONCEPTS OF WILDERNESS, WILDERNESS EXPERIENCE, AND MANAGEMENT AND 3) TO RELATE THESE FINDINGS TO FUTURE MANAGEMENT OF THE THREE AREAS AND THE FUTURE STUDY OF OTHER AREAS. STUDY METHODS INVOLVED A QUESTIONNAIRE AND INTERVIEWS. INFORMATION GATHERED INCLUDED: SOCIO-ECONOMIC CHARACTERISTICS OF THE USERS, DETAILS ON TRIPS AND ACTIVITIES, THE MEANING OF WILDERNESS, WILDERNESS CHARACTERISTICS AND LIMITS, AND MANAGEMENT CONSIDERATIONS. THE RESPONSES ARE DISCUSSED.

M-209
MERRIAM L. C., JR.; LUDING, K.; AND AMMONS, R. B.
 1965.
GLACIER PARK CHALET VISITS; AN INTRODUCTION TO WILDERNESS EXPERIENCE.
 MISSOULA, MT.: MONTANA STATE UNIV., MONTANA FOREST & CONSERVATION EXPR. STAT., SCHOOL FORESTRY. 3 PP.
 PRELIMINARY, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: GLACIER PARK CHALET). THE PURPOSE OF THIS STUDY WAS TO DETERMINE SOCIO-ECONOMIC CHARACTERISTICS OF WILDERNESS USERS AND TO EXPLORE THE COMPONENTS OF WILDERNESS EXPERIENCE AS A GUIDE TO STANDARDS FOR WILDERNESS MANAGEMENT. DATA WAS OBTAINED THROUGH GUEST INTERVIEWS-THE RESULTS ARE CONTAINED IN THE REPORT.

M-210
MERRILL, EVELYN.
1978.
FACTORS AFFECTING DEPREDACTIONS ON BACK COUNTRY CAMPGROUNDS BY BEARS IN GLACIER NATIONAL PARK.
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, OFFICE NATURAL SCIENCE STUDIES. 12+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS STUDY WAS UNDERTAKEN IN AN ATTEMPT TO UNDERSTAND WHAT PREDISPOSES CERTAIN CAMPGROUNDS TO BLACK AND GRIZZLY BEAR DEPREDACTION. A COMPARISON OF PHYSICAL CHARACTERISTICS RELATED TO HUMAN USE AND ECOLOGICAL CHARACTERISTICS OF CAMPGROUNDS COULD PROVIDE INSIGHT INTO BEAR-HUMAN RELATIONSHIPS WHICH WOULD IN TURN PROVIDE A BASIS FOR MORE EFFICIENT MANAGEMENT OF THE PROBLEM.

M-211
MERRILL, ROBERT D.
1983.
"GEOLOGY OF THE SOUTHERN TERMINUS OF THE SAWTOOTH RANGE, NORTHWESTERN MONTANA."
M.S. THESIS, UNIV. MASSACHUSETTS, AMHERST. 72 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SAWTOOTH RANGE). THE MAJOR OBJECTIVE OF THIS STUDY WAS AN INVESTIGATION OF WHAT HAPPENS TO THE STRUCTURE OF THE SAWTOOTH RANGE AT ITS SOUTHERN END. INCLUDED IN THIS WAS A STUDY OF THE THRUST FAULTS IN RELATION TO THEIR POSITION IN THE STRATIGRAPHIC COLUMN. ANOTHER IMPORTANT OBJECTIVE WAS TO ATTACH ROCK NAMES AND QUANTITATIVE DESCRIPTIONS TO THE ROCKS OF THE VARIOUS FORMATIONS.

M-212
MEWALDT, L. R.
1980.
"BIRD RECORDS FROM WESTERN MONTANA."
THE CONDOR 52(SEPTEMBER 1950):238-239.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD & LAKE COUNTIES). THIS NOTE REPORTS SIGHTINGS OF HERMIT THRUSH, PYGMY NUTHATCH, AND WILLIAMSON SAP-SUCKER WITHIN THE BASIN.

M-213
MEYER, HUBERT E.; KOHLER, S.; AND DEWEY, J. E.
1976.
STATUS OF THE WESTERN FALSE HEMLOCK LOOPER INFESTATION IN THE UPPER FLATHEAD VALLEY, MONTANA, 1974.
U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. STATE & PRIVATE FORESTRY REPT. NO. 75-8. 4 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(UPPER FLATHEAD VALLEY: KALISPELL). AREAS INFESTED BY NEPTIYA FREEMANI WERE MAPPED, EGG MASS SURVEY PLOTS WERE ESTABLISHED AND AT EACH PLOT SAMPLE BRANCHES WERE TAKEN AND EXAMINED FOR 1974 AND 1975 EGGS. THE RESULTS OF THIS SAMPLING ARE DISCUSSED

M-214
MEYER, R. P.; STEINHART, J. S.; AND BONINI, W. E.
1981.
"MONTANA, 1959." IN EXPLOSION STUDIES OF CONTINENTAL STRUCTURE. BY J. S. STEINHART AND R. P. MEYER.
WASHINGTON, D.C.: CARNEGIE INSTITUTION OF WASHINGTON. PUBL. 622.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN MONTANA). PRIOR TO 1959, VARIATION OF THE THICKNESS OF THE EARTH'S CRUST AS A FUNCTION OF ELEVATION HAD NOT BEEN DEMONSTRATED. AS A TEST OF VARIATION OF CRUSTAL THICKNESS WITH ELEVATION, THE MARGIN OF THE NORTHERN ROCKY MOUNTAINS WAS SELECTED FOR DETAILED STUDY. THE RESULTS IN THIS CHAPTER ARE THE FIRST PHASES OF THIS STUDY.

M-215
MEYERS, J. A.
1919.
"JACQUES RAPHAEL FINLAY."
WASHINGTON HISTORICAL QUARTERLY 10(JULY 1919):163-167.

THIS ARTICLE IS A BIOGRAPHICAL SKETCH OF FINLAY, WHO WAS AN EARLY TRADER IN THE FLATHEAD AREA. SKCC.

M-216
MEYERS, J. A.
1922.
"FINAN MCDONALD—EXPLORER, FUR TRADER, AND LEGISLATOR."
WASHINGTON HISTORICAL QUARTERLY 13(JULY 1922):196-208.

THIS IS A BIOGRAPHICAL SKETCH OF FINAN MCDONALD, WHO WORKED WITH DAVID THOMPSON DURING MUCH OF THOMPSON'S WORK AMONG THE FLATHEADS AND KOOTENAI BETWEEN 1807 AND 1816. SKCC.

M-217
MICHALSON, JOHN BARTON.
1954.
"PROFESSIONAL PROBLEMS OF ELEMENTARY AND SECONDARY TEACHERS IN SANDERS AND MINERAL COUNTIES."
M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 36 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SANDERS & MINERAL COUNTIES). THE PURPOSE OF THIS STUDY WAS TO DETERMINE WHAT PROBLEMS CONCERN TEACHERS, AND TO ANALYZE THE WAY IN WHICH THESE PROBLEMS WERE IDENTIFIED AND REPORTED ON A FREE RESPONSE AND A CHECKLIST TYPE OF QUESTIONNAIRE. ANOTHER PURPOSE WAS TO DETERMINE THE PRIORITY OF THESE PROBLEMS AS INDICATED BY THESE RESPONSES. COPIES OF THE QUESTIONNAIRE USED ARE INCLUDED.

M-218
MIHALIC, DAVID ANTHONY.
1974.
"VISITOR ATTITUDES TOWARD GRIZZLY BEARS IN GLACIER NATIONAL PARK, MONTANA."
M.S. THESIS, MICHIGAN STATE UNIV. 131 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS STUDY INVESTIGATES THE PROBLEM OF GRIZZLY BEAR HUMAN COEXISTENCE AND SUGGESTS THE ANSWER LIES IN THE STUDY OF HUMAN ATTITUDES. 150 VISITORS WERE INTERVIEWED TO DISCOVER THEIR ATTITUDES TOWARDS URSUS ARCTOS HORRIBILIS, HOW THEIR ATTITUDES ARE FORMED, AND WHAT EFFECT AT-

TITUDES HAVE ON VISITOR BEHAVIOR IN HYPOTHETICAL BEAR-ENCOUNTER SITUATIONS. STATISTICAL ANALYSIS (SEMANTIC DIFFERENTIAL, FACTOR ANALYSIS, CHI SQUARE AND SIGNIFICANCE) WAS UTILIZED TO TEST HYPOTHESES.

M-219
MILLER, BRUCE J.
1951.
LIFE HISTORY CHART OF THE IMPORTANT SPECIES OF WILDLIFE FOUND IN GLACIER NATIONAL PARK.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 6 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE CHART CONTAINS THE FOLLOWING INFORMATION FOR EACH ANIMAL AND BIRD LISTED: COMMON AND SCIENTIFIC NAME, MATING SEASON, GESTATION PERIOD, DATE OF BIRTH, LITTERS PER YEAR, YOUNG PER LITTER, AND LIFE SPAN. IT IS ALPHABETIZED BY COMMON NAME.

M-220
MILLER, DON C.
1977.
THE FEASIBILITY OF REINTRODUCING CARIBOU IN GLACIER NATIONAL PARK: A PRELIMINARY STUDY.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 20 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS STUDY WAS DESIGNED TO DETERMINE WHETHER THE PARK SYSTEM CONTAINED HABITAT SUITABLE TO SUSTAIN CARIBOU (RANGIFER TARANDUS CARIBOU). THE VEGETATIVE AND TOPOGRAPHIC FEATURES OF THE NORTHWEST PORTION OF THE PARK WERE EXAMINED FROM THE AIR, ON THE GROUND, AND ON AERIAL PHOTOGRAPHS. THESE FEATURES WERE THEN COMPARED WITH THOSE OF RANGES THAT CURRENTLY SUPPORT CARIBOU POPULATIONS. INFORMATION WAS COLLECTED ON THE COMPATIBILITY OF CARIBOU WITH RESIDENT UNGULATE SPECIES AND ON THE SUCCESS OF PREVIOUS CARIBOU INTRODUCTIONS IN NORTH AMERICA.

M-221
MILLER, DON C., AND COHEN, S. B.
1978.
MILITARY AND TRADING POSTS OF MONTANA.
MISSOULA, MT.: PICTORIAL HISTORIES PUBL. CO. 107 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FORT CONNAH & HOWSE'S HOUSE). THIS ALPHABETICAL LISTING OF TRADING POSTS AND MILITARY FORTS IN MONTANA INCLUDES PHOTOGRAPHS. FORT CONNAH AND HOWSE'S HOUSE, BOTH LOCATED WITHIN THE BASIN, ARE INCLUDED.

M-222
MILLER, HARRIET, AND HARRISON, ELIZABETH.
1974.
COYOTE TALES OF THE MONTANA SALISH. FROM TALES NARRATED BY PIERRE PICHETTE.
BROWNING, MT.: U.S. DEPT. INTERIOR, INDIAN ARTS & CRAFTS BOARD, MUSEUM OF THE PLAINS INDIAN & CRAFTS CENTER, RAPID CITY, S.D.: TIPI SHOP, INC.; AND BOZEMAN, MT.: ARTCRAFT PRINTERS, INC. 80 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE SALISHAN INDIANS). THE BOOK CONTAINS ILLUSTRATIONS THEMATICALLY BASED UPON A SERIES OF SALISH FOLKTALES NARRATED BY THE SALISH INDIAN PIERRE PICHETTE. THIRTEEN COYOTE TALES ARE INCLUDED.

M-223
MILLER, JEFFREY DEAN.
1975.

"**INTERSPECIFIC FOOD RELATIONSHIPS OF ANURANS IN NORTHWESTERN MONTANA AND FLUORIDE ACCUMULATION IN AMPHIBIANS AND REPTILES IN NORTHWESTERN MONTANA.**"
M.S. THESIS, UNIV. MONTANA, MISSOULA. 105 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(UPPER FLATHEAD VALLEY). THE PRIMARY PURPOSE OF THE INVESTIGATION WAS TO DETERMINE WHETHER AMPHIBIANS AND REPTILES ACCUMULATED AN ABNORMAL AMOUNT OF FLUORIDE IN THE VICINITY OF A SINGLE EMISSION SOURCE. SECONDARY AND TERTIARY PURPOSES INCLUDED THE INVESTIGATION OF INTERSPECIFIC FOOD RELATIONSHIPS BETWEEN THE RESIDENT ANURA AND FURTHER EVALUATION OF THE ACCUMULATION OF FLUORIDE SUCH AS BETWEEN DIFFERENT AGE GROUPS AND TROPHIC LEVELS.

M-224
MILLER, JOAQUIN.
1894.

AN ILLUSTRATED HISTORY OF THE STATE OF MONTANA.
CHICAGO: THE LEWIS PUBL. CO., INC. 822 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS HISTORY OF THE STATE FROM ITS DISCOVERY PERIOD TO THE CURRENT (1894) PERIOD DESCRIBED THE FOLLOWING MAJOR EVENTS: FRENCH AND BRITISH EXPLORATION IN THE NORTHWEST; THE LOUISIANA PURCHASE; LEWIS AND CLARK'S EXPEDITION; GOLD DISCOVERIES; INITIAL SETTLEMENTS; DEVELOPMENT OF LEGAL, ECONOMIC, AND POLITICAL INSTITUTIONS; INDIAN-WHITE RELATIONSHIPS AND CONFRONTATIONS; COMPLETION OF RAILROADS; AND AGRICULTURE AND MINING PRODUCTION.

M-225
MILLER, PRESTON.
1971.

FOUR WINDS: INDIANS BEADWORK AND OLD FLATHEAD PHOTOS.
ST. IGNATIUS, MT.: MISSION VALLEY NEWS.

THIS PUBLICATION DESCRIBES BEADING TECHNIQUES AND INCLUDES TEN OLD FLATHEAD PHOTOS WITH CAPTIONS GIVING INFORMATION ON THE PHOTOS. SKCC. DESC. 375,261.

M-226
MILLER, PRESTON.
1972.
"THE VANDERBURGS."
AMERICAN INDIAN CRAFTS AND CULTURE (JANUARY 1972):6.

THIS BIOGRAPHICAL SKETCH ACKNOWLEDGES THE HELP AND FRIENDSHIP OF AGNES AND JEROME VANDERBURG. SKCC.

M-227
MILLER, ROBERT W., AND SMITH, GEORGE E.
1972.

TECHNICAL DISCUSSION REGARDING COMPUTATION OF GROWTH, STOCKING AND ANNUAL ALLOWABLE CUT FOR 1972-1981 MANAGEMENT PLAN PERIOD.
RONAN, MT.: U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS, FLATHEAD INDIAN RESERVATION. 150 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE DISCUSSION IS PRIMARILY CONCERNED WITH DEVELOPMENT OF GROWTH AND STOCKING DATA PLUS ACREAGE INFORMATION NECESSARY TO COMPUTE A REVISED

ANNUAL ALLOWABLE CUT FOR THE 1972-1981 MANAGEMENT PLAN PERIOD. FIGURES FOR ANNUAL ALLOWABLE CUT ARE PROVIDED FOR COMMERCIAL ACREAGE-UNEVENAGE VIRGIN, UNEVENAGE CUTOVER, EVENAGE; AND INACCESSIBLE ACREAGE-UNEVENAGE AND EVENAGE. THE BULK OF THE REPORT IS PRESENTED IN APPENDICES. APPENDIX A IS A COMPUTATION OF GROWTH FOR UNEVENAGE VIRGIN STANDS AND THE AUSTRIAN FORMULAE; APPENDICES B THROUGH R ARE STATISTICAL TABLES; AND APPENDIX S PRESENTS FORMULAS USED IN THE STATISTICAL ANALYSIS.

M-228
MINISTER, DAVE.
1971.

WHALE CREEK HYDROLOGIC ANALYSIS.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST-GLACIER VIEW RANGER DISTRICT). THIS REPORT NOTES THE CURRENT CONDITION OF THE WHALE CREEK DRAINAGE AND MAKES MANAGEMENT RECOMMENDATIONS IN REGARD TO PROPOSED TIMBER SALES. THE RESULTS OF A HYDROLOGIC ANALYSIS ARE LISTED: MEAN ANNUAL INCREASE, PEAK FLOW INCREASE AND MAXIMUM CHANNEL IMPACT PERIOD INCREASE, AND TURBIDITY LEVELS ARE CHARTED.

M-229
MINNESOTA HISTORICAL SOCIETY.
1978.

GREAT NORTHERN RAILWAY COLLECTION.
MINNEAPOLIS: MINNESOTA HISTORICAL SOCIETY.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A CATALOGUE OF ORIGINAL DOCUMENTS FROM THE GREAT NORTHERN RAILWAY FILES. INCLUDED ARE SECTIONS ON: ESTABLISHMENT OF GLACIER NATIONAL PARK AND ITS EARLY ADMINISTRATION; ESTABLISHMENT OF TENT CAMPS; BELTON CHALET; GRANITE PARK CHALET; MANY GLACIER HOTEL; LAKE McDONALD LODGE, SPERRY CHALET, TWO MEDICINE CHALET, MAINTENANCE OF HOTELS AND CHALET, TRANSPORTATION, GREAT NORTHERN PUBLICATIONS AND PHOTOGRAPHS. BUILDING PROGRAMS ARE DETAILED, MATERIALS AND SUPPLIES FOR HOTELS AND CHALET LISTED.

M-230
MISSION VALLEY NEWS.
1972.

TREATIES, ACTS, AND IMPORTANT DOCUMENTS OF THE FLATHEAD INDIAN RESERVATION.
ST. IGNATIUS, MT.: MISSION VALLEY NEWS. 208 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS BOOK IS A COMPILATION CONTAINING NO ANNOTATIONS OR INTERPRETATIONS. IT CONTAINS PHOTOCOPIES OF DOCUMENTS FROM 1865 TO 1972.

M-231
MISSOULA CITY-COUNTY PLANNING BOARD.
1980.
MONTANA LOCAL PLANNING LEGISLATION.
MISSOULA, MT.: MONTANA CITY-COUNTY PLANNING BOARD. 80 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). THIS REPORT CONTAINS COPIES OF STATE LEGISLATION CONCERNED WITH CITY-COUNTY PLANNING BOARDS, ZONING DISTRICTS, COUNTY PLANNING AND ZONING DISTRICTS, AND SUBDIVISION CONTROL.

M-232
MISSOULA PUBLISHING COMPANY.
1890.

FLATHEAD FACTS.
MISSOULA, MT.: MISSOULA PUBL. CO. 28 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MISSOULA COUNTY). THIS DESCRIPTIVE ACCOUNT OF THE AREA'S RESOURCES IS AN ATTEMPT TO PUBLICIZE THE OPPORTUNITIES AND ADVANTAGES OF SETTLEMENT. GEOGRAPHICAL AND HISTORICAL INFORMATION IS PRESENTED ALONG WITH A DISCUSSION OF THE DEVELOPMENT OF DEMERSVILLE AND ITS EARLY CITIZENS. THE FLATHEAD INDIAN RESERVATION AND JESUIT MISSIONARY WORK IS BRIEFLY SUMMARIZED.

M-233
MITCHELL, GUY E.
1910.

"A NEW NATIONAL PARK."
NATIONAL GEOGRAPHIC MAGAZINE, MARCH 1910, PP. 215-223.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE ADVOCATES THE ESTABLISHMENT OF A NEW GLACIER NATIONAL PARK. THE ATTRACTIONS OF THE PARK ARE DESCRIBED: SCENERY, WILDLIFE, GLACIERS, MOUNTAINS, CANYONS, LAKES AND STREAMS. THE NEED FOR ROADWAYS IS EXAMINED.

M-234
MITCHELL, LAWRENCE G.
1970.

"STUDIES OF THE MYXOSPORIDIA (PROTOZOA: AMOEBOGENA) OF FISHES OF WESTERN MONTANA."
PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 212 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: COLUMBIA RIVER BASIN). THE MYXOSPORIDIA INFECTING FISHES OF WESTERN MONTANA WERE IDENTIFIED. EXPERIMENTAL INFECTIONS AND SEROLOGICAL ANALYSES OF THREE SPECIES OF MYXOBOLUS WERE ATTEMPTED TO DETERMINE SPECIES RELATIONSHIPS IN THIS GROUP. THE GENERA HENNEGUYA AND UNICANDA ARE UNITED UNDER THE GENUS MYXOBOLUS. MYXOBOLUS PFEIFFERI AND M. MUSCULI ARE UNITED UNDER MYXOBOLUS MUELLERI. THE OCCURRENCE OF M. MUELLERI IN FISHES OF THE FAMILIES CYPRINIDAE AND CATOSTOMIDAE AND IN THE SUBCUTIS OF THE NORTHERN SQUAWFISH (PTYCHOCHILUS OREGONENSIS) IS DISCUSSED, ALONG WITH THE OCCURRENCE OF MYXOBOLUS DUJARDINI IN THE GILLS OF CYPRINIDAE MEMBERS AND IN JUVENILE SQUAWFISH. MYXOBOLUS ZSCHOKKEI OCCURS IN THE INTERMUSCULAR CONNECTIVE TISSUE OF THE PYGMY WHITEFISH (PROBOPHILUS COULTERI) AND THE GALL BLADDER OF THE PUMPKIN SEED (LEPOMIS GIBBOSUS); C. TRUTTAE IN THE GALL BLADDER OF FOUR SPECIES OF SALMONIDAE; AND MYXIDIUM MACROCHEILI IN THE GALL BLADDER OF THE LARGESCALE SUCKER (CATOSTOMUS MACROCHEILUS). VARIABILITY IN THE TROPHOZOITE AND SPORE STAGES, SPORE DIMENSIONS, AND THICKENINGS OF THE VALVES OF SPORES ARE CONSIDERED FOR THE THREE MYXOBOLUS SPECIES.

M-235
MITCHELL, NORA J.
1977.

"GENETIC VARIATION IN POPULATIONS OF PERMOYSCUS MANICULATUS IN NORTHWESTERN MONTANA."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 80 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK; LAKE MACDONALD & ST. MARY'S LAKE). GENETIC BIOCHEMICAL VARIATION IN POPULATIONS OF TWO SUBSPECIES OF THE DEER MOUSE, *PEROMYSCUS MANICULATUS*, WAS INVESTIGATED USING ELECTROPHORESIS. THE OBJECTIVES WERE THREEFOLD: 1) TO DESCRIBE THE PATTERN OF GENETIC VARIATION WITHIN AND AMONG POPULATIONS OF THESE MICE, AND COMPARE THE LEVELS OF GENETIC SIMILARITY AND VARIABILITY TO THOSE OBSERVED IN THE SPECIES AS A WHOLE; 2) TO REASSESS A PREVIOUSLY DEFINED TAXONOMIC SITUATION USING ADDITIONAL CRITERIA; AND 3) TO EXPLORE THE POSSIBLE EVOLUTIONARY PROCESSES INVOLVED IN THE REPRODUCTION OF ANY DIFFERENTIATION OBSERVED. EIGHTEEN BIOCHEMICAL LOCI IN 300 MICE WERE EXAMINED. INCLUDED IN THE DISCUSSION ARE LEVELS OF PROTEIN VARIABILITY, GENETIC SIMILARITY VALUES CALCULATED IN PAIR-WISE, COMPARISONS, ROGERS' GENETIC SIMILARITY VALUES, MICROGEOGRAPHIC VARIATION CONCERNING DIFFERENCES BETWEEN POPULATIONS AT NINE DIFFERENT LOCI, PATTERN OF GENETIC VARIATION REVEALING POPULATION DIFFERENTIATION WITHIN A SUBSPECIES, GLACIAL ISOLATION AS THE ORIGIN OF DIFFERENTIATION, AND CURRENT PATTERNS OF GENE FLOW.

M-238
MITTELSTADT, RICHARD L., AND BRUTON, ORVAL W.
1974.
THE POTENTIAL FOR PUMPED-STORAGE IN THE COLUMBIA RIVER HYDRO-SYSTEM.
PORTLAND, ORE.: U.S. DEPT. DEFENSE, NORTH PACIFIC DIV. 17 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: ALTHOUGH THE FLATHEAD BASIN IS NOT SPECIFICALLY MENTIONED, THE PAPER CONSIDERS A FORM OF HYDRO-GENERATION THAT COULD BE A FUTURE POSSIBILITY FOR THE AREA.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE PAPER CONSIDERS THE PROPER ROLE FOR PUMPED STORAGE IN THE AREA'S POWER SYSTEM. DESCRIBES THE AREA'S POWER SYSTEM RESOURCES, LOADS, COORDINATION, HYDROTHERMAL PROGRAM. THE PROBLEMS OF PUMPED STORAGE (ENERGY SOURCE, RESERVOIR STORAGE), ITS USES (RELIEVING SYSTEM OPERATING CONSTRAINTS, ENHANCING NON-POWER RIVER USES, AND IMPROVING UTILIZATION OF HYDRO RESERVES), AND AVAILABLE SITES ARE DISCUSSED.

M-237
MOGHADAM, FATEMEH.
1969.
"AN ECOLOGICAL AND SYSTEMATIC STUDY OF THE PLANKTONIC DIATOM COMMUNITIES IN FLATHEAD LAKE, MONTANA."
PROC. ACADEMY NATURAL SCIENCES 121(1969):75-150.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: THIS PAPER SUMMARIZES A PH.D. DISSERTATION CONDUCTED AT THE UNIVERSITY OF UTAH.

(FLATHEAD LAKE). THIS REPORT COMPARES DIATOM FLORAS IN VARIOUS PARTS OF THE LAKE DURING DIFFERENT SEASONS AND AT VARIOUS DEPTHS DURING THE SAME SEASON, IN AN ATTEMPT TO RELATE CHANGES IN THE FLORA TO CHANGES IN ECOLOGICAL CONDITIONS.

M-236
MOMENT, GARDINER B.
1968.
"BEARS: THE NEED FOR NEW SANITY IN WILDLIFE CONSERVATION."
BIOSCIENCE, DECEMBER 1968, PP. 1106-1108.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(GLACIER & YELLOWSTONE NATL. PARKS). THIS ARTICLE CALLS FOR A RE-EXAMINATION OF WILDLIFE CONSERVATION PHILOSOPHIES ABOUT GRIZZLY BEARS, *URSUS ARCTOS*. MYTHS AND FACTS SURROUNDING THE ANIMALS ARE EXAMINED. THE PARK SERVICE'S SOLUTIONS TO GRIZZLY BEAR PROBLEMS AND ITS DILEMMA OF ATTEMPTING TO MAINTAIN BEAR POPULATIONS WHILE PROVIDING FOR HUMAN SAFETY ARE DISCUSSED.

M-239
MOMENT, GARDINER B.
1969.
"BEARS AND CONSERVATION: REALITIES AND RECOMMENDATIONS."
BIOSCIENCE, NOVEMBER 1969, PP. 1019-1020.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(GLACIER & YELLOWSTONE NATL. PARKS). THE RESPONSE OF THE PUBLIC AND SCIENTISTS TO AN EARLIER ARTICLE BY THE AUTHOR THAT CALLED FOR A RE-EXAMINATION OF BEAR CONSERVATION IS REPORTED AND ANSWERED IN THIS BRIEF ARTICLE. ISSUES SUCH AS THE PRESERVATION OF THE GRIZZLY BEAR, THE DANGER THEY POSE TO HUMANS, THEIR FEEDING HABITS, AND THE MAINTENANCE OF GRIZZLY POPULATIONS FOR RESEARCH PURPOSES ARE ADDRESSED.

M-240
MOMENT, GARDINER B.
1970.
"MAN-GRIZZLY PROBLEMS: PAST AND PRESENT IMPLICATIONS FOR ENDANGERED SPECIES."
BIOSCIENCE 20(NOVEMBER 1970):1142-1144.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(GLACIER & YELLOWSTONE NATL. PARKS). PAST AND PRESENT BEAR-MAN PROBLEMS ARE DISCUSSED. BEAR ATTACKS ARE ENUMERATED, AND STUDIES NOTING THE GRIZZLY AS A DANGEROUS ANIMAL AND THE ANIMALS' DIET ARE BRIEFLY REVIEWED. AVAILABLE OPTIONS, FROM DOING NOTHING, TO ELIMINATING THE GRIZZLY FROM THE PARKS, ARE PRESENTED. THE LATTER OPTION IS ARGUED AS A MEANS TO ESTABLISH SATISFACTORY MAN-GRIZZLY RELATIONS. CRITICISMS THAT SUCH ELIMINATION IS "RECKLESS ECOLOGICAL IRRESPONSIBILITY" AND THAT THE GRIZZLY IS A VALUABLE RESEARCH ANIMAL ARE ADDRESSED.

M-241
MONSON, O. W., AND CODD, A. R.
1961.
SNOW SURVEYS AND WATER SUPPLY FORECASTING.
BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE. BULL. 562. 35 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS REPORT IS A GENERAL SUMMARY OF SNOW SURVEY OPERATIONS AND TECHNIQUES USED IN MONTANA. IT EMPHASIZES THE CHARACTERISTICS OF SURFACE WATER SUPPLY IN THE STATE, EQUIPMENT AND TECHNIQUES USED IN GATHERING AND REPORTING SNOW DATA, AND WATER SUPPLY FORECASTING PROCEDURES.

M-242
MONSON, O. W.; CIRDDLE, W. C.; AND DAVIS, S.
1963.
ESTIMATED WATER REQUIREMENTS OF CROPS IN IRRIGATED AREAS OF MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRICULTURAL EXPER. STAT. BULL. 484. 23 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: DATA PRIMARILY STATEWIDE-SOME SPECIFIC MENTION OF FLATHEAD VALLEY.

(MONTANA: FLATHEAD VALLEY). BASED ON AVAILABLE METEOROLOGICAL DATA, THIS REPORT GIVES ESTIMATES OF WATER REQUIREMENTS UNDER NORMAL CONDITIONS FOUND IN THE IRRIGATED AREAS OF THE STATE.

M-243
MONTAGNE, JOHN, AND MCMANNIS, W.
1962.
GEOLOGICAL RESUME OF THE BOB MARSHALL WILDERNESS AREA WITH SPECIAL EMPHASIS ON THE ROUTE OF THE 1859-60-61 MONTANA CONSERVATION COUNCIL WILDERNESS RIDES.
MONTANA CONSERVATION COUNCIL, HELENA, MT. (TYPEWRITTEN). 8 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THIS RESUME IS INTENDED TO SUPPLEMENT THE GENERALIZED GEOLOGICAL ACCOUNT BY CHARLES DEISS IN THE U.S. FOREST SERVICE GUIDE TO THE BOB MARSHALL WILDERNESS AREA. THE REPORT EXAMINES THE ROCK SEQUENCE, THE GENERAL DISTRIBUTION OF ROCK UNITS, AND PERTINENT GEOLOGICAL NOTES.

M-244
MONTANA ADVISORY COMMITTEE TO THE U.S. COMMISSION ON CIVIL RIGHTS.
1974.
EMPLOYMENT PRACTICES IN MONTANA: THE EFFECTS ON AMERICAN INDIANS AND WOMEN.
62 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). EMPLOYMENT PRACTICES ARE EXAMINED TO DETERMINE THE EXTENT AND EFFECT OF DISCRIMINATION AGAINST WOMEN AND AMERICAN INDIANS. THE AFFIRMATIVE ACTION PROGRAMS OF EMPLOYERS WERE ANALYZED TO FIND OUT HOW EFFECTIVE THEY ARE IN OVERCOMING EMPLOYMENT DISCRIMINATION. FOUR SETS OF RECOMMENDATIONS CONCLUDE THE REPORT.

M-245
MONTANA AGING SERVICE BUREAU.
1978.
PROGRAM BOOK. 5TH EDITION.
HELENA, MT. 123 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE PUBLICATION IS A DIRECTORY OF AGENCIES AND SERVICES AVAILABLE TO SENIOR CITIZENS. TITLE VII NUTRITION PROJECTS AND AGENCIES ON AGING FOR SEVEN STATE AREAS, SOCIAL SECURITY OFFICES, LEGAL SERVICES ASSOCIATION, ACTION PROGRAMS, AND VISUAL SERVICES ARE LISTED. PLACES, ADDRESSES, OFFICERS, AVAILABLE SERVICES AND TELEPHONE NUMBERS ARE INCLUDED.

M-246
MONTANA AGRICULTURAL EXPERIMENT STATION.
1941.
WATER RESOURCES OF MONTANA AND THEIR USE. PART 2: WATER SUPPLY.
MONTANA AGRIC. EXPER. STAT. SPEC. REPT. NO. 13. 161 PP.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(UPPER COLUMBIA RIVER BASIN: FLATHEAD RIVER BASIN). THE PURPOSE OF THIS REPORT WAS TO PRESENT A SUMMARY OF THE HYDROMETRIC DATA - PRIMARILY MONTHLY RUNOFF IN ACRE FEET - OBTAINED IN THE STATE. THE REPORT INCLUDES A BRIEF INTRODUCTION COVERING AN EXPLANATION OF THE DATA, LIMITATIONS OF THE SURVEY, STATION LOCATIONS AND HISTORIES, AND EXPLANATION OF SUMMARY TERMS.

M-247
MONTANA AGRICULTURAL EXPERIMENT STATION.
 1973.
VEGETATIVE RANGELAND TYPES IN MONTANA.
 BOZEMAN, MT.: MONTANA STATE UNIV. BULL. 671. 15 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). VEGETATIVE TYPES ARE GROUPED ACCORDING TO: TOPOGRAPHY, SOILS, SUBTYPE SPECIES, OTHER COMMON SPECIES, OVERGRAZING INDICATORS, AND CARRYING CAPACITY. A MAP OF THE TYPES IS INCLUDED.

M-248
MONTANA AGRICULTURAL EXPERIMENT STATION.
 1976.
AN HISTORICAL SKETCH OF POMOLOGY IN MONTANA.
 BOZEMAN, MT.: MONTANA AGRIC. EXPR. STAT., MONTANA STATE UNIV. BULL. 690. 30 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: LAKE COUNTY). THIS PUBLICATION HAS BEEN PREPARED IN FOUR SECTIONS: 1) HISTORY OF HORTICULTURAL ASPECTS OF POMOLOGY IN MONTANA, BY H.N. METCALF; 2) HISTORY OF THE OCCURRENCE OF AND CONTROL MEASURES FOR IMPORTANT FRUIT DISEASES IN MONTANA, BY M. M. AFANASIEV; 3) AN HISTORICAL SKETCH OF INSECT PESTS OF FRUIT TREES IN MONTANA, BY D.R. MERKLEY; AND 4) A PARTIAL BIBLIOGRAPHY OF MONTANA POMOLOGICAL LITERATURE, COMPILED BY H. N. METCALF.

M-249
MONTANA AGRICULTURAL EXPERIMENT STATION.
CROP VARIETIES FOR WESTERN MONTANA. CAPSULE INFORMATION SERIES.
 KALISPELL, MT.: MONTANA AGRIC. EXPR. STAT., NORTHWESTERN AGRIC. RESEARCH CENTER.
 PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). CROP VARIETIES LISTED IN THIS PUBLICATION WERE EVALUATED BY THE STAFF OF THE EXPERIMENT STATION. FORAGE CROP VARIETIES WERE EVALUATED FOR YIELD AS HAY CROPS AND FOR PRODUCTIVITY IN PASTURES. SOME QUALITY EVALUATIONS HAVE BEEN MADE ON THESE VARIETIES THROUGH CHEMICAL ANALYSIS AND THROUGH THE USE OF ANIMALS.

M-250
MONTANA ASSOCIATION OF CONSERVATION DISTRICTS.
 1978.
AN AGRICULTURAL NON POINT SOURCE POLLUTION MANAGEMENT PLAN.
 HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE MONTANA ASSOCIATION OF CONSERVATION DISTRICTS CONTRACTED TO CONDUCT AN AGRICULTURAL NON POINT SOURCE ASSESSMENT FOR THE PURPOSE OF 1) ASCERTAINING WITHIN THE STUDY AREA THE TYPE AND EXTENT OF WATER QUALITY PROBLEMS RESULTING FROM AGRICULTURAL PRACTICES, AND 2) FORMULATING AN ACCEPTABLE, COST EFFECTIVE MANAGEMENT PROGRAM TO DEAL WITH THE GENERAL TYPES OF PROBLEMS IDENTIFIED. THE ASSESSMENT OF PROBLEMS WAS MADE BY COMPLETION OF A QUESTIONNAIRE. IMPLEMENTATION OPTIONS ARE DISCUSSED AND AN OVERVIEW OF THE SEQUENCE OF EVENTS FOR SECTION 208 AGRICULTURAL NON POINT SOURCES IS INCLUDED. THE PLANNING PROCESS IS OUTLINED, IMPLEMENTATION DISCUSSED, PROGRAM EVALUATION DETAILED AND THE NON-COMPLIANCE/COMPLAINT PROCEDURE DESCRIBED.

M-251
MONTANA ASSOCIATION OF COUNTIES.
 1974.
MONTANA COUNTIES ON THE MOVE.
 HELENA, MT. 61 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA COUNTIES). THE PUBLICATION CONSIDERS THE HISTORY OF COUNTIES: THEIR ORGANIZATION AND COMPARISONS OF PAST/PRESENT POPULATIONS. DATA ON POPULATION DENSITY, EMPLOYMENT, REVENUE-SHARING FUNDS, PROPERTY TAXES LEVIED, MILL LEVIES, INDEBTEDNESS AND ROADS IS PRESENTED. FOCUS IS UPON GOVERNMENT: THE OPTIONAL FORMS, VOTER REVIEW, OFFICES, SERVICES, AND FINANCES.

M-252
"MONTANA BEAUTIFUL AND THRIFTY: KALISPELL, WHITEFISH AND COLUMBIA FALLS."
 WILHELM'S MAGAZINE THE COAST, FEBRUARY 1907, PP. 63-71.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY: KALISPELL, WHITEFISH, AND COLUMBIA FALLS). THE ARTICLE DESCRIBES THE SCENERY OF THE AREA AND THE HISTORY OF INDIAN HABITATION. IT PRESENTS STATISTICS FOR THE COUNTY AND THE FLATHEAD INDIAN RESERVATION ON CULTIVATED AREAS. THE RESERVATION AREAS BEING OPENED FOR SETTLEMENT; THE TOWNS OF KALISPELL, WHITEFISH AND COLUMBIA FALLS; AND LOGGING AND OTHER INDUSTRIES. COAL DEPOSITS IN THE NORTH FORK AND SOUTH FORK VALLEYS ARE MENTIONED.

M-253
MONTANA BOARD OF CRIME CONTROL.
 1971-PRESENT.
MONTANA ARRESTS, OFFENSES.
 HELENA, MT. PP VARIABLE.
 PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: OTHER TITLES: CRIMINAL STATISTICS-MONTANA AND MONTANA ARREST STATISTICS.

(MONTANA). THIS JOURNAL CONSISTS OF REPORTS OF ARRESTS AND OFFENSES, PUBLISHED AS PRELIMINARY RELEASES QUARTERLY, AS WELL AS ANNUALLY AND SEMI-ANNUALLY. STATISTICS TABULATED INCLUDE: STATEWIDE ADULT AND JUVENILE FELONY AND MISDEMEANOR ARRESTS BY OFFENSE, AGE, RACE, SEX, MONTH, DAY, TIME, STATUS AND DISPOSITION; SUMMARIES OF OFFENSES REPORTED, UNFOUNDED, ACTUAL, AND CLEARED BY ARREST; AND CRIME INCIDENCE COMPARISONS FROM YEAR TO YEAR. THE REPORTS ALSO CONTAIN CHARTS DEPICTING ARREST COMPARISONS, ARREST TRENDS, ARREST PROFILES, DRUG ARRESTS, AND PERCENTAGES OF TOTAL ARRESTS FOR THE YEAR.

M-254
MONTANA BOARD OF CRIME CONTROL.
 ANNUAL.
COMPREHENSIVE PLAN FOR CRIMINAL JUSTICE IMPROVEMENT.
 HELENA, MT.: MONTANA BOARD OF CRIME CONTROL, PLANNING BUREAU.
 PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). THESE PLANS ARE SUBDIVIDED INTO MULTI-YEAR PLANS, ANNUAL ACTION PROGRAMS, SPECIAL REQUIREMENTS, AND PLAN ADMINISTRATION AND IMPLEMENTATION.

M-255
MONTANA BOARD OF CRIME CONTROL.
COUNTY INVENTORIES.
 HELENA, MT.: MONTANA BOARD OF CRIME CONTROL.
 PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE COUNTY INVENTORIES COVER CRIME STATISTICS, DEMOGRAPHIC DATA, COUNTY LAW ENFORCEMENT MANPOWER AND EQUIPMENT, COUNTY LAW ENFORCEMENT EDUCATION PROFILE, COUNTY JAIL SURVEY, COUNTY SUBGRANTS, AND CITY SUBGRANTS.

M-256
MONTANA BUREAU OF MINES AND GEOLOGY.
 1963.
STRATIGRAPHIC CORRELATIONS FOR MONTANA AND ADJACENT AREAS.
 BUTTE, MT. SPEC. PUBL. 31. 1 P.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN, WEST GLACIER, & WHITEFISH RANGE). THIS CORRELATION CHART HAS BEEN COMPILED TO MEET THE NEED FOR SHOWING ALL MONTANA FORMATIONS IN A COLUMNAR ARRANGEMENT ON A SCALE ADEQUATE FOR CLASSROOM AND OFFICE USE. THE WEST GLACIER-WHITEFISH RANGE IS INCLUDED.

M-257
MONTANA BUREAU OF MINES AND GEOLOGY.
 1980.
PUBLICATIONS AVAILABLE FROM MONTANA BUREAU OF MINES AND GEOLOGY AND MAPS OF MONTANA FROM U.S. GEOLOGICAL SURVEY.
 BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY, MONTANA COLL. MINERAL SCIENCE & TECH. 29 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS PUBLICATION LISTS ALL MEMOIRS, BULLETINS, INFORMATIONAL CIRCULARS, REPRINTS, MISCELLANEOUS CONTRIBUTIONS, SPECIAL PUBLICATIONS, GEOLOGIC MAP SERIES, HYDROLOGIC MAP SERIES, OPEN FILE REPORTS OF THE MONTANA BUREAU OF MINES AND GEOLOGY AND MAPS OF THE U.S. GEOLOGICAL SURVEY.

M-258
MONTANA BUREAU OF MINES AND GEOLOGY.
 ANNUAL.
DIRECTORY OF MINING ENTERPRISES.
 BUTTE, MT.: BULL. MONTANA BUREAU MINES & GEOLOGY.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE DIRECTORY LISTS MINING INFORMATION: LOCATION AND TYPES OF MINES, THEIR STATUS, PRODUCTION, THE OPERATOR, AND EMPLOYEES. MINES IN FLATHEAD COUNTY INCLUDE THE OLE MINE AND WEST FLATHEAD MINES (HOG HEAVEN DISTRICT), SANKO CREEK MINE (STAR MEADOWS), AND FLATHEAD SUNSET QUARRY.

M-259
MONTANA CIVIL DEFENSE AGENCY.
 1966.
MONTANA CIVIL DEFENSE OPERATIONAL SURVIVAL PLAN.
 WASHINGTON, D.C.: FEDERAL CIVIL DEFENSE ADMINISTRATION.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: COLUMBIA FALLS, KALISPELL, & WHITEFISH). THE MONTANA OPERATIONAL SURVIVAL PLAN WAS DEVELOPED TO PRODUCE AN OPERATIONAL CAPABILITY WITHIN THE STATE TO SAVE THE MAXIMUM NUMBER OF LIVES SHOULD A DISASTER OF ANY TYPE OCCUR. THIS PLAN DELINEATES THE RESPONSIBILITY AND AUTHORITY OF ALL PERSONS INVOLVED AND DESCRIBES WHO DOES WHAT, WHERE, WHEN, AND HOW, TO MAKE THE PLAN INSTANTANEOUSLY OPERATIONAL UPON THE DECLARATION OF EXISTENCE OF AN EMERGENCY. INCLUDED IN THIS SERIES IS THE STATE PLAN, A CITY OR COUNTY PROTOTYPE, AND THE COLUMBIA FALLS TARGET AREA PLAN, WHICH COVERS KALISPELL, WHITEFISH, COLUMBIA FALLS, BIGFORK, SOMERS, AND GRESTON.

M-260
MONTANA COMMITTEE FOR RURAL DEVELOPMENT.
ANNUAL.
MONTANA SITUATION STATEMENT.
HELENA, MT.: U.S. DEPT. AGRICULTURE.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL
DATA, STATEWIDE.

(MONTANA). THESE REPORTS WERE PREPARED TO PROVIDE THE USDA COMMITTEE FOR RURAL DEVELOPMENT WITH A CURRENT OVERVIEW OF THE SOCIAL AND ECONOMIC PROBLEMS FACING MONTANA AND TO PROVIDE THE COMMITTEE WITH A BASIS FOR DEVELOPING A PLAN OF WORK. THE REPORTS ADDRESS CHIEFLY AGRICULTURAL PROBLEMS.

M-261
MONTANA CONSERVATION COUNCIL.
1964.
NATURAL RESOURCES: A TOUR IN WESTERN MONTANA.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST
SERVICE, REGION ONE. 78 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
STATEWIDE.

(WESTERN MONTANA: FLATHEAD BASIN). THE PURPOSE OF THIS BOOKLET IS TO SUMMARIZE THE CURRENT NATURAL RESOURCE SITUATION IN MONTANA. AGRICULTURE, LOGGING, MINING, RANCHING, RECREATION AND WILDLIFE MANAGEMENT ARE EXAMINED.

M-262
MONTANA CONSERVATION NEEDS COMMITTEE.
1970.
MONTANA SOIL AND WATER CONSERVATION NEEDS
INVENTORY.
BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CON-
SERVATION SERVICE.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, STATEWIDE.

(MONTANA: ALL COUNTIES WITHIN THE BASIN). THIS REPORT PROVIDES A BASIC INVENTORY OF THE SOIL AND WATER RESOURCES AND RELATED LAND USE FOR THE PRIVATE AND STATE OWNED LANDS IN MONTANA. TREATMENT NEEDS IN TERMS OF LAND USE WERE DETERMINED BY COUNTY CONSERVATION NEEDS COMMITTEES. INFORMATION IS PRIMARILY IN TABLES, LISTED BY COUNTIES.

M-263
MONTANA COOPERATIVE EXTENSION SERVICE.
1976.
CHRISTMAS TREE MANAGEMENT.
BOZEMAN, MT.: MONTANA COOP. EXTEN. SERVICE,
MONTANA STATE UNIV. BULL. NO 316. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA). THIS REPORT DESCRIBES THE FOLLOWING ASPECTS OF CHRISTMAS TREE GROWING: SPECIES TO USE, PLANTING, SOIL PREPARATION, FERTILIZATION, WEED CONTROL, THINNING AND CLEANING, SHEARING, PRUNING, STUMP CULTURE, PLANTATION COSTS, PROTECTION, INSECTS AND MITES, DISEASES, HARVESTING, CUTTING THE TREES, MARKETING, SELLING, CHRISTMAS TREE GRADES, AND THE DISTRIBUTION SYSTEM.

M-264
MONTANA DEPARTMENT OF AGRICULTURE.
1976.
MONTANA DIRECTORY OF GRAIN MERCHANTISERS
AND AGRICULTURE SEED PROCESSORS, SEED
DEALERS, MUSTARD SEED CONTRACTORS. 1977-1978.
HELENA, MT. 32 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA). BUSINESS FUNCTIONS OF THE LICENSED FIRMS ARE PROVIDED AND GRAIN MERCHANTISER REGULATIONS ARE OUTLINED IN THIS PAMPHLET. THE DIRECTORY IS ALPHABETIZED; INCLUDES ADDRESSES AND TELEPHONE NUMBERS.

M-265
MONTANA DEPARTMENT OF COMMUNITY AFFAIRS.
1976.
MAIN STREET, MONTANA: BEAUTIFICATION ON A
BUDGET.
HELENA, MT.: MONTANA DEPT. COMMUNITY AF-
FAIRS, DIV. PLANNING. PLANNING INFO. PAPER. 37
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA). THIS BOOKLET DEALS WITH A LIMITED BUT IMPORTANT PART OF COMMUNITY DEVELOPMENT: THE CHARACTER OF THE COMMUNITY WHICH IS REFLECTED BY ITS MAIN STREET. IT IS DESIGNED FOR THE SMALL TOWN WITH LIMITED RESOURCES. NO PARK DEPARTMENT, NO FEDERALLY FUNDED URBAN RENEWAL PROGRAM, NO PLANNERS. IT DESCRIBES VARIOUS PROJECTS AND GIVES CONSTRUCTION DETAILS. AN APPENDIX LISTS NATIVE PLANT MATERIALS WHICH MAY BE COLLECTED AND EVENTUALLY REPLANTED IN CONNECTION WITH A PARK OR GENERAL LANDSCAPE IMPROVEMENT PROJECT.

M-266
MONTANA DEPARTMENT OF COMMUNITY AFFAIRS.
1977.
DIRECTORY OF MONTANA MANUFACTURERS,
1976-1977.
HELENA, MT.: MONTANA DEPT. COMMUNITY AF-
FAIRS, DIV. RESEARCH & INFORMATION SYSTEMS. 67
PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA). THIS PUBLICATION LISTS ALPHABETICALLY THE NAMES OF THE MANUFACTURING FIRMS IN MONTANA, THEIR ADDRESS, PHONE, CHIEF EXECUTIVE, SIZE OF THE FIRM, AND THE PRODUCTS THE FIRM MANUFACTURES. IT ALSO LISTS THE DATA GEOGRAPHICALLY, AND BY PRODUCT.

M-267
MONTANA DEPARTMENT OF AGRICULTURE, AND U.S.
DEPARTMENT OF AGRICULTURE.
1967-1977.
MONTANA AGRICULTURAL STATISTICS-COUNTY
STATISTICS FROM 1967-1977. VOL. 11-17.
HELENA, MT.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
STATEWIDE.

NOTE: 1978 COMPILED BY MDA, USDA AND MONTANA CROP AND LIVESTOCK REPORTING SERVICE. EXTENSIVE TABLES- INFORMATION BY COUNTY AND STATE.

(MONTANA: FLATHEAD RIVER BASIN). THE STATISTICS IN THESE BULLETINS PROVIDE A MEASURE OF THE SIZE AND HEALTH OF MONTANA'S AGRICULTURE. TABLES INCLUDE GRAIN CROPS, HAY CROPS, FRUITS, OTHER CROPS, LIVESTOCK, LIVESTOCK PRODUCTS, POULTRY, AND CATTLE MOVEMENT.

M-268
MONTANA DEPARTMENT OF COMMUNITY AFFAIRS.
1977.
LOCAL GOVERNMENT FINANCE FILE.
HELENA, MT.: MONTANA DEPT. COMMUNITY AF-
FAIRS, DIV. RESEARCH & INFORMATION SYSTEMS.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA. COUNTY, CITY, & TOWN GOVERNMENTS). THIS AUTOMATED DATA BASE COMPILED FOR ALL COUNTY, CITY, AND TOWN GOVERNMENTS

THROUGHOUT MONTANA INCLUDES DIFFERENT LEVELS OF REVENUE AND EXPENDITURE AGGREGATION FOR THE YEARS 1973 THROUGH 1978. ANNUAL FINANCIAL REPORTS SUBMITTED BY LOCAL GOVERNMENTS TO THE LOCAL GOVERNMENT SERVICES DIVISION PROVIDED THE SOURCE OF THE DATA. TAXABLE VALUATION AND POPULATION WERE ALSO INCLUDED IN THE DATA BASE. DETAIL FOR CITIES, TOWNS, AND COUNTIES AND SUMMARIES FOR CITIES AND TOWNS ARE AVAILABLE.

M-269
MONTANA DEPARTMENT OF COMMUNITY AFFAIRS.
1978.
COUNTY PROFILES. 3RD ED.
HELENA, MT.: MONTANA DEPT. COMMUNITY AF-
FAIRS, DIV. RESEARCH & INFORMATION SYSTEMS. 40
PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD, LAKE, SANDERS, MISSOULA, & LINCOLN COUNTIES). THESE PROFILES OF INDIVIDUAL COUNTIES CONSIST OF COLLECTIONS OF DATA, PRESENTED IN 66 COMPUTER-GENERATED TABLES. STATISTICAL FACTS, SELECTED FROM GOVERNMENTAL PUBLICATIONS AND COMPUTERTAPES, ARE PRESENTED IN TABULAR FORM TO SERVE AS A CONVENIENT REFERENCE ON SOCIAL AND ECONOMIC FACTS ABOUT EACH COUNTY.

M-270
MONTANA DEPARTMENT OF COMMUNITY AFFAIRS.
1978.
ECONOMIC CONDITIONS IN MONTANA.
HELENA, MT.: MONTANA DEPT. COMMUNITY AF-
FAIRS, RESEARCH & INFORMATION SYSTEMS DIV. 32.
PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
EXISTING DATA, STATEWIDE.

(MONTANA): THIS REPORT PROVIDES INFORMATION ON THE PAST, PRESENT, AND FUTURE STATE OF MONTANA'S ECONOMY. IT DOES NOT ATTEMPT TO FORMULATE ECONOMIC POLICY FOR MONTANA STATE GOVERNMENT. THE REPORT CONTAINS SECTIONS ON FACTORS RELATING TO MONTANA'S ECONOMIC GROWTH, STATISTICAL INDICATORS OF THE GROWTH, PERFORMANCE OF THE MONTANA ECONOMY, AND AN ANALYSIS OF SOME OF MONTANA'S MOST IMPORTANT INDUSTRIES.

M-271
MONTANA DEPARTMENT OF COMMUNITY AFFAIRS.
1978.
MONTANA GRAPHIC PROFILES, RANKING COUNTIES.
SUPPLEMENT TO MONTANA COUNTY PROFILES.
HELENA, MT.: MONTANA DEPT. COMMUNITY AF-
FAIRS, DIV. RESEARCH & INFORMATION SYSTEMS. 41
PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA: FLATHEAD, LAKE, SANDERS, MISSOULA, & LINCOLN COUNTIES). THE COMPUTER-GENERATED MAPS THAT MAKE UP THIS PUBLICATION REPRESENT ONE WAY OF PRESENTING COMPARISON DATA ON THIRTY OR MORE KINDS OF INFORMATION ABOUT THE 56 COUNTIES OF MONTANA. THE STATISTICAL DATA THAT WENT INTO THE PRODUCTION OF THESE AND OTHER MAPS ARE A PART OF THE "MONTANA COUNTY PROFILES" ALSO MAINTAINED BY THE DEPT. OF COMMUNITY AFFAIRS.

M-272
MONTANA DEPARTMENT OF COMMUNITY AFFAIRS.
1978.
MONTANA MANUAL OF STATE AND LOCAL GOVERN-
MENT. 1978.
HELENA, MT.: MONTANA DEPT. COMMUNITY AF-
FAIRS. 63 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA). THIS MANUAL IS A SINGLE SOURCE OF INFORMATION ON THE FUNCTION, OPERATION, AND MEMBERS OF STATE, LOCAL, TRIBAL, AND FEDERAL GOVERNMENT OFFICES IN MONTANA.

M-273
MONTANA DEPARTMENT OF COMMUNITY AFFAIRS.
1980.
POVERTY IN MONTANA: A STATISTICAL ANALYSIS.
HELENA, MT.: MONTANA DEPT. COMMUNITY AFFAIRS, COMMUNITY SERVICES DIV. 220 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE MAJOR OBJECTIVES OF THIS PUBLICATION WERE 1) TO INFORM THE GOVERNOR'S OFFICE AND THE REGIONAL OFFICE OF COMMUNITY SERVICES ADMINISTRATION, ON AN ANNUAL BASIS, OF THE CHARACTERISTIC TRENDS OF THE POVERTY POPULATION IN THIS STATE; 2) TO FORMULATE AN ANALYSIS OF POVERTY IN THE STATE AND TO MAKE RECOMMENDATIONS AND SUGGEST PRIORITIES FOR PROGRAMS THAT ARE DESIGNED TO COMBAT THE PROBLEMS OF POVERTY AT A LOCAL LEVEL; 3) TO SERVE AS A GUIDE AND REFERENCE SOURCE FOR DECISION-MAKERS AND PLANNERS, 4) TO SUMMARIZE PERTINENT DATA AND TO PRESENT THAT DATA IN THE MOST UNDERSTANDABLE AND COMPREHENSIVE FORM; AND 5) TO PROVIDE A FIRST STEP TOWARD THE IMPLEMENTATION OF A STANDARDIZED INFORMATION BASE.

M-274
MONTANA DEPARTMENT OF COMMUNITY AFFAIRS.
MONTANA POPULATION PROJECTIONS 1980-2000, FOR COUNTIES AND INCORPORATED CITIES AND TOWNS.
HELENA, MT.: MONTANA DEPT. COMMUNITY AFFAIRS, DIV. RESEARCH & INFORMATION SYSTEMS. 58 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN: COLUMBIA FALLS, KALISPELL, & WHITEFISH). THIS REPORT PRESENTS AN ECONOMIC-DEMOGRAPHIC PROJECTION MODEL BASED ON THE PRINCIPLE THAT EMPLOYMENT IS THE BASIS OF POPULATION MIGRATION, WHICH IS THE LARGEST COMPONENT OF POPULATION CHANGE IN MONTANA.

M-275
MONTANA DEPARTMENT OF FISH AND GAME.
1946-1968.
FISH PLANTING RECORDS, POLSON HATCHERY DISTRICTS.
HELENA, MT. 5 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ASHLEY CREEK AND LAKE, BOULDER CREEK, & BLUE BAY OF FLATHEAD LAKE). THE OUTLINE RECORDS FISH PLANTINGS, NOTING YEAR, KIND OF FISH (RAINBOW, NATIVE, EASTERN BROOK, SOCKEYE SALMON AND GRAYLING), FISH TOTAL, NAME OF LAKE OR STREAM, FISH SIZE, HATCHERY AND GOVERNMENT AGENCY INVOLVED.

M-276
MONTANA DEPARTMENT OF FISH AND GAME.
1964.
NORTH FORK OF THE FLATHEAD RIVER: CREEL CENSUS.
HELENA, MT.: MONTANA DEPT. FISH & GAME. 9 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATL. PARK HISTORICAL FILES.

(GLACIER NATL. PARK). THE PURPOSE OF THIS STUDY WAS TO DETERMINE THE RELATIONSHIP OF THE ANGLER'S SUCCESS BY FISHING WITH THE AID

OF A BOAT AGAINST THAT OF THE ANGLER THAT DID NOT USE A BOAT. TABLES DETAIL THE NUMBER OF ANGLERS USING CARS, THE NUMBER USING BOATS, AND THE AVERAGE CATCH PER HOUR.

M-277
MONTANA DEPARTMENT OF FISH AND GAME.
1962.
MONTANA TROUT STREAMS.
HELENA, MT. 12 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: ASHLEY CREEK). THIS PAMPHLET LISTS: STREAM CHANNEL ALTERATIONS BY TYPES; LENGTH OF ALTERATIONS; REASONS FOR ALTERATIONS; AND THE NUMBER OF FISH, THE NUMBER OF FISH SIX INCHES OR LARGER, AND THE WEIGHT OF FISH CENSUSED IN ALTERED AND NATURAL STREAM CHANNELS FOR 13 TROUT STREAMS, INCLUDING ASHLEY CREEK.

M-278
MONTANA DEPARTMENT OF FISH AND GAME.
1965.
STATE OF MONTANA. STATEWIDE OUTDOOR RECREATION PLAN.
HELENA, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS PLAN WAS DEVELOPED WITH THE BROAD OBJECTIVE OF PROVIDING GUIDANCE IN THE DEVELOPMENT AND IMPLEMENTATION OF MONTANA'S PRESENT AND FUTURE OUTDOOR RECREATION PROGRAM. THE PLAN CONSIDERS THE RECREATIONAL RESPONSIBILITIES OF THE VARIOUS PUBLIC AGENCIES ON THE FEDERAL, STATE, COUNTY, AND COMMUNITY LEVELS AS WELL AS THOSE OF PRIVATE ENTERPRISE. PORTIONS OF THE PLAN INCLUDE: PARTICIPATION IN THE PLANNING PROCESS, DELINEATION OF RECREATION POSSIBILITIES, RECREATION RESOURCES, PROGRAMS, AND FACILITIES, AS WELL AS INDIVIDUAL SECTIONS ON EACH REGION.

M-279
MONTANA DEPARTMENT OF FISH AND GAME.
1969.
STATE OF MONTANA. STATEWIDE OUTDOOR RECREATION PLAN.
HELENA, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA.) THIS THREE-VOLUME PLAN CONSISTS OF THE PLAN ITSELF, AN ACTION PROGRAM, AND AN APPENDIX WHICH COVERS ESTIMATED DEMAND FOR OUTDOOR RECREATION, LOCAL INVENTORY OF OUTDOOR RECREATION LAND AND FACILITIES, STATE PARKS AND RECREATION AREAS SURVEY, DEMAND/SUPPLY AND NEEDS FOR OUTDOOR RECREATION, HISTORIC SITES INVENTORY, AND A LIST OF STATE PARKS.

M-280
MONTANA DEPARTMENT OF FISH AND GAME.
1973.
STATE OF MONTANA. STATEWIDE OUTDOOR RECREATION PLAN.
HELENA, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA.) THIS THREE-VOLUME RECREATION PLAN CONSISTS OF A SUMMARY, WHICH PROVIDES BRIEF TOPICAL TREATMENTS OF THE MAJOR COMPONENTS OF THE RECREATION PLANNING PROGRAM. VOLUME II IS CALLED THE INFORMATION BASE, WHICH PRESENTS DETAILED INVENTORY INFORMATION AND THE RESULTS OF TWO MAJOR SURVEYS. IT IS AVAILABLE ON LOAN FROM THE DEPARTMENT. VOLUME III IS THE APPENDIX AND

CONTAINS BACKGROUND GEOGRAPHIC, PHYSICAL, AND HISTORICAL INFORMATION FOR USE BY THE FEDERAL GOVERNMENT IN THE REVIEW PROCESS. IT IS NOT INTENDED FOR PUBLIC DISTRIBUTION.

M-281
MONTANA DEPARTMENT OF FISH AND GAME.
1974.
1973 STATEWIDE SURVEY OF URBAN RECREATION FACILITIES AND PROGRAMS.
HELENA, MT. 123 PP.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: KALISPELL, WHITEFISH, COLUMBIA FALLS, & POLSON). THE OBJECTIVE OF THIS STUDY WAS TO PROVIDE A BASIC INVENTORY OF FACILITIES FOR OUTDOOR RECREATION IN ALL MUNICIPALITIES IN THE STATE WITH A POPULATION OF OVER 1,000, PLUS A REPRESENTATIVE SAMPLING OF THOSE OF LESS POPULATION. THE REPORT INCLUDES A COPY OF THE QUESTIONNAIRE, A SUMMARY OF PRELIMINARY STANDARDS FOR URBAN RECREATION FACILITIES, COPIES OF EACH TOWN'S INVENTORY, AND A MAP INDICATING WHERE THE RECREATION FACILITIES ARE LOCATED AND A SUMMARY EVALUATION OF PROGRAM AND FACILITY NEEDS.

M-281
MONTANA DEPARTMENT OF FISH AND GAME.
1974.
1973 STATEWIDE SURVEY OF URBAN RECREATION FACILITIES AND PROGRAMS.
HELENA, MT. 123 PP.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: KALISPELL, WHITEFISH, COLUMBIA FALLS, & POLSON). THE OBJECTIVE OF THIS STUDY WAS TO PROVIDE A BASIC INVENTORY OF FACILITIES FOR OUTDOOR RECREATION IN ALL MUNICIPALITIES IN THE STATE WITH A POPULATION OF OVER 1,000, PLUS A REPRESENTATIVE SAMPLING OF THOSE OF LESS POPULATION. THE REPORT INCLUDES A COPY OF THE QUESTIONNAIRE, A SUMMARY OF PRELIMINARY STANDARDS FOR URBAN RECREATION FACILITIES, COPIES OF EACH TOWN'S INVENTORY, AND A MAP INDICATING WHERE THE RESEARCH FACILITIES ARE LOCATED AND A SUMMARY EVALUATION OF PROGRAM AND FACILITY NEEDS.

M-282
MONTANA DEPARTMENT OF FISH AND GAME.
1974-1979.
ANNUAL REPORT ON OUTDOOR RECREATION IN MONTANA. A SUMMARY OF ACQUISITION DEVELOPMENT, AND PLANNING.
HELENA, MT.
PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, LINCOLN, SANDERS, LEWIS & CLARK, & POWELL COUNTIES). THIS REPORT WAS DESIGNED TO KEEP CITIZENS INFORMED ON PROGRESS IN THE PROVISION OF OUTDOOR RECREATION OPPORTUNITIES. THE FIRST ANNUAL REPORT (1974) INCLUDES A SUMMARY OF RECREATIONAL DEVELOPMENT BY STATE AND FEDERAL AGENCIES, GAME MANAGEMENT, FISHING ACCESS, HISTORIC SITE LAND ACQUISITION, SNOWMOBILE PROGRAM, THE PLANNING PROGRAM, AND BUREAU OF OUTDOOR RECREATION GRANTS IN AID PROGRAM.

M-283
MONTANA DEPARTMENT OF FISH AND GAME.
1975.
MONTANA HISTORIC PRESERVATION PLAN WITH HISTORIC SITES COMPENDIUM. 2ND ED. VOL. 1-3.
HELENA, MT.: MONTANA DEPT. FISH & GAME, RECREATION & PARKS DIV. 319 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, SANDERS, MISSOULA, LINCOLN, POWELL, & LEWIS & CLARK COUNTIES). VOL 1: HISTORICAL BACKGROUND. SECTIONS INCLUDE PRESERVATION PLANNING'S RELATIONSHIP TO OTHER STATE PLANNING, MAJOR PRESERVATION PROBLEMS, PRIVATE AND PUBLIC EFFORTS WHICH HAVE CONTRIBUTED TO HISTORIC PRESERVATION IN THE STATE AND A BRIEF BIBLIOGRAPHY OF MONTANA'S HISTORY. VOL II: HISTORIC SITES COMPENDIUM. AN INVENTORY OF THE STATES CULTURAL RESOURCES, BY COUNTIES AND BY THEMES. VOL III: THE ANNUAL PRESERVATION PROGRAM. A SYNOPSIS OF LONG RANGE PRESERVATION PLANS, AS WELL AS THE ANNUAL PROGRAM FOR 75-76.

M-284
MONTANA DEPARTMENT OF FISH AND GAME.
1977 & 1979.
MONTANA NON-GAME SPECIES OF SPECIAL INTEREST OR CONCERN. MAMMALS, BIRDS, REPTILES, AMPHIBIANS, AND FISHES.
HELENA, MT.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THESE PUBLICATIONS LIST DESIGNATED WILD GAME WILDLIFE SPECIES OF "SPECIAL INTEREST AND CONCERN" AND RECORD, BY COUNTY, THE KNOWN, SUSPECTED, OR POTENTIAL OCCURRENCE OF THESE SPECIES.

M-285
MONTANA DEPARTMENT OF FISH AND GAME.
1978.
DESIGN FOR TOMORROW, 1977-1980.
HELENA, MT. 48 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: SOME REGIONAL DATA, WHICH INCLUDE THE FLATHEAD.

(MONTANA). THE PUBLICATION PRESENTS AN ABREVIATED VERSION OF THE 1978 MONTANA STATEWIDE COMPREHENSIVE OUTDOOR RECREATION PLAN. PLANS FOR THE PROTECTION, PERPETUATION, AND USE OF WILDLIFE, FISH AND RECREATIONAL RESOURCES ARE ADVANCED. DEER, ELK, SHEEP, BEAR, GROUSE, NONGAME SPECIES, TROUT, KOKANE SALMON, WHITEFISH AND THE PARKS PROGRAM REPRESENT THE SUBJECTS CONSIDERED.

M-286
MONTANA DEPARTMENT OF FISH AND GAME.
1978.
STATE OF MONTANA. STATEWIDE OUTDOOR RECREATION PLAN.
HELENA, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). VOLUME I, THE STRATEGIC PLAN, DESCRIBES PROJECTED WILDLIFE, FISH, AND RECREATIONAL RESOURCE STATUS THROUGH 1990. GOALS FOR EACH PROGRAM ARE OUTLINED. SIX-YEAR OBJECTIVES ARE STATED FOR MAJOR ELEMENTS OF THE WILDLIFE AND FISH PROGRAMS WHILE FIVE-YEAR OBJECTIVES ARE STATED FOR MAJOR TASKS TO BE ADDRESSED IN THE PARKS PROGRAM. VOLUME II, THE OUTDOOR RECREATION INVENTORY, DESCRIBES THE CHARACTERISTICS OF RECREATION RESOURCES IN MONTANA, STATEWIDE NON-URBAN DEVELOPED RECREATION SITE INVENTORY, HISTORIC AND NATURAL AREAS, RECREATION ROADS, TRAILS, AND WATERWAYS, INVENTORY OF RECREATIONAL POTENTIAL ON STATE TRUST LANDS, AND POTENTIAL RECREATION LANDS.

M-287
MONTANA DEPARTMENT OF FISH AND GAME.
1979.
NORTH FORK OF THE FLATHEAD RIVER: FISHERIES INVESTIGATIONS.
KALISPELL, MT. REGION ONE. 73 PP.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THE REPORT CONTAINS DATA COLLECTED ON THE FISHERY RESOURCE AND AQUATIC HABITAT FROM 1976 THROUGH 1978. THE DATA REPRESENTS INITIAL EFFORTS TO COLLECT INFORMATION TO PREDICT, MONITOR, AND MITIGATE CHANGES THAT ARE EXPECTED WITH FUTURE DEVELOPMENT. FISH SPECIES ARE LISTED; THEIR ABUNDANCE, SPAWNING MIGRATIONS, AND OTHER MOVEMENTS, ETC. DESCRIBED. A HABITAT INVENTORY IS DISCUSSED, NOTING POOL MEASURE AND STRUCTURE, STREAM BOTTOM, BANK ENVIRONMENT, STREAM VELOCITIES AND FLOW.

M-288
MONTANA DEPARTMENT OF FISH AND GAME.
ANNUAL.
MONTANA LICENSED OUTFITTERS.
HELENA, MT.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS PUBLICATION LISTS ALPHABETICALLY, BY OWNER, THE LICENSED OUTFITTERS WITHIN THE STATE. SPECIES HUNTED AND ACCOMMODATIONS, FACILITIES, AND SERVICES ARE NOTED.

M-289
MONTANA DEPARTMENT OF FISH AND GAME.
PRELIMINARY ENVIRONMENTAL REVIEW (DRAFT) FOR THE ACQUISITION OF WILDHORSE ISLAND, FLATHEAD LAKE, LAKE COUNTY, MONTANA.
HELENA, MT. FG-N-82. 22 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: WILDHORSE ISLAND). THE REPORT COVERS THE ACQUISITION OF ABOUT 2,113 ACRES TO BE RETAINED IN THEIR NATURAL STATE AND MANAGED AS A STATE PARK. THE NEGATIVE IMPACT ON THE LOSS OF REAL ESTATE TAXES TO THE COUNTY IS DISCUSSED. THE SIGNIFICANCE OF THE ISLAND IN ITS NATURAL STATE IS EXAMINED. ALTERNATIVES TO THE PROPOSED ACTION ARE CONSIDERED.

M-290
MONTANA DEPARTMENT OF FISH, WILDLIFE, AND PARKS.
1980.
FLATHEAD RIVER BASIN FISHERY STUDY - 1980.
KALISPELL, MT. 150 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(UPPER FLATHEAD RIVER BASIN). THIS FISHERY STUDY IS PART OF A BASELINE ENVIRONMENTAL ASSESSMENT FUNDED BY THE EPA UNDER THE DIRECTION OF THE FLATHEAD RIVER BASIN ENVIRONMENTAL IMPACT STUDY STEERING COMMITTEE. THIS IS THE SECOND ANNUAL PROGRESS REPORT; THE REPORT PRESENTS DATA COLLECTED DURING THE PREVIOUS YEAR WITH MINIMAL DISCUSSION. DATA INCLUDES: A DESCRIPTION OF THE STUDY AREA (NORTH AND MIDDLE FORKS OF THE FLATHEAD RIVER); METHODS (ELECTROFISHING, UNDERWATER FISH CENSUS, STREAM TRAPPING, REDD MEASUREMENTS); RESULTS; FISH TAG RETURNS; ABUNDANCE AND DISTRIBUTION; HABITAT EVALUATION; AGE AND GROWTH; FOOD HABITS; AND UPPER MIDDLE FORK CREEL CARD SURVEY. A DESCRIPTION OF DEVELOPMENTAL PROBLEMS FACING THE BASIN, THE OBJECTIVE OF

DEPARTMENT STUDIES IN THE BASIN, CONCEPTUAL ASSESSMENT OF THE OBJECTIVES AND DATA ANALYSES ARE CONTAINED IN A REPORT BY PATRICK GRAHAM IN THE APPENDIX.

M-291
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1971.
IMPLEMENTATION PLAN FOR CONTROL OF AIR POLLUTION IN MONTANA.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, AIR QUALITY BUREAU. 150 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS IMPLEMENTATION PLAN IS THE OFFICIAL SUBMITTAL OF THE AIR POLLUTION CONTROL PLAN FOR THE STATE AND IS CONCERNED WITH SIX POLLUTANTS FOR WHICH THERE HAVE BEEN NATIONAL AMBIENT AIR QUALITY STANDARDS PROMULGATED: SUSPENDED PARTICULATES, SULFUR OXIDES, CARBON MONOXIDE, NITROGEN OXIDES, HYDROCARBONS, AND PHOTOCHEMICAL OXIDANTS. THE PLAN DEFINES ITS LEGAL AUTHORITY AND INVOLVES: CONTROL STRATEGY, COMPLIANCE SCHEDULE, EMERGENCY EPISODE PLAN, AIR QUALITY SURVEILLANCE, REVIEW OF NEW SOURCES AND MODIFICATIONS, AND SOURCE SURVEILLANCE. AGENCY RESOURCES TO DEAL WITH PLAN IMPLEMENTATION AND INTERGOVERNMENTAL COOPERATION ARE DISCUSSED.

M-292
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1971.
INTERIM PROJECT PLAN FOR THE CITY OF KALISPELL, MONTANA-WATER QUALITY.
HELENA, MT.: 20+ PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL). THE OBJECTIVES OF THIS WATER QUALITY MANAGEMENT PLAN ARE: 1) TO ASSURE THAT WATER QUALITY STANDARDS AND IMPLEMENTATION PLANS WILL BE ACHIEVED AND 2) MAXIMIZE THE COST EFFECTIVENESS OF INVESTMENTS IN POLLUTION ABATEMENT EQUIPMENT. THIS PLAN FOCUSES ON INFORMATION, DATA, AND EVALUATION REQUIRED FOR RATIONAL DECISION MAKING FOR TREATMENT PLANT DESIGN AND LOCATION, MODIFICATION OF EXISTING SEWERAGE, AND WATER QUALITY EVALUATION FOR THE IMMEDIATE CONSTRUCTION GRANT PROGRAM.

M-293
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1971.
"LAKE MARY RONAN - FIELD INVESTIGATION."
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES. (TYPEWRITTEN).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE MARY RONAN). THIS REPORT DESCRIBES THE IMPACT ON THE LAKE'S WATER QUALITY FROM THE FOLLOWING SOURCES: ENVIRONMENTAL SANITATION, CAMPGROUNDS, SUBDIVISION, U.S. FOREST SERVICE, BURLINGTON NORTHERN, LOGGING AND LEASING, AND THE GUINN RANCH.

M-294
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1971.
PESTICIDES DEMONSTRATION STUDY.
HELENA, MT.: DIV. ENVIRONMENTAL STUDIES. 288 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN: FLATHEAD LAKE). THE BASIC OBJECTIVE OF THIS STUDY WAS TO INVESTIGATE AND OBTAIN INFORMATION ON ALL ASPECTS OF PESTICIDES USED WITHIN THE STATE. THE MAJOR TOPICS OF CONCERN INCLUDED: PESTICIDE USE DETERMINATION, MORBIDITY AND MORTALITY REPORTING, LEGISLATION, DISPOSAL, ENVIRONMENTAL CONTAMINATION, STORAGE AND TRANSPORTATION, AND TRAINING. A SECTION ON USE OF PESTICIDES IN THE FLATHEAD LAKE AREA IS INCLUDED.

M-295
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1974.
ENVIRONMENTAL IMPACT STATEMENT FOR THE AIR POLLUTION VARIANCE REQUESTED BY ANACONDA ALUMINUM COMPANY, COLUMBIA FALLS.
HELENA, MT.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THE ANACONDA ALUMINUM COMPANY HAS PETITIONED FOR VARIANCE FROM COMPLIANCE WITH CERTAIN AIR POLLUTION CONTROL REQUIREMENTS PERTAINING TO FLUORIDE EMISSIONS, PARTICULATE EMISSIONS AND VISIBLE EMISSIONS. THE COMPANY HAS PROPOSED CERTAIN ACTIONS IN LIEU OF COMPLIANCE. THIS STATEMENT CONTAINS DESCRIPTIONS OF: THE PLANT AND PROCESS, CONTROL METHODS AND COMPLIANCE, EXISTING ENVIRONMENT AND POLLUTANT EFFECTS, POSSIBLE ACTION BY THE DEPARTMENT, IMPACTS OF POSSIBLE ACTION AND AN ANALYSIS OF THE DEPARTMENTS PROPOSED ACTION. DATA FROM FLUORIDE ACCUMULATION STUDIES IS INCLUDED.

M-296
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1974.
MONTANA WATER QUALITY BIBLIOGRAPHY.
HELENA, MT. 68 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). TO BE INCLUDED IN THIS BIBLIOGRAPHY AN ITEM MUST ADDRESS ONE OF THREE MAJOR PARAMETERS—CHEMICAL, PHYSICAL, OR BIOLOGICAL—OF WATER QUALITY. ADMINISTRATIVE STUDIES AND PLANS, REGULATIONS AND LAWS WHICH SEEK TO AMEND OR MAINTAIN THE QUALITY OF MONTANA'S WATERS ARE INCLUDED. THE BIBLIOGRAPHY CONTAINS CITATIONS TO ACADEMICALLY PRODUCED STUDIES, JOURNAL ARTICLES, BOOKS AND BOOK SECTIONS, AND GOVERNMENT PUBLICATIONS. INDEXES LIST THE STUDIES BY THE STANDARD RIVER BASIN NUMBER IN WHICH THEY WERE CONDUCTED, BY PROPER GEOGRAPHIC NAMES, AND BY TOPIC AND SUBJECT.

M-297
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1974.
OIL AND HAZARDOUS MATERIALS POLLUTION CONTROL CONTINGENCY PLAN.
HELENA, MT. 148 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THE FEDERAL OIL AND HAZARDOUS MATERIALS POLLUTION CONTINGENCY PLAN WAS PROMULGATED UNDER PROVISIONS OF THE WATER QUALITY IMPROVEMENT ACT OF 1970. THIS STATE PLAN SUPPLEMENTS THE FEDERAL LEGAL OBLIGATIONS AND INCLUDES STATE RESPONSIBILITY, REPORTING PROCEDURE, SPILL REPORT FORM, AND A DIRECTORY OF INVOLVED AGENCIES. ALSO DISCUSSED ARE TRANSPORTATION, CONTAMINMENT, CLEAN UP, REMOVAL, MAINTENANCE AND EQUIPMENT RESOURCES. SOME TREATMENT METHODS AND MATERIALS FOR OIL SPILLS, POSSIBLE COUNTERMEASURES FOR SOLUBLE COMPOUNDS, ENVIRONMENTAL FACTORS AND A SYSTEM OF NUMBERING LOCATIONS ARE GIVEN.

M-298
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1978.
SUMMARY OF EXISTING WATER QUALITY DATA—NORTH FORK FLATHEAD RIVER AND MAINSTEM FLATHEAD RIVER ABOVE FLATHEAD LAKE.
KALISPELL, MT.: KALISPELL REGIONAL OFFICE. 12 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MAINSTEM & NORTH FORK OF THE FLATHEAD RIVER). THE FOLLOWING DATA IS SUMMARIZED FOR THE NORTH FORK OF THE FLATHEAD RIVER, THE FLATHEAD RIVER AT COLUMBIA FALLS AND THE SWAN RIVER NEAR BIGFORK: PHYSICAL PARAMETERS, COMMON CONSTITUENTS, BIO-ORGANIC PARAMETERS, NUTRIENTS, METALS AND PESTICIDES.

M-299
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1978.
MONTANA AIR POLLUTION STUDY, 1977-1978: APPROACH AND METHODOLOGY.
HELENA, MT.: ENVIRONMENTAL SCIENCES DIV., AIR QUALITY BUREAU. 80 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE REPORT DISCUSSES THE BACKGROUND, THE PLANNING AND DEVELOPMENT, AND THE IMPLEMENTATION OF THE MONTANA AIR POLLUTION STUDY (MAPS). THE STUDY'S EFFORT TO CORRELATE AIR POLLUTION AND HUMAN HEALTH EFFECTS UTILIZES METHODS OF PREVIOUS STUDIES AS WELL AS AN APPROACH TAILORED TO THE ACTUAL POLLUTION SITUATION. AMBIENT AIR MONITORING, METEOROLOGICAL MONITORING AND MODELING, AND EMISSION INVENTORY ARE ALL CONSIDERED.

M-300
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1979.
BIOLOGICAL WATER QUALITY MONITORING. NORTHWEST MONTANA, 1978-1979.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV., WATER QUALITY BUREAU. 58 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWEST MONTANA: FLATHEAD RIVER BASIN: MAINSTEM, NORTH, & MIDDLE FORKS OF THE FLATHEAD RIVER; & WHITEFISH, STILLWATER, & SWAN RIVERS). VALUES FOR 30 BIOLOGICALLY-RELATED WATER QUALITY PARAMETERS WERE MEASURED SEASONALLY AT 16 STATIONS ON 14 MAJOR STREAMS. MEAN VALUES FOR 18 KEY INDICATORS WERE USED TO RANK STATIONS ON THE BASIS OF BIOLOGICAL CONDITIONS. A COMPOSITE BIOLOGICAL INDEX, CALCULATED BY TAKING THE AVERAGE OF SEASONAL DIATOM AND MACRO-INVERTEBRATE DIVERSITY VALUES, WAS USED TO EVALUATE WATER QUALITY.

M-301
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
1979.
DRAFT ENVIRONMENTAL IMPACT STATEMENT. MONTANA AMBIENT AIR QUALITY STANDARDS STUDY.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, AIR QUALITY BUREAU. 276+ PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(MONTANA: COLUMBIA FALLS). FOLLOWING A REVIEW OF LITERATURE PERTINENT TO AIR POLLUTION IN THE STATE, IT WAS CONCLUDED THAT AM-

BIENT STANDARDS WERE FEASIBLE FOR TEN POLLUTANTS, AMONG THEM FLUORIDE AND SO₂. THIS DRAFT E.I.S. REVIEWS THE AIR POLLUTION SITUATION IN MONTANA, THE IMPACTS OF AIR POLLUTION, ALTERNATIVES AVAILABLE TO THE DEPARTMENT, AND RECOMMENDS STANDARDS. THE PROPOSED STANDARDS ARE INCLUDED IN AN APPENDIX.

M-302
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
ANNUAL, 1975-PRESENT.
ANNUAL AIR QUALITY DATA SUMMARY FOR MONTANA.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV., AIR QUALITY BUREAU.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN: KALISPELL & COLUMBIA FALLS). THESE REPORTS ARE INITIALLY DIVIDED BY AREA, THEN SUBDIVIDED INTO AN AIR QUALITY SECTION AND A METEOROLOGICAL SECTION. MAPS AND GENERAL INFORMATION ARE INCLUDED TO DESCRIBE WHAT PARAMETERS WERE MEASURED AND THEIR APPROXIMATE LOCATION. ALL MAJOR AIR POLLUTANTS AND METEOROLOGICAL PARAMETERS ARE SUMMARIZED IN EACH OF THESE SECTIONS. FIGURES AND TABLES ARE SUPPLIED WHEN APPROPRIATE. APPENDICES LIST MONTANA AMBIENT AIR QUALITY STANDARDS, FEDERAL AMBIENT AIR QUALITY STANDARDS, FEDERAL PREVENTION OF SIGNIFICANT DETERIORATION, AND ALLOWABLE INCREMENTS.

M-303
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
ANNUAL.
MONTANA COUNTY PROFILES.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, DIV., COMPREHENSIVE HEALTH PLANNING.
PART OF A SERIES, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THESE COUNTY PROFILES WERE PUBLISHED AS AN AID TO THE PLANNING ENDEAVORS OF THE MONTANA ADVISORY COUNCIL FOR COMPREHENSIVE HEALTH PLANNING. SEPARATE VOLUMES PRESENT INFORMATION ON DEMOGRAPHIC CHARACTERISTICS, COUNTY HEALTH RESOURCES, VITAL STATISTICS, AND NATURAL RESOURCES. ALL DATA IS PRESENTED IN TABULAR FORM, BY COUNT.

M-304
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
ANNUAL.
MONTANA VITAL STATISTICS.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES.
PART OF A SERIES, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THESE REPORTS (FORMERLY CALLED ANNUAL STATISTICAL SUPPLEMENTS), ARE DESIGNED TO PROVIDE A READY REFERENCE TO SOME OF THE MORE FREQUENTLY USED VITAL STATISTICS FOR MONTANA. TOPICS INCLUDE BIRTHS, DEATHS, ABORTIONS, MARRIAGE AND DIVORCE, COUNTY SUMMARIES, AND MORBIDITY.

M-305
MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.
MONTHLY.
MONTANA MORBIDITY REPORT.
HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, PREVENTIVE HEALTH SERVICES BUREAU.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THESE MONTHLY NEWSLETTERS LIST THE NUMBER OF REPORTED CASES OF VARIOUS ILLNESSES BY COUNTY. BRIEF REPORTS ON CURRENT MEDICAL PROBLEMS ARE INCLUDED.

M-306

MONTANA DEPARTMENT OF HIGHWAYS.

1973.

FEDERAL AID PRIMARY SYSTEM NEEDS STUDY, 1974-1984.

HELENA, MT.: MONTANA DEPT. HIGHWAYS, PLANNING & RESEARCH BUREAU, AND U.S. DEPT. TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, 83 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE RESULTS OF A HIGHWAY NEEDS STUDY OF THE FEDERAL-AID PRIMARY SYSTEM ARE REPORTED IN TABLES. CONSTRUCTION NEEDS TO BRING THE SYSTEM UP TO CURRENT STANDARDS WERE ESTIMATED ON A SECTION-BY-SECTION BASIS. SUMMARIES OF THE COST ESTIMATES FOR EACH FEDERAL-AID ROUTE ARE INCLUDED WITH THE ROUTE DETAILS.

M-307

MONTANA DEPARTMENT OF HIGHWAYS.

1973.

FINAL ENVIRONMENTAL/SECTION 4(F) STATEMENT FOR PROJECT F-287(16) HUNGRY HORSE-WEST GLACIER.

U.S. DEPT. TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, 190 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(U.S. HIGHWAY 2 BETWEEN HUNGRY HORSE AND WEST GLACIER, FLATHEAD COUNTY, MONTANA). A HIGHWAY RECONSTRUCTION PROJECT INVOLVING ALIGNMENT CHANGES AND A FOUR-LANE PAVED HIGHWAY WITHOUT ACCESS CONTROL IS EVALUATED. EIGHT ALTERNATE LOCATIONS ALONG VARIOUS PARTS OF THE HIGHWAY WERE CONSIDERED, AS WELL AS THE ALTERNATIVE TO "DO NOTHING."

M-308

MONTANA DEPARTMENT OF HIGHWAYS.

1976.

ADMINISTRATIVE ACTION: FINAL ENVIRONMENTAL AND FINAL SECTION (4) STATEMENT FOR PROJECT F-109 (2) COLUMBIA FALLS EAST AND WEST (MONTANA 40).

WASHINGTON, D.C.: U.S. DEPT. TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, REGION 8, 108 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(COLUMBIA FALLS: HIGHWAY 40). THIS PROJECT WILL INVOLVE THE RECONSTRUCTION OF A FIVE MILE SECTION OF MONTANA 40, WHICH RUNS EAST-WEST BETWEEN US 93 AND U.S. 2. THE REPORT OUTLINES THE EXISTING ENVIRONMENT, PROBABLE IMPACTS OF THE PROPOSED PROJECT, ALTERNATIVES, THE SELECTED ALTERNATIVE AND COORDINATION WITH OTHER AGENCIES. AIR PHOTOS OF THE SITE ARE INCLUDED.

M-309

MONTANA DEPARTMENT OF HIGHWAYS.

1976.

ADMINISTRATIVE ACTION: FINAL ENVIRONMENTAL STATEMENT FOR PROJECT F-109(2) COLUMBIA FALLS - EAST AND WEST.

U.S. DEPT. TRANSPORTATION, FEDERAL HIGHWAYS ADMINISTRATION, REGION 8, 111 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA HIGHWAY 40, EAST & WEST OF COLUMBIA FALLS). THE ENVIRONMENTAL IMPACTS OF THE

RECONSTRUCTION OF A 4.7 MILE SECTION OF HIGHWAY ARE ASSESSED IN THIS REPORT. FIVE ALTERNATIVE ALIGNMENTS AND THREE ALTERNATIVES REGARDING THE METHOD OF CROSSING THE RAILROAD TRACKS WERE CONSIDERED ALONG WITH A "DO NOTHING" ALTERNATIVE.

M-310

MONTANA DEPARTMENT OF HIGHWAYS.

1976.

SECTIONAL COUNTY MAPS OF MONTANA.

HELENA, MT.: MONTANA DEPT. HIGHWAYS, PLANNING & RESEARCH BUREAU.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS IS A BOUND COLLECTION OF COUNTY MAPS IN SECTIONS, AT A SCALE OF 1 INCH EQUALS 4 MILES.

M-311

MONTANA DEPARTMENT OF HIGHWAYS.

1977.

ADMINISTRATIVE ACTION: FINAL ENVIRONMENTAL STATEMENT FOR PROJECTS F-181(15) AND F-191(30), ELMO-ROLLINGS AND FLATHEAD COUNTY LINE SOUTH.

U.S. DEPT. TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, REGION 8, 174 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(U.S. HIGHWAY 93 ON THE WEST SIDE OF FLATHEAD LAKE BETWEEN POLSON & KALISPELL). THIS ENVIRONMENTAL STATEMENT CONCERNS TWO PROJECTS INVOLVING THE RECONSTRUCTION OF ABOUT 13 MILES OF HIGHWAY. A 44-FOOT WIDE PAVED HIGHWAY WITH TWO 12-FOOT DRIVING LANES AND 10-FOOT SHOULDERS IS TO BE PROVIDED. SEVEN ALTERNATIVE ALIGNMENTS ARE CONSIDERED, AS WELL AS THE "NO-BUILD" ALTERNATIVE.

M-312

MONTANA DEPARTMENT OF HIGHWAYS.

ANNUAL.

ACCIDENT REPORT ON MONTANA'S RURAL PRIMARY HIGHWAY SYSTEM.

HELENA, MT. MONTANA DEPT. HIGHWAYS, PLANNING & RESEARCH BUREAU.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). TRAFFIC ACCIDENT DATA ON THE RURAL AND URBAN SECTIONS OF MONTANA'S INTERSTATE SYSTEM AND RURAL SECTIONS OF THE PRIMARY SYSTEM ARE PRESENTED IN THESE REPORTS. THE REPORTS ARE BASED ON ALL ACCIDENTS THAT WERE REPORTED TO THE MONTANA HIGHWAY PATROL. DATA IS PRESENTED BY SECTION BY FEDERAL AID ROUTE, AND BY THOSE LOCATIONS WHERE TWO OR MORE ACCIDENTS OCCURRED WITHIN ONE-TENTH OF A MILE. SUMMARY OF ALL ACCIDENTS OCCURRING ON FEDERAL AID ROUTES BY COUNTY IS INCLUDED.

M-313

MONTANA DEPARTMENT OF HIGHWAYS.

ANNUAL.

MONTANA AUTOMATIC COUNTERS.

HELENA, MT.: MONTANA DEPT. HIGHWAYS, PLANNING & RESEARCH BUREAU.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: KALISPELL, COLUMBIA FALLS, BIG MOUNTAIN, & HUNGRY HORSE DAM). THIS REPORT CONTAINS A BRIEF, CONCISE SUMMARY OF TRAFFIC PATTERNS AT EACH PERMANENT TRAFFIC COUNTER THAT WAS IN OPERATION DURING THE YEAR. TRAFFIC VOLUMES FOR EACH MONTH AND DAY OF THE WEEK ARE COMPARED TO AVERAGE DAILY TRAFFIC FOR THE YEAR.

M-314

MONTANA DEPARTMENT OF HIGHWAYS.

ANNUAL.

MONTANA BRIDGES.

HELENA, MT.: MONTANA DEPT. HIGHWAYS, PLANNING & RESEARCH BUREAU.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE PUBLICATIONS LIST ALL MAJOR STRUCTURES ON THE FEDERAL-AID INTERSTATE, PRIMARY, SECONDARY, AND URBAN SYSTEMS. THEY ALSO LIST SOME STRUCTURES ON FRONTAGE, LOCAL, AND RAILROADS THAT RELATE TO THOSE SYSTEM ROUTES.

M-315

MONTANA DEPARTMENT OF HIGHWAYS.

ANNUAL.

MONTANA FEDERAL AID ROAD LOG.

HELENA, MT.: MONTANA DEPT. HIGHWAYS, PLANNING & RESEARCH BUREAU.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE FEDERAL AID ROAD LOGS PRESENT COMPREHENSIVE INFORMATION CONCERNING THE LENGTH, CONSTRUCTION DETAILS, AND LOCATION OF INDIVIDUAL PROJECTS AND THE ROUTES WHICH COMPRISE THESE PROJECTS.

M-316

MONTANA DEPARTMENT OF HIGHWAYS.

ANNUAL.

MONTANA PRIMARY HIGHWAYS, SUFFICIENCY RATINGS.

HELENA, MT.: MONTANA DEPT. HIGHWAYS, PLANNING & RESEARCH BUREAU.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE MONTANA DEPARTMENT OF HIGHWAYS HAS THE RESPONSIBILITY TO EVALUATE THE CONDITION OF THE FEDERAL-AID PRIMARY SYSTEM THROUGHOUT THE STATE FOR THE PURPOSE OF ALLOCATING CONSTRUCTION FUNDS TO THE VARIOUS FINANCIAL DISTRICTS. THESE REPORTS TABULATE THE DEFICIENT MILEAGE, GIVE THE RURAL SUFFICIENCY RATINGS, AND INCLUDE MAPS OF THE HIGHWAYS EVALUATED.

M-317

MONTANA DEPARTMENT OF HIGHWAYS.

ANNUAL.

TRAFFIC BY SECTIONS.

HELENA, MT.: MONTANA DEPT. HIGHWAYS, PLANNING & RESEARCH BUREAU.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE REPORTS SUMMARIZE TRAFFIC VOLUME AND VEHICLE MILES OF TRAVEL ON RURAL SECTIONS OF THE INTERSTATE, PRIMARY, SECONDARY, AND FEDERAL AID URBAN SYSTEMS. AVERAGE DAILY TRAFFIC VOLUMES ON THE INTERSTATE AND THE PRIMARY SYSTEMS ARE FURTHER CLASSIFIED INTO OUT-OF-STATE PASSENGER CARS AND COMMERCIAL VEHICLES.

M-318

MONTANA DEPARTMENT OF HIGHWAYS.

SCENIC BEAUTIFICATION PLAN U.S. HIGHWAY 2-HUNGRY HORSE-WEST GLACIER.

HELENA, MT. 36 + PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(U.S. HIGHWAY 2-HUNGRY HORSE TO WEST GLACIER). THE MONTANA DEPARTMENT OF HIGHWAYS WILL UNDERTAKE THE RECONSTRUCTION OF APPROXIMATELY ELEVEN MILES OF UNITED STATES HIGHWAY TWO IN FLATHEAD COUNTY. THIS PUBLICATION OUTLINES THE DEPARTMENT'S PROPOSAL FOR A SPECIAL PROJECT FOR LANDSCAPING

AND SCENIC BEAUTIFICATION OF THIS HIGHWAY IMPROVEMENT. THE PRIMARY PURPOSE OF THIS BEAUTIFICATION PROPOSAL IS THREE FOLD: TO ESTABLISH AN OVERALL CONCEPTUAL PLAN FOR THE TRANSPORTATION CORRIDOR, TO ESTABLISH A PRIORITY OF MOST IMMEDIATE NEEDS WITHIN AVAILABLE FUNDING AND TO DEVELOP A PROGRAM OF ACTION FOR INCLUDING SOME OF THE BEAUTIFICATION WITH THE PROPOSED HIGHWAY IMPROVEMENT AND THE BALANCE OF THE BEAUTIFICATION UNDER FUTURE STAGE CONSTRUCTION. TO ACCOMPLISH THIS PURPOSE, A SHORT DESCRIPTION OF THE PROJECT AREA AND HIGHWAY IMPROVEMENT IS FOLLOWED BY THE SCENIC BEAUTIFICATION PLAN, PROJECT COSTS, AND IMPLEMENTATION. VISUAL SUPPLEMENTS ARE PROVIDED FOR REFERENCE.

M-319
MONTANA DEPARTMENT OF INSTITUTIONS.
ANNUAL.
MONTANA STATE PLAN FOR ALCOHOL ABUSE AND ALCOHOLISM PREVENTION, TREATMENT, AND REHABILITATION PROGRAMS.
HELENA, MT.: MONTANA DEPT. INSTITUTIONS, ADAPTIVE SERVICES DIV., ADDICTIVE DISEASES BUREAU. PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE STATE PLANS PRESENT A COORDINATED COMPREHENSIVE PROGRAM FOR THE ORDERLY DEVELOPMENT AND IMPLEMENTATION OF NEEDED ALCOHOLISM PREVENTION, TREATMENT, AND REHABILITATION PROGRAMS FOR THE STATE. IT SERVES AS A BASIS FOR ALLOCATION OF FORMULA GRANT FUNDS AND PROVIDES THE RATIONALE AND EFFECTIVE BASIS FOR THE UTILIZATION OF ALL AVAILABLE RESOURCES IN ESTABLISHING PROGRAMS TO DEAL WITH ALCOHOL ABUSERS.

M-320
MONTANA DEPARTMENT OF INSTITUTIONS.
ANNUAL.
MONTANA STATE PLAN FOR MENTAL HEALTH SERVICES.
HELENA, MT.: MONTANA DEPT. INSTITUTIONS, MENTAL HEALTH & RESIDENTIAL SERVICES DIV. PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS PLAN DESCRIBES HOW THE MENTAL HEALTH PROGRAM IS ADMINISTERED, OVERALL STATE GOALS AND OBJECTIVES, THE FIVE REGIONAL MENTAL HEALTH AREAS AND AN INVENTORY OF EXISTING FACILITIES, RESULTS OF THE NEED SURVEY, AND A DESCRIPTION OF SERVICES CURRENTLY OFFERED.

M-321
MONTANA DEPARTMENT OF INTERGOVERNMENTAL AFFAIRS.
1973.
MONTANA MANUAL OF STATE AND LOCAL GOVERNMENT-1973.
HELENA, MT.: GOVERNOR'S STATE AND LOCAL COORDINATORS OFFICE AND DIVISION OF PLANNING AND ECONOMIC DEVELOPMENT. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). CONTAINS A COMPLETE LISTING OF: LEGISLATIVE OFFICERS, JUDICIAL OFFICERS, ELECTED EXECUTIVE OFFICERS, DEPTS. OF STATE GOVERNMENTS, COUNTY OFFICIALS, LOCAL PLANNING BOARDS, LOCAL GOVERNMENT OFFICIALS, TRIBAL GOVERNMENTS AND U.S. GOVERNMENT OFFICERS AND AGENCIES. INCLUDED ARE MUHI COUNTY DISTRICT MAPS, DIRECTORY OF STATE PLANS AND POLICY DOCUMENTS AND AN INDEX OF SERVICES.

M-322
MONTANA DEPARTMENT OF INTERGOVERNMENTAL RELATIONS.
1974.
AN ECONOMIC ANALYSIS OF THE ANACONDA ALUMINUM PLANT IN FLATHEAD COUNTY.
HELENA, MT.: MONTANA DEPT. INTERGOVERNMENTAL RELATIONS, RESEARCH & INFORMATION SYSTEMS DIV. SPEC. REPT. PI 106. 31 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THE PRIMARY PURPOSE OF THIS REPORT WAS TO DETERMINE QUANTITATIVELY THE CONTRIBUTION OF THE ANACONDA ALUMINUM REDUCTION PLANT IN COLUMBIA FALLS TO THE ECONOMY OF FLATHEAD COUNTY. THE CONTRIBUTION IS MEASURED IN TERMS OF THE AMOUNTS OF EFFECTED DIRECT (IN PLANT) AND INDIRECT (DEPENDENT LOCAL BUSINESSES) EMPLOYMENT AND EARNINGS. THE REPORT ALSO MAKES SOME COMPARISON OF THE COLUMBIA FALLS ALUMINUM PLANT WITH OTHER PRIMARY ALUMINUM FACILITIES IN THE UNITED STATES.

M-323
MONTANA DEPARTMENT OF LABOR AND INDUSTRY.
1976.
THE FINANCE, INSURANCE, AND REAL ESTATE INDUSTRIES IN MONTANA.
HELENA, MT.: MONTANA DEPT. LABOR & INDUSTRY, EMPLOYMENT SECURITY DIV., RESEARCH & ANALYSIS SECTION.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT IS BROKEN DOWN INTO SECTIONS COVERING MONTANA OCCUPATIONAL EMPLOYMENT IN THE FINANCE, INSURANCE, AND REAL ESTATE INDUSTRY; MONTANA ESTIMATED EMPLOYMENT IN SELECTED OCCUPATIONS BY SPECIFIC SURVEY INDUSTRIES; AND MONTANA ESTIMATED EMPLOYMENT IN MAJOR SPECIFIC OCCUPATIONS FOR EACH SURVEY INDUSTRY.

M-324
MONTANA DEPARTMENT OF LABOR AND INDUSTRY.
1977.
INDUSTRY/OCCUPATION PROJECTIONS.
HELENA, MT.: MONTANA DEPT. LABOR & INDUSTRY, EMPLOYMENT SECURITY DIV., RESEARCH & ANALYSIS SECTION.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS EDITION PLACES EMPHASIS ON PROVIDING INDUSTRY/OCCUPATION PROJECTIONS ON A STATEWIDE BASIS. PROJECTIONS ARE GIVEN, BY INDUSTRY, FOR EMPLOYMENT IN 1985.

M-325
MONTANA DEPARTMENT OF LABOR AND INDUSTRY.
1977.
PREVAILING WAGES FOR MONTANA WORKERS BY OCCUPATION.
HELENA, MT.: MONTANA DEPT. LABOR & INDUSTRY, EMPLOYMENT SECURITY DIV., RESEARCH & ANALYSIS SECTION.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT LISTS THE HIGH AND LOW WAGES REPORTED FOR SELECTED OCCUPATIONS BY COUNTY.

M-326
MONTANA DEPARTMENT OF LABOR AND INDUSTRY.
1978.
LABOR MARKET INFORMATION FOR AFFIRMATIVE ACTION PROGRAMS IN MONTANA. 1977-1978.
HELENA, MT.: MONTANA DEPT. LABOR & INDUSTRY, EMPLOYMENT SECURITY DIV., RESEARCH & ANALYSIS SECTION.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT INCLUDES POPULATION AND LABOR FORCE INFORMATION FOR THE STATE FROM THE 1970 CENSUS AND THE 1976 CURRENT POPULATION SURVEY. DATA COVERS ANNUAL AVERAGE ESTIMATES FOR EMPLOYMENT/UNEMPLOYMENT FOR 1977, ANNUAL LABOR FORCE REPORTS, AND 1970 CENSUS INFORMATION ABOUT EMPLOYMENT/UNEMPLOYMENT BY COUNTY, RACE, AND SEX.

M-327
MONTANA DEPARTMENT OF LABOR AND INDUSTRY.
ANNUAL.
COMMUNICATIONS, PUBLIC UTILITIES, AND TRANSPORTATION.
HELENA, MT.: MONTANA DEPT. LABOR & INDUSTRY, EMPLOYMENT SECURITY DIV., RESEARCH & ANALYSIS SECTION.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). INDUSTRY CHARACTERISTICS, EMPLOYMENT TRENDS, AND OCCUPATIONAL CHARACTERISTICS ARE DESCRIBED FOR: LOCAL AND SUBURBAN TRANSIT AND INTERURBAN HIGHWAY PASSENGER TRANSPORTATION; MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING; TRANSPORTATION BY WATER AND AIR; PIPELINES (EXCEPT NATURAL GAS); TRANSPORTATION SERVICES: COMMUNICATION; AND ELECTRIC, GAS, AND SANITARY SERVICES.

M-328
MONTANA DEPARTMENT OF LABOR AND INDUSTRY.
MONTHLY.
MONTANA EMPLOYMENT AND LABOR FORCE.
HELENA, MT.: MONTANA DEPT. LABOR & INDUSTRY, EMPLOYMENT SECURITY DIV., RESEARCH & ANALYSIS SECTION.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE MONTHLY REPORTS DISCUSS THE ECONOMIC HIGHLIGHTS AND THE EMPLOYMENT OUTLOOK FOR LABOR MARKET AREAS THROUGHOUT THE STATE. MONTHLY DATA IN TABULAR FORM IS GIVEN FOR THE CIVILIAN LABOR FORCE: EMPLOYMENT IN AGRICULTURE AND NON-AGRICULTURE, AND STATEWIDE EMPLOYMENT/UNEMPLOYMENT FIGURES BY INDUSTRY.

M-329
MONTANA DEPARTMENT OF LABOR AND INDUSTRY.
QUARTERLY.
INDUSTRY STAFFING PATTERNS FOR THE MINING AND CONSTRUCTION INDUSTRY IN MONTANA.
HELENA, MT.: MONTANA DEPT. LABOR & INDUSTRY, EMPLOYMENT SECURITY DIV., RESEARCH & ANALYSIS SECTION.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). INFORMATION DESCRIBING OCCUPATIONAL STAFFING PATTERNS FOR THE MINING INDUSTRY IS BROKEN DOWN INTO METAL MINING, COAL MINING, NON-METALLIC MINING AND QUARRYING, AND CRUDE PETROLEUM AND NATURAL GAS EXTRACTION. THE CONSTRUCTION INDUSTRY SECTION DESCRIBES BUILDING CONSTRUCTION, GENERAL CONTRACTORS, AND SPECIAL TRADE CONTRACTORS.

M-330
MONTANA DEPARTMENT OF LABOR AND INDUSTRY.
QUARTERLY.
MONTANA ECONOMIC INDICATORS.
HELENA, MT.: MONTANA DEPT. LABOR & INDUSTRY, EMPLOYMENT SECURITY DIV., RESEARCH & ANALYSIS SECTION.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE PUBLICATIONS COVER HOW LEADING, COINCIDING, AND SELECTED ECONOMIC INDICATORS HAVE RESPONDED OVER THE PAST QUARTER TO ECONOMIC TRENDS. A QUARTERLY ANALYSIS IS ALSO INCLUDED.

M-331
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1969-1988.
ANNUAL REPORTS OF THE GOVERNOR.
MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY.
PART OF A SERIES. GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA; STILLWATER, SWAN, & COAL CREEK STATE FORESTS). THE OFFICE OF STATE FORESTER, FOREST MANAGEMENT, FOREST FIRE PROTECTION, COOPERATIVE FOREST MANAGEMENT, AND OTHER PROGRAMS ARE COVERED IN THESE ANNUAL REPORTS.

M-332
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1970, 1971, 1973, 1977.
MONTANA RANGELAND RESOURCE PROGRAM.
BOZEMAN, MT.: MONTANA STATE UNIV., COOP. EXTEN. SERVICE.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA; FLATHEAD RIVER BASIN). THIS REPORT EXAMINES PERSONS AND GROUPS RESPONSIBLE FOR RANGELANDS; MAJOR DEMANDS AND USES OF MONTANA RANGELANDS; GOALS FOR RANGELAND IMPROVEMENT IN MONTANA; AND GUIDELINES FOR IMPLEMENTATION (RANCH MANAGEMENT PLANNING, RANGE CONDITION ON NATIVE RANGES, NATIVE RANGES PRODUCING 40% MORE USABLE FORAGE, WATER DEVELOPMENT ON NATIVE RANGES, RECREATIONAL USE OF NATIVE RANGE, AND IMPROVEMENT OF WILDLIFE HABITAT ON NATIVE RANGES).

M-333
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1973.
FINAL ENVIRONMENTAL IMPACT STATEMENT: PROPOSED HUNGRY HORSE WEATHER MODIFICATION PROJECT.
HELENA, MT. 46 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR & SOUTH FORK OF THE FLATHEAD RIVER). THE STATEMENT IS CONCERNED WITH APPLICATIONS FROM NORTH AMERICAN WEATHER CONSULTANTS FOR A LICENSE AND PERMIT TO CONDUCT WEATHER MODIFICATION OPERATIONS. THE PROPOSED OPERATION, ITS OBJECTIVES, DURATION, SEEDING SYSTEM, AND MONITORING SYSTEM ARE OUTLINED. ALL ENVIRONMENTAL IMPACTS ARE CONSIDERED. A DISCUSSION OF ALTERNATIVE ACTIONS IS INCLUDED.

M-334
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1973.
A RESOURCE INVENTORY METHOD FOR LAND USE PLANNING IN MONTANA.
HELENA, MT. 78 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA; FLATHEAD COUNTY). THE PRIMARY OBJECTIVE OF THIS STUDY WAS TO DEVELOP AND FIELD TEST A METHOD OF NATURAL RESOURCE INVENTORY AND ANALYSIS FOR LAND USE PLANNING. IN ADDITION, THE STUDY ACQUIRED A NATURAL

RESOURCE DATA BASE SUFFICIENT TO ILLUSTRATE THE INVENTORY METHODS BY DETERMINING THE USABILITY OF EXISTING DATA AND TESTING THE USE OF ALTERNATIVE DATA SOURCES SUCH AS FIELD WORK, REMOTE SENSING, AND PROFESSIONAL CONSULTANTS.

M-335
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1974.
PROPOSED UPPER STRYKER RIDGE TIMBER SALE: ENVIRONMENTAL IMPACT STATEMENT.
MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY. 22 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH AREA: UPPER STRYKER RIDGE). THIS STATEMENT EVALUATES AN ACTION CONSISTING OF THE SALE AND COMMERCIAL HARVEST OF ABOUT 4.8 MILLION BOARD FEET OF TIMBER FROM A 1,380-ACRE GENERAL SALE AREA.

M-336
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1975.
FLATHEAD RIVER BASIN STUDY. WATER RESOURCES AND THE FUTURE ALTERNATIVE SOLUTIONS TO KEY PROBLEMS. FOR PUBLIC MEETINGS.
HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, WATER RESOURCES DIV. 19 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THIS REPORT EXPLAINS THE METHODS OF THE FEDERAL-STATE STUDY TEAM SET UP IN 1972 TO PUBLISH A RECOMMENDED WATER PLAN FOR THE FLATHEAD RIVER BASIN. THE STUDY TEAM SEGREGATED THE ITEMS FOR CONSIDERATION INTO NINE CATEGORIES, EACH REPRESENTING AN AREA IN WHICH ALTERNATIVES NEEDED TO BE DEVELOPED TO MEET A PRESENT OR FUTURE OBJECTIVE. THIS REPORT EXAMINES A MAJORITY OF THE ALTERNATIVES BEING CONSIDERED TO MEET THE STATED OBJECTIVES. THE OBJECTIVES WERE: WILDLIFE ENHANCEMENT, MAINTAIN AND ENHANCE ENVIRONMENTAL QUALITY, PROVIDE RECREATION OPPORTUNITIES, PROVIDE SAFE, RELIABLE, ACCEPTABLE WATER SUPPLIES FOR PRESENT AND FUTURE NEEDS, MAINTAIN AND ENHANCE WATER QUALITY TO MEET STATE AND FEDERAL STANDARDS, REDUCTION OF FLOOD DAMAGES, ELECTRIC POWER GENERATION, PROVIDE IRRIGATION WATER SUPPLY AND IMPROVE LAND MANAGEMENT.

M-337
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1975.
"WATER DIVERSION PROPOSALS: FLATHEAD, STILLWATER, AND WHITEFISH RIVERS, MONTANA." WATER RESOURCES DIV., PLANNING SECTION. (TYPEWRITTEN). 5 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: THE INFORMATION IS NOT NECESSARILY ACCURATE OR UP-TO-DATE.

(FLATHEAD, STILLWATER, & WHITEFISH RIVERS). THE REPORT DISCUSSES THE 1948 BUREAU OF RECLAMATION PROPOSAL TO DIVERT WATER FROM THE FLATHEAD RIVER NEAR COLUMBIA FALLS TO DEVELOP IRRIGATION AND AUGMENT STREAM FLOWS OF THE WHITEFISH AND STILLWATER RIVERS AND BIG LOST CREEK. PLAN ALTERNATIVES CALLING FOR PUMPING PLANTS, LIFT STATIONS, CANALS, A CLOSED PIPE DISTRIBUTION SYSTEM AND A RESERVOIR SITE ARE DESCRIBED. COSTS ARE

NOTED. A PROPOSAL TO INCORPORATE PLANS FOR WATER QUALITY ENHANCEMENT INTO THE RECLAMATION'S PROJECT IS CONSIDERED. THE DIVERSION OF WATER FROM THE FLATHEAD RIVER INTO THE WHITEFISH RIVER TO RELIEVE THE EFFECTS OF LOW FLOWS AND NUTRIENT LOADS FROM SEWAGE EFFLUENT AND IRRIGATION RETURNS EXEMPLIFIES SUCH PLANS. A PAGE OF QUESTIONS ABOUT THE EFFECT OF THE PROPOSALS ON GROUND WATER AND EUTROPHICATION IN FLATHEAD LAKE IS INCLUDED.

M-338
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1976.
THE FLATHEAD RIVER BASIN LEVEL B STUDY OF WATER AND RELATED LANDS.
HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, WATER RESOURCES DIV., AND VANCOUVER, WA.: PACIFIC NORTHWEST RIVER BASINS COMMISSION. 133 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THE STUDY IS A PLAN DESIGNED TO RESOLVE COMPLEX, LONG-RANGE PROBLEMS IDENTIFIED BY THE PACIFIC NORTHWEST RIVER BASINS COMMISSION (1972) IN THE COLUMBIA-NORTH PACIFIC REGION COMPREHENSIVE FRAMEWORK STUDY. IT CONSIDERS THE CONFLICTS BETWEEN ENVIRONMENTAL AND ECONOMIC INTERESTS AND THE DESIRES OF FLATHEAD BASIN RESIDENTS FOR THE FUTURE OF THEIR AREA. THE PURPOSE OF THE STUDY IS TO PROVIDE A GUIDE TO WATER AND RELATED LAND RESOURCE USE WHICH WILL PROMOTE BENEFICIAL AND MINIMIZE ADVERSE EFFECTS. THE STUDY ATTEMPTS TO 1) IDENTIFY WATER-RELATED PROBLEMS AND NEEDS OF THE BASIN AS THEY PERTAIN TO LOCAL, STATE, REGIONAL AND NATIONAL OBJECTIVES, AND IDENTIFY MEANS OF DEALING WITH THESE PROBLEMS AND NEEDS; 2) PROVIDE NATIONAL AND STATE LAWMAKERS, AS WELL AS LOCAL DECISION-MAKERS, INFORMATION AND RECOMMENDATIONS TO BE USED IN LEGISLATIVE AND ADMINISTRATIVE ACTIONS; 3) ASCERTAIN PUBLIC OPINIONS, ESPECIALLY OF BASIN RESIDENTS; AND 4) IDENTIFY APPROPRIATE AGENCIES TO COMPLETE FEASIBILITY STUDIES AND FINAL IMPLEMENTATION. THE FUTURE OF THE BASIN IS CONSIDERED DEPENDENT UPON A COMBINATION OF CONDITIONS, INCLUDING MUNICIPAL AND INDUSTRIAL WATER SUPPLY, WATER QUALITY, RECREATION, FISH AND WILDLIFE, ELECTRIC POWER, FLOOD DAMAGE REDUCTION, IRRIGATION, LAND MANAGEMENT AND NATURAL ENVIRONMENT. THE TIME PERIOD COVERED IS FROM THE PRESENT TO 2020. THE REPORT DISCUSSES THE PRESENT SITUATION WITH REGARD TO EACH ALTERNATIVE PLAN AND SELECTS A RECOMMENDED PLAN FOR THE NEAR FUTURE.

M-339
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1976.
SWAN RIVER STATE FOREST WATERSHED INVENTORY.
MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY. 30 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER STATE FOREST). THE TOPICS COVERED IN THIS REPORT INCLUDE CLIMATE; WATERSHEDS AND STREAMFLOW; WATER QUALITY PARAMETERS; 1974-1975 WATER QUALITY DATA; AND MANAGEMENT RECOMMENDATIONS AND IMPLICATIONS FOR GOAT, SQUEEZER, SOUP, SOUTH LOST, GILLY, SQUAW-PERRY, WHITETAIL, AND WOODWARD CREEKS.

M-340
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1977.

STATE WATER CONSERVATION PROJECTS.

HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, WATER RESOURCES DIV., ENGINEERING BUREAU. 187 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: A BRIEF OUTLINE OF THE WATER PROJECT AT CHARLO IS INCLUDED.

(MONTANA). THE PUBLICATION INCLUDES PROJECT CRITIQUES AND INSPECTIONS, REPORTS OF THEIR FINANCIAL STATUS, AND REPORTS ON INDIVIDUAL PROJECTS. A SUMMARY DESCRIPTION OF THE PROJECT, A CHART, AND MAP IS PRESENTED IN THE INDIVIDUAL REPORT.

M-341
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1977.

SWAN RIVER STATE FOREST MANAGEMENT PLAN.
HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, FORESTRY DIV. 77 PP.
DRAFT, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(SWAN RIVER STATE FOREST). THE GOAL OF THIS PLAN IS TO PROVIDE AN UPDATED LAND USE AND RESOURCE MANAGEMENT DIRECTIVE FOR THE FOREST. ITS AIM IS TO PROVIDE ENOUGH INFORMATION AND POLICY TO ENABLE FULLY COORDINATED LAND MANAGEMENT DECISIONS MADE ON THE FOREST.

M-342
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1978.
FINAL ENVIRONMENTAL IMPACT STATEMENT: SWAN RIVER STATE FOREST MANAGEMENT PLAN.
MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY. 107 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER STATE FOREST). THE GOAL OF THIS PLAN IS TO PROVIDE AN UPDATED LAND USE AND RESOURCE MANAGEMENT DIRECTIVE FOR THE SWAN FOREST. A DESCRIPTION OF THE PROPOSED ACTION COVERS THE MANAGEMENT OF TIMBER, FIRE, FISHERIES, INSECTS AND DISEASE, LIVESTOCK USE, NATURAL AREAS, RECREATION, SPECIAL USE, TRANSPORTATION, WATERSHED, AND WILDLIFE. ALTERNATIVE ACTIONS ARE CONSIDERED, IRREVERSIBLE COMMITMENTS OF RESOURCES LISTED, AND LAND TYPES AND HABITAT TYPES ARE MAPPED.

M-343
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1978.

THE FRAMEWORK REPORT. VOL. 1.

HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, WATER RESOURCES DIV. 101 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: COLUMBIA RIVER BASIN). THE GENERAL PURPOSE OF THIS REPORT WAS TO PROVIDE NECESSARY BACKGROUND INFORMATION AS WELL AS A BROAD CONCEPTUAL FRAMEWORK FOR THE DEVELOPMENT OF AN OVERALL PLAN FOR THE EFFICIENT UTILIZATION OF THE WATER AND RELATED LAND RESOURCES OF THE STATE. PART 1 IDENTIFIES THE LEGAL AUTHORITY FOR RIVER BASIN PLANNING IN MONTANA, DISCUSSES PREVIOUS STATEWIDE PLANNING ACTIVITIES, DESCRIBES THE PRESENT

STATUS OF THE WATER PLAN AND REGIONAL WATER PLANNING EFFORTS, AND PRESENTS THE PLANNING METHODOLOGY AND A STATEMENT ABOUT THE FINAL PLAN. PART 2 DESCRIBES THE WATER AND RELATED LAND RESOURCES.

M-344
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1978.

WATER RESOURCES ASSESSMENT PROJECT - FINAL REPORT.

HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, WATER RESOURCES DIV. 72 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: COLUMBIA & FLATHEAD RIVER BASINS). THE PURPOSE OF THIS REPORT WAS TO PROVIDE AN ANALYSIS OF WATER SUPPLY AND DEMAND TRENDS AND PROJECTIONS AND THEIR POTENTIAL EFFECT ON MONTANA'S ECONOMIC FUTURE. TOPICS INCLUDE WATER DEMAND, LEGAL CONSTRAINTS TO WATER USE, WATER SUPPLY, USE PROJECTIONS AND WATER SUPPLY BY BASIN, PROBLEMS, POLICY OPTIONS, AND IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH.

M-345
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1979.

TECHNICAL REPORT-APPLICATION TO SEVER OR SELL APPROPRIATION WATER RIGHT NO. 14007-8870LJ. ASHLEY IRRIGATION DISTRICT.
HELENA, MT.: TECHNICAL SERVICES BUREAU. 27 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ASHLEY CREEK). THIS TECHNICAL REPORT WAS PREPARED IN RESPONSE TO THE ASHLEY IRRIGATION DISTRICT'S PROPOSAL TO SEVER AND SELL ITS WATER RIGHT NO. 140-07-8870LJ. INCLUDED ARE: A GEOLOGIC OVERVIEW AND DESCRIPTION OF ROCK TYPES, THE POTENTIAL AVAILABILITY OF GROUNDWATER, AN EXAMINATION OF ENVIRONMENTAL CONSIDERATIONS, ASHLEY CREEK MANAGEMENT PLANS, ASHLEY LAKE DISCHARGE RATES, AND A DETAILED DESCRIPTION OF THE AREA'S SOILS. AN OWNERSHIP MAP OF LAND APPLYING FOR IRRIGATION RIGHTS AND A MAP OF LAND CLASSIFICATION ARE INCLUDED.

M-346
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.

MAP: ENERGY RESOURCES AND FACILITIES OF MONTANA.

HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, INFORMATION & PUBLICATION BUREAU. 1 P.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS MAP IDENTIFIES HYDROELECTRIC FACILITIES, TRANSMISSION LINES, AND SUBSTATION/SWITCHYARD LOCATIONS WITHIN THE BASIN.

M-347
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.

MONTANA RANGELAND RESOURCE PROGRAM.

HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, CONSERVATION DISTRICTS DIV. 81 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

INFORMATION FOR COUNTIES IN FLATHEAD BASIN IS AVAILABLE, SEE MAP AND TABLES. APPENDICES INCLUDE LAWS RELATED TO RANGE LAND, RANGE LEADERS IN CONSERVATION DISTRICTS, I.E., FLATHEAD, LAKE COUNTIES.

(MONTANA). THE STUDY DISCUSSES THE RANGELAND RESOURCE AND RELATED TOPICS: LAND OWNERSHIP, AGRICULTURE, THE GRASSES AND VEGETATION OF RANGELAND, ITS USES AND DEMANDS BY WILDLIFE, LIVESTOCK, SOIL EROSION CONTROL, WATER PRODUCTION, RECREATION, AESTHETICS, RESIDENTIAL AND INDUSTRIAL SITES, TRANSPORTATION, EDUCATION, AND SCIENCE. THE CONDITION OF THE LAND, I.E., ITS IMPROVEMENT FROM PAST ABUSE, IS CONSIDERED. A MANAGEMENT PROGRAM IS VENTURED; ITS GOALS RELATING TO USES AND DEMANDS OUTLINED.

M-348
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.

UNPUBLISHED DATA ON FILE.

KALISPELL, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, FORESTRY DIV., NORTHWEST AREA HEADQUARTERS.
IN PROGRESS, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN: CLASSIFIED STATE FOREST LAND). UNPUBLISHED DATA ON FILE INCLUDES: TIMBER SALE AND PERMIT DATA GIVING VOLUMES AND SPECIES; TIMBER MANAGEMENT DATA FOR INDIVIDUAL SECTIONS DESCRIBING SLOPE (OPERABLE ZONES), TIMBER TYPE, HARVEST METHODS, HAZARD REDUCTION, SITE PREPARATION, REGENERATION, THINNING AND FIRE OCCURRENCE; SPECIFIC INFORMATION ON INDIVIDUAL HOMESITES AND GRAZING LEASES; HABITAT TYPE MAPS (7½' QUADS) FOR PORTIONS OF THE KALISPELL UNIT; FOREST COVER TYPE DATA GIVING SPECIES PARAMETER, SIZE CLASS AND STOCKING FOR EACH SECTION (MAPPED).

M-349
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.

UNPUBLISHED MATERIALS ON FILE.

MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, WATER RIGHTS BUREAU, KALISPELL, MT. (TYPEWRITTEN).
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). UNPUBLISHED DATA ON FILE WHICH INCLUDES: 1) WELL LOGS; 2) FILED APPROPRIATIONS ON SURFACE WATERS INCLUDING LEGAL DESCRIPTION, AMOUNT OF APPROPRIATION AND THE DATE; 3) DECREED STREAMS INCLUDING THE AMOUNT OF WATER DECREED, PLACE OF USE AND THE PURPOSE.

M-350
MONTANA DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT.
1970.

MONTANA DATA BOOK.

HELENA, MT. 308 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE MONTANA DATA BOOK IS A COMPILATION OF ECONOMIC, SOCIAL, AND GOVERNMENTAL STATISTICS ON THE STATE. THE CHAPTERS COVERED ARE: LABOR; PERSONAL INCOME; GOVERNMENT; POPULATION; VITAL STATISTICS AND HEALTH; SOCIAL WELFARE; EDUCATION AND RESEARCH; LAND USE; FOREST INDUSTRIES; AGRICULTURE; MINERAL INDUSTRIES; CONSTRUCTION AND HOUSING; MANUFACTURING; TRANSPORTATION; COMMUNICATIONS; POWER; TRADE AND SERVICES; AND FINANCE, INSURANCE, AND REAL ESTATE.

M-361
MONTANA DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT.
1970.
PROPOSED MULTI-COUNTY DISTRICTS FOR THE STATE OF MONTANA.
HELENA, MT. 15 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE REPORT REVIEWS EXISTING MULTI-COUNTY DIVISIONS AND EXAMINES PROPOSALS FOR SUBDIVIDING THE STATE FOR ADMINISTRATIVE AND/OR PLANNING PURPOSES. A SYSTEM OF 12 SUB-DIVISIONS IS RECOMMENDED. CRITERIA USED TO ESTABLISH DISTRICT BOUNDARIES IS DESCRIBED.

M-362
MONTANA DEPARTMENT OF SOCIAL AND REHABILITATION SERVICES.
1977.
SOCIAL CONDITIONS AND SOCIAL SERVICES ON MONTANA'S SEVEN INDIAN RESERVATIONS. VOL. 3.
HELENA, MT.: TITLE XX NEEDS ASSESSMENT PROJECT. 67 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD INDIAN RESERVATION). THIS STUDY ADDRESSES THE CONCERNS, ISSUES, AND PROBLEMS OF THE RESERVATIONS AND THEIR PEOPLE. FOLLOWING AN OVERVIEW OF THE INDIAN POPULATION, SPECIFIC SERVICES ARE EVALUATED. CONCLUSIONS DISCUSS TOP PRIORITIES WITH REGARD TO SERVICES AND SUGGEST IMPROVEMENTS IN THE ADMINISTRATION OF SERVICES.

M-363
MONTANA DEPARTMENT OF SOCIAL AND REHABILITATION SERVICES.
MONTHLY.
STATISTICAL REPORT.
HELENA, MT.: MONTANA DEPT. SOCIAL & REHABILITATION SERVICES.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE MONTHLY REPORTS LIST IN TABULAR FORM THE FOLLOWING DATA FOR EACH COUNTY: OLD AGE ASSISTANCE, AID TO NEEDY BLIND, AID TO DEPENDENT CHILDREN, AID TO DISABLED, MEDICAL ASSISTANCE BY CATEGORY, FAMILY AND ONE PERSON GENERAL ASSISTANCE CASES, TRANSIENT RELIEF, DAY CARE AND FOSTER CARE, NUMBER OF HOUSEHOLDS AND VALUE OF FOODSTAMPS ISSUED, AND CHILD WELFARE SERVICES.

M-364
MONTANA DEPARTMENT OF STATE LANDS, AND THE FLATHEAD COUNTY PARK BOARD.
1978.
MASTER PLAN FOR OWEN BOWERWINE NATURAL AREA.
HELENA, MT. 50 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL). THIS REPORT CONTAINS: THE MANAGEMENT AGREEMENT, A NATURAL AREA BRIEF, AN OUTLINE OF SPECIAL NATURAL CHARACTERISTICS, GENERAL MANAGEMENT PRACTICES, SPECIFIC MANAGEMENT PRACTICES AND SUPPLEMENTAL MANAGEMENT RESPONSIBILITIES FOR THE NATURAL AREA.

M-365
MONTANA DEPARTMENT OF STATE LANDS, AND MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
DIS-PROPOSED OIL AND GAS LEASES-COAL CREEK STATE FOREST.
HELENA, MT. 46 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF FLATHEAD RIVER: COAL CREEK STATE FOREST). THIS STATE ASSESSMENT, WHICH FOCUSES UPON THE IMPACTS OF OIL AND GAS LEASING ON THE FOURTEEN TRACTS OF STATE LAND, SHOULD BE CONSIDERED AN EXTENSION OF THE FOREST SERVICE'S "DRAFT E.I.S.: OIL AND GAS LEASE APPLICATIONS, EXPLORATION AND DEVELOPMENT" WHICH DEALS WITH THE BROADER IMPACTS OF AN OIL AND GAS EXPLORATION AND DEVELOPMENT PROGRAM. THIS ASSESSMENT COVERS: A DESCRIPTION OF THE PROPOSED ACTION, THE EXISTING ENVIRONMENT, ALTERNATIVE ACTIONS, ENVIRONMENTAL IMPACTS OF ALTERNATIVE ACTIONS, THE RELATIONSHIP BETWEEN SHORT TERM USES OF MAN'S ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY, AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES.

M-366
MONTANA DIVISION OF FORESTRY.
1920-1955.
"SECTION RECORDS BOOK."
MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY, NORTHWEST AREA HEAD-QUARTERS. NO PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN: CLASSIFIED STATE FOREST LAND). AN EXAMINATION OF STATE FOREST LAND HOLDINGS WHICH CONTAINS GENERAL INFORMATION ABOUT EACH QUARTER SECTION. TIMBER VOLUME ESTIMATES, THE CONDITION AND QUALITY OF TIMBER BY SPECIES, THE LOGGING CONDITIONS AND SALE POSSIBILITIES ARE GIVEN. A MAP AND A PHYSICAL DESCRIPTION OF EACH SECTION IS INCLUDED.

M-367
MONTANA ENVIRONMENTAL QUALITY COUNCIL.
ANNUAL.
ANNUAL REPORT.
HELENA, MT.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). EACH YEAR THIS REPORT ADDRESSES A SIGNIFICANT ISSUE PERTAINING TO MONTANA'S ENVIRONMENT THAT IS OF CONCERN TO MONTANANS. TOPICS ADDRESSED IN YEARS PAST INCLUDE RENEWABLE RESOURCES, ENVIRONMENTAL INDICATORS, LAND USE, ENERGY, AND BASELINE DATA PERTAINING TO MONTANA'S ENVIRONMENT. THESE REPORTS PRESENT AN OVERVIEW OF THE SITUATIONS AND CONSEQUENTLY ARE GENERAL IN NATURE.

M-368
MONTANA EXTENSION SERVICE.
1928.
AN AGRICULTURAL PROGRAM FOR THE FLATHEAD PROJECT.
BOZEMAN, MT.: MONTANA STATE COLL., EXTEN. SERVICE IN AGRICULTURE & HOME ECONOMICS.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS PAPER REPORTS ON THE ECONOMIC CONFERENCE OF FARMERS, FARM WOMEN, AND BUSINESSMEN FOR THE PURPOSE OF DRAWING UP A BASIC PROGRAM FOR THE AGRICULTURAL DEVELOPMENT OF THE FLATHEAD IRRIGATION PROJECT. THE CONFERENCE ORGANIZATION INCLUDED SPECIAL COMMITTEES ON FARM MANAGEMENT, GRAIN AND FORAGE, LIVESTOCK, DAIRYING, HORTICULTURE, POULTRY, BEE KEEPING, AND FARM LIVING. THIS REPORT PRESENTS THE RECOMMENDATIONS OF THOSE COMMITTEES.

M-369
MONTANA FISH AND GAME COMMISSION.
1970.
THE MONTANA HISTORIC PRESERVATION PLAN WITH HISTORIC SITES COMPENDIUM.
HELENA, MT. 118 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

SOME INFORMATION BY COUNTIES.

(ALL COUNTIES WITHIN THE FLATHEAD RIVER BASIN). THIS GUIDE FOR THE STATE'S HISTORIC PRESERVATION PROGRAM CONTAINS LISTINGS OF HISTORIC SITES BY COUNTY AND BY THEMES. RELATED HISTORIC PRESERVATION PROGRAMS OF OTHER STATE AND FEDERAL AGENCIES WITHIN THE STATE ARE OUTLINED. LONG TERM PROJECTIONS ARE MADE.

M-380
MONTANA FISH AND GAME DEPARTMENT.
1978.
LAKE GAUGE INSTALLATIONS-NORTHWEST MONTANA.
HELENA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWEST MONTANA: FLATHEAD & LAKE COUNTIES). IN ORDER TO ASSESS THE EFFECT OF LOWERED LAKE LEVELS FROM WATER APPROPRIATIONS, BACKGROUND INFORMATION WAS NEEDED TO DETERMINE NATURAL ANNUAL LAKE LEVEL FLUCTUATIONS. GAUGE STATIONS WERE SET UP AT A KNOWN ELEVATION, INFORMATION ON LAKE LEVEL WAS COLLECTED MONTHLY DURING ICE-FREE PERIODS. THE FOLLOWING LAKES WERE INCLUDED: UPPER WHITEFISH, WHITEFISH, TALLY, SUNRISE, STRYKER (FISH), UPPER STILLWATER, LOWER STILLWATER, SPOON, SPENCER, SMITH, SKYLES, SKAGG, ROGERS, PETERSON, PECK, MUD, MONROE, LITTLE BITTERROOT, BOOTJACK, LAKE BLAINE, BLANCHARD, CYCLONE, DICKEY, DOG, ECHO, LAKE FIVE, FOY LAKE, HORSESHOE, LAKE OF WOODS, LION, LONG, LOON (FERNDALE), LORE, MCGILVARY, LITTLE MCGREGOR, MARL, AND LAKE MARY RONAN.

M-361
MONTANA FISH AND GAME DEPARTMENT.
LAKE CONTOUR MAPS.
HELENA, MT.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). CONTOUR MAPS ARE AVAILABLE FOR: ASHLEY, BLANCHARD, CABIN, DICKEY, DOUBLE, GLEN (LICK), HORSESHOE, KILBRENNEN, LEON, LINDERBERGH, LITTLE LOON, LAKE MARY RONAN, MORAN, MURRAY, PLUMMERS, LOWER STILLWATER, ROGERS, SWAN, ST. MARYS, LOWER THOMPSON, BEAVER, LITTLE BITTERROOT, LAKE BLAINE, CARPENTER, CRYSTAL AND LAVONE, ECHO, LAKE FIVE, FOY, FRANK, HOLLAND, HORSESHOE, ISLAND, KICKING HORSE RESERVOIR, LONG, LOON, MARL, MARTIN, MCDONALD, MCGREGOR, MISSION, MURPHY, PIERCE, RAINBOW, RED MEADOW, ROCK, SAVAGE, SKYLES, SOPHIE, SPAR, SPENCER, UPPER STILLWATER, TALLY, MIDDLE AND UPPER THOMPSON, TWIN (TURTLE), VAN, UPPER WHITEFISH, WHITEFISH, NINEPINE FREEZOUT LAKE, AND FLATHEAD LAKE.

M-388
MONTANA FISH AND GAME DEPARTMENT. RECREATION AND PARKS DIVISION.
1972.
DRAFT E.I.S. WAYFARER'S STATE RECREATION AREA.
HELENA, MT. PROJECT FQ-34.
DRAFT, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BIGFORK: WAYFARERS STATE RECREATION AREA). A DRAFT ENVIRONMENTAL IMPACT STATEMENT ON THE PROPOSAL TO UPGRADE AND DEVELOP NEW FACILITIES AT THE PARK. A DESCRIPTION OF THE EXISTING ENVIRONMENT, EVALUATION OF ENVIRONMENTAL IMPACT AND ALTERNATIVES ARE DISCUSSED.

M-363

MONTANA HEALTH SYSTEMS AGENCY, INC., AND MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.

1978.

MONTANA HEALTH SYSTEMS PLAN.

HELENA, MT. 372 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: SOME INFORMATION FOR COUNTIES IN THE FLATHEAD BASIN IS INCLUDED. APPENDICES INCLUDE BACKGROUND INFORMATION, STATISTICAL DESCRIPTION OF THE SERVICE AREA, I.E., POPULATION, BIRTHS, DEATHS.

(MONTANA). THE PUBLICATION PRESENTS A HEALTH SYSTEM OVERVIEW AND A REVIEW OF TERTIARY/REGIONAL SERVICES (CARDIO-VASCULAR LABORATORIES, RADIATION THERAPY, NEONATAL CARE UNITS, BURN CARE, BLOOD BANKING) AND INTERMEDIATE HEALTH SERVICES (INPATIENT SERVICE, CRITICAL CARE BEDS, CLINICAL LABORATORY, LONG TERM CARE FACILITIES, HOME HEALTH CARE). HEALTH PLAN GOALS AND OBJECTIVES ARE INCLUDED.

M-364

MONTANA HIGHWAY DEPARTMENT. PRECONSTRUCTION BUREAU.

1979.

HIGHWAY LOCATION AND DESIGN STUDY REPORT. PROJECT RS-546-1-(1) WEST RESERVE DRIVE.

HELENA, MT. NO PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WEST RESERVE DRIVE). THIS PROJECT PROVIDES FOR THE RECONSTRUCTION OF WEST RESERVE DRIVE (FAS 548) BEGINNING AT U.S. 93 AND EXTENDING EASTERLY 2.8 MILES TO THE LASALLE ROAD. THE PRIMARY PURPOSE OF THE PROJECT IS TO PROVIDE A SAFER, MORE EFFICIENT ROADWAY FOR THE LOCAL RESIDENTS AND THE TRAVELLING PUBLIC AND TO REPLACE THE BRIDGES OVER THE WHITEFISH AND STILLWATER RIVERS. THE WORK TO BE PERFORMED WILL INCLUDE: GRADING, SURFACING, DRAINAGE, FENCING, TOP SOILING, SEEDING AND SIGNING. AN URBAN SECTION IS PROPOSED SO CURB AND GUTTER, SIDEWALKS AND A STORM SEWER WILL ALSO BE PROVIDED.

M-365

MONTANA HISTORICAL SOCIETY.

1976.

NOT IN PRECIOUS METALS ALONE: A MANUSCRIPT HISTORY OF MONTANA.

HELENA, MT.: MONTANA HISTORICAL SOCIETY.

(MONTANA). THIS COLLECTION OF PREVIOUSLY UNPUBLISHED HISTORICAL DOCUMENTS INCLUDES A NUMBER OF ITEMS DEALING WITH SALISH AND KOOTENAI HISTORY IN THE 19TH CENTURY. SKCC.

M-366

MONTANA HISTORICAL SOCIETY.

GLORIOUS GLACIER-THE EXCITING EARLY HISTORY OF GLACIER NATIONAL PARK. HERITAGE SERIES. NO. 8.

HELENA, MT.: HERITAGE PRESS. 32 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A COMPILATION OF THE FOLLOWING ARTICLES: "EARLIEST GLACIER-A BY PASSED BEAVER BONANZA" BY RALPH BEALS;

WHICH FOLLOWS THE EARLIEST EXPLORATION OF THE AREA BY FUR TRAPPING EXPEDITIONS AND THE NORTH-WEST COMPANY; "MOVE TOWARD PARKHOOD" BY DONALD ROBINSON: WHICH EXAMINES THE PERIOD BETWEEN 1850-1900, AND THE INTERNATIONAL BOUNDARY SURVEY, WOODRUFF AND VAN ORSDALE, DUNCAN McDONALD, PROFESSOR R. PUMPELLE, GEORGE BIRD GRINNEL AND THE RAILROADS; "RETURN TO THE BELOVED MOUNTAIN" BY JAMES WILLARD SCHULTZ: AN ACCOUNT OF THE BLACKFEET TRIBE IN THE GLACIER PARK AREA, AS WELL AS HOW THE AUTHOR CAME TO NAME MANY OF THE PARKS NATURAL WONDERS.

M-367

MONTANA LEGISLATIVE COUNCIL.

1972.

LOCAL GOVERNMENT-1972. REPORT NO. 45 TO THE 43RD LEGISLATIVE ASSEMBLY.

HELENA, MT.: MONTANA LEGISLATIVE COUNCIL. 43 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT OUTLINES THE RECOMMENDATIONS OF THE COUNCIL FOR RESEARCHING AND IMPLEMENTING ARTICLE XI OF THE 1972 STATE CONSTITUTION.

M-368

MONTANA LIBRARY ASSOCIATION.

ANNUAL.

MONTANA LIBRARY DIRECTOR, WITH STATISTICS OF MONTANA PUBLIC LIBRARIES.

BOZEMAN, MT.: MONTANA LIBRARY ASSOC.

PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE DIRECTORIES CONTAIN LISTS OF REPRESENTATIVES TO THE MONTANA FEDERATION OF LIBRARIES; PUBLIC LIBRARIES, THE LIBRARIANS NAME, AND HOURS THE LIBRARY IS OPEN; ACADEMIC, INSTITUTIONAL, AND SPECIAL LIBRARIES; SCHOOL LIBRARIES AND LIBRARY STATISTICS, WHICH INCLUDE TOTAL TITLES AND TOTAL VOLUMES IN COLLECTION, NUMBER OF PERIODICALS RECEIVED, AND TITLES ADDED DURING EACH YEAR.

M-369

MONTANA OFFICE OF BUDGET AND PROGRAM PLANNING.

1976.

DETENTION AND SHELTER CARE PLAN.

HELENA, MT.: MONTANA OFFICE OF BUDGET & PROGRAM PLANNING. 207 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS DOCUMENT PRESENTS SPECIFIC PLANS FOR THE DEVELOPMENT OF A SERVICE SYSTEM REGARDING DETENTION AND SHELTER CARE FOR YOUTH. OF PRIMARY CONCERN IS THE QUESTION OF CURRENT PRACTICES AND POLICIES FOUND IN STATUTES PERTAINING TO YOUTH DETENTION. A WORKING PHILOSOPHY OF DETENTION AND SHELTER CARE IS OUTLINED. AVAILABLE FACILITIES AND SERVICES ARE REVIEWED AND AN ALTERNATE SYSTEM WITH RECOMMENDATIONS FOR COSTS AND MANAGEMENT IS PROPOSED.

M-370

MONTANA OFFICE OF PUBLIC INSTRUCTION.

1979.

VOCATIONAL EDUCATION MINIPLAN.

HELENA, MT. 8 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE PUBLICATION PRESENTS AN ABRIDGED VERSION OF THE OVERALL PLAN FOR VOCATIONAL EDUCATION. OUTLINES GOAL AREAS AND OBJECTIVES, FUNDING SUPPORT, VOCATIONAL EDUCATION ENROLLMENT, AND COUNTY PROGRAMS.

M-371

MONTANA OFFICE OF THE STATE FORESTER.

1968.

INITIAL WORK PLAN; YOUTH FOREST CAMP WORK PROGRAM.

MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION. 162 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER STATE FOREST: SWAN RIVER YOUTH FOREST CAMP). THE PUBLISHED "YOUTH FOREST CAMP WORK PROGRAM" CONSISTS OF TWO VOLUMES: AN OPERATIONAL MANUAL AND THE INITIAL WORK PLAN. THE WORK PLAN CONTAINS THE JOB LOAD OF THE STAFF AND THE DESCRIPTION OF THE PROJECTS AND TRAINING OUTLINE FOR VARIOUS CREWS. THESE PUBLICATIONS PROVIDE THE POLICY, DIRECTIONS, PROCEDURES, AND JOB LOAD FOR ALL STATE FORESTRY PERSONNEL FOR THE WORK PROGRAM TO PROCEED IN COOPERATION WITH THE SWAN RIVER YOUTH FOREST CAMP.

M-372

MONTANA OFFICE OF THE STATE FORESTER.

1968.

OPERATION MANUAL: YOUTH FOREST CAMP WORK PROGRAM.

MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION. 101 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER STATE FOREST: SWAN RIVER YOUTH FOREST WORK CAMP). THE PUBLISHED "YOUTH FOREST CAMP WORK PROGRAM" CONSISTS OF TWO VOLUMES: AN OPERATIONAL MANUAL AND AN INITIAL WORK PLAN. THE OPERATIONAL MANUAL CONTAINS THE SPECIFIC POLICY, PROJECT SPECIFICATIONS ADMINISTRATIVE PROCEDURES AND VARIOUS DESCRIPTIONS OF THE PROGRAM. IN COMBINATION WITH OTHER APPROPRIATE MANUALS, THESE PUBLICATIONS PROVIDE THE POLICY, DIRECTIONS, PROCEDURES AND JOB LOAD FOR ALL STATE FORESTRY PERSONNEL FOR THE WORK PROGRAM TO PROCEED IN COOPERATION WITH THE SWAN RIVER YOUTH FOREST CAMP.

M-373

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION.

1971.

MONTANA SCHOOL STATISTICS.

HELENA, MT. 48 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). SCHOOL STATISTICS ARE PRESENTED IN THE FOLLOWING SECTIONS: 1) PUBLIC SCHOOL BUDGET, EXPENDITURE AND FUNDING DATA; 2) PUBLIC SCHOOL POPULATION-RELATED DATA; 3) SCHOOL DISTRICT BUDGET RELATED DATA BY CATEGORY; 4) PROFESSIONAL PERSONNEL DATA; AND 5) NON-PUBLIC SCHOOL ENROLLMENT STATISTICS.

M-374

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION.

ANNUAL.

ANNUAL PLAN FOR VOCATIONAL EDUCATION IN MONTANA.

HELENA, MT.

PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS PLAN IS A GUIDE TO THE DEVELOPMENT AND MAINTENANCE OF VOCATIONAL EDUCATION OPPORTUNITIES IN MONTANA.

M-375

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION.

ANNUAL.

MONTANA EDUCATION DIRECTORY.

HELENA, MT.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS GUIDE CONTAINS A LISTING OF PUBLIC AND ELEMENTARY SCHOOLS AND THE FOLLOWING DATA: SCHOOL DISTRICT, SCHOOL ADMINISTRATOR AND SCHOOL TELEPHONE, SCHOOL NAME AND ADDRESS, NUMBER OF CERTIFIED STAFF, AND THE NUMBER OF PUPILS.

M-376

MONTANA POWER COMPANY.

1977.

THE MONTANA POWER COMPANY-1977 LONG RANGE PLAN.

BUTTE, MT.: THE MONTANA POWER COMPANY. 21 PP. FINAL. SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE INFORMATION IN THIS LONG RANGE PLAN PRESENTS THE EFFORTS OF THE MONTANA POWER COMPANY TO SET FORTH ITS PLANS AND PROJECTIONS BASED ON PRESENT KNOWLEDGE, DATA AND CIRCUMSTANCES. THE GENERAL LOCATION, SIZE AND TYPE OF THE UTILITY FACILITIES TO BE OWNED AND OPERATED BY THE COMPANY, WHOSE CONSTRUCTION IS PROJECTED AS OF APRIL 1977 TO COMMENCE DURING THE ENSUING TEN YEARS ARE DESCRIBED. A DESCRIPTION OF EFFORTS BY THE COMPANY TO COORDINATE FOR MEETING THE UTILITIES' NEEDS OF THE REGION IS DETAILED. ALSO INCLUDED IS A DESCRIPTION OF THE MONTANA POWER COMPANY'S EFFORT TO INVOLVE ENVIRONMENTAL PROTECTION AND LAND USE PLANNING AGENCIES IN THE PLANNING PROCESS, AS WELL AS OTHER EFFORTS OF THE COMPANY TO IDENTIFY AND TO MINIMIZE ENVIRONMENTAL PROBLEMS AT THE EARLIEST POSSIBLE STAGE IN THE PLANNING PROCESS. TABLES LISTING 1976 PEAK AND AVERAGE KILOWATT READINGS FOR DISTRIBUTION SUBSTATIONS AS WELL AS ESTIMATED PEAK SUBSTATION LOADS IN KILOWATTS FROM 1977-1987 ARE INCLUDED.

M-377

**MONTANA POWER COMPANY.
THE STORY OF MONTANA POWER.**

BUTTE, MT.: MONTANA POWER CO. 80 PP.

FINAL. GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS BOOK PROVIDES ACCOUNTS OF THE HISTORY AND DEVELOPMENT OF THE MONTANA POWER COMPANY. A HISTORICAL NARRATIVE DESCRIBING INITIAL ENERGY REQUIREMENTS OF THE STATE'S COMMUNITIES IS PRESENTED, ALONG WITH A DISCUSSION OF THE DEVELOPMENT OF THE COMPANY, HAND-IN-HAND WITH INDUSTRIAL GROWTH. HYDROELECTRIC DEVELOPMENTS SUCH AS THE KERR PROJECT ARE BRIEFLY DESCRIBED.

M-378

THE MONTANA PRESS BUREAU.

1966.

POCKET MANUAL OF THE FLATHEAD COUNTRY.

BUTTE, MT. 39 PP.

FINAL. SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE MANUAL CONTAINS INFORMATION CONCERNING RESERVATION LANDS OPEN FOR SETTLEMENT IN 1909, RULES GOVERNING THE OPENING, AND OPPORTUNITIES AND MARKETS OF THE FLATHEAD REGION. INCLUDED IS A DESCRIPTION OF ARABLE VALLEYS, THE BISON RANGE, THE DESERT LANDS, TIMBER AND STONE LANDS, ALONG WITH DISCUSSIONS OF STEPS TO BE TAKEN TO SECURE AN ALLOTMENT, RESIDENCE ON LANDS, CLASSIFICATION OF LANDS, HOW TO OBTAIN GOVERNMENT LAND, AND LEASING OF STATE LANDS. THE PROCLAMATION OPENING THE RESERVATION, UNITED STATES MINING LAWS, AND THE CONGRESSIONAL ACT OPENING THE RESERVATION ARE INCLUDED.

M-379

**MONTANA RECLAMATION ASSOCIATION.
ANNUAL.**

IRRIGATION PAYS.

HELENA, MT.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE PAMPHLETS DESCRIBE PROJECTS CONSTRUCTED BY THE STATE WATER CONSERVATION BOARD. THE TYPE OF DAM, THE SIZE OF THE RESERVOIR, THE LENGTH OF THE CANAL, AND THE NUMBER OF ACRES IRRIGATED ARE INCLUDED. DOMESTIC WATER SUPPLY SYSTEMS ARE ALSO DESCRIBED.

M-380

**MONTANA RURAL AREA DEVELOPMENT COMMITTEE.
FOREST SUB-COMMITTEE.**

1971.

OPPORTUNITIES FOR DEVELOPING MONTANA'S FOREST RESOURCES.

BOZEMAN, MT.: COOP. EXTEN. SERV., MONTANA STATE UNIV. 73 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE PURPOSE OF THIS REPORT IS TO STIMULATE LOCAL INTEREST IN FORESTRY-ORIENTED ACTIVITIES BY 1) PRESENTING THE SCOPE AND IMPORTANCE OF THE FOREST RESOURCES IN MONTANA, 2) DISCUSSING THE INTERRELATED FOREST RESOURCES, AND 3) SUGGESTING ACTIONS WHICH MAY BE TAKEN BY COMMUNITIES TO CONSERVE AND WISELY USE THEIR FOREST RESOURCE. THIS REPORT EXAMINES THE FOLLOWING TOPICS: MAJOR FOREST RESOURCES, FOREST MANAGEMENT AND IMPROVEMENT, FOREST PROTECTION, UTILIZATION AND MARKETING OF FOREST PRODUCTS, ACCESS AND TRANSPORTATION, PROGRAM DEVELOPMENT AIDS AND ASSISTANCE TO FOREST LANDOWNERS RESOURCE AGENCY DIRECTOR.

M-381

**MONTANA STATE AGING SERVICES BUREAU.
ANNUAL.**

**MONTANA STATE AGING SERVICES BUREAU
RESOURCE BOOK.**

HELENA, MT.

PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE HAND BOOKS LIST: SENIOR CITIZEN FUNDING BY VARIOUS SOURCES, FOSTER GRANDPARENT AND TITLE VII PROJECTS, RETIRED SENIOR VOLUNTEER PROGRAMS, VETERANS AFFAIRS DIVISIONAL OFFICERS, SOCIAL AND REHABILITATION SERVICES, REGIONAL REPRESENTATIVES AND COUNTY DIRECTORS, SENIOR CITIZENS' CENTERS, LONG-TERM CARE FACILITIES, AND LICENSED HOSPITALS.

M-382

**MONTANA STATE BOARD OF EQUALIZATION.
BIENNIAL.**

**BIENNIAL REPORT: MONTANA STATE BOARD OF
EQUALIZATION.**

HELENA, MT.: MONTANA STATE BOARD EQUALIZATION.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). A SUMMARY OF THE STATE BOARD OF EQUALIZATION'S RESPONSIBILITIES OF PROPERTY EVALUATION AND ASSESSMENT FOR THE PURPOSE OF TAXATION.

M-383

**MONTANA STATE BOARD OF HEALTH.
1903-PRESENT.**

**BIENNIAL REPORT: MONTANA STATE BOARD OF
HEALTH.**

HELENA, MT.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). BIENNIAL REPORT MANDATED BY THE 1901 LEGISLATURE COVERS: ADMINISTRATION AND GENERAL SERVICES. PUBLIC HEALTH PROGRAMS AND FINANCIAL TABLES.

M-384

MONTANA STATE DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES.

1973.

**INTERIM PROJECT PLAN FOR THE CITY OF
WHITEFISH, MONTANA.**

HELENA, MT. 42+ PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH-BIG MOUNTAIN). THE OBJECTIVES OF THIS WATER QUALITY MANAGEMENT PLAN ARE TO ASSURE AN ACCEPTABLE LEVEL OF CERTAINTY THAT WATER QUALITY STANDARDS AND IMPLEMENTATION PLANS IN THE STUDY AREA AND IN AREAS AFFECTED NEARBY WILL BE ACHIEVED; AND TO MAXIMIZE THE COST EFFECTIVENESS OF INVESTMENTS IN POLLUTION ABATEMENT AND PREVENTATIVE ACTIONS REQUIRED TO ACHIEVE WATER QUALITY OBJECTIVES. THIS PLAN ENCOMPASSES THE WHITEFISH-BIG MOUNTAIN AREA, AND FOCUSES ON INFORMATION, DATA, AND EVALUATION REQUIRED FOR RATIONAL DECISION MAKING FOR TREATMENT, PLANT DESIGN AND LOCATION, MODIFICATION OF EXISTING SEWAGE, AND WATER QUALITY EVALUATION FOR THE IMMEDIATE CONSTRUCTION GRANT PROGRAM. A SOIL ASSOCIATION MAP IS INCLUDED.

M-385

**MONTANA STATE DEPARTMENT OF HIGHWAYS, AND
U.S. DEPARTMENT OF TRANSPORTATION.**

1976.

COUNTY MAPS: MONTANA.

56 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA COUNTIES). THE COLLECTION INCLUDES MAPS OF INDIVIDUAL COUNTIES DEPICTING ROADS, RIVERS, FEDERAL LANDS, CITIES, HUMAN ACTIVITIES.

M-386

**MONTANA STATE EMPLOYMENT SERVICE, AND
UNEMPLOYMENT COMPENSATION COMMISSION OF
MONTANA.**

1966.

DISTRIBUTION OF MINORITY GROUPS IN MONTANA.

HELENA, MT. 42 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE LOCATION OF MINORITY GROUPS (BLACKS AND INDIANS) IS THE SUBJECT OF THIS REPORT. TABULAR DATA INCLUDES GENERAL POPULATION CHARACTERISTICS; PERSONS OF BLACK OR INDIAN LINEAGE, BY COUNTIES; PERCENTAGE OF BLACK/INDIAN TO TOTAL POPULATION, BY COUNTY; STATE TOTAL, BLACK AND INDIAN POPULATION, BY SEX AND COUNTY; AND GENERAL POPULATION CHARACTERISTICS FOR METROPOLITAN AND URBAN PLACES. THE REPORT'S NARRATIVE IS PRIMARILY CONCERNED WITH CIVIL RIGHTS LEGISLATION, FEDERAL AND STATE.

M-387

MONTANA STATE ENGINEERS OFFICE.

1960.

**MISSOULA COUNTY WATER RESOURCES SURVEY:
PART 1: HISTORY OF LAND AND WATER USE ON IRRIGATED AREAS AND PART 2: MAPS SHOWING IRRIGATED AREAS IN COLORS DESIGNATING THE SOURCES OF SUPPLY.**

HELENA, MT. 53 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(MISSOULA COUNTY). THE DATA CONTAINED IN THIS REPORT WAS OBTAINED FROM COURTHOUSE RECORDS IN CONJUNCTION WITH INDIVIDUAL CONTACTS WITH LANDOWNERS. INCLUDED ARE CHAPTERS ON IRRIGATION PROJECTS AND WATER RIGHTS APPROPRIATIONS AND DECREES BY STREAMS. 39 MAPS SHOW ALL AREAS UNDER IRRIGATION WITHIN THE COUNTY.

- M-388**
MONTANA STATE ENGINEERS OFFICE.
1963.
LAKE COUNTY: WATER RESOURCES SURVEY. PART I: HISTORY OF LAND AND WATER USE ON IRRIGATED AREAS AND PART II: MAPS SHOWING IRRIGATED AREAS IN COLORS DESIGNATING THE SOURCES OF SUPPLY.
HELENA, MT. 53+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.
- (LAKE COUNTY). THE DATA CONTAINED IN THIS REPORT WAS OBTAINED FROM COURTHOUSE RECORDS IN CONJUNCTION WITH INDIVIDUAL CONTACTS WITH LANDOWNERS. INCLUDED ARE CHAPTERS ON: IRRIGATION PROJECTS AND WATER RIGHTS, APPROPRIATIONS, AND DECREES BY STREAMS. 32 MAPS SHOW ALL AREAS UNDER IRRIGATION WITHIN THE COUNTY.
- M-389**
MONTANA STATE ENGINEERS.
1965.
FLATHEAD AND LINCOLN COUNTY: WATER RESOURCES SURVEY: PART I: HISTORY OF LAND AND WATER USE ON IRRIGATED AREAS AND PART II: MAPS SHOWING IRRIGATED AREAS IN COLORS DESIGNATING THE SOURCES OF SUPPLY.
HELENA, MT. 35+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.
- (FLATHEAD & LINCOLN COUNTY). THE DATA CONTAINED IN THIS REPORT WAS OBTAINED FROM COURTHOUSE RECORDS IN CONJUNCTION WITH INDIVIDUAL CONTACTS WITH LANDOWNERS. INCLUDED ARE CHAPTERS ON IRRIGATION PROJECTS AND WATER RIGHTS, APPROPRIATIONS AND DECREES BY STREAMS. 54 MAPS SHOW ALL AREAS UNDER IRRIGATION WITHIN THE TWO COUNTIES.
- M-390**
MONTANA STATE ENGINEERS OFFICE.
1966.
SANDERS COUNTY: WATER RESOURCES STUDY: PART 1: HISTORY OF LAND AND WATER USE ON IRRIGATED AREAS AND PART 2: MAPS SHOWING IRRIGATED AREAS IN COLORS DESIGNATING THE SOURCES OF SUPPLY.
HELENA, MT. 62 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.
- (SANDERS COUNTY). THE DATA CONTAINED IN THIS REPORT WAS OBTAINED FROM COURTHOUSE RECORDS IN CONJUNCTION WITH INDIVIDUAL CONTACTS WITH LANDOWNERS. INCLUDED ARE CHAPTERS ON IRRIGATION PROJECTS AND WATER RIGHTS APPROPRIATIONS AND DECREES BY STREAMS. 36 MAPS SHOW ALL AREAS UNDER IRRIGATION WITHIN THE COUNTY.
- M-391**
MONTANA STATE FORESTERS OFFICE.
1970.
FLATHEAD WILD RIVERS STUDY: REPORT ON STATE OWNED FOREST LAND.
MISSOULA, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.
- (MIDDLE AND NORTH FORKS OF THE FLATHEAD RIVER). THIS REPORT COVERS TIMBER VOLUMES, TYPES, PRODUCTIVITY AND OPERABILITY. IT ADDRESSES GRAZING, INSECTS AND DISEASE, OWNERSHIP RECORD, MINERALS AND ROADS AND TRAILS ON STATE LAND ADJACENT TO THE NORTH AND MIDDLE FORKS OF THE FLATHEAD RIVER. MAPS ARE INCLUDED WHICH SHOW SECTIONS THAT WILL BE DIRECTLY AFFECTED BY THE RESULTS OF THIS STUDY.
- M-392**
MONTANA STATE HIGHWAY COMMISSION, AND U.S. DEPARTMENT OF TRANSPORTATION.
1975 - PRESENT.
MONTANA PRIMARY HIGHWAYS: SUFFICIENCY RATING ANNUAL REPORT.
HELENA, MT.: MONTANA STATE HIGHWAY COMMISSION, PLANNING SURVEY SECTION, AND U.S. DEPT. TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: FLATHEAD, LAKE, SANDERS, LEWIS & CLARK, POWELL, & MISSOULA COUNTIES). TO COMPLY WITH STATE LAW THE HIGHWAY COMMISSION HAS THE RESPONSIBILITY TO EVALUATE THE CONDITION OF THE PRIMARY SYSTEM THROUGHOUT THE STATE FOR THE PURPOSE OF ALLOCATING CONSTRUCTION FUNDS TO THE VARIOUS FINANCIAL DISTRICTS. THE SUFFICIENCY RATING PROCEDURE APPLIES ONLY TO RURAL SECTIONS OF PRIMARY SYSTEM HIGHWAYS.
- M-393**
MONTANA STATE HIGHWAY COMMISSION.
1943.
HISTORY OF THE MONTANA STATE HIGHWAY DEPARTMENT, 1913-1942. VOL. 1.
HELENA, MT.: MONTANA STATE HIGHWAY COMMISSION, PLANNING SURVEY DIV., AND THE FEDERAL WORKS AGENCY, PUBLIC ROADS ADMINISTRATION.
201 PP.
PART OF A SERIES, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.
- (MONTANA). THE HISTORY AND GENERAL ACTIVITIES OF THE STATE'S HIGHWAY DEPARTMENT FROM THE DATE OF ESTABLISHMENT OF THE FIRST HIGHWAY COMMISSION IN 1913 TO 1942 ARE DESCRIBED. A REPORT CONCERNING THE FEDERAL AID SYSTEM, THE FEDERAL AID SECONDARY SYSTEM, AND THE FOREST HIGHWAY SYSTEM IS INCLUDED.
- M-394**
MONTANA STATE HIGHWAY COMMISSION.
1961.
GLACIER NATIONAL PARK - TOURIST SURVEY.
HELENA, MT.: MONTANA STATE HIGHWAY COMMISSION, PLANNING SURVEY DIV. 26 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THE PRINCIPAL OBJECTIVES OF THE STUDY WERE TO DETERMINE THE ECONOMIC VALUE OF THE APPROXIMATELY ONE HALF MILLION TOURISTS WHO ANNUALLY VISIT GLACIER NATIONAL PARK AND TO OBTAIN CERTAIN DATA CONCERNING THEIR TRAVEL HABITS WHICH COULD BE USED AS A BASIS FOR FUTURE PLANNING. ACTUAL PROCEDURE EMPLOYED IN THE FIELD WAS PERSONAL INTERVIEWS WITH OUTBOUND MOTORISTS AT FOUR STATIONS. TO DETERMINE THE ECONOMIC EFFECT OF PARK VISITORS ARRIVING BY BUS, ARRANGEMENTS WERE MADE WITH THE GLACIER PARK TRANSPORTATION COMPANY TO PASS OUT QUESTIONNAIRE CARDS TO ALL BUS PASSENGERS ON THE SAME DAYS AS AUTOMOBILE PASSENGERS WERE INTERVIEWED. DATA IS PRESENTED IN TABLES.
- M-395**
MONTANA STATE HIGHWAY COMMISSION.
1964.
KALISPELL TRAFFIC SURVEY.
HELENA, MT.: MONTANA STATE HIGHWAY COMMISSION. 75 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (KALISPELL). THIS SURVEY EXAMINES TRAFFIC VOLUMES THROUGH THE USE OF CHARTS WHICH GRAPHICALLY PRESENT DATA ON HOURLY AND DAILY TRAFFIC PATTERNS IN KALISPELL URBAN AREA. PARKING, SPEED, AND DELAY STUDIES ARE INCLUDED, AS WELL AS INFORMATION CONCERNING INDIVIDUAL TRIPS.
- M-396**
MONTANA STATE HIGHWAY COMMISSION.
1960.
MONTANA HIGHWAY HISTORY, 1943-1960. VOL. 2.
HELENA, MT.: MONTANA STATE HIGHWAY COMMISSION, PLANNING SURVEY DIV. 121 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.
- (MONTANA). THIS REPORT OF THE HISTORY AND ACTIVITIES OF THE STATE'S HIGHWAY DEPARTMENT FROM 1943 TO 1960 CONSISTS OF FOUR PARTS: 1) NARRATIVE; 2) HIGHWAY MILEAGE DATA; 3) MOTOR FUEL AND REGISTRATION DATA; AND 4) FINANCIAL AND MISCELLANEOUS DATA. THE FEDERAL AID PRIMARY SYSTEM AND ITS ROUTES ARE DESCRIBED, AND STATISTICS OF HIGHWAY MILEAGE (PRIMARY, SECONDARY, AND MUNICIPAL ROUTES AND INTERSTATE); MOTOR FUEL USAGE; TAX COLLECTIONS; VEHICLE REGISTRATIONS; AND EXPENDITURES ARE INCLUDED.
- M-397**
MONTANA STATE HIGHWAY COMMISSION.
1963.
FIVE YEARS OF TOURIST STUDIES IN MONTANA.
HELENA, MT.: MONTANA STATE HIGHWAY COMMISSION, PLANNING SURVEY DIV., AND U.S. DEPT. COMMERCE, BUREAU PLANNING & RESEARCH. 41 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.
- (MONTANA). THE PURPOSE OF THIS REPORT WAS TO SUMMARIZE AND COMPARE DATA REGARDING TRENDS FROM YEAR TO YEAR (1958 TO 1962) IN THE FIELD OF TOURISM. ROADSIDE INTERVIEWS WITH OUTBOUND VISITORS AT SEVENTEEN STATIONS ON MAIN HIGHWAYS AT THE STATE BORDER WERE CONDUCTED. THE FOLLOWING INFORMATION IS PRESENTED: CARS ENTERING THE STATE, PERSONS PER CAR, STATE OF ORIGIN, TRIP PURPOSE, TRIP INFLUENCE, TYPES OF LODGING USED, LENGTH OF VISIT, DURATION OF ENTIRE TRIP, EXPENDITURES, MILES TRAVELED IN MONTANA, OVERNIGHT STOPS, PRINCIPAL OBJECTIVE OF ENTIRE TRIP, AND MISCELLANEOUS DATA.
- M-398**
MONTANA STATE HIGHWAY COMMISSION.
ANNUAL.
MONTANA FEDERAL AID SECONDARY SYSTEM ROUTE DESCRIPTIONS.
HELENA, MT.: MONTANA STATE HIGHWAY COMMISSION, PLANNING SURVEY SECTION.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA). THE INCREASING DEMAND TO BUILD A MORE ADEQUATE SECONDARY ROAD SYSTEM INCLUDES FARM-TO-MARKET, RECREATION, AND LOCAL SERVICES ROADS. THESE REPORTS DESCRIBE THE TERMINI, MONTH, DAY, AND YEAR OF APPROVAL.
- M-399**
MONTANA STATE PLANNING BOARD.
1939.
PRELIMINARY REPORT ON DEVELOPMENT OF ECONOMIC OPPORTUNITIES IN MONTANA FOR MIGRATORY AND STRANDED FAMILIES.
HELENA, MT. 66 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.
- DATA FOR THE FLATHEAD BASIN CLASSIFIED BY COUNTIES IS AVAILABLE. AN APPENDIX OF TABLES OF COUNTY DATA INCLUDED.
- (MONTANA: FLATHEAD, LAKE, LINCOLN, MISSOULA, SANDERS, LEWIS & CLARK AND POWELL COUNTIES). THE PUBLICATION DESCRIBES THE PROBLEM OF MIGRATORY (STRANDED FARM) FAMILIES DURING THE 1930'S, CAUSES OF THE PROBLEM, ITS SOCIAL AND ECONOMIC CONSEQUENCES. COUNTY DATA ON THE NUMBER OF STRANDED FAMILIES, UNEMPLOY-

MENT, POPULATION CHANGES, P.W.A. EXPENDITURES, BANKRUPTCY, FORECLOSURES, TAX DELINQUENCY, WIND EROSION SITES, AND THE NUMBER OF OPPORTUNITIES TO RE-ESTABLISH FAMILIES IS INCLUDED IN MAPS, BRIEF NARRATIVES, AND TABLES.

M-400
MONTANA STATE UNIVERSITY.
1957, 1958, AND 1962.
THE MONTANA ALMANAC, SUPPLEMENT.
MISSOULA, MT.: MONTANA STATE UNIV.
PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE ALMANAC CONTAINS INFORMATION ON THE PHYSICAL, ECONOMIC, HISTORICAL, GOVERNMENTAL, AND SOCIAL ASPECTS OF THE STATE. POST-WORLD WAR II DATA THROUGH 1956 IS PRESENTED, IF AVAILABLE, MUCH OF IT IN TABLES WHICH INCLUDE COUNTY STATISTICS. OTHER INFORMATION PRESENTED INCLUDES: A LISTING OF GAME RANGES AND THEIR SIZES; A CHRONOLOGICAL LISTING OF EVENTS IN MONTANA, 1743-1956; ORIGIN OF PLACE NAMES; SELECTED LEGISLATION CONCERNING MARRIAGE; CHILD LABOR; INCOME FIGURES; AGRICULTURAL ACREAGE AND PRODUCTION; THE FOREST PRODUCTS, LUMBER, POLES, PULPWOOD, AND CHRISTMAS TREES; MINERAL PRODUCTION; CONSTRUCTION, MANUFACTURING, TRANSPORTATION, AND COMMUNICATIONS; ELECTRIC POWER AND GAS UTILITIES, TRADE AND SERVICES, FINANCE, INSURANCE AND REAL ESTATE INDUSTRIES; HOUSING; EDUCATION AND PUBLIC WELFARE; RECREATION ACTIVITIES; FINE ARTS; ATHLETIC EVENTS, ETC.

M-401
MONTANA STATE UNIVERSITY.
1960.
A PRELIMINARY STUDY OF ENROLLMENT AND SCHOOL BUILDING FACILITIES FOR POLSON.
MISSOULA, MT. 86 PP.
PRELIMINARY, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(POLSON). THIS SURVEY IS OF A PRELIMINARY NATURE IN THAT THE EMPHASIS IS ON ENROLLMENT FORECASTS AND THE STATUS OF EXISTING BUILDING FACILITIES FOR THE PURPOSE OF IDENTIFYING THE EXTENT OF FURTHER BUILDING NEEDS TO HOUSE THE ENROLLMENTS ESTIMATED FOR THE YEARS AHEAD. LIMITED STUDY AND ANALYSIS IS INCLUDED WITH RESPECT TO POSSIBLE SOCIO-ECONOMIC DEVELOPMENTS IN THE SCHOOL COMMUNITY, EDUCATIONAL PROGRAM, AND THE FINANCIAL SITUATION OF THE SCHOOL DISTRICT. ON THE BASIS OF THE FINDINGS OF THE STUDY, A PLAN IS PROPOSED WHICH WAS DESIGNED TO PROVIDE FOR CONTINUOUS PROGRESS TOWARD THE ACHIEVEMENT OF AN ADEQUATE AND FUNCTIONAL SCHOOL PLAN.

M-402
MONTANA STATE UNIVERSITY.
1964.
ANALYSIS OF BUILDING NEEDS OF SCHOOL DISTRICT NO. 8 AND FLATHEAD COUNTY HIGH SCHOOL.
MISSOULA, MT. 32 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: KALISPELL). THIS STUDY EXAMINES BACKGROUND FACTORS, PUPIL PROJECTIONS TO 1974-75, CURRENT PUPIL CAPACITIES OF SCHOOL PLANTS, NEEDED BUILDINGS, PUPIL CAPACITY BY SELECTED YEARS, BUILDING COSTS, ALTERNATIVES IN CHOICE OF ORGANIZATION PATTERNS AND BUILDING PROGRAMS, BONDING CAPACITY, OPERATING COSTS OF ALTERNATIVES OF ORGANIZATION, MAJOR ASSIGNED ATTRIBUTES OF ORGANIZATIONAL PATTERNS, AND AGREEMENTS AMONG SCHOOL BOARDS IN OPERATING JUNIOR HIGH SCHOOLS.

M-403
MONTANA STATE UNIVERSITY.
1964.
A STUDY OF SCHOOL ORGANIZATION: SCHOOL DISTRICT NO. 28, LAKE COUNTY.
MISSOULA, MT.: MONTANA STATE UNIV., EDUCATIONAL RESEARCH & SERVICES, SCHOOL EDUCATION. 168 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY). THE PURPOSE OF THIS STUDY WAS TO MAKE A SURVEY OF THE EXISTING EDUCATIONAL PROGRAM IN THE DISTRICT AND DEVELOP ALTERNATIVES BASED ON THE FINDINGS. THIS INCLUDED A STUDY OF THE DISTRICT'S ECONOMIC BASE, POPULATION AND ENROLLMENT TRENDS, FINANCIAL STATUS, TRANSPORTATION, CURRICULUM, AND EDUCATIONAL FACILITIES. FROM THAT DATA, ALTERNATIVES OF FUTURE PATTERNS OF POSSIBLE ORGANIZATION FOR ATTAINING EDUCATIONAL OBJECTIVES WERE SET FORTH FOR CONSIDERATION BY SCHOOL TRUSTEES AND PATRONS.

M-404
MONTANA STATE UNIVERSITY. DEPARTMENT OF EARTH SCIENCES.
1975.
STATE OF MONTANA: ENERGY MAP.
HELENA, MT.: MONTANA ENERGY ADVISORY COUNCIL. 1 P.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE FOLLOWING ENERGY DEVELOPMENTS ARE MARKED ON THIS MAP: OIL AND GAS FIELDS, BITUMINOUS COAL, SUB-BITUMINOUS COAL, LIGNITE, LIGNITE IN TERTIARY BEDS, OIL REFINERY, GAS PLANT, ACTIVE MINING, HYDROELECTRIC POWER PLANTS, ELECTRIC TRANSMISSION LINES, OIL PIPELINES, GAS PIPELINES, REFINED PRODUCTS PIPELINES, AND SELECTED RAILROADS.

M-405
MONTANA STATE UNIVERSITY. DIVISION OF EDUCATIONAL RESEARCH AND SERVICES.
1960.
PRELIMINARY WORKING SUGGESTIONS WITH TABLES AND OUTLINES FOR POLSON SCHOOL DISTRICT SURVEY.
MISSOULA, MT.: MONTANA STATE UNIV., SCHOOL EDUCATION. 28 PP.
FINAL, SPECIFIC, TECHNICAL, BASIN.

(POLSON). THIS REPORT DESCRIBES SOME OF THE MORE IMPORTANT FACTORS TO BE CONSIDERED IN A SCHOOL STUDY, SOME OF THE DETAILED INFORMATION THAT MUST BE COLLECTED, SOME OF THE USES FOR THIS INFORMATION, AND SOME SUGGESTED FORMS FOR REPORTING.

M-406
MONTANA STATE UNIVERSITY. DIVISION OF EDUCATIONAL RESEARCH AND SERVICES.
1960.
A STUDY OF FLATHEAD COUNTY PUBLIC SCHOOLS.
MISSOULA, MT.: MONTANA STATE UNIV., SCHOOL EDUCATION. 179 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: KALISPELL). THIS COOPERATIVE STUDY CONSIDERS THE SOCIAL, ECONOMIC, AND EDUCATIONAL FACTORS WHICH INFLUENCE THE EDUCATION OF YOUTH. THE TOPICS COVERED INCLUDED ORGANIZATION, PHYSICAL, AND FINANCIAL ASPECTS OF PUBLIC SCHOOL EDUCATION; CURRICULUM PRACTICES; EDUCATIONAL PERSONNEL; IMPLICATIONS; AND GOVERNMENT AND POLITICS.

M-407
MONTANA STATE UNIVERSITY. MONTANA AGRICULTURAL EXPERIMENT STATION.
1966.
GRAIN AND OILSEED CROP VARIETIES IN MONTANA.
BOZEMAN, MT. CIRC. 245. 57 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: CRESTON'S NORTHWESTERN AGRICULTURAL EXPERIMENT STATION WAS INVOLVED IN THE APPROVAL OF RECOMMENDED VARIETIES.

(MONTANA). THE CIRCULAR LISTS RECOMMENDED VARIETIES FOR THE FOLLOWING GRAIN AND OILSEED CROPS: HARD RED, DURAM AND WHITE SPRING WHEAT; HARD RED AND WHITE WINTER WHEAT; SPRING AND WINTER BARLEY; OATS; CORN FOR GRAIN; SPRING AND WINTER RYE; FLAX; MUSTARD; SAFFLOWER; FIELD BEANS; AND FIELD PEAS. CHARACTERISTICS OF EACH RECOMMENDED VARIETY OF UNEVALUATED AND NON-RECOMMENDED VARIETIES ARE DESCRIBED; TEST WEIGHTS; YIELD, MILLING AND BAKING QUALITIES, DISEASE SUSCEPTIBILITY AND RESISTANCE, DEVELOPMENT FROM CROSSES, MATURATION TIME AND PLANT CHARACTERISTICS ARE NOTED.

M-408
MONTANA STATE UNIVERSITY. MONTANA AGRICULTURAL EXPERIMENT STATION.
1967.
WESTERN MONTANA AGRICULTURAL RESEARCH.
KALISPELL, MT.: NORTHWESTERN AND WESTERN CIRCULAR 102. 28 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN MONTANA: LAKE & FLATHEAD COUNTIES). REPORTS COVER RESEARCH DONE ON: POTATOES, FARM FLOCKS, FORAGES, A BRIEF RESUME OF FORAGE WORK DONE AT THE STATIONS FROM 1958-1966, SMALL GRAINS, WEED CONTROL, MAJOR INSECT PESTS AND THEIR CONTROL AND REPORT OF FORAGE AND BEEF CATTLE NUTRITION RESEARCH.

M-409
MONTANA STATE UNIVERSITY. MONTANA AGRICULTURAL EXPERIMENT STATION.
1979.
PERENNIAL AND BIENNIAL FORAGE CROP VARIETIES FOR MONTANA.
BOZEMAN, MT. CIRC. 242, REV. 56 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: CRESTON'S NORTHWESTERN AGRICULTURAL EXPERIMENT STATION WAS INVOLVED IN THE APPROVAL OF RECOMMENDED VARIETIES.

(MONTANA). THE CIRCULAR LISTS RECOMMENDED VARIETIES FOR THE FOLLOWING PERENNIAL AND BIENNIAL FORAGE CROPS: ALFALFA, CLOVER, BIRD-FOOT, TREFOIL, SAINFOIN, SWEETCLOVER, KENTUCKY AND BIG BLUEGRASS, SMOOTH BROMEGRASS, CANARYGRASS, TALL FESCUE, CREEPING FOXTAIL, GREEN NEEDLEGRASS, ORCHARDGRASS, TIMOTHY, AND WHEAT GRASSES. DESCRIPTIONS OF THE RECOMMENDED AND NONRECOMMENDED VARIETIES FOLLOW; YIELDS, INCLUSION IN MIXTURES, DISEASE AND WILT RESISTANCE, MATURING CHARACTERISTICS, WINTER HARDINESS, USE IN IRRIGATED/DRYLAND PASTURES AND PLANT CHARACTERISTICS ARE NOTED. A DISCUSSION OF GENERAL INFORMATION PERTAINING TO SEEDING RATES FOR GRASSES AND LEGUMES, CALCULATING PLANTING RATES, AND RECOMMENDED MIXTURES CONCLUDES THE CIRCULAR.

M-410
MONTANA STATE UNIVERSITY. SCHOOL OF EDUCATION.
1964.
"SUPPLEMENTARY REPORT TO A STUDY OF SCHOOL ORGANIZATION: SCHOOL DISTRICT NO. 28, LAKE COUNTY."

MONTANA STATE UNIV., MISSOULA, MT. (TYPEWRITTEN). 9 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY). COSTS RELATING TO TRANSPORTATION AND FACILITIES FOR POSSIBLE LOCATIONS OF A HIGH SCHOOL ARE THE SUBJECT OF THIS REPORT. THE FOLLOWING ESTIMATES ARE PRESENTED IN TABLES AND DISCUSSED IN BRIEF NARRATIVES: RELATIVE ADDITIONAL TRANSPORTATION COSTS FOR ALTERNATE SITES; BUDGETING AUTHORITY AND ADDITIONAL STATE REVENUE FOR 6-3-3 PLANS OF ORGANIZATION; AND PROJECTED BUILDING COSTS.

M-411
MONTANA STUDY.
1945.
LIFE IN MONTANA. A 10-WEEKS GROUP STUDY GUIDE. SERIES 1.
MISSOULA, MT.: UNIV. MONTANA. 111 PP.
PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

NOTE: NO MAJOR REFERENCES TO BASIN.

(MONTANA). THIS IS A SERIES I OF A GROUP STUDY PROGRAM DEVOTED MAINLY TO A DISCUSSION OF THE REGIONAL ECONOMIC, SOCIAL, AND CULTURAL PROBLEMS THAT UNDERLIE LIFE IN THE SMALL COMMUNITIES OF MONTANA. SOME HISTORICAL REFERENCES TO THE FLATHEAD VALLEY ARE MADE.

M-412
THE MONTANA STUDY; THE DIXON-AGENCY MONTANA STUDY GROUP; AND THE FULL BLOOD FLATHEAD INDIAN MONTANA STUDY GROUP.
1947.
"A TALE OF THE SHINING MOUNTAINS."
MISSOULA, MT.: UNIV. MONTANA. (TYPEWRITTEN). 30 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS AND THE FLATHEAD RESERVATION). THE SCRIPT PRESENTS A HISTORICAL COMMUNITY PAGEANT-DRAMA IN FIVE EPISODES. EPISODE I, THE FOUNDING OF FORT CONNAH, DEPICTS THE ARRIVAL OF ANGUS MACDONALD IN THE ABORIGINAL LANDS OF THE FLATHEAD VALLEY IN 1847. EPISODE II DESCRIBES AN INDIAN RESERVATION OPEN COURT AND INCLUDES CHIEF NINEPIPES AND CATHOLIC PRIESTS. IN EPISODE III CHIEF CHARLOT ARRIVES WITH HIS BAND AT THE JOCKO RESERVATION, AN EVENT WHICH OCCURRED IN 1891. EPISODE IV IS CONCERNED WITH THE EVENTS OF 1910 WHEN HOMESTEADERS BEGIN SETTLING ON THEIR ALLOTMENTS. THE FIFTH EPISODE CONSISTS OF SPEECHES FOR THE CURRENT CELEBRATION BY A RETURNING VETERAN, TRIBAL CHAIRPERSON, CHIEFS CHARLOT AND MATHIAS.

M-413
MONTANA TAXPAYERS ASSOCIATION.
1940.
OLD AGE ASSISTANCE IN MONTANA.
GOVERNMENTAL RESEARCH PUBL. NO. 2. HELENA, MT. 44 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). AN ANALYSIS OF THE HISTORY, EXPENDITURES, NUMBER AIDED, POPULATION, THE VARIOUS PLANS FOR AID AND THE FINANCIAL PROBLEMS OF THE AGED.

M-414
MONTANA TAXPAYERS ASSOCIATION.
1971-1979.
MONTANA PROPERTY TAXATION.
HELENA, MT.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE PUBLICATIONS DEAL WITH PROPERTY TAXATION AND TRACE THE HISTORY OF THE TAX FOR LOCAL GOVERNMENT AND THE PUBLIC SCHOOLS. COUNTY AND STATE PUBLIC OFFICIALS PROVIDED MILL LEVY RATES AND PROPERTY TAX INFORMATION.

M-415
MONTANA TAXPAYERS' ASSOCIATION.
ANNUAL.
MONTANA PROPERTY TAX BUDGET GUIDE: MONTANA GUIDE FOR ANALYSIS OF COUNTY, CITY, AND SCHOOL BUDGETS.
HELENA, MT.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). EACH PUBLICATION DESCRIBES GOVERNMENT TAXING AND SPENDING AUTHORITY. THE COUNTY AND MUNICIPAL BUDGET ACTS ARE PRESENTED AND ANALYZED. CITY AND TOWN TAX RATE LIMITS AND PUBLIC SCHOOL FINANCING ARE ALSO DISCUSSED.

M-416
MONTANA TAXPAYERS' ASSOCIATION.
ANNUAL.
MONTANA: PROPERTY TAX MILL LEVIES.
HELENA, MT.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). EACH PUBLICATION INCLUDES THE MILL LEVIES IMPOSED ON EACH TAXING JURISDICTION IN THE STATE FROM COUNTY OFFICIALS. INCLUDED WITH EACH LEVY BOOK IS A BREAKDOWN OF COUNTY, PUBLIC SCHOOL, MUNICIPAL, SPECIAL DISTRICT, AND STATE LEVIES, COMPARABLE MILL LEVY INFORMATION IS INCLUDED FOR THE LAST 30 YEARS.

M-417
MONTANA WATER QUALITY BUREAU.
1975.
WATER QUALITY IN MONTANA.
HELENA, MT.: DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV. 34 PP.
PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: FLATHEAD RIVER BASIN IS ONE OF THE BASINS IDENTIFIED AS HAVING SIGNIFICANT WATER QUALITY PROBLEMS.

(MONTANA: FLATHEAD RIVER BASIN). A COMPILATION OF WATER QUALITY MONITORING DATA INITIATED TO PROVIDE INFORMATION FOR BASIN MANAGEMENT PLANS. TABLES LIST WATERS WITHIN THE FLATHEAD BASIN NOT MEETING OBJECTIVES OF PUBLIC LAW 92-500. TYPE OF PROBLEM, POINT OR NONPOINT SOURCE, NUMBER OF MILES AFFECTED AND GRID COORDINATES ARE LISTED FOR EACH STREAM/LAKE. COSTS OF CORRECTING MUNICIPAL DISCHARGES AND INDUSTRIAL COSTS ARE BRIEFLY EXAMINED.

M-418
MONTANA WATER RESOURCES BOARD.
1987.
RESERVOIR STORAGE IN MONTANA: COMPILATIONS BY COUNTY.
HELENA, MT. PAGES VARIABLE.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT CONTAINS TABLES OF RESERVOIR STORAGE DATA FOR COUNTIES. FOR EACH COUNTY THE FOLLOWING INFORMATION IS AVAILABLE: TOTAL NUMBER DAMS, TOTAL STORAGE IN ACRE/FEET, STORAGE FOR SUCH USES AS MULTIPURPOSE, IRRIGATION, STOCKWATER, FLOOD CONTROL, FISH AND WILDLIFE, MUNICIPAL-INDUSTRIAL, POWER, AND RECREATION.

M-419
MONTANA WATER RESOURCES BOARD.
1988.
BIBLIOGRAPHY OF MONTANA WATER RESOURCES AND RELATED PUBLICATIONS.
HELENA, MT.: INVENTORY SERIES REPT. NO. 10. 91 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE BIBLIOGRAPHY LISTS PUBLISHED AND UNPUBLISHED INFORMATION AVAILABLE TO THE MONTANA WATER RESOURCES BOARD. INCLUDES AN AUTHOR LIST AND SEQUENTIAL CODE NUMBER LIST. THE CODING SYSTEM UTILIZES DESCRIPTOR GROUPS (LISTED IN THE APPENDIX), RIVER BASIN CODE LETTERS, COUNTY CODE NUMBERS AND A CODE DESIGNATING FORM OF THE INFORMATION.

M-420
MONTANA WATER RESOURCES BOARD.
1988.
DIRECTORY OF STATE OF MONTANA, FEDERAL AGENCIES, AND PRIVATE GROUPS ACTIVE IN THE GENERAL FIELD OF WATER RESOURCES.
HELENA, MT. INVENTORY SERIES REPT. NO. 1. 31 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

AND THE COLUMBIA-NORTH PACIFIC STUDY.

(MONTANA: FLATHEAD RIVER BASIN). THE DIRECTORY CONTAINS A LISTING OF PERSONNEL, ADDRESSES, AND TELEPHONE NUMBERS FOR: STATUTORY AND NONSTATUTORY STATE AGENCIES AND THEIR DISTRICTS, FEDERAL DEPARTMENTS, AND RIVER BASIN COMMISSIONS AND AGENCIES, PUBLIC ORGANIZATIONS, TRIBAL COUNCILS, IRRIGATION DISTRICTS, MUNICIPAL WATER SUPPLIES AND PRIVATE DITCH COMPANIES ARE INCLUDED.

M-421
MONTANA WATER RESOURCES BOARD.
1988.
MONTANA REGISTER OF DAMS.
HELENA, MT. INVENTORY SERIES REPT. NO. 3. 76 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). ALL KNOWN MAN-MADE WORKS FOR THE STORAGE AND CONTROL OF SURFACE WATERS HAVING A USABLE OR TOTAL STORAGE CAPACITY OF 50 ACRE-FEET OF MORE ARE COMPILED IN THIS PUBLICATION. DATA IS PRESENTED IN TABULAR FORM BY COUNTIES. THE FOLLOWING INFORMATION IS PROVIDED: YEAR OF DAM COMPLETION; SOURCE OF WATER; NEAREST TOWN; LOCATION; TYPE OF DAM; HEIGHT; LENGTH OF CREST; VOLUME (CU. YDS.); TYPE OF SPILLWAY; WIDTH; CAPACITY; CFS; CAPACITY OF RESERVOIR (AC. FT.); PURPOSE; OWNER; AND ENGINEER.

M-422
MONTANA WATER RESOURCES BOARD.
1988.
MONTANA WATER LAWS: A RESUME.
HELENA, MT. INVENTORY SERIES REPT. NO. 5. 7 PP.
PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS BRIEF SUMMARY OF THE STATE'S BASIC WATER LAWS INCLUDES THE FOLLOWING: THE ACQUISITION OF WATER RIGHTS; THE APPROPRIATION DOCTRINE; APPROPRIATION FROM UNADJUDICATED/ADJUDICATED STREAMS; SIZE OF WATER RIGHT; LOSS OF WATER RIGHT; AND GROUND-WATER LAW. WATER DISTRICTS, PROVIDED BY STATE LAW AND ESTABLISHED FOR PURPOSES OF STUDYING, PLANNING, AND PROMOTING THE DEVELOPMENT OF WATER RESOURCES, ARE DISCUSSED. THESE INCLUDE COUNTY WATER AND SEWER DISTRICTS, DRAINAGE DISTRICTS, IRRIGATION DISTRICTS, STATE SOIL AND WATER CONSERVATION DISTRICTS, AND COUNTY AND MUNICIPAL

FLOOD CONTROL AND CONSERVATION DISTRICTS. THE REPORT ALSO COVERS REGULATIONS CONCERNING WEATHER MODIFICATION, COMPACTS AND TREATIES.

M-423
MONTANA WATER RESOURCES BOARD.
1968.

MONTANA WATER RESOURCES AND PLANNING.
HELENA, MT. INVENTORY SERIES REPT. NO. 4. 19 PP.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL
DATA, EXISTING DATA, STATEWIDE.

(MONTANA). THE PUBLICATION SUMMARIZES INFORMATION CONCERNING THE STATE'S WATER RESOURCE PROBLEMS. IT DISCUSSES PRECIPITATION, RUNOFF, DRY-WEATHER FLOW, FLOOD FLOW, SOIL MOISTURE, AND THE GROUND WATER RESERVOIR. INCLUDED IN THE PRESENTATION OF WATER UTILIZATION AND NEEDS ARE THE FOLLOWING TOPICS: SUCH CONSUMPTIVE USES AS CROP PRODUCTION, INDUSTRIAL, PUBLIC SUPPLIES, RURAL DOMESTIC USE, AND STOCKWATERING; SUCH NON-CONSUMPTIVE USES AS RECREATION, FISH AND WILDLIFE REQUIREMENTS; THE DOCTRINE OF APPROPRIATION; AND FUTURE REQUIREMENTS. A PROPOSED FRAMEWORK FOR A COMPREHENSIVE WATER RESOURCES PLAN IS OUTLINED.

M-424
MONTANA WATER RESOURCES BOARD.
1969.

GROUNDWATER IN MONTANA.
HELENA, MT.: MONTANA WATER RESOURCES
BOARD. INVENTORY SERIES REPT. NO. 16.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS REPORT WAS INITIATED AS PART OF THE INVENTORY PHASE OF THE STATE'S COMPREHENSIVE WATER PLAN. PUBLISHED GROUND WATER REPORTS AND OTHER REPORTS CONTAINING INFORMATION REQUIRED IN ESTIMATING AVAILABLE GROUNDWATER IN MONTANA WERE REVIEWED, SUMMARIZED, AND COMPIL-ED INTO ONE DOCUMENT. THE UNCONSOLIDATED AQUIFER SUMMARIES PROVIDE INFORMATION THAT INCLUDES AQUIFER AREA, THICKNESS, SPECIFIC YIELD, GROUNDWATER IN STORAGE PERENNIAL RECHARGE AND WATER QUALITY IN EACH REPORT AREA. THE UNCONSOLIDATED AQUIFERS ARE GROUPED BY DRAINAGE BASINS IN THIS COMPILA-TION. ABANDONED PREGLACIAL AND TEMPORARY GLACIAL CHANNEL AQUIFERS ARE REVIEWED IN A SEPARATE SECTION. THE BEDROCK AQUIFERS ARE PRESENTED SEPARATELY WITH A DISCUSSION OF THE AVAILABILITY OF GROUNDWATER FROM EACH FORMATION. A GENERALIZED LIST OF STRATIGRAPHIC UNITS SHOWS THE HYDROLOGIC CHARACTERISTICS OF BOTH THE UNCONSOLIDATED AND BEDROCK AQUIFERS.

M-425
MONTANA WATER RESOURCES BOARD.
1969.
SUMMARY OF POTENTIAL PROJECTS IN MONTANA.
HELENA, MT. INVENTORY SERIES NO. 9. 47 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING
DATA, STATEWIDE.

(MONTANA). THIS PUBLICATION IS A TABULATION OF POTENTIAL WATER RESOURCE PROJECTS WHICH HAVE BEEN INVESTIGATED BY STATE, FEDERAL, AND LOCAL GROUPS. 748 PROPOSALS INVOLVING STORAGE DAMS, PUMPING AND DIVERSION PRO-JECTS ARE INCLUDED IN THE SUMMARY. THE DAMS PROPOSED ARE GENERALLY FOR THE PURPOSE OF IRRIGATION, FLOOD CONTROL, POWER, STOCKWATER AND RECREATION. THE INFORMATION AVAILABLE IN THE TABLES INCLUDES: DRAINAGE BASIN, COUNTY, SITE NAME, STREAM NAME, MAP LOCATION, DRAINAGE AREA, PURPOSE, DAM HEIGHT AND CREST LENGTH, RESERVOIR NORMAL POOL AREA AND STORAGE ACRE FEET, AND THE PROPOS-ING AGENCY.

M-426
MONTANA WATER RESOURCES BOARD.
1969.
**WATER RESOURCES PROGRAMS CONDUCTED BY
GOVERNMENT AGENCIES IN MONTANA.**
HELENA, MT. INVENTORY SERIES REPT. NO. 2. 62 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA). THE REPORT SUMMARIZES AND ANALYZES INFORMATION ON WATER RESOURCE PROGRAMS CONDUCTED BY STATE AND FEDERAL AGENCIES, AND ASSOCIATIONS/TECHNICAL SOCIETIES. INFORMATION ON THE PROGRAMS' NATURE, SCOPE, COST, YEARS TO COMPLETION IS INCLUDED.

M-427
**MONTANA WHEAT RESEARCH AND MARKETING
COMMITTEE.**
1978.

**RAILROAD EXPORT FREIGHT RATES WHEAT AND
BARLEY: MONTANA TO PACIFIC NORTHWEST.**
GREAT FALLS, MT. 32 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA). THIS RATE BOOK IS COMPLETED FROM TARIFFS ON FILE WITH THE INTERSTATE COMMERCE COMMISSION AND REPRESENTS THE LAWFULLY AP-PLICABLE RATES FROM TOWNS IN MONTANA.

M-428
MONTANA WILDLIFE FEDERATION.
1969.
**PROCEEDINGS OF THE FIRST FLATHEAD LAKE
NATURAL RESOURCES SEMINAR.**
BIGFORK, MT. 539 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA). THE PUBLICATION PRESENTS COM-MENTS AND SPEECHES MADE BY REPRESENTATIVES OF MONTANA WILDLIFE FEDERATION, NATIONAL PARK AND FOREST SERVICE, MONTANA DEPART-MENT OF FISH AND GAME, OTHER STATE AND FEDERAL AGENCIES AND COMMUNITY ORGANIZA-TIONS, AND RESEARCH BIOLOGISTS. THE PROBLEMS OF ECONOMIC DEVELOPMENT, RESOURCE USE, EN-VIRONMENTAL DEGRADATION ARE DISCUSSED AS WELL AS SPECIFIC ISSUES SUCH AS PUBLIC RECREA-TION, FLATHEAD RIVER DAMSITES, AND PESTICIDE USE.

M-429
MOODIE, D. W., AND KAYE, BARRY.
"THE AC KO MOK KI MAP."
THE BEAVER, SPRING 1977, PP. 4-15.

A MAP DRAWN BY A BLACKFOOT CHIEF SHOWS THE LOCATION OF THE FLATHEAD, KOOTENAY, AND PEND D'OREILLE INDIANS. SKCC.

M-430
MOODY, C. J.
1932.
PROJECT HISTORY.
U.S. DEPT. INTERIOR, INDIAN IRRIGATION SERVICE,
FLATHEAD PROJECT, MONTANA. 66 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EX-ISTING DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY). THIS REPORT IN-CLUDES AN OUTLINE OF THE PROGRESS OF THE DEVELOPMENT OF THE IRRIGATION PROJECT FROM THE BEGINNING OF THE FIRST SURVEYS TO THE END OF 1931 AND STATISTICS ON CONSTRUCTION, OPERATION, AND MAINTENANCE AC-COMPLISHMENTS AND RESULTS.

M-431
MOONEY, H. A., AND BILLINGS, W. D.
1962.
**"COMPARATIVE PHYSIOLOGICAL ECOLOGY OF
ARCTIC AND ALPINE POPULATIONS OF OXYRIA
DIGYNA."**
ECOLOGICAL MONOGRAPHS 31(JANUARY 1962):1-29.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(WESTERN NORTH AMERICA: LOGAN PASS, MON-TANA). THE ENVIRONMENTAL REQUIREMENTS OF A SERIES OF ARCTIC AND ALPINE POPULATIONS OF ALPINE SORREL, OXYRIA DIGYNA, WERE IN-VESTIGATED. THE PRIMARY EMPHASIS WAS ON POSSIBLE MORPHOLOGICAL AND PHYSIOLOGICAL DIFFERENCES BETWEEN THE POPULATIONS UNDER THE IMPACTS OF DIFFERENT ENVIRONMENTS. THE STUDY OF PHYSIOLOGICAL CHARACTERISTICS OF POSSIBLE ADAPTIVE SIGNIFICANCE WAS CON-SIDERED PARTICULARLY IMPORTANT. INCLUDED ARE: HABITAT DESCRIPTIONS OF EACH POPULA-TION; ANALYSIS OF MASS COLLECTIONS AND PLANTS GROWN UNDER CONTROLLED CONDITIONS WHICH INDICATED TWO MORPHOLOGICAL GROUPS WITHIN THE RANGE STUDIED; COMPARISON OF MEASUREMENTS OF FIELD PHOTOSYNTHESIS AND THE SEASONAL CARBOHYDRATE CYCLE OF A WYOM-ING ALPINE POPULATION WITH PUBLISHED RESULTS OF THESE PROCESSES IN ARCTIC POPULATIONS; AND MEASUREMENTS OF PLANTS (GROWTH AND DEVELOPMENT, PHOTOSYNTHESIS AND RESPIRA-TION RATES, LEAF CHLOROPHYLL CONTENTS, ETC.) IN A SERIES OF ARCTIC AND ALPINE POPULATIONS GROWN IN CONTROLLED ENVIRONMENT CHAMBERS STIMULATING ALPINE/ARCTIC GROWING CON-DITIONS. THE PRIMARY OBJECTIVE OF THE RESEARCH WAS TO SHOW HOW OXYRIA DIGYNA IS ABLE TO GROW SUCCESSFULLY IN A WIDE ARRAY OF HABITATS.

M-432
MOORE, W. R., ET. AL.
1978.
**TITLE "A RECOMMENDATION FOR MANAGING
ROADLESS AREA 31485, GOAT CREEK TO SWAN-
CLEARWATER DIVIDE, SWAN MOUNTAINS, MON-
TANA."**
MOORE'S WOODMANSHIP CENTER, CONDON, MT.
(TYPEWRITTEN). 15 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(SWAN MTNS.: GOAT CREEK TO SWAN-CLEARWATER DIVIDE). THE REPORT ATTEMPTS TO DISCOVER A MANAGEMENT PURPOSE FOR THE AREA THAT WILL PERPETUATE A HIGH ECONOMIC AND AESTHETIC QUALITY OF LIFE FOR RESIDENTS AND VISITORS. OBSERVATIONS ON RESOURCE VALUES, USE, AND CARRYING CAPACITY ARE PRESENTED FOR THE AREA'S SIX ZONES: HIGH PEAKS AND ALPINE BASINS; INTERMEDIATE AND HANGING VALLEYS; THE CANYON COUNTRY; RIDGE-VALLEY FACES; MAIN LION CREEK CANYON; AND UNEXPLAINED PLACES. THE RESOURCE VALUES ARE RANKED ACCORDING TO THEIR RELATIVE IMPORTANCE.

M-433
MORGAN, GARTH RAY.
1968.
**"PHYTOPLANKTON PRODUCTIVITY OF THE EAST-
SHORE AREA OF FLATHEAD LAKE, MONTANA."**
M.S. THESIS, UNIV. UTAH, SALT LAKE CITY. 148 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(EAST SHORE OF FLATHEAD LAKE). THIS THESIS IS THE RESULT OF AN INVESTIGATION INTO THE DISSOLVED MINERAL-PHYTOPLANKTON RELATION-SHIP ON THE EAST-SHORE PELAGIC AREA OF FLATHEAD LAKE. SAMPLES WERE TAKEN WEEKLY FOR AN EIGHT-WEEK PERIOD. FIELD CHEMICAL ANALYSIS INCLUDED ALKALINITY, CO₂, DO, PH, AN TURBIDITY. LABORATORY CHEMICAL ANALYSIS IN-CLUDED CA HARDNESS, TOTAL HARDNESS, MG, CR, CU, NI, PO₄, NH₃, NO₂, AND FE. PHYTOPLANKTON COUNTS WERE ALSO MADE ON THE SAMPLES. SEASONAL PERIODICITY OF PHYTOPLANKTON WAS ALSO OBSERVED.

M-434

MORGAN, GARTH RAY.
1971.

"PHYTOPLANKTON PRODUCTIVITY VS. DISSOLVED NUTRIENT LEVELS OF FLATHEAD LAKE."
PH.D. DISSERTATION, UNIV. UTAH, SALT LAKE CITY.
106 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE OBJECTIVES OF THIS STUDY WERE TO DETERMINE THE PHYSICAL AND CHEMICAL CHARACTERISTICS OF THE WATER, DETERMINE THE STANDING CROP, SUCCESSION, DISTRIBUTION AND DIVERSITY OF PHYTO-PLANKTON FORMS, DETERMINE THE ROLE OF CHEMICAL NUTRIENTS IN RELATIONSHIP TO THE PHYTO-PLANKTON AND TO ESTABLISH GUIDELINES AND CONTROL LEVELS FOR CHEMICALS DISSOLVED IN THE WATER. PARAMETERS IN THE STUDY WERE: AL³, BA⁵, CO³, HCO³, CL³, CR⁶, CU², CA², MG², FE², MN², DO, SiO₂, SO₄, PO₄, TURBIDITY AND SPECIFIC CONDUCTANCE. A LIST OF SPECIES IS INCLUDED.

M-435

MORGAN, LAWRENCE R.
1978.

"LINGUISTIC EVIDENCE FOR KOOTENAY PREHISTORY: A PRELIMINARY REPORT."
IN WATERS OF WEALTH: A SEMINAR ON THE KOOTENAI REGION OF THE UNITED STATES AND CANADA: SELECTED TRANSCRIPTS. EDITED BY JENNIFER JEFFRIES. LIBBY, MT.: LIBBY DAM VISITOR'S CENTER.

THIS ARTICLE SUGGESTS THAT THE KOOTENAY LANGUAGE IS DISTANTLY RELATED TO SALISH. SKCC.

M-436

MORRIS, MELVIN S.
1972.

CHECKLIST: NATIONAL BISON RANGE ECOLOGY. MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, 22 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS REPORT INCLUDES A SUMMARY OF FREQUENCY AND CANOPY COVERAGE VALUES FOR SEVERAL HABITAT TYPES ON THE BISON RANGE; A MAP OF THE HABITAT TYPES; PHYSICAL CHARACTERISTICS OF MAJOR GRASSES IN A FESCUE GRASSLAND STAND TYPE; SEASONAL TRENDS OF VARIOUS COMPONENTS OF ABOVE GROUND BIOMASS FOR ROUGH FESCUE EX-CLOSURE; APPROXIMATE DATES AT WHICH FULL BLOOM OCCURRED FOR SEVERAL COMMON FORBS ON THE AREA WITH A HISTORY OF LIGHT TO NO GRAZING; MONTHLY AND TOTAL PRECIPITATION FOR THE CROP YEAR, HERBAGE PRODUCTION PER ACRE FOR ROUGH FESCUE AND FOR TOTAL STAND; AND ANALYSIS OF PLANT BIOMASS AND NET PRIMARY PRODUCTION FOR TWO LEVELS OF PAST GRAZING INTENSITY.

M-437

MORRIS, MELVIN S.
1972.

COMPREHENSIVE NETWORK SITE DESCRIPTION: BISON.
FORT COLLINS, CO.: COLORADO STATE UNIV., NATURAL RESOURCE ECOLOGY LAB., GRASSLAND BIOME STUDY, U.S. INTERNATIONAL BIOLOGICAL PROGRAM, TECH. REPT. NO. 37. 20 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). GENERAL CHARACTERISTICS OF THE BISON RANGE ARE OUTLINED. PREVIOUS STUDIES AND CONTINUING PROJECTS ARE DISCUSSED, AND PUBLICATIONS PERTAINING TO THE RANGE ARE LISTED. THE REPORT ALSO OUTLINES THE STUDY LOCATION, PRINCIPAL VEGETATION TYPES, AND SOIL GROUPS BASED ON GEOLOGY, TOPOGRAPHY, AND CLIMATE.

M-438

MORRIS, MELVIN S., AND BRUNNER J. DAVID.
1971.

PRIMARY PRODUCTIVITY OF THE FESCUE GRASSLAND IN WESTERN MONTANA. BISON SITE, NATIONAL BISON RANGE.
FT. COLLINS, CO.: COLORADO STATE UNIV., NATURAL RESOURCE ECOLOGY LAB., U.S. GRASSLAND BIOME STUDY, U.S. INTERNATIONAL BIOLOGICAL PROGRAM, TECH. REPT. NO. 113.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS STUDY OF PRIMARY PRODUCTIVITY IN THE FESCUE GRASSLAND COMPARED TWO VEGETATION CONDITIONS: A STAND DOMINATED BY ROUGH FESCUE (FESTUCA SCABRELLA TORR.) WITH A GRAZING HISTORY OF LIGHT TO NO USE IN MOST YEARS AND A MIXED STAND OF IDAHO FESCUE (F. IDAHOENSIS ELMER) AND BLUE BUNCH WHEATGRASS (AGROPYRON SPICATUM) WITH A GRAZING HISTORY OF MODERATELY CLOSE USE AND BOTH STANDS ON COMPARABLE SITES.

M-439

MORRIS, MELVIN S., AND HUNGERFORD, C. R.
1962.

FOOD CONSUMPTION AND WEIGHT RESPONSE OF ELK UNDER WINTER CONDITIONS. PRESENTED AT: 32ND ANNUAL CONFERENCE OF WESTERN ASSOCIATION OF STATE GAME AND FISH COMMISSIONERS. MISSOULA, MT.: MONTANA STATE UNIV., MONTANA COOP. WILDLIFE RESEARCH UNIT. SPEC. REPT. NO. 4. 4 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). EIGHT CERVIS CANADENSIS COWS AND CALVES WERE FED A DIET OF MEADOW HAY, BUNCH GRASS AND BROWSE IN AN ATTEMPT TO DETERMINE FOOD REQUIREMENTS FOR ELK.

M-440

MORRIS, MELVIN S., AND MEUCHEL, J.
1968.

THE PROBLEM OF ST. JOHNSWORT: A NOXIOUS PLANT IN WESTERN MONTANA.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, MONTANA FOREST & CONSERVATION EXPR. STAT. BULL. 4. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD, LAKE, SANDERS, MISSOULA, LINCOLN, & POWELL COUNTIES). THE STUDY NOTES OBJECTIONS TO THE PLANT PEST, HYPERICUM PERFORATUM L. ITS BOTANY IS CHARACTERIZED; AND SITE CONDITIONS DESCRIBED. A SURVEY PRESENTS INFORMATION AS TO ITS ABUNDANCE AND LOCATION. CONTROL POSSIBILITIES AND THE NEED FOR RANGE MANAGEMENT IS DISCUSSED.

M-441

MORRIS, MELVIN S., AND SCHWARTZ, J. E.
1967.

"MULE DEER AND ELK FOOD HABITS ON THE NATIONAL BISON RANGE."
J. WILDLIFE MANAGEMENT 21(APRIL 1967):5-10.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE, MOIESE). DATA WERE SECURED ON: THE BOTANICAL CHARACTERISTICS OF THE RANGE, PLANT DEVELOPMENT, SNOW CONDITIONS AND OTHER METEOROLOGICAL INFORMATION. STOMACH SAMPLES WERE TAKEN OF ODOCOLEUS HEMIONUS, AND CERVUS CANADENSIS. TABLES LIST HERBAGE COMPOSITION OF MULE DEER AND ELK STOMACH SAMPLES EXPRESSED AS VOLUME PERCENTAGES.

M-442

MORRIS, MELVIN S.; SCHWARTZ, J. E.; AND STICKNEY, P. F.
1982.

WINTER FIELD KEY TO THE NATIVE SHRUBS OF MONTANA.
MISSOULA, MT.: MONTANA STATE UNIV., MONTANA FOREST & CONSERVATION EXPR. STAT. BULL. NO. 23. 70 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). FOLLOWING THE KEY, PLANT DESCRIPTIONS AND ILLUSTRATIONS ARE ARRANGED ALPHABETICALLY BY GENERA. DRAWINGS ILLUSTRATE IMPORTANT CHARACTERISTICS. DESCRIPTIONS SUMMARIZE KNOWN RANGE AND HABITAT IN MONTANA; WINTER CHARACTERISTICS AND FORAGE VALUES FOR BOTH LIVESTOCK AND WILDLIFE ARE INCLUDED.

M-443

MORRISON AND MAIERLE, INC.
1986.

PRELIMINARY STUDIES AND REPORT FOR SANITARY SEWER SYSTEM, LAKESIDE, FLATHEAD COUNTY, MONTANA.
KALISPELL & LAKESIDE, MT.: FLATHEAD COUNTY BOARD OF COUNTY COMMISSIONERS AND LAKESIDE SEWER IMPROVEMENT DISTRICT COMMITTEE. 63 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKESIDE). THE REPORT CONSIDERS THE FEASIBILITY AND COST OF THE PREFERRED SEWER COLLECTION AND TREATMENT SYSTEM. IT DISCUSSES THE BASIS OF THE DESIGN, POSSIBLE FINANCING ARRANGEMENTS, AND THE FORMATION OF A RURAL IMPROVEMENT DISTRICT FOR SEWER IMPROVEMENTS.

M-444

MORRISON AND MAIERLE, INC.
1975.

AN ENGINEERING EVALUATION OF FLATHEAD IRRIGATION PROJECT.
ST. IGNATIUS, MT.: FLATHEAD IRRIGATION PROJECT. 23 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE FLATHEAD IRRIGATION PROJECT ADMINISTRATION INITIATED THIS PROJECT TO EXAMINE THE CONDITION OF THE FLATHEAD IRRIGATION PROJECT AND TO SEEK PROFESSIONAL ADVICE REGARDING AVAILABILITY OF ADDITIONAL WATER SUPPLIES, FACILITY IMPROVEMENT, REHABILITATION AND INCREASED OPERATIONAL EFFICIENCY. THE GENERAL SCOPE OF INVESTIGATIONS INCLUDED ADDITIONAL WATER SOURCES, CANAL LINING PROGRAM, SPRINKLER SYSTEMS, OPERATION AND REHABILITATION AND ENVIRONMENTAL ASSESSMENT.

M-445

MORRISON AND MAIERLE, INC.
1977.

FACILITY PLAN AND RELATED STUDIES FOR THE COMMUNITY OF RONAN, MONTANA.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(RONAN). THE FACILITY PLAN PRESENTS FIVE PROPOSED ALTERNATIVE METHODS OF PROVIDING A MINIMUM OF SECONDARY TREATMENT. WASTEWATER TREATMENT AND FINAL EFFLUENT DISPOSAL ALTERNATIVES ARE INCLUDED. RECOMMENDATIONS ARE PRESENTED AFTER CONSIDERATIONS ARE MADE: COST-EFFECTIVENESS ANALYSIS, EFFLUENT REQUIREMENTS, PUBLIC INVOLVEMENT, OPERATIONAL CONSIDERATIONS, AND PROBABLE ENVIRONMENTAL EFFECTS.

M-446
MORRISON AND MAIERLE, INC.
1977.
FACILITY PLAN FOR LAKESIDE, MONTANA.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
82 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(LAKESIDE). THE PLAN PROPOSES A PUBLICLY OWNED COLLECTION SYSTEM AND TREATMENT FACILITY. THREE ALTERNATIVE TREATMENTS ARE CONSIDERED: 1) AERATED LAGOON FOLLOWED BY SPRAY IRRIGATION, 2) AERATED LAGOON FOLLOWED BY INFILTRATION-PERCOLATION PONDS, AND 3) EXTENDED AERATION PLANT FOLLOWED BY INFILTRATION-PERCOLATION PONDS. THE TWO COLLECTION ALTERNATIVES CONSIDERED ARE A GRAVITY COLLECTION SYSTEM AND A COMBINED GRAVITY, LOW PRESSURE COLLECTION SYSTEM.

M-447
MORRISON AND MAIERLE, INC.
1977.
FACILITY PLAN FOR SWAN LAKE, MONTANA.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
61 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(SWAN LAKE). AS THE COMMUNITY OF SWAN LAKE GROWS, THE POSSIBILITY OF GROUND WATER AND SURFACE WATER CONTAMINATION FROM SEPTIC TANK DISCHARGE INCREASES. TO PREVENT THAT PROBLEM FROM REACHING NUISANCE LEVELS, A PUBLICLY-OWNED COLLECTION SYSTEM AND TREATMENT FACILITY ARE PROPOSED. TREATMENT ALTERNATIVES CONSIDERED INCLUDED: AERATED LAGOONS, FACULTATIVE LAGOONS, PACKAGE EXTENDED AERATION PLANT.

M-448
MORRISON AND MAIERLE, INC.
FACILITY PLAN AND RELATED STUDIES FOR POLSON, MONTANA.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(POLSON). THIS FACILITY PLAN PRESENTS FIVE PROPOSED ALTERNATIVE METHODS OF PROVIDING A MINIMUM OF SECONDARY TREATMENT FOR POLSON. FOUR METHODS OF FINAL EFFLUENT DISPOSAL WERE INVESTIGATED. SPECIFIC CONCLUSIONS AND RECOMMENDATIONS FOR TREATMENT BASED ON COST-EFFECTIVENESS ANALYSIS ARE INCLUDED. EXTENSIVE BLUEPRINTS ARE INCLUDED, ILLUSTRATING THE ALTERNATIVES.

M-449
MORRISON, JOHN A.
1967.
"ESTROUS BEHAVIOR, EMBRYOLOGICAL DEVELOPMENT, AND OVARIAN CHARACTERISTICS IN ELK OF KNOWN BREEDING HISTORY."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 102 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NATL. BISON RANGE). THE OBJECTIVES OF THIS INVESTIGATION WERE 1) TO LEARN THE LENGTH OF THE ESTROUS PERIOD, THE INTERVAL BETWEEN ESTROUS PERIODS, AND THE EXTENT OF RECURRENCE OF ESTROUS; 2) TO RECORD QUANTITATIVE DATA DESCRIBING ESTROUS AND MATING BEHAVIOR IN THE COW ELK AND THE EFFECT OF FACTORS WHICH APPEARED TO INFLUENCE THIS BEHAVIOR; 3) TO OBTAIN KNOWN AGE EMBRYOS FROM WHICH TO CONSTRUCT A GRAPH OF EMBRYONIC AND FETAL GROWTH; AND 4) TO STUDY THE MORPHOLOGY AND HISTOLOGY OF OVARIES OF KNOWN BREEDING HISTORY ANIMALS IN ORDER TO EVALUATE THEIR USAGE FOR DETERMINING THE INCIDENCE OF OVULATION AND FERTILIZATION.

M-450
MORRISON, JOHN A.
1960.
"CHARACTERISTICS OF ESTRUS IN CAPTIVE ELK."
BEHAVIOR 16:84-92.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NATL. BISON RANGE). A GROUP OF WILD COW ELK WERE CONFINED DURING THE BREEDING SEASON IN 1954, 1955, AND 1956. A BULL WAS INTRODUCED TO THE DOW PEN EACH DAY AND ALL BEHAVIOR OBSERVED. THE USE OF A VASECTOMIZED BULL IN THE EARLY PART OF THE SEASON PERMITTED RECURRENCE OF ESTRUS. OBJECTIVES WERE TO DESCRIBE ESTROUS BEHAVIOR AND LEARN THE LENGTH OF THE ESTRUS, THE INTERVAL BETWEEN RECURRENT ESTRUS, AND THE EXTENT OF RECURRENT ESTRUS.

M-451
MORRISON, JOHN A.; TRAINER, C. E.; AND WRIGHT, P. L.
1958.
"BREEDING SEASON IN ELK AS DETERMINED FROM KNOWN-AGE EMBRYO."
J. WILDLIFE MANAGEMENT 23:27-34.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NATL. BISON RANGE). THE PRINCIPAL OBJECTIVE OF THIS PAPER WAS TO DESCRIBE PRENATAL GROWTH IN ELK BASED ON KNOWN-AGE EMBRYOS. EMBRYOS AGED FROM 25 TO 182 DAYS WERE MEASURED, WEIGHED, AND THEIR MORPHOLOGY DESCRIBED. A GROWTH CURVE WAS CONSTRUCTED FROM CROWN-RUMP OR FOREHEAD-RUMP LENGTH TO BE USED FOR AGING EMBRYOS FROM WILD COW ELK AND THUS COMPUTING THE AVERAGE CONCEPTION DATE AND AVERAGE CALVING DATE.

M-452
MORRISON, JOHN A., ET. AL.
1977.
FLATHEAD RIVER BASIN, MONTANA, WATER QUALITY PLANNING FOR FISH AND WILDLIFE RESOURCES: A DEMONSTRATION PROJECT.
FT. COLLINS, COLO.: U.S. DEPT. INTERIOR, FISH & WILDLIFE SERVICE, OFFICE BIOLOGICAL SERVICES, WESTERN ENERGY & LAND USE TEAM/COOPERATIVE INSTREAM FLOW SERVICE GROUP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THE OBJECTIVE OF THE FLATHEAD BASIN DEMONSTRATION PROJECT IS TO DEVELOP RECOMMENDATIONS AND GUIDELINES THAT WILL HELP THE AREA MEET WATER QUALITY PLANNING AND CONTROL NEEDS FOR POINT AND NONPOINT SOURCE POLLUTANTS. THE PRINCIPLE FOCUS IS TO DEFINE THE WATER QUALITY REQUIREMENTS NECESSARY FOR THE PROTECTION, MAINTENANCE AND ENHANCEMENT OF THE FISH AND WILDLIFE RESOURCES OF THE FLATHEAD RIVER AND LAKE AND OTHER NORTHERN ROCKY MOUNTAIN WATERSHEDS.

M-453
MORRISON, MAIERLE AND MONTGOMERY.
1976.
LAKE RESTORATION PROGRAM FOR FOY LAKE.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
17 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FOYS LAKE). INFORMATION IN THIS REPORT COVERS THE WATERSHED, HYDROLOGY, GEOHYDROLOGY, PHYSICAL CHARACTERISTICS OF THE LAKE, LAKE CONDITIONS AND HISTORY. POTENTIAL SOLUTIONS EXAMINED INCLUDE: SUBSURFACE DIKING OF UPPER BIRCH CREEK, SUBSURFACE DIKING OF SOUTH OUTLET, VERTICAL WELLS, HORIZONTAL WELLS, PUMPING FROM ASHLEY CREEK, PUMP-

ING FROM FLATHEAD RIVER, NUTRIENT INACTIVATION BY CHEMICAL FLOCCULATION AND SEDIMENTATION. A RESTORATION PROGRAM IS SELECTED AND OUTLINED.

M-454
MORRISON, MAIERLE, INC., AND J. M. MONTGOMERY, INC.
1977.
GROUNDWATER SUPPLY.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 WATER QUALITY PROJECT. 77 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
BASIN-WIDE.

(FLATHEAD RIVER DRAINAGE). THE INFORMATION COMPILED DURING THE COURSE OF THIS STUDY IS PRESENTED AS A SERIES OF MAPS AND OVERLAYS THAT OUTLINE THE GENERAL GEOLOGY OF THE REGION AS IT RELATES TO THE GROUNDWATER SYSTEM, THE TYPE AND DISTRIBUTION OF GROUNDWATER AQUIFERS IN THE DRAINAGE, THE DIRECTION OF GROUNDWATER MOVEMENT IN THESE AQUIFERS AND THE AREAS WITHIN THE DRAINAGE THAT ARE SUSCEPTIBLE TO WATER QUALITY IMPACTS GENERATED BY ACTIVITIES ON THE LAND SURFACE. THE GROUNDWATER QUALITY OF THE EVERGREEN AND PABLO AREA IS DESCRIBED.

M-455
MORRISON, MAIERLE, INC., AND JAMES M. MONTGOMERY, CONSULTING ENGINEERS, INC.
1977.
GUIDE BEST MANAGEMENT PRACTICES FOR WATER QUALITY PROTECTION: TIMBER HARVEST AND RELATED ACTIVITIES.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
50 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD RIVER BASIN: ALL COUNTIES). THE PURPOSE OF THIS REPORT IS TO OUTLINE WATER QUALITY MANAGEMENT PLANNING PROCEDURES AND TO DEFINE CONSTRAINTS RELATED TO TIMBER HARVEST PLANNING, DESIGN, OPERATION AND MAINTENANCE FOR PROTECTING WATER QUALITY. SPECIFIC CONSTRAINTS ARE FOR CUTTING AND LOGGING, RESIDUE MANAGEMENT AND REGENERATION, ROADS, STREAMS, SATURATED AREAS, STREAMSIDE VEGETATION AND STEEP OR UNSTABLE AREAS.

M-456
MORRISON, MAIERLE, INC., AND JAMES MONTGOMERY, CONSULTING ENGINEERS, INC.
1976.
LAKE RESTORATION PROGRAM FOR LAKE MARY RONAN.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 WATER QUALITY PROJECT. 17 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(LAKE MARY RONAN). LAKE MARY RONAN HAS THE POTENTIAL OF UNDERGOING SEVERE WATER QUALITY DEGRADATION DUE TO SEVERAL CHARACTERISTICS RELATED TO THE LAKE'S MORPHOLOGY AND PREDOMINANT SURROUNDING LAND USES. ALTERNATIVES EXAMINED FOR REDUCING POLLUTION IN THE LAKE WERE: FENCING INFLOW AUGMENTATION, EDGE, DREDGING, AERATION, DESTRATIFICATION AND NUTRIENT INACTIVATION. AN ALTERNATIVE WAS SELECTED AND COST-BENEFIT RATIOS ESTABLISHED.

M-457
MORRISON, ROYAL L.
1963.
"AN INTRAMURAL PROGRAM FOR MALE STUDENTS OF GRADES SEVEN THROUGH TWELVE IN THE POLSON PUBLIC SCHOOLS."
M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 41 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(POLSON). THE PURPOSE OF THIS STUDY WAS TO REPORT ON THE SETTING UP OF AN INTRAMURAL PROGRAM DESIGNED PARTICULARLY FOR THOSE STUDENTS WHOSE TALENTS ARE NOT UP TO VARSITY LEVEL. THE PROGRAM WAS AIMED AT BRINGING TOGETHER TWO DISTINCT GROUPS—TOWN BOYS AND RURAL BOYS, AND WAS PLANNED TO OCCUR AT A TIME WHICH WOULD BE OUTSIDE OF REGULAR SCHOOL PERIODS AND YET WHEN BUS STUDENTS COULD PARTICIPATE.

M-459
MORRISON-MAIERLE AND MONTGOMERY.
1975.

POPULATION AND ECONOMIC FORECASTS FOR THE COMMUNITIES OF POLSON AND HOT SPRINGS.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
21 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(POLSON & HOT SPRINGS). THE ECONOMIC ASSESSMENTS MADE BY THIS STUDY ARE BASED UPON TWO KEY FACTORS: EMPLOYMENT AND EARNINGS. THE APPROACH TO PROJECTING TRENDS FOR THE CURRENT FACILITY PLANNING WAS TO VERIFY THE HISTORICAL ASSESSMENTS MADE BY EXISTING STUDIES, AND THEN UPDATE FORECASTS BY INCORPORATING MORE RECENTLY AVAILABLE DATA.

M-460
MORRISON-MAIERLE, INC., AND J. M. MONTGOMERY, INC.
1977.
LAKES AND STREAMS WATER QUALITY STUDY. FLATHEAD DRAINAGE, MONTANA
KALISPELL, MT.: FLATHEAD DRAINAGE 208 WATER QUALITY PROJECT. 63+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN: ASHLEY CREEK, STILLWATER RIVER, WHITEFISH RIVER, SWAN RIVER, LOWER FLATHEAD RIVER, JOCKO RIVER, MISSION AND POST CREEK, CROW CREEK DRAINAGE, LITTLE BITTERROOT RIVER). FIELD STUDIES WERE CONDUCTED ON EIGHT STREAMS AND DRAINAGE SYSTEMS BASED UPON PRIORITIES ESTABLISHED BY THE PROJECT. WATER QUALITY PARAMETERS WERE: T.S.S., SPECIFIC CONDUCTANCE, NO₃, P, NH₃, CHEMICAL OXYGEN DEMAND, AND FECAL COLIFORM.

M-461
MORRISON-MAIERLE-MONTGOMERY.
1976.
FLATHEAD DRAINAGE PROJECT - POPULATION/ECONOMIC FORECASTS.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
72+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THE PURPOSE OF THIS REPORT IS TO DEVELOP POPULATION AND ECONOMIC FORECASTS TO BE USED IN WATER QUALITY MANAGEMENT PLANNING EFFORTS. POPULATION FORECASTS ARE PROVIDED FOR: 208 PLANNING AREA, COUNTIES AND COMMUNITIES. AVAILABLE INFORMATION PERTINENT TO KEY EMPLOYMENT INDUSTRIES IS DISCUSSED AND SUMMARIZED.

M-461
MORRISON-MAIERLE-MONTGOMERY.
1977.
URBAN STORMWATER.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
61+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN: KALISPELL, POLSON, RONAN, WHITEFISH, & LAKESIDE). THIS REPORT

DELINEATES THE EXISTING STORM WATER RUNOFF BASINS AND LAND USE AND DISCHARGE LOCATIONS FOR KALISPELL, POLSON, RONAN, WHITEFISH AND LAKESIDE. A METHODOLOGY FOR APPROXIMATING POLLUTANT LOADS FROM URBAN STORM WATER RUNOFF IS DEVELOPED. ANNUAL POLLUTANT LOADS FROM THE 5 STUDY COMMUNITIES ARE COMPARED.

M-462
MORTON, W. MARKHAM.
1980.
"THE STORY OF KOKANEE IN GLACIER NATIONAL PARK."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 11 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

GLACIER NATL. PARK HISTORICAL FILES.

(GLACIER NATL. PARK). THIS PERSONALIZED ACCOUNT RELATES THE INTRODUCTION OF KOKANEE SALMON (*ONCORHYNCHUS NERKA*) TO THE WATERS OF GLACIER NATIONAL PARK.

M-463
MORTON, WILLIAM M.
1968.
A REVIEW OF ALL FISHERY DATA AND INFORMATION COLLECTED FROM WATERS OF THE MIDDLE FORK FISHERY MANAGEMENT UNIT FOR THE FIFTY YEAR PERIOD FROM 1916 THROUGH 1966.
PORTLAND, ORE.: U.S. DEPT. INTERIOR, FISH & WILDLIFE SERVICE, BUREAU SPORT FISHERIES & WILDLIFE, FISHERY MANAGEMENT PROGRAM. REVIEW REPT. NO. 6. 81 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK LIBRARY, WEST GLACIER, MT.

(MIDDLE FORK OF THE FLATHEAD RIVER). A SUMMARY OF ALL KNOWN INFORMATION ON EACH BODY OF WATER IN THE MIDDLE FORK FISHERY MANAGEMENT UNIT HAS BEEN PRESENTED IN THIS REPORT. MOST OF THE INFORMATION PRESENTED INCLUDES QUOTATIONS FROM PAST RESEARCHERS FROM 1928 AS WELL AS ALL KNOWN STOCKING RECORDS SINCE 1913 AND CREEK CENSUS RECORDS FROM 1959 TO 1966.

M-464
MORTON, WILLIAM W.
1968.
A REVIEW OF ALL FISHERY DATA OBTAINED FROM WATERS OF THE MCDONALD FISHERY MANAGEMENT UNIT FOR THE FIFTY-YEAR PERIOD FROM 1919 THROUGH 1966, GLACIER NATIONAL PARK, MONTANA.
PORTLAND, ORE.: U.S. DEPT. INTERIOR, FISH & WILDLIFE SERVICE, BUREAU SPORT FISHERIES & WILDLIFE, FISHERY MANAGEMENT PROGRAM. REVIEW REPT. NO. 7. 195 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK LIBRARY, WEST GLACIER, MT.

(MCDONALD LAKE & MCDONALD CREEK). A SUMMARY OF ALL KNOWN INFORMATION ON EACH BODY OF WATER IN THE MCDONALD FISHERY MANAGEMENT UNIT IS PRESENTED IN THIS REPORT. MOST OF THE INFORMATION PRESENTED INCLUDES QUOTATIONS FROM PAST RESEARCHERS FROM THE EARLY 1900'S AS WELL AS KNOWN STOCKING RECORDS AND CREEL CENSUS RECORDS.

M-465
MORTON, WILLIAM M.
1968.
A REVIEW OF ALL FISHERY DATA OBTAINED FROM WATERS OF THE NORTH FORK FISHERY MANAGEMENT UNIT FOR THE FIFTY-YEAR PERIOD FROM 1916 THROUGH 1966, GLACIER NATIONAL PARK.
PORTLAND, ORE.: U.S. DEPT. INTERIOR, FISH & WILDLIFE SERVICE, BUREAU SPORT FISHERIES & WILDLIFE. 163 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM GLACIER NATIONAL PARK LIBRARY, WEST GLACIER, MT.

(NORTH FORK OF THE FLATHEAD RIVER). MOST OF THE INFORMATION ON FISH AND FISHING PRESENTED IN THIS REPORT HAS BEEN TAKEN FROM THE WRITINGS OF EARLIER RESEARCHERS FROM 1912 ON AND FROM OCCASIONAL FIELD NOTES MADE IN RECENT YEARS. SUMMARY TABLES OF ALL KNOWN STOCKING RECORDS SINCE 1912 AND CREEL CENSUS FROM 1959 THROUGH 1966 HAVE BEEN INCLUDED FOR EACH BODY OF WATER.

M-466
MOSHIER, R. L.
1976.
DESCRIPTIVE SOIL LEGEND WITH SOIL INTERPRETATIONS FOR SOIL SURVEY OF PRIVATELY OWNED LANDS IN THE SWAN VALLEY IN LAKE COUNTY, MONTANA.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
107 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

TOPOGRAPHIC MAPS WITH SOIL MAPPING UNIT BOUNDARIES ARE INCLUDED.

(SWAN VALLEY). DETAILED DESCRIPTIONS OF SOIL SERIES AND MAPPING UNITS ARE CONTAINED WITHIN THIS REPORT. SOIL HORIZONS FOR EACH SERIES ARE EXAMINED, THE SETTING, GEOGRAPHICALLY ASSOCIATED SOILS, DRAINAGE CHARACTERISTICS, USES AND VEGETATION ARE OUTLINED. PROPERTIES SIGNIFICANT TO ENGINEERING AND INTERPRETATIONS OF THE SUITABILITY OF SOIL PROPERTIES FOR ENGINEERING USES ARE INCLUDED.

M-467
MOUNTAIN STATES REGIONAL MEDICAL PROGRAM . MONTANA DIVISION.
1969.
MONTANA HEALTH PROFILE.
BOULDER, CO.: WESTERN INTERSTATE COMMISSION FOR HIGHER EDUCATION. 422 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

INFORMATION BY COUNTIES.

(MONTANA: FLATHEAD, LAKE, SANDERS, LINCOLN, POWELL, & MISSOULA COUNTIES). THIS REPORT WAS ONE OF THE EFFORTS UNDERTAKEN TO MEET THE NEED FOR CURRENT ACCURATE DATA ON A WIDE RANGE OF HEALTH AND HEALTH RELATED SUBJECTS TO FACILITATE PLANNING ACTIVITIES. IT PROVIDES AN INVENTORY OF EXISTING RESOURCES PERTINENT TO HEALTH PLANNING. INCLUDED ARE CHAPTERS ON VITAL STATISTICS, HEALTH PERSONNEL AND HOSPITALS AND NURSING HOMES.

M-468
MOY, RANDALL F.
1969.
"A STUDY OF FIVE SKIN GLANDS OF THE PRONGHORN (ANTILOPACRA AMERICANA ORD)."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 127 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). OBJECTIVES IN THIS STUDY OF THE PRONGHORN (*ANTILOCAPRA AMERICANA*) INCLUDED: 1) THE DESCRIPTION OF THE BASIC ANATOMY AND HISTOLOGY OF 5 GLANDS (THE RUMP, SUBAURICULAR, MEDIAN, FORE AND HIND FOOT INTERDIGITAL GLANDS) AND REGULAR SKIN OF THE ANIMAL; 2) THE DETERMINATION OF ANY SEASONAL VARIATION OF THE GLANDS; 3) THE COMPARISON OF THE HISTOLOGY OF THE FEMALE AND MALE RUMP GLAND FOR ANY SIGNIFICANT DIFFERENCES; 4) THE SEARCH FOR REMNANTS OF A SUBAURICULAR GLAND IN THE CHEEK SKIN OF THE DOE ANTELOPE; 5) THE COMPARISON OF THE HISTOLOGY, HISTOCHEMISTRY AND PRESCRIBED MEASUREMENTS OF THE APOCRINE AND SUBACEOUS ZONES OF THE SUBAURICULAR AND RUMP GLANDS; AND 6) THE DETERMINATION WHETHER THE INCREASE IN THE ACTIVITY OF THE SUBAURICULAR GLAND DURING THE RUTTING SEASON IS RELATED TO INCREASE IN TESTICULAR ACTIVITY. 17 ANIMALS WERE EXAMINED.

M-466

MOY, RANDALL F.
1970.

"HISTOLOGY OF THE SUBAURICULAR AND RUMP GLANDS OF THE PRONGHORN (*ANTILOCARPA AMERICANA* ORD)." *AMERICAN J. ANATOMY* 129:85-87. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). SUBAURICULAR AND RUMP GLANDS OF ADULT PRONGHORN BUCKS WERE OBTAINED FOR EACH MONTH. THE GLAND OF THREE CASTRATED BUCKS WERE ALSO PROCURED. THE GLANDS OF A DOE WERE USED FOR COMPARISON WITH THOSE OF THE MALES. STRUCTURE, COMPOSITION, AND FUNCTION ARE DISCUSSED.

M-470

MOY, RANDALL F.
1971.

"HISTOLOGY OF THE FOREFOOT AND HINDFOOT INTERDIGITAL AND MEDIAN GLANDS OF THE PRONGHORN."

J. MAMMALOGY 52:441-448.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). IN THIS STUDY FIVE GLANDS OF THE PRONGHORN WERE EXAMINED: THE PAIRED FOREFOOT AND HIND FOOT INTERDIGITAL AND THE SINGLE MEDIAN GLANDS. CHARACTERISTICS AND ANATOMY OF THE GLANDS ARE DESCRIBED.

M-471

MOYER, J. MICHAEL.
1972.

"TRANS-CULTURAL COMMUNITY DEVELOPMENT." M.A. THESIS, UNIV. MONTANA, MISSOULA.

MOYER WAS COMMUNITY DEVELOPER AMONG THE ELMO KOOTENAI BETWEEN 1969 AND 1971, AND MUCH OF THE MATERIAL IN THE THESIS COMES FROM THE LESSONS HE LEARNED FROM THAT WORK. SKCC.

M-472

MUDGE, MELVILLE R.
1970.

"ORIGIN OF THE DISTURBED BELT IN NORTHWESTERN MONTANA."

GEOLOGICAL SOCIETY AMERICA BULL. 81:377-392.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA). THE STUDY DESCRIBES THE DISTURBED BELT AND EXPLAINS ITS ORIGIN AS GRAVITATIONAL GLIDING RESULTING FROM VERTICAL UPLIFT, FAULT DEVELOPMENT AND THE EXTENT OF BELT DISTURBANCE IS DISCUSSED.

M-473

MUDGE, MELVILLE R.
1972.

STRUCTURAL GEOLOGY OF THE SUN RIVER CANYON AND ADJACENT AREAS, NORTHWESTERN MONTANA. U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROF. PAPER 663-B. 52 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, ADJACENT TO THE BASIN.

(SUN RIVER CANYON & ADJACENT AREAS). THE NORTHERLY TRENDING IMBRICATE FAULT ZONE OF THE CANYON & ITS ABUNDANT WESTERLY DIPPING THRUST FAULTS AND SOME FOLDS ARE INVESTIGATED. THE EFFECT OF PRECAMBRIAN CRYSTALLINE ROCKS, (BASEMENT) ON THE TECTONIC DEVELOPMENT OF THE STRUCTURES IS CONSIDERED: THE DISTURBED BELT AND ITS NINE SUBBELTS ARE CHARACTERIZED. INCLUDED IN THE DISCUSSION ARE: DIVERSION AND DEEP CREEK THRUST BLOCKS; SAWTOOTH THRUST BLOCK; ALLAN THRUST BLOCK; SHEEP REEF STRUCTURES; ELK FAULT; PRETTY PRAIRIE FAULT COMPLEX; SOUTH FORK THRUST ZONE; AND LONGITUDINAL NORMAL FAULTS. THE MECHANICS OF THRUSTING AND FOLDING, I.E., THE FIVE STRUCTURAL EPISODES DURING THE OROGENY, ARE EXAMINED, ALONG WITH STRESS VECTORS, THE SEQUENCE OF DEFORMATION, STRATIGRAPHIC CONTROL (BEHAVIOR OF UNITS, ZONES OR HORIZONS OF WEAKNESS, DEPTH OF THRUSTING), FOLDING AND INITIAL THRUST FAULTING, AND FOLDED THRUST FAULTS.

M-474

MUDGE, MELVILLE R.
1977.

"GENERAL GEOLOGY OF GLACIER NATIONAL PARK AND ADJACENT AREAS."

BULL. CANADIAN PETROLEUM GEOLOGY 25:736-751. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER BRIEFLY SUMMARIZES THE GEOLOGY OF GLACIER NATIONAL PARK AND ADJACENT AREAS IN MONTANA, WITH EMPHASIS ON THE STRATIGRAPHIC AND STRUCTURAL SETTING IN AND ADJACENT TO THE SOUTH END OF THE PARK.

M-475

MUDGE, MELVILLE R., AND SHEPPARD, RICHARD A.
1968.

PROVENANCE OF IGNEOUS ROCKS IN CRETACEOUS CONGLOMERATES IN NORTHWESTERN MONTANA.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROF. PAPER 600-D. PP. 137-146.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, ADJACENT TO THE BASIN.

(SUN RIVER AREA). THE OCCURRENCE OF IGNEOUS PEBBLES AND COBBLES IN CONGLOMERATES OF THE LACKLEAF FORMATION, TWO MEDICINE FORMATION, AND HORSETHIEF SANDSTONE IS DISCUSSED. THE CONTEMPORANEOUS ASPECT OF THE VOLCANISM AND THE SOURCES OF THE IGNEOUS ROCKS ARE CONSIDERED.

M-476

MUDGE, MELVILLE R.; EARNHART, R. L.; AND CLAYPOOL, G.
1977.

AN EVALUATION OF THE HYDROCARBON POTENTIAL OF THE PROPOSED GREAT BEAR WILDERNESS AREA, FLATHEAD, TETON AND PONDERA COUNTIES, MONTANA.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. 33 PP. PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GREAT BEAR WILDERNESS AREA). THE PROPOSED GREAT BEAR WILDERNESS STUDY AREA HAS VERY GOOD POTENTIAL FOR DISCOVERY OF NATURAL GAS RESOURCES AND SOMEWHAT LESSER POTENTIAL FOR OIL PRODUCTION. THE AREA CONTAINS

NUMEROUS POTENTIAL HYDROCARBON RESERVOIR AND SOURCE ROCKS. THIS REPORT EXAMINES OUTCROPPING ROCKS, OIL AND GAS EVALUATION, HYDROCARBON SOURCE ROCK EVALUATION, RESERVOIR ROCKS AND STRUCTURAL TRAPS.

M-477

MUDGE, MELVILLE R.; EARNHART, R. L.; AND RICE, D. D.
1977.

"PRELIMINARY BEDROCK GEOLOGIC MAP OF PART OF THE NORTHERN DISTURBED BELT, LEWIS AND CLARK, TETON, PONDERA, GLACIER, FLATHEAD, AND POWELL COUNTIES."

WYOMING GEOLOGICAL ASSOC., TWENTY-NINTH ANNUAL FIELD CONFERENCE GUIDEBOOK. 8 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD, LEWIS & CLARK, & POWELL COUNTIES). THIS REPORT CONTAINS A MAP OF THE NORTHERN DISTURBED BELTS AS WELL AS A TEXT WHICH DESCRIBES EACH OF THE MAP UNITS. OIL AND GAS POTENTIAL IS EXAMINED AND A SUMMARY OF CHANGES IN STRUCTURAL STYLE IS INDICATED.

M-478

MUDGE, MELVILLE R.; ERICKSON, RALPH L.; AND KLEINKOPF, DEAN.
1968.

RECONNAISSANCE GEOLOGY, GEOPHYSICS, AND GEOCHEMISTRY OF THE SOUTHEASTERN PART OF THE LEWIS AND CLARK RANGE, MONTANA.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. BULL. 1252-E.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(SOUTHEASTERN LEWIS & CLARK RANGE). RECONNAISSANCE GEOLOGICAL AND GEOCHEMICAL STUDIES IDENTIFY A WEAK LEAD-ZINC MINERALIZED BELT AND INDICATE THE STRATIGRAPHIC AND STRUCTURAL CONTROL OF THE MINERALIZATION. GEOPHYSICAL DATA ALLOW INFERENCES OF THE LOCATION OF BURIED PLUTONS THAT MAY HAVE BEEN THE SOURCE OF THE METALS. THE RELATIONSHIP OF THE MINERALIZATION TO THE SOUTH FORK THRUST ZONE, THE OCCURRENCE OF ANOMALOUS QUANTITIES OF LEAD AND ZINC IN THE ZONE, AND THE MINERALIZATION IN CARBONATE OR CALCAREOUS SANDSTONE IS EXAMINED. MAGNETIC AND GRAVITY DATA WERE USED IN DEFINING THE AREA FOR GEOLOGICAL AND GEOCHEMICAL STUDIES OF THE MAGNETIC ANOMALIES THAT INDICATE BURIED PLUTONS. ONE LARGE POSITIVE ANOMALY WEST OF THE CENTER OF THE BELT WAS INVESTIGATED. ITS RELATIONSHIP TO THE LEAD AND ZINC MINERALIZATION AND INTERPRETATIONS REGARDING ITS CHARACTERISTICS ARE CONSIDERED.

M-479

MUDGE, MELVILLE R.; ROBINSON, G. D.; AND EATON, G. P.

PRELIMINARY REPORT ON REGIONAL AEROMAGNETIC ANOMALIES IN NORTHWESTERN MONTANA.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROF. PAPER 550-B. PP. 111-114.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWEST-CENTRAL MONTANA). THE OCCURRENCE OF TWO LARGE NORTH-NORTHWESTERLY TRENDING MAGNETIC ANOMALIES ON FOUR WIDELY SPACED AEROMAGNETIC TRAVERSES IS DISCUSSED. ONE ANOMALY EXTENDS AT LEAST 80 MILES ALONG THE WESTERN FLANKS OF THE SAWTOOTH AND THE LEWIS AND CLARK RANGES. ITS PROFILE, MAXIMUM AMPLITUDE, AND RELATIONSHIP TO A GRAVITY ANOMALY IS DESCRIBED. THE OTHER ANOMALY OCCURS 30 MILES TO THE EAST, EXTENDING 40 MILES ALONG THE WESTERN BORDER OF THE HIGH PLAINS.

M-480
MUEGGLER, WALTER F., AND STEWART, WILLIAM L.
1980.
GRASSLAND AND SHRUBLAND HABITAT TYPES OF WESTERN MONTANA.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMOUNTAIN FOREST & RANGE EXPERIMENTAL STATISTICAL SERVICE, TECHNICAL REPORT INT-66.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). A CLASSIFICATION SYSTEM IS PRESENTED FOR THE GRASSLANDS AND SHRUBLANDS OF THE MOUNTAINOUS WESTERN THIRD OF MONTANA. THE CLASSIFICATION UTILIZES THE HABITAT TYPE CONCEPT AND IS BASED UPON POTENTIAL NATURAL VEGETATION. DATA ON PLANT SPECIES AND ENVIRONMENT FROM 580 RELATIVELY UNDISTURBED STANDS WERE ANALYZED TO FORM THE CLASSIFICATION. TWENTY-NINE HABITAT TYPES OCCURRING IN 13 CLIMAX SERIES ARE DEFINED AND DESCRIBED. A DIAGNOSTIC KEY UTILIZING INDICATOR PLANT SPECIES IS PROVIDED FOR FIELD IDENTIFICATION OF THE HABITAT TYPES.

M-481
MUIR, JOHN.
"THE WILD PARKS AND FOREST RESERVATIONS OF THE WEST."
ATLANTIC MONTHLY 81:15-28.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN U.S.: GLACIER NATL. PARK: LAKE MCDONALD). THIS ARTICLE DESCRIBES THE SCENIC BEAUTY AND PLANT SPECIES ENCOUNTERED IN THE WESTERN FOREST RESERVES, INCLUDING THE FLATHEAD NATIONAL FOREST AND THE THEN FUTURE GLACIER NATIONAL PARK.

M-482
MULLER, JEAN.
"PROJECT UNDERSTANDING: A RESERVATION HIGH SCHOOL INDIAN HISTORY COURSE."
MONTANA BUSINESS QUARTERLY 8(AUTUMN 1970):44-48.

(RONAN). MULLER WAS THE TEACHER AT RONAN HIGH SCHOOL IN CHARGE OF THE FIRST PROGRAM TO DEVELOP A COURSE IN INDIAN HISTORY FOR USE IN A FLATHEAD RESERVATION SCHOOL. THIS ARTICLE ALSO INCLUDES INTERVIEWS WITH JOHN WEASLEHEAD AND RENE ROULLIER ABOUT THEIR REACTIONS TO THE COURSE. SKCC.

M-483
MULLER-SCHWARZE, DIETLAND, AND CHRISTINE.
1972.
"SOCIAL SCENTS IN HAND-REARED PRONGHORN (ANTILOCAPRA AMERICANA)."
ZOOLOGIA AFRICANA 7:257-271.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(UPPER PAHSIMERIO, IDAHO, & NATL. BISON RANGE). FOUR PRONGHORN WERE TAKEN IN THE WILD WHEN A FEW DAYS OLD AND HAND-RAISED. THE DEVELOPMENT OF THEIR BEHAVIOR WAS STUDIED WITH PARTICULAR EMPHASIS ON THEIR OLFACTORY COMMUNICATION.

M-484
MUNDINGER, JOHN.
1978.
POPULATION ECOLOGY AND HABITAT RELATIONSHIPS OF WHITE-TAILED DEER IN CONIFEROUS FOREST HABITAT OF NORTHWESTERN MONTANA."
KALISPELL, MT.: MONTANA DEPT. FISH & GAME.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN RIVER VALLEY). THE PURPOSE OF THIS STUDY WAS TO EVALUATE FACTORS AFFECTING POPULATIONS OF WHITE-TAILED DEER IN THE SWAN RIVER

VALLEY. SEX, AGE, WEIGHT, AND BODY MEASUREMENTS OF HARVESTED DEER WERE COLLECTED AT TWO CHECKING STATIONS. DISTRIBUTION OF HUNTING PRESSURE AND HARVEST IS DISCUSSED. POPULATION PARAMETERS WERE DETERMINED FROM A HARVEST SAMPLE, A ROAD KILL SAMPLE, A TRAPPING SAMPLE, AND OBSERVATIONS. PATTERNS OF SUMMER DISPERSAL DETERMINED FROM RADIO-EQUIPPED DEER ARE DISCUSSED.

M-485
MUNDINGER, JOHN.
1979.
"THE SWAN VALLEY: WHITE-TAIL COUNTRY."
MONTANA OUTDOORS, SEPTEMBER/OCTOBER 1979, PP. 35-42.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN VALLEY). THE ARTICLE DESCRIBES A WHITE-TAILED DEER (ODOCOILEUS VIRGINIANUS) POPULATION AND THEIR SUMMER AND WINTER RANGES, RANGE REQUIREMENTS, HOME RANGE SIZE, SUMMER AND WINTER DIETS AND MOVEMENTS BETWEEN RANGES ARE DISCUSSED. INCLUDED IN THE DISCUSSION OF LAND USE CONFLICTS ARE THE EFFECTS OF TIMBER PRODUCTION: THE EFFECTS OF SMALL LOGGING UNITS AND LARGER CLEARCUTS ON THE DEER'S HOME RANGE AND OTHER LOGGING-RELATED PROBLEMS SUCH AS ROADS, HERD PRODUCTIVITY, HUNTING, AND HARVEST IS EXAMINED.

M-486
MUNDINGER, JOHN.
IN PRESS.
"WHITE-TAILED DEER REPRODUCTIVE BIOLOGY IN THE SWAN VALLEY, MONTANA."
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN VALLEY). THE ARTICLE DISCUSSES A STUDY WHICH EVALUATED WHITE-TAILED DEER (ODOCOILEUS VIRGINIANUS) REPRODUCTION DURING FOUR SUCCESSIVE WINTERS. PREGNANCY AND FETAL RATES FOR 127 DOES, THE REPRODUCTIVE SUCCESS OF 202 DOES FOR ONE YEAR AND THE REPRODUCTIVE SUCCESS OF 28 DOES DURING TWO OR MORE YEARS WAS DETERMINED. RELATIONSHIPS BETWEEN PRODUCTION AND AGE AND PRODUCTION AND WINTER SEVERITY ARE CONSIDERED.

M-487
MUNN, LARRY C.
1977.
"I. RELATIONSHIPS OF SOILS TO MOUNTAIN AND FOOTHILL RANGE HABITAT TYPES AND PRODUCTION IN WESTERN MONTANA. II. PREDICTING SOIL TEMPERATURE REGIMES OF MOUNTAIN AND FOOTHILL SITES IN WESTERN MONTANA."
PH.D. DISSERTATION, MONTANA STATE UNIV., BOZEMAN. 126 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: LAKE COUNTY). THIS PAPER REPORTS ON AN INVESTIGATION OF RELATIONSHIPS BETWEEN SOILS AND MOUNTAIN AND FOOTHILL RANGE HABITAT TYPES DEFINED BY MUEGGLER AND HANDL FOR WESTERN MONTANA.

M-488
MUNSON-NASH-FUTRELL AND ASSOCIATES.
1969.
1968 FUNCTIONAL CLASSIFICATION OF MONTANA'S HIGHWAY SYSTEM.
HELENA, MT.: MONTANA HIGHWAY COMMISSION. 42 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THE PURPOSE OF THIS REPORT IS TO SET FORTH THE RESULTS OF

A FUNCTIONAL HIGHWAY CLASSIFICATION OF ALL ROADS IN MONTANA AS PRINCIPAL ARTERIALS, MINOR ARTERIALS, COLLECTORS, OR LOCAL. THIS REPORT IS PART OF A NATIONWIDE STUDY WHICH WILL ALLOW COMPARISON OF EXISTING FEDERAL-AID SYSTEMS WITH PRESENT FACILITIES SERVING CURRENT TRAVEL DEMANDS.

M-489
MUNSON-NASH-FUTRELL AND ASSOCIATES.
1969.
MONTANA HIGHWAYS FUNCTIONAL CLASSIFICATION STUDY. PROGRESS REPORT.
HELENA, MT.: MONTANA HIGHWAY COMMISSION. 7 PP.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THE FEDERAL HIGHWAY ACT OF 1968 REQUIRED THAT ALL STATES CLASSIFY ALL EXISTING ROADS AND STREETS INTO A LIMITED NUMBER OF CONSISTENTLY DEFINED FUNCTIONAL CLASSES. THIS REPORT PRESENTS THE CONCEPTS, DEFINITIONS, AND METHODOLOGY BEING APPLIED TO THE FUNCTIONAL CLASSIFICATION OF ALL EXISTING RURAL AND URBAN ROADS AND STREETS IN MONTANA.

M-490
MURIE, JAN O.
1963.
"INVESTIGATIONS OF HABITAT SEGREGATION IN MICROTUS IN WESTERN MONTANA."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 81 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: THIS STUDY FOLLOWS KOPLIN'S (1962) THESIS CONCERNING MICROTUS HABITAT SEGREGATION.

(WESTERN MONTANA). FACTORS WHICH MIGHT OPERATE IN PREVENTING INTERSPECIFIC COMPETITION BETWEEN MICROTUS PENNSYLVANICUS AND M. MONTANUS WERE EXAMINED. THE STUDY WAS ALSO DESIGNED TO CONTINUE REDUCTION OF M. PENNSYLVANICUS IN A MESIC HABITAT TO DETERMINE IF M. MONTANUS WOULD PERMANENTLY OCCUPY THAT HABITAT. THE SOIL MOISTURE PREFERENCE OF ONE OR BOTH SPECIES, A POSSIBLE FACTOR IN MAINTAINING THEIR HABITAT SEGREGATION, WAS STUDIED IN AN EXPERIMENT INVOLVING ARTIFICIAL HABITATS - ONE WITH WET SOIL AND ONE DRY SOIL. INDIVIDUAL VOLE WERE PRESENTED WITH A CHOICE OF THE TWO SUBSTRATES. ANOTHER FACTOR RESEARCHED, INTERSPECIFIC AGONISM, WAS TESTED BY SERIES OF OBSERVATIONS ON INTERACTIONS BETWEEN PAIRS OF VOLES.

M-491
MURIE, JAN O.
1969.
"AN EXPERIMENTAL STUDY OF SUBSTRATE SELECTION BY TWO SPECIES OF VOLES."
AMERICAN MIDLAND NATURALIST 82:622-625.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MISSOULA & NATL. BISON RANGE). MEADOW VOLES (MICROTUS PENNSYLVANICUS) AND MONTANE VOLES (MICROTUS MONTANUS) WERE TESTED FOR WET OR DRY SOIL SUBSTRATE PREFERENCES IN A TWO-COMPARTMENT ARTIFICIAL HABITAT. THE OBJECTIVE WAS TO DETERMINE IF EITHER SPECIES DEMONSTRATED A HABITAT SELECTION BASED ON SOIL MOISTURE THAT COULD ASSIST IN MAINTAINING THE HABITAT SEGREGATION OBSERVED IN AREAS OF SYMPATRY. FOOD AND WATER CONSUMPTION, THE USE OF EXERCISE WHEELS, AND TOTAL TIME SPENT IN EACH ARTIFICIAL HABITAT WERE RECORDED FOR 85 TWELVE-HOUR TRIALS.

M-492

MURIE, JAN O.
1971.

BEHAVIORAL RELATIONSHIPS BETWEEN TWO SYMPATRIC VOLES (MICROTUS): RELEVANCE TO HABITAT SEGREGATION."

J. MAMMALOGY 52:181-86.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MISSOULA & NATL. BISON RANGE). THIS STUDY WAS UNDERTAKEN TO EXAMINE THE ROLE OF BEHAVIORAL INTERACTIONS IN MAINTAINING HABITAT SEGREGATION IN SYMPATRIC POPULATIONS OF MICROTUS PENNSYLVANICUS AND MICROTUS MONTANUS. INTRASPECIFIC COMBINATIONS WERE OBSERVED AS WELL TO COMPARE AGGRESSIVENESS OF THE TWO SPECIES.

M-493

MURIE, OLAUS J.
1945.

"NOTES ON COYOTE FOOD HABITS IN MONTANA AND BRITISH COLUMBIA."

J. MAMMALOGY 26(23 FEBRUARY 1945):33-40.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(BRITISH COLUMBIA & MONTANA: SOUTH FORK OF THE FLATHEAD RIVER). IN THE COURSE OF OTHER FIELD STUDIES, CONSIDERABLE INFORMATION WAS GATHERED ON THE BASIC FOOD HABITS OF THE COYOTE. COYOTE DROPPINGS WERE COLLECTED AND ANALYZED AND ADDITIONAL PERTINENT OBSERVATIONS WERE RECORDED.

M-494

MURPHY, JAMES E.

1978.

THE STORY OF THE CONRAD MANSION.

KALISPELL, MT.: BY THE AUTHOR. 18 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL: CONRAD MANSION). A HISTORY OF THE CONRAD MANSION AND ITS OWNER CHARLES E. CONRAD, ONE OF MONTANA'S OUTSTANDING EMPIRE BUILDERS. PHOTOGRAPHS ARE INCLUDED.

M-495

MURRAY, GENEVIEVE.

MARIAS PASS: ITS PART IN THE HISTORY AND DEVELOPMENT OF THE NORTHWEST. STUDIES IN NORTHWEST HISTORY, NO. 12.

MISSOULA, MT.: UNIV. MONTANA.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MARIAS PASS). THE ARTICLE IS CONCERNED WITH THE HISTORY OF THE PASS. IT DESCRIBES ITS USE BY BLACKFEET AND SALISH INDIANS AND THE EXPLORATIONS IN THE AREA BY DAVID THOMPSON, LEWIS AND CLARK, ISAAC STEVENS, ONE OF STEVENS' ENGINEERS, A. W. TINKHAM, JAMES DOTY, DUNCAN McDONALD, AND JOHN F. STEVENS, A RAILROAD ENGINEER.

M-496

MURRAY, JAMES M.
1969.

INDUSTRIAL DEVELOPMENT ON INDIAN RESERVATIONS IN THE UPPER MIDWEST: A DESCRIPTION AND EVALUATION.

MINNEAPOLIS: UPPER MIDWEST RESEARCH AND DEVELOPMENT COUNCIL. 90 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(UPPER MIDWESTERN UNITED STATES). THE RESEARCH ASSESSES THE RESULTS OF INDUSTRIAL FIRMS ON OR NEAR INDIAN RESERVATIONS. A BRIEF DESCRIPTION OF THE ECONOMIC SITUATION ON RESERVATIONS AND PROBLEMS ASSOCIATED WITH INDUSTRIALIZATION ARE PRESENTED. THE QUESTION WHETHER OR NOT INDUSTRIALIZATION IS AN APPROPRIATE WAY OF ECONOMIC IMPROVEMENT FOR INDIAN PEOPLE IS CONSIDERED.

M-497

MURRAY, MARSHA.

1973.

"EARLY COURTHOUSE LIFE IN FLATHEAD COUNTY."

MONTANA HISTORIAN 4(AUTUMN 1973):6-9.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE HISTORY AND DEVELOPMENT OF LEGAL SERVICES ARE DISCUSSED. THE ARRIVAL OF THE FIRST LAWYERS IN COMMUNITIES LIKE DEMERSVILLE, THE ESTABLISHMENT OF COURTS, AND THE FIRST JUDGES ARE EVENTS INCLUDED.

M-498

MURTHA, P. A.

1972.

PHOTO INTERPRETATION OF TREE MORTALITY ALONGSIDE THE INTERNATIONAL BOUNDARY: WATERTON LAKES NATIONAL PARK.

OTTAWA, ONT.: FOREST MANAGEMENT INSTITUTE.

NATL. PARK FOREST SURVEY. REPT. NO. 5.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WATERTON NATL. PARK & GLACIER NATL. PARK). THE HERBICIDE TORDON 101 WAS SPRAYED ALONG THE INTERNATIONAL BORDER BETWEEN WATERTON LAKES NATIONAL PARK AND GLACIER NATIONAL PARK TO CONTROL VEGETATIVE GROWTH IN THE BOUNDARY ZONE. THE PURPOSE OF THIS PAPER IS TO REPORT ON TREE MORTALITY IN THE PARKS IMMEDIATELY ALONGSIDE THE INTERNATIONAL BOUNDARY ZONE AFTER THE SPRAYING. METHODS, RESULTS, A DISCUSSION AND CONCLUSIONS ARE INCLUDED.

M-499

MUSSEHL, THOMAS W. AND HOWELL, F. W., ED.

1971.

GAME MANAGEMENT IN MONTANA.

HELENA, MT.: MONTANA FISH & GAME DEPT., GAME MANAGEMENT DIV. 238 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

APPENDIX I LISTS CHRONOLOGICALLY HISTORIC EVENTS PERTAINING TO WILDLIFE. APPENDIX II LISTS CHRONOLOGICALLY EVENTS IN THE DEVELOPMENT OF GAME MANAGEMENT. APPENDIX III CONTAINS A

BIBLIOGRAPHY OF WILDLIFE MANAGEMENT THESES AT UNIVERSITY OF MONTANA, MISSOULA, AND MONTANA STATE UNIVERSITY, BOZEMAN (1941-1970).

(MONTANA). THE BOOK SUMMARIZES 30 YEARS OF GAME MANAGEMENT (1941-1970) AND PRESENTS A BRIEF HISTORY OF 100 YEARS OF MONTANA WILDLIFE. THE MANAGEMENT OF BIG GAME (ELK, MULE DEER, WHITE-TAILED DEER, PRONGHORN ANTELOPE, SHIRAS MOOSE, BIGHORN SHEEP, ROCKY MOUNTAIN GOAT, BLACK BEAR, GRIZZLY BEAR), GAME BIRDS (SHARPTAILED GROUSE, SAGE GROUSE, FOREST GROUSE, RING-NECKED PHEASANT, HUNGARIAN PARTRIDGE, MERRIAM'S TURKEY, CHUKAR PARTRIDGE, WHITE-TAILED PTARMIGAN, AND WATER FOWL), FURBEARERS, AND PREDATORS IS DESCRIBED.

M-500

MUTTKOWSKI, R. A.

1925.

"FISH FOOD INVESTIGATIONS IN GLACIER NATIONAL PARK. SUMMER 1925."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE; GLACIER NATIONAL PARK, WEST GLACIER, MT. 6 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE TYPES OF FOOD (BOTTOM AND FLOATING), AND DISTRIBUTION OF FOOD (WHERE FOUND, THE SIZE AND PERCENTAGE), ARE DISCUSSED FOR THE FOLLOWING LAKES: McDONALD, UPPER AND LOWER TWO MEDICINE, UPPER AND LOWER ST. MARY'S, SHERBOURNE, McDERMOTT, ICEBERG, JOSEPHINE, AND GRINNELL.

M-501

MYERS, JAMES R.

1953.

"DEVELOPING A PHYSICAL EDUCATION PROGRAM IN THE PRIMARY GRADES IN CORNELIUS HEDGES SCHOOL, KALISPELL, MONTANA."

M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 60 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL). THE PURPOSES OF THIS STUDY WERE TO: 1) DETERMINE THE TYPE OF PHYSICAL EDUCATION PROGRAM RECOMMENDED BY AUTHORITIES AS MOST SUITED FOR PRIMARY GRADE CHILDREN; 2) PREPARE A CURRICULUM GUIDE FOR TEACHERS IN GRADES 1-3, WHICH WOULD MEET STATE REQUIREMENTS; AND 3) PLAN A PHYSICAL EDUCATION PROGRAM THAT WOULD MEET THE AIMS AND OBJECTIVES OF A WELL-ROUNDED PROGRAM BASED ON A NATIONAL SURVEY.

M-502

THE MYSTERY OF FLATHEAD LAKE. 1951.

AMERICAN HORTICULTURAL SOCIETY. SPECIAL NUMBER: PENSTEMONS. JANUARY 1951. 2 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). A BRIEF ACCOUNT OF THE HYBRIDIZATION EFFORTS MADE WITH AN UNIDENTIFIED HERBACEOUS PENSTEMON FOUND NEAR FLATHEAD LAKE.





N-1
NATIONAL AUDUBON SOCIETY.
 BIMONTHLY.
AMERICAN BIRDS.
 NEW YORK: NATIONAL AUDUBON SOCIETY.
 PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL
 DATA, STATEWIDE.

(UNITED STATES: FLATHEAD RIVER BASIN). EVERY
 ISSUE OF THIS MAGAZINE CONTAINS A COLLECTION
 OF BIRD SIGHTINGS IN THE NORTHERN ROCKY
 MOUNTAIN-INTERMOUNTAIN REGION, WHICH IN-
 CLUDES THE FLATHEAD RIVER BASIN.

N-2
"THE NATIONAL BISON RANGE, MOIESE, MONTANA."
 MONTANA WILDLIFE, FEBRUARY 1957, PP. 16-17.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
 WITHIN THE BASIN.

(NATL. BISON RANGE). THIS ARTICLE GIVES A BRIEF
 DESCRIPTION OF THE HISTORY OF THE BISON
 RANGE AND THE WILDLIFE THAT OCCURS THERE.

N-3
NATIONAL RESOURCES DEFENSE COUNCIL.
 1977.
CHOOSING AN ELECTRICAL FUTURE FOR THE
PACIFIC NORTHWEST.
 PALO ALTO, CA.: NATIONAL RESOURCES DEFENSE
 COUNCIL. 177 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 REGIONAL.

(PACIFIC NORTHWEST). THE NATIONAL RESOURCES
 DEFENSE COUNCIL FORECAST IS CONSERVATION
 ORIENTED. THE OBJECTIVE OF THE STUDY WAS TO
 SHOW HOW MUCH ELECTRICITY WOULD BE NEEDED
 IN THE WEST GROUP AREA IN 1995 UNDER TWO
 ASSUMED CONDITIONS: MOST OF THE WASTE OF
 ELECTRICITY IS ELIMINATED, AND NO THERMAL
 PLANTS ARE BUILT, EXCEPT THOSE ALREADY AP-
 PROVED OR UNDER CONSTRUCTION.

N-4
"NATURE NOTES FROM GLACIER NATIONAL PARK,
1929-1930."
 U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE,
 GLACIER NATIONAL PARK. 97 + PP

PART OF A SERIES, GENERAL, NON-TECHNICAL,
 ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS BOUND VOLUME OF
 MONTHLY PAMPHLETS EDITED BY THE PARK
 NATURALIST WAS DISTRIBUTED BY THE EDU-
 CATIONAL DIVISION OF GLACIER NATIONAL PARK TO
 ALL INTERESTED IN THE PARK AND ITS NATURAL
 HISTORY. IT IS INDEXED BY AUTHOR AND SUBJECT.

N-5
NELLIS, CARL H.
 1964.
"THE MULE DEER OF THE NATIONAL BISON RANGE:
POPULATION DYNAMICS, FOOD HABITS, AND
PHYSICAL CONDITION."
 M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 147
 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
 WITHIN THE BASIN.

(NATL. BISON RANGE). THE MAJOR FOCUS OF THIS
 STUDY WAS TO DETERMINE THE POPULATION
 DYNAMICS OF THE MULE DEER (*ODOCOILEUS HE-*
MIONUS). OTHER OBJECTIVES INCLUDED OBTAINING
 SKELETAL MEASUREMENTS FOR COMPARISON WITH
 THOSE OF MULE DEER ON OTHER RANGES; DETER-
 MINING FOOD HABITS FOR COMPARISON WITH A
 SIMILAR STUDY CONDUCTED PRIOR TO HERD REDUC-
 TION AND IN LIGHT OF THE AVAILABILITY OF POTEN-
 TIAL FORAGE; AND TO DETERMINE THE PHYSICAL
 CONDITION OF THE ANIMALS FOR COMPARISON
 WITH DEER ON OTHER RANGES. DATA ON MULE
 DEER PRODUCTIVITY, POPULATION DYNAMICS,
 SKELETAL SIZE, FOOD HABITS, AND PHYSICAL CON-
 DITION IS GIVEN. MANAGEMENT RECOMMENDA-
 TIONS ARE PRESENTED.

N-6
NELLIS, CARL H.
 1965.
"ANTLER FROM RIGHT ZYGOMATIC ARCH OF WHITE-
TAILED DEER."
 J. MAMMALOGY 46(FEBRUARY 1965):108-109.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 WITHIN THE BASIN.

(NATL. BISON RANGE). THIS BRIEF PAPER
 DESCRIBES AN ABNORMAL ANTLER FOUND ON A
 WHITE-TAILED DEER.

N-7
NELLIS, CARL H.
 1966.
"LENS WEIGHT OF MULE DEER FETUSES."
 J. WILDLIFE MANAGEMENT 30:417-419.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 WITHIN THE BASIN.

(NATL. BISON RANGE). THIS STUDY WAS CONDUCTED
 TO DETERMINE THE FEASIBILITY OF AGING MULE
 DEER FETUSES BY THE LENS TECHNIQUE.
 MATERIALS AND METHODS ARE DESCRIBED, THE
 RESULTS ARE DISCUSSED AND PLOTTED TO IL-
 LUSTRATE THE RELATIONSHIP BETWEEN LENS
 WEIGHT AND FETAL AGE IN MULE DEER.

N-8
NELLIS, CARL H.
 1968.
"PRODUCTIVITY OF MULE DEER ON THE NATIONAL
BISON RANGE, MONTANA."
 J. WILDLIFE MANAGEMENT 32(APRIL 1968):344-349.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 WITHIN THE BASIN.

(NATL. BISON RANGE). THIS PAPER DISCUSSES
 FAWN PRODUCTION, POSTNATAL FAWN MORTALITY,
 THE CORPORA LUTEA RATE, THE PERCENTAGE OF
 OVA LOST TO FERTILIZATION AND IMPLANTATION
 FAILURES AND INTRAUTERINE FETAL MORTALITY,
 AND ADULT MORTALITY.

N-9
NELLIS, CARL H., AND ROSS, ROBERT L.
 1969.
"CHANGES IN MULE DEER FOOD HABITS
ASSOCIATED WITH HERD REDUCTION."
 J. WILDLIFE MANAGEMENT 33(JANUARY
 1969):191-195.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 WITHIN THE BASIN.

(NATL. BISON RANGE). THIS PAPER COMPARES FOOD
 HABITS OF MULE DEER ON THE NATIONAL BISON
 RANGE IN 1963 WITH THOSE IN 1952 AND COR-
 RELATES THE CHANGES WITH HERD SIZE AND
 RANGE CONDITION. A TOTAL OF 48 DEER WERE COL-
 LECTED.

N-10
NELSON, ALAN G.
 1970.
WILDFLOWERS OF GLACIER NATIONAL PARK.
 GREAT FALLS, MT.: BY THE AUTHOR. 46 + PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
 WITHIN THE BASIN.

(GLACIER NATL. PARK). THE FLOWER GUIDE BRIEFLY
 DESCRIBES THE VARIED HABITAT OF THE PARK AND
 OUTLINES THE RESULTING MYRIAD FLORA. THE
 FLOWERS ARE GROUPED IN COLOR SECTIONS;
 THEIR SCIENTIFIC NAMES AND FAMILIES TAKEN
 FROM E. H. MOSS' FLORA OF ALBERTA.
 PHOTOGRAPHS AND DESCRIPTIONS OF PLANT'S
 SIZE, APPEARANCE, AND SITES OCCUPIED ARE
 PRESENTED.

N-11
NELSON, AVEN.
 1934.
"ROCKY MOUNTAIN HERBARIUM STUDIES II."
 AMERICAN J. BOTANY 21(NOVEMBER 1934):581.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
 WITHIN THE BASIN.

(GLACIER NATL. PARK: LOWER ST. MARY'S LAKE).
 THE COLLECTION OF A NEW SPECIES, *ARNICA*
MAGUIREI, IS REPORTED. INCLUDED IS A DESCRI-
 PTION OF THE PLANT: ITS SIZE, STEM, LEAF, FLORAL
 CHARACTERISTICS, AND COLORATION.

N-12
NELSON, DICK, AND NELSON, SHARON.
1978.
HIKER'S GUIDE TO GLACIER NATIONAL PARK.
GLENWOOD, N.M.: TECOLOTE PRESS, INC. 111 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS BOOK DESCRIBES 25
HIKING TRAILS IN THE PARK. IT INCLUDES MAPS AND
PHOTOGRAPHS AND GIVES TRAIL ORIGIN AND
DESTINATION POINT, TOTAL DISTANCE, ELEVATION
CHANGES, WILDFLOWERS AND SCENERY DESCRIPTIONS,
AND POTENTIAL PROBLEMS.

N-13
NELSON, DICK, AND NELSON, SHARON.
1978.
**SHORT HIKES AND STROLLS IN GLACIER NATIONAL
PARK.**
GLENWOOD, N.M.: TECOLOTE PRESS, INC. 47 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS BOOK IS A GUIDE TO
THE SHORT TRAILS IN THE PARK RANGING FROM 85
METERS (95 YARDS) TO 8 KM (3.8 MILES) IN ROUND-
TRIP DISTANCE. TOTAL DISTANCE, ELEVATION
CHANGE, TRAIL HEAD LOCATION, VEGETATION,
WILDLIFE, AND SCENIC FEATURES ARE NOTED.

N-14
NELSON, H. T.
1961.
**KALISPELL PROJECT, MONTANA: REPORT OF THE
REGIONAL DIRECTOR.**
BOISE, ID.: U.S. DEPT. INTERIOR, BUREAU RECLAMA-
TION. PROJECT PLANNING REPT. NO. 1-5.19-1. 171 +
PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(KALISPELL AREA). THE REPORT DESCRIBES THE
AREA'S ENVIRONMENT, COMMUNITY, AND LOCAL
ECONOMY, AND ASSESSES THE NEED FOR IRRIGA-
TION DEVELOPMENT. THE CHARACTERISTICS OF
THE LAND, ITS SOIL, WATER RESOURCES AND RE-
QUIREMENTS ARE CONSIDERED. PLANNING, OPEN
DISTRIBUTION, SPRINKLING, AND OTHER ALTER-
NATIVES, ARE PRESENTED. DISCUSSION OF THE
AGRICULTURAL ECONOMY AND ITS DEVELOPMENT
AND A FINANCIAL ANALYSIS OF THE PROJECT CON-
CLUDES THE REPORT.

N-15
NELSON, HOWARD E.
1953.
**"THE SUMMER DRAGONFLIES OF FLATHEAD
VALLEY, MONTANA."**
M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 55
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD VALLEY). SPECIES OF DRAGONFLIES
PRESENT IN THE AREA WERE CATALOGUED; THEIR
LOCAL AND SEASONAL DISTRIBUTION WAS STUDIED
AND CORRELATED WITH CERTAIN ECOLOGICAL FAC-
TORS. FIVE STATIONS WERE SET UP FOR DATA COL-
LECTION. SEASONAL DISTRIBUTION PATTERNS OF
DRAGONFLIES BY STATIONS APPEAR IN VARIOUS
TABLES AND ARE DISCUSSED. ECOLOGICAL FAC-
TORS CONSIDERED IN THE STUDY WERE WATER
TEMPERATURES, THE AMOUNT OF AQUATIC VEGETA-
TION, WATER DEPTH, LAND USE, WATER CLARITY,
AND SHORE VEGETATION.

N-16
NELSON, LEE.
1976.
**"SHOOTOUT IN THE SWAN: THE STORY OF CHARLES
PAYTON."**
BITTERROOT JOURNAL (OCTOBER 1976):5-9.

(SWAN RIVER VALLEY). THIS ARTICLE SUMMARIZES
SOME OF THE CONFLICTING STORIES OF THE SWAN
RIVER KILLINGS OF FOUR FLATHEAD INDIANS AND
ONE GAME WARDEN IN 1908. SKCC.

N-17
NELSON, RICHARD M.
1981.
**"A FOLLOW-UP SURVEY OF THE 1950-1959
GRADUATES OF FLATHEAD COUNTY HIGH SCHOOL
WHO WERE ENROLLED IN THE SCHOOL'S
'MATHEMATICS-SCIENCE' CURRICULUM."**
M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 97
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(KALISPELL: FLATHEAD COUNTY HIGH SCHOOL). THE
OBJECTIVES OF THIS STUDY WHICH SURVEYED HIGH
SCHOOL GRADUATES WITH AN EMPHASIS IN THE
MATHEMATICS-SCIENCE FIELD WERE: 1) TO
EVALUATE SCHOLASTIC PREPARATION OF MATH-
SCIENCE STUDENTS BY DETERMINING WHAT PER-
CENT OF THE GRADUATES ENROLLED IN HIGHER IN-
STITUTIONS OF LEARNING AND WHAT PERCENT
CONTINUED IN MATH-SCIENCE RELATED FIELDS;
AND 2) TO DISCOVER HOW EFFECTIVE THE
GUIDANCE DEPARTMENT HAS BEEN IN GUIDING
STUDENTS IN THIS STUDY.

N-18
NELSON, W., ET. AL.
1976.
**ASSESSMENT OF EFFECTS OF ALTERED
STREAMFLOW CHARACTERISTICS ON FISH AND
WILDLIFE. PART A: ROCKY MOUNTAINS AND PACIFIC
NORTHWEST.**
FORT COLLINS, CO.: U.S. DEPT. INTERIOR, FISH &
WILDLIFE SERVICE, OFFICE BIOLOGICAL SERVICES,
ENERGY & LAND USE TEAM. CONTRACT NO.
14-16-0008-956FWS. 120 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(PACIFIC NORTHWEST & ROCKY MTNS.: HUNGRY
HORSE DAM). THE REPORT CONTAINS ANALYSES,
FINDINGS, CONCLUSIONS, AND RECOMMENDA-
TIONS REGARDING CHANGED FLOW REGIMES
BELOW DAMS, THE IMPACT ON FISHERIES, AND
METHODOLOGIES USED TO ASSESS FLOW RE-
QUIREMENTS FOR 96 DAMS AND DIVERSIONS.

N-19
NETTLETON, LULIE.
1915.
**"CLIMBING THE ROCKIES OF GLACIER NATIONAL
PARK."**
MAZAMA 4:4-8.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). AN EARLY ACCOUNT OF A
200-MILE EXPEDITION THROUGH GLACIER PARK
WITH A GROUP OF CLIMBING ENTHUSIASTS. THE
PARTY CLIMBED DAWSON PASS, RED EAGLE
GLACIER, AND SIYEH MOUNTAIN.

N-20
NEWBERRY, J. S.
1884.
**"NOTES ON THE GEOLOGY AND BOTANY OF THE
COUNTRY BORDERING THE NORTHERN PACIFIC
RAILROAD."**
NEW YORK ACADEMY SCIENCES ANNALS 3:242-270.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
REGIONAL.

(NORTHERN PACIFIC RAILROAD ROUTE). THIS
SURVEY CONTAINS A DESCRIPTION OF THE FORESTS
OF THE ROCKY MOUNTAINS, AND DETAILS THE
TYPES OF VEGETATION ENCOUNTERED ALONG THE
ROUTE, WHICH CROSSES THE CONTINENTAL DIVIDE.

N-21
NEWBY, FLETCHER E.
1952.
"MARTEN IN MONTANA."
MONTANA WILDLIFE, AUTUMN 1952. PP. 14-15.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MONTANA: LINCOLN & FLATHEAD COUNTIES).
POSSIBILITIES FOR INCREASING THE PRODUCTION
AND VALUE OF MARTEN POPULATIONS WERE IN-
VESTIGATED. PELTS OF TWO SUBSPECIES OF
MARTENS (MARTES AMERICANA ABIEINOIDES AND
M. A. CAURINA) WERE TRAPPED AND ASSESSED FOR
MARKET VALUE. LIVE TRAPPING AND TAGGING
STUDIES TO PROVIDE INFORMATION ABOUT THE
VALUES OF LARGE REFUGES, SUCH AS GLACIER
PARK, IN SUSTAINING MARTEN POPULATIONS, WERE
ALSO INVOLVED.

N-22
NEWBY, FLETCHER E., AND HAWLEY, V. D.
1954.
**"PROGRESS ON MARTEN LIVE-TRAPPING STUDY." IN
TRANSACTIONS OF THE 19TH NORTH AMERICAN
WILDLIFE CONFERENCE, MARCH 8, 9, 10.
WASHINGTON, D.C.: WILDLIFE MANAGEMENT IN-
STITUTE.**
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL
DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). METHODS AND PRELIMINARY
FINDINGS FROM THIS INVESTIGATION ARE
PRESENTED FOR THE USE OF OTHER WORKERS IN-
VOLVED IN MARTES AMERICANA MANAGEMENT AND
RESEARCH.

N-23
NEWBY, FLETCHER E., AND WRIGHT, P. L.
1955.
**"DISTRIBUTION AND STATUS OF THE WOLVERINE IN
MONTANA."**
J. MAMMALOGY 36(MAY 1955):249-253.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
EXISTING DATA, WITHIN THE BASIN.

(MONTANA: NORTH & SOUTH FORKS OF THE
FLATHEAD RIVER). IN AN EFFORT TO EVALUATE THE
APPARENT REGROWTH OF THE GULO GULO POPULA-
TION IN NORTHWESTERN MONTANA, THE AUTHORS
INVESTIGATED MANY REPORTS PROVIDED BY TRAP-
PERS AND HUNTERS. 21 CAPTURE RECORDS AND 21
SIGHTINGS ARE INCLUDED.

N-24
NEWELL, EUGENE B.
1976.
**"A CONSERVATIVE INQUIRY INTO THE ANNUAL
ECONOMIC VALUE OF NATIONAL FOREST LAND OUT-
PUTS RELATIVE TO THIRTY-FOUR MONTANA COUN-
TIES."**
M.S. THESIS, UNIV. MONTANA, MISSOULA. 229 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: FLATHEAD NATL. FOREST). THE PUR-
POSE OF THIS STUDY WAS TO WEIGH THE ANNUAL
BENEFITS OF NATIONAL FOREST LANDS UNDER RE-
CENT MANAGEMENT IN THE STATE OF MONTANA.
THE ANALYSIS INVOLVED AN ACCOUNTING OF
RESOURCE USAGE AND OUTPUT ON AN ANNUAL
BASIS. THE CONCLUSIONS ENTAIL DOLLAR VALUES
FOR GRAZING, MINERAL, PIPELINE AND POWERLINE
RIGHTS-OF-WAY, RECREATION, TIMBER, AND WATER.

N-25
NEWELL, ROBERT L.
1971.
**"INVERTEBRATE FAUNA OF A MOUNTAIN STREAM IN
NORTHWESTERN MONTANA."**
PROC. MONTANA ACADEMY SCIENCES 31:65-68.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(WEST SLOPE, SWAN RANGE; SOUTHWEST BOUNDARY, BOB MARSHALL WILDERNESS; MORRELL CREEK DRAINAGE). BIOLOGICAL AND CHEMICAL CONDITIONS IN THIS PRISTINE STREAM WERE INVESTIGATED. THREE SAMPLING STATIONS WERE ESTABLISHED; MONTHLY SAMPLES FOR 18 MONTHS WERE TAKEN. CHEMICAL PARAMETERS INCLUDED ALKALINITY, HARDNESS, OXYGEN, PH, SULFATE, AND TEMPERATURE. SIXTY-THREE TAXA OF AQUATIC INVERTEBRATES WERE FOUND IN THE BENTHOS SAMPLING. STANDING CROP FIGURES AND SPECIES ARE LISTED.

N-26
NEWELL, ROBERT L.
1978.
"FIRST RECORDS OF AQUATIC ISOPODS (ISOPODA ASELLIDAE) FROM MONTANA."
PROC. MONTANA ACADEMY SCIENCES 36:50-51.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE PAPER REPORTS ON FINDINGS OF AQUATIC ISOPODS (ISOPODA: ASELLUS NACQUITZAI RACQUITZAI) AT SEVERAL LOCATIONS IN THE STATE. THE LOCATIONS ARE LISTED AND BRIEFLY DESCRIBED.

N-27
NEWELL, ROBERT L., AND CANARIS, A. G.
1969.
"PARASITES OF THE PYGMY WHITEFISH AND MOUNTAIN WHITEFISH FROM WESTERN MONTANA."
PROC. HELMINTHOLOGICAL SOCIETY WASHINGTON 36:275-276.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: CLARK FORK & KOOTENAI RIVER DRAINAGES). THIS PAPER PRESENTS THE RESULTS OF A STUDY ON THE PARASITE FAUNA OF PROSOPIUM COULTERI AND P. WILLIAMSONI COLLECTED IN WESTERN MONTANA. THE PARASITES OF THE TWO SYMPATHETIC SPECIES ARE LISTED AND COMPARED.

N-28
NEWELL, ROBERT L., AND POTTER, D. S.
1973.
"DISTRIBUTION OF SOME MONTANA CADDISFLIES."
PROC. MONTANA ACADEMY SCIENCES 33:12-21.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: GLACIER NATL. PARK: LAKE & FLATHEAD COUNTIES). THIS PAPER LISTS 110 SPECIES AND 42 GENERA OF THE APPROXIMATELY 130 SPECIES AND 54 GENERA KNOWN FROM THE STATE. THE SPECIES ARE LISTED WITH THE COLLECTION MONTH, COUNTY, AND STREAM OR LAKE WHERE THE COLLECTION WAS MADE.

N-29
NEWELL, ROBERT L.; ANDERSEN, DARRELL L.; AND HANZEL, DELANO A.
1978.
"BOTTOM FAUNA AS AN INDICATOR OF LAKE TYPOLOGY IN FLATHEAD LAKE, MONTANA."
NORTHWEST SCIENCE 52(MAY 1978):119-126.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE HORIZONTAL AND VERTICAL DISTRIBUTION OF BOTTOM FAUNA (CHIRONOMID AND OLIGOCHAETE) IS DISCUSSED. INCLUDED IN THE FINDINGS ARE: OCCURRENCE OF BENTHOS FAUNA AND WHAT THAT SUGGESTS CONCERNING THE DISTRIBUTION OF OLIGOCHAETES; THE PRESENCE OF LARVAE OF STICTOCHIRONOMUS AND PROCLADIUS; AND THE PRESENCE OF HETEROTRISOCLADIUS, MONODIAMESA, AND PROTANYPUS AND WHAT THAT REFLECTS WITH REGARD TO ULTRAOLIGOTROPHIC AREAS IN THE LAKE.

N-30
NEWMAN, HOWARD E.
1979.
"INFLUENCE OF HARVESTING AND RESIDUE MANAGEMENT ON ON-SITE HYDROLOGY: LARCH/DOUGLAS-FIR FORESTS, WESTERN MONTANA." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN NORTHERN ROCKY MOUNTAIN CONIFEROUS FORESTS.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPER. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHERN ROCKY MTS.: CORAM EXPER. FOREST). POST-HARVEST SOIL MOISTURE LEVELS WERE ESTABLISHED FOR CLEARCUTS, GROUP CLEARCUTS, AND SHELTERWOOD UNIT ON CORAM EXPERIMENTAL FOREST. STREAM WATER QUALITY WAS ALSO TESTED.

N-31
NEWMAN, MARK.
1979.
"BRINGING IN THE BUFFALO."
MONTANA MAGAZINE OF WESTERN HISTORY 10(SEPTEMBER-OCTOBER 1979):26-28.

(NATL. BISON RANGE). THIS ARTICLE RECORDS THE ANNUAL BUFFALO ROUNDUP AT THE NATIONAL BISON RANGE AT MOIESE. SKCC.

N-32
NICHOLS, JOHN C., AND WALLACE, R. R.
1978.
GEOLOGIC REFERENCES OF WESTERN MONTANA AND ADJACENT AREAS.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, CENTRAL ZONE, MINERALS AREA MANAGEMENT. 150 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THIS COMPILATION IS COMPOSED OF INDEX MAPS AND REFERENCE LISTINGS FOR WESTERN MONTANA AND ADJACENT AREAS. INDEXED ARE MOST OF THE GEOLOGIC REFERENCES AS WELL AS THOSE REFERENCED WHICH PERTAIN TO THE MINERAL DEPOSITS AND OCCURRENCES. ALSO INCLUDED IN THIS REPORT IS A PARTIAL LISTING OF REFERENCES ON THE CANADIAN SIDE OF THE BORDER AND AN ALPHABETICAL LISTING BY AUTHOR.

N-33
NICOLL, CHARLES S.; PFEIFFER, E. W.; AND FEVOLD, R.
1966.
"PROLACTIN AND NESTING BEHAVIOR IN PHALAROPES."
GENERAL AND COMPARATIVE ENDOCRINOLOGY 8:61-65.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: PABLO & NINEPIPE NATL. WILDLIFE REFUGES). THIS STUDY INVESTIGATED THE PROLACTIN CONTENT OF PITUITARY GLANDS OF MALE AND FEMALE PHALAROPES CAPTURED DURING DIFFERENT PERIODS IN THE REPRODUCTIVE CYCLE TO DETERMINE IF INADEQUATE PROLACTIN PRODUCTION BY THE FEMALE IS ASSOCIATED WITH HER INABILITY TO DEVELOP BROOD PATCHES IN NATURE AND TO INCUBATE.

N-34
NIMLOS, THOMAS J.
1979.
A SOIL SURVEY OF THE APGAR AREA, GLACIER NATIONAL PARK.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL

PARK SERVICE, GLACIER NATIONAL PARK. 22 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: APGAR). IN THIS REPORT THE AREA'S VEGETATION, CLIMATE, AND GEOLOGY ARE OUTLINED. THE AREA'S SOILS ARE DISCUSSED IN MORE DETAIL. THE RESULTS OF PERCOLATION TESTS ARE INCLUDED. INTERPRETATIONS OF THE SITE'S CARRYING CAPACITY, TOPSOIL AVAILABILITY, AND PRODUCTIVITY ARE MADE.

N-35
NIMLOS, THOMAS J., AND MCCONNELL, RONALD C.
1962.
"THE MORPHOLOGY OF ALPINE SOILS IN MONTANA."
NORTHWEST SCIENCE 36:14-28.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: GLACIER NATL. PARK). THIS PAPER DISCUSSES THE MORPHOLOGY AND GENESIS OF ALPINE SOILS AS THE FIRST PHASE IN REPORTING THE RESULTS OF AN ALPINE ECOLOGY STUDY. A LITERATURE REVIEW, VEGETATION DESCRIPTION AND CLIMATE DESCRIPTION ARE INCLUDED. SOIL SERIES STUDIED ARE THE PTARMIGAN, BEARTOOTH, AND HOPLEYS.

N-36
NIMLOS, THOMAS J., AND MCCONNELL, RONALD C.
1965.
"ALPINE SOILS IN MONTANA."
SOIL SCIENCE 99:310-321.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: GLACIER NATL. PARK). THIS PAPER REPORTS THE MORPHOLOGY, PHYSICAL AND CHEMICAL CHARACTERISTICS, GENESIS AND CLASSIFICATION OF SOILS FOUND IN MONTANA ALPINE AREAS. SOME OF THE VARIATION WITHIN SOIL SERIES IS PRESENTED ALONG WITH SOIL DIFFERENCES BETWEEN ALPINE VEGETATIVE COMMUNITIES.

N-37
NOBLE, JOHN W.
1892.
"LETTER FROM THE SECRETARY OF THE INTERIOR TRANSMITTING A COMMUNICATION FROM THE COMMISSIONER OF INDIAN AFFAIRS RECOMMENDING THE RATIFICATION OF CERTAIN AGREEMENTS WITH SEVERAL TRIBES OF INDIANS IN MONTANA."
SENATE EXECUTIVE DOC. NO. 17, 52ND CONG., 1ST SESS. SERIAL 2892.

(FLATHEAD INDIAN RESERVATION). THIS LETTER RECOMMENDS RATIFICATION OF THE AGREEMENT MADE BY THE NORTHWEST INDIAN COMMISSION FOR THE REMOVAL OF THE KALISPELL INDIANS TO THE FLATHEAD RESERVATION. IT INCLUDES THE REPORT OF PETER RONAN ABOUT THE CONDITIONS OF THE VARIOUS BANDS BEING PLACED ON THE FLATHEAD RESERVATION AND COPIES OF THE AGREEMENTS STIPULATING THE REMOVAL. SKCC.

N-38
NOBLES, LAWRENCE H.
1952.
"GLACIAL GEOLOGY OF THE MISSION VALLEY, WESTERN MONTANA."
PH.D. DISSERTATION, HARVARD UNIV., CAMBRIDGE, MA. 130 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION VALLEY). THE PURPOSE OF THIS STUDY WAS TO DETERMINE THE SOUTHERN BOUNDARY OF THE GREAT CORDILLERAN ICE SHEET, TO RELATE THE HISTORY OF THIS ICE SHEET TO THE SEQUENCE OF MOUNTAIN GLACIATION IN THE NORTHERN

ROCKY MOUNTAINS, AND TO EXAMINE CRITICALLY THE EVIDENCE RELATING TO STAGES OF GLACIAL LAKE MISSOULA IN AN AREA WHERE SHORELINES ARE ESPECIALLY WELL DISPLAYED.

N-39

NOBLES, LAWRENCE H.
1952.

"GLACIAL SEQUENCE IN THE MISSION VALLEY, WESTERN MONTANA."
BULL. GEOLOGICAL SOCIETY AMERICA
63(DECEMBER 1952).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTN. VALLEY). THIS PAPER EXAMINES THREE WISCONSIN ADVANCES OF A LARGE INTER-MONTANE LOBE OF THE CORDILLERAN ICE SHEET. IT INCLUDES A BRIEF DISCUSSION OF THE EARLY WISCONSIN SUBSTAGE AS EVIDENCED BY A WEATHERED CLAY RICH TILL, THE TERMINAL MORaine, AND VALLEY LACUSTRINE AND FLUVIAL DEPOSITS OF THE MID-WISCONSIN SUBSTAGE, THE LATE-WISCONSIN TERMINAL MORaine, GLACIAL LAKE MISSOULA, AND LOCAL MOUNTAIN GLACIATION ACCOMPANYING THE ICE FLOWING SOUTH FROM A CANADIAN ICE CAP.

N-40

NORTH AMERICAN WEATHER CONSULTANTS.
1971.

PERFORMANCE OF AN ATMOSPHERIC WATER RESOURCES RESEARCH PROGRAM IN THE HUNGRY HORSE AREA, MONTANA. FIFTH INTERIM FINAL REPORT.
WASHINGTON, D.C.: U.S. DEPT. INTERIOR, BUREAU RECLAMATION, ATMOSPHERIC WATER RESOURCES RESEARCH REPT. NO. 6-115. 50 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR). WITH THIS REPORT, THE HUNGRY HORSE CLOUD SEEDING PROJECT, AN OPERATIONAL ADAPTATION RESEARCH PROJECT, HAD COMPLETED FIVE SEASONS OF OPERATIONS. THE PRIMARY GOAL WAS TO DETERMINE THE FEASIBILITY OF INCREASING WATER SUPPLIES THROUGH CLOUD SEEDING METHODS, WITH A SECONDARY GOAL OF INCREASING RUNOFF INTO THE HUNGRY HORSE RESERVOIR. THIS REPORT SUMMARIZES THE INVESTIGATIONS AND RESULTS OF FIVE YEARS OF EFFORT ON THE PROGRAM.

N-41

"NORTHERN PACIFIC IS TO ENTER RESERVATION."
THE WESTERN HOMESEAKER, OCTOBER 1905, P. 24.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE NOTES THE INTEREST OF THE NORTHERN PACIFIC RAILROAD IN CONSTRUCTING A BRANCH LINE THROUGH THE FLATHEAD RESERVATION. SKCC.

N-42

NORTHERN ROCKY MOUNTAIN WOLF RECOVERY TEAM.
1978.
DRAFT PLAN FOR THE RECOVERY OF THE NORTHERN ROCKY MOUNTAIN WOLF.
HELENA, MT.: MONTANA DEPT. FISH & GAME, NORTHERN ROCKY MTN. WOLF RECOVERY TEAM. 42 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(IDAHO & MONTANA; FLATHEAD COUNTY & GLACIER NATL. PARK). THE NORTHERN ROCKY MOUNTAIN WOLF RECOVERY PLAN PROPOSES AND OUTLINES THE STEPS NECESSARY FOR THE REESTABLISHMENT AND MAINTENANCE OF VIABLE POPULATIONS IN PORTIONS OF ITS FORMER RANGE WHERE FEASIBLE. THE PLAN IS INTENDED TO PROVIDE DIRECTION AND COORDINATION FOR EFFORTS TOWARD RECOVERY OF AT LEAST ONE VIABLE WOLF POPULATION IN THE LOWER 48 STATES.

N-43

NORTHWEST ASSOCIATION OF SECONDARY AND HIGHER SCHOOLS, COMMISSION ON HIGHER SCHOOLS.
1970.
EVALUATION COMMITTEE REPORT - FLATHEAD VALLEY COMMUNITY COLLEGE.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL: FLATHEAD VALLEY COMMUNITY COLL.). THIS EVALUATION EXAMINES FLATHEAD VALLEY COMMUNITY COLLEGE'S ADMINISTRATION AND THE FOLLOWING PROGRAMS: BUSINESS & OFFICE EDUCATION, COMMUNITY SERVICE PROGRAM, HUMANITIES, SCIENCE AND MATHEMATICS, SOCIAL SCIENCE, STUDENT PERSONNEL SERVICES, PHYSICAL EDUCATION, AND VOCATIONAL TECHNICAL EDUCATION. SHORTCOMINGS IN EACH DEPARTMENT ARE DESCRIBED AND RECOMMENDATIONS ARE MADE TO REMEDY THE PROBLEMS.

N-44

NORTHWEST BOOKS, FIRST SUPPLEMENT:
BIBLIOGRAPHY OF NORTHWEST WRITING, 1942-7.
LINCOLN, NE.: UNIV. NEBRASKA PRESS. 278 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE BIBLIOGRAPHY CONTAINS MORE THAN 800 BOOKS WHICH HAVE BEEN REVIEWED AND HAVE BIOGRAPHICAL DATA. AUTHOR AND TITLE INDEXES ARE INCLUDED FOR THE REGION AND FOR EACH STATE. THERE IS ALSO AN INDEX ACCORDING TO TYPE OF LITERATURE AND A SELECTED MAGAZINE BIBLIOGRAPHY.

N-45

NORTHWEST ENERGY POLICY PROJECT.
1978.

ENERGY FUTURES NORTHWEST - NORTHWEST ENERGY PROJECT. EXECUTIVE SUMMARY OF THE FINAL REPORT.
VANCOUVER, WA.: PACIFIC NORTHWEST REGIONAL COMMISSION. 36 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS SUMMARY IS BASED ON A SERIES OF STUDIES COMMISSIONED BY THE NORTHWEST ENERGY POLICY PROJECT. A MAJOR GOAL OF THE PROJECT WAS TO IDENTIFY AND ANALYZE POLICY OPTIONS AVAILABLE TO THE PACIFIC NORTHWEST STATES TO INFLUENCE FUTURE PATTERNS OF ENERGY PRODUCTION AND CONSUMPTION IN THE REGION.

N-46

NORTHWEST INDIAN COMMISSION.
1888.
"REPORT OF NORTHWEST INDIAN COMMISSION." IN L.Q.C. LAMAR, SECRETARY OF INTERIOR, "REDUCTION OF INDIAN RESERVATION."
HOUSE EXECUTIVE DOCUMENT NO. 63, 50TH CONG., 1ST SESS. SERIAL 2557, PP. 30-77.

(FLATHEAD INDIAN RESERVATION). THIS IS ONE OF THE AGREEMENTS NEGOTIATED BY THE NORTHWEST INDIAN COMMISSION. IT PROVIDED FOR THE RELOCATION OF THE LOWER PEND D'OREILLE INDIANS TO THE FLATHEAD RESERVATION. SKCC.

N-47

NORTHWEST PLANNERS.
1974.

KALISPELL: CENTRAL BUSINESS DISTRICT COMPREHENSIVE PLAN.
KALISPELL, MT.: FLATHEAD COUNTY AREA-WIDE PLANNING ORGANIZATION. 73 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL, MT.). THIS CENTRAL BUSINESS DISTRICT PLAN IS AIMED AT ELIMINATING EXISTING PROBLEMS IN THE AREA AND AT SETTING FORTH SOME GENERAL CONCEPTS TO GUIDE PUBLIC AND PRIVATE IMPROVEMENTS SO THAT THEY WILL MAKE THEIR MAXIMUM CONTRIBUTION TOWARDS STRENGTHENING THE AREA. THE PLAN IS LONG RANGE FORECASTS OF SALES, FLOOR SPACE, TRAFFIC, AND PARKING BASED ON 1990.

N-48

NORTHWEST REGIONAL TASK GROUP.
1964.

DRAFT: STUDY REPORT ON THE NORTH, MIDDLE, AND SOUTH FORKS OF THE FLATHEAD RIVER.
U.S. DEPT. AGRICULTURE, AND U.S. DEPT. INTERIOR, WILD RIVERS STUDY TEAM. 131+ PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(NORTH, MIDDLE, & SOUTH FORKS OF THE FLATHEAD RIVER). THE OBJECTIVES OF THIS STUDY WERE TO ASSEMBLE AND REVIEW WRITTEN MATERIAL AND OBTAIN UNASSEMBLED DATA BY CONTACT AND FIELD INSPECTION TO DETERMINE THE RIVER'S POTENTIAL FOR INCLUSION INTO A NATIONWIDE SYSTEM OF WILD RIVERS. ASSUMING WILD RIVER STATUS IS RECOMMENDED, THE STUDY THEN ATTEMPTS TO DETERMINE HOW THIS MIGHT BEST BE REALIZED BY OUTLINING THE MAJOR CONSIDERATIONS INVOLVING ESTABLISHMENT, MANAGEMENT, AND USE.

N-49

NORTHWESTERN AGRICULTURAL RESEARCH CENTER.
1949-1979.

ANNUAL REPORT.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON CENTER). THE REPORT CONTAINS INFORMATION ABOUT THE HISTORY AND DEVELOPMENT OF THE STATION AND SUMMARIZES ITS ACTIVITIES, SERVICES AND GENERAL ADMINISTRATION. LATER REPORTS LIST PUBLICATIONS RESULTING FROM STATION STUDIES. EACH REPORT CONTAINS WEATHER DATA RECORDS FOR THAT YEAR: MAXIMUM, MINIMUM, AND MEAN TEMPERATURES, TOTAL PRECIPITATION, SNOWFALL, FROST DATES AND CHARACTERIZATIONS. THE THRUST OF THE REPORTS IS THE DISCUSSION OF VARIOUS RESEARCH PROJECTS CONCERNING AGRONOMY AND HORTICULTURE LOCATED AT THE STATION AND WESTERN MONTANA COUNTIES.

N-50

NORTHWESTERN AGRICULTURAL RESEARCH CENTER.
1950-64.

PROGRESS REPORT.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: FOLLOWING 1964, THIS SERIES IS REPLACED WITH "CROP RECOMMENDATIONS FOR FLATHEAD COUNTY," UNTIL 1973, WHEN IT BECOMES "CROP VARIETIES."

(CRESTON). THE SERIES REPRESENTS ANNUAL REPORTS LISTING THE KINDS AND NUMBERS OF TRIALS FOR CROPS AND THEIR VARIETIES AND MIXTURES. THEY RECOMMEND VARIETIES BY NOTING THE PROMISE OF SOME SELECTIONS IN YIELD TESTS. THE REPORTS DESCRIBE THE MANAGEMENT PRACTICES STUDIED, USUALLY RELATING TO CROP AND SEED PRODUCTION. INCLUDED ARE APPLICATIONS OF FERTILIZER, IRRIGATION, AND HERBICIDES; SEEDING RATES AND HILL SPACING, WEED

CONTROL. HARVEST METHODS, CUTTING, ETC. WEATHER DATA FOR EACH YEAR FOR NORTHWESTERN MONTANA IS PRESENTED.

**N-51
NORTHWESTERN AGRICULTURAL RESEARCH CENTER.**

1959.
PROGRESS REPORT.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT..
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THE REPORT SUMMARIZES RESEARCH CARRIED OUT FROM 1949 TO 1958. IT DESCRIBES IRRIGATION STUDIES, FERTILIZER TESTING, HARVEST DATA, WEED CONTROL PROGRAMS, ETC.

**N-52
NORTHWESTERN AGRICULTURAL RESEARCH CENTER.**

1965-1979.
CROP RECOMMENDATIONS FOR FLATHEAD COUNTY, 1965-1973; CROP VARIETIES 1974-PRESENT.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT..
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THE PUBLICATIONS LIST CROPS, THEIR RECOMMENDED VARIETIES, SEED TREATMENT, SEEDING RATES FOR IRRIGATED/DRY LANDS, DEPTH AND DATE OF SEEDING, FERTILIZER-GENERAL RATES, WEED CONTROL, AND SOIL PREPARATION. NOTES THE AGRONOMIC FACTORS (YIELD, DISEASE RESISTANCE, STRAW STRENGTH, SEED SIZE) STUDIED IN SMALL GRAINS AND THEIR TESTS OF MILLING AND BAKING QUALITY FOR WHEAT AND MALTING QUALITY FOR BARLEY. FORAGE CROPS AND VARIETIES ARE EVALUATED FOR HAY CROP YIELDS AND PASTURE PRODUCTIVITY; SOME QUALITY EXAMINATIONS ARE MADE VIA CHEMICAL ANALYSIS AND THROUGH THE USE OF ANIMALS.

**N-53
NORTHWESTERN AGRICULTURAL RESEARCH CENTER.**

HISTORY OF THE NORTHWESTERN MONTANA BRANCH STATION.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT..
IN PROGRESS, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THE BOOK PRESENTS ACCOUNTS OF THE STATION'S HISTORY AND DEVELOPMENT FROM THE INITIAL REQUEST IN 1948 OF FLATHEAD AREA RESIDENTS FOR SUCH AN AGRICULTURAL EXPERIMENT STATION. STATE LEGISLATION ESTABLISHING THE STATION AND THE FIRST PHASES OF ITS EXISTENCE ARE DESCRIBED IN DETAIL. FOR EACH YEAR, FISCAL PROJECTS ARE OUTLINED, AS WELL AS "GENERAL FARM," THE SUPPORTING PROJECT FOR ALL RESEARCH PROJECTS. A LIST OF COOPERATORS AIDING IN VARIOUS PROJECTS, A DESCRIPTION OF FIELD DAY, AND A LIST OF PERSONNEL AND PUBLICATIONS IS INCLUDED.

**N-54
NORTHWESTERN AND WESTERN AGRICULTURAL RESEARCH CENTERS.**

1966, 1967.
WESTERN MONTANA AGRICULTURAL RESEARCH.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT. CIRC. SERIES 101 & 102.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: CORVALLIS & CRESTON). THE DOCUMENTS PRESENT A RESUME OF WORK DONE AT BOTH STATIONS. THE STUDY OF FORAGE YIELDS, THE PERFORMANCE OF NEW FORAGE VARIETIES,

THE COMPARISON OF YIELDS OF IRRIGATED AND DRYLAND PASTURES, POTATO PRODUCTION, FLOCK STUDIES, THE LISTING OF RECOMMENDED WHEAT AND SMALL GRAINS, AND WEED CONTROL PROGRAMS ARE STUDIES OF THE CRESTON STATION. THE CORVALLIS STATION IS CONCERNED WITH THE CONTROL OF MAJOR INSECT PESTS AND CATTLE FORAGE.

**N-55
NORTHWESTERN MONTANA AREA-WIDE HEALTH PLANNING COUNCIL.**

1975.
HEALTH SYSTEMS PLAN.
305 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, BASIN-WIDE.
NOTE: DATA BY COUNTIES; EXTENSIVE TABLES.

(FLATHEAD, LAKE, SANDERS, MISSOULA, AND LINCOLN COUNTIES). THIS PLAN WAS DEVELOPED AS A BASIS FOR ORDERLY GROWTH AND DELIVERY OF HEALTH CARE IN WESTERN MONTANA. INCLUDED IN THE PLAN ARE SECTIONS COVERING: THE REGION, AN OVERVIEW OF HEALTH SYSTEMS, OTHER MAJOR HEALTH SYSTEM COMPONENTS, AND IMPLEMENTATION PLANS BY REGION AND BY COUNTY.

**N-56
NORTON, GERTRUDE.**

1916.
"LIST OF BOOKS AND PAMPHLETS OF THE BOTANY OF FLATHEAD REGION."
(TYPEWRITTEN). 2 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, BASIN-WIDE.

(FLATHEAD AREA). THIS SHORT BIBLIOGRAPHY LISTS MATERIALS PERTAINING TO THE ECOLOGY AND DISTRIBUTION OF THE BOTANY OF THE FLATHEAD AREA.

**N-57
NORTON, GERTRUDE.**

1919.
"SHORE VEGETATION OF FLATHEAD LAKE."
THE PLANT WORLD 22(DECEMBER 1919):355-362.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS PAPER EXAMINES XEROPHYTIC SUCCESSION DIVIDED INTO ROCK SHORE AND STONY BEACH SUCCESSION AND HYDROPHYTIC SUCCESSION CLASSED AS SWAMP MEADOW AND DELTA SWAMP SUCCESSION. PLANT SPECIES FOUND WITHIN THOSE COMMUNITIES ARE LISTED.

**N-58
NORUM, RODNEY A.**

1970.
"PROBABLE SMOKE COLUMN HEIGHTS FROM SLASH FIRES."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 65 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MILLER CREEK DRAINAGE NEAR OLNEY). THIS THESIS RELATES THE HEIGHT OF SLASH FIRE SMOKE COLUMNS TO FIRE INTENSITY, LAPSE RATE, AND OTHER MEASURES OF ATMOSPHERIC STABILITY. IT RECOMMENDS WAYS TO MAINTAIN AIR QUALITY WHEN ATMOSPHERIC CONDITIONS FOR SMOKE DISPERSAL ARE LESS THAN IDEAL.

**N-59
NORUM, RODNEY A.**

1974.
SMOKE COLUMN HEIGHT RELATED TO FIRE INTENSITY.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMOUNTAIN FOREST & RANGE EXPER.

STAT., RESEARCH PAPER INT-157. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: MILLER CREEK DRAINAGE NEAR OLNEY). THE ULTIMATE HEIGHT OF SLASH-FIRE SMOKE COLUMNS IS SHOWN TO BE STRONGLY RELATED TO THE CHARACTER OF THE FIRE AND ONLY LOOSELY RELATED TO LAPSE RATE AND OTHER MEASURES OF ATMOSPHERIC STABILITY.

**N-60
NORWICK, STEPHAN A.**

1972.
"THE REGIONAL PRECAMBRIAN METAMORPHIC FACIES OF THE PRICHARD FORMATION OF WESTERN MONTANA AND NORTHERN IDAHO."
PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 128 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN MONTANA & NORTHERN IDAHO). PETROGENESIS OF THE LOWER-GRADE MINERAL ASSEMBLAGES OF THE BELT SUPERGROUP PRICHARD FORMATION WAS DETERMINED IN ORDER TO DELINEATE THE EXTENT AND NATURE OF REGIONAL METAMORPHISM IN THE BELT SERIES. GEOTHERMAL GRADIENTS ARE CALCULATED AND CONSIDERED WITH THE HYPOTHESIS OF BURIAL METAMORPHISM, THE PARTITIONING OF MAJOR ELEMENTS BETWEEN MAJOR MINERALS OF THE PRICHARD FORMATION IS DISCUSSED, AS WELL AS THE CONTROLS OF THE FORMATION'S PETROGENESIS.

**N-61
NUNNALLEE, DAVID A.**

1975.
SUMMARY OF EXISTING WATER QUALITY DATA: NORTH FORK FLATHEAD RIVER AND MAINSTEM FLATHEAD RIVER ABOVE FLATHEAD LAKE.
KALISPELL, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV. 12 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(MAINSTEM & NORTH FORK OF THE FLATHEAD RIVER). THIS REPORT SUMMARIZES WATER QUALITY DATA FOR PORTIONS OF THE UPPER FLATHEAD DRAINAGE. THE FOLLOWING PARAMETERS ARE INCLUDED IN THE SUMMARY: DO, PH, TURBIDITY, SUSPENDED SOLIDS, TEMPERATURES, SPECIFIC CONDUCTANCE, TOTAL DISSOLVED SOLIDS, BICARBONATE, CHLORIDE, SULFATE, ALKALINITY, HARDNESS, POTASSIUM, SODIUM, CHEMICAL AND BIOCHEMICAL OXYGEN DEMAND, TOTAL COLIFORM, ORTHOPHOSPHATE, PHOSPHOROUS, NITROGEN, AMMONIA, NITRATE, DISSOLVED SILICA, METALS, AND PESTICIDES.

**N-62
NUNNALLEE, DAVID A.**

1976.
WATER QUALITY DATA - FLATHEAD DRAINAGE ABOVE FLATHEAD LAKE.
KALISPELL, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, KALISPELL REGIONAL OFFICE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD DRAINAGE ABOVE FLATHEAD LAKE). WATER QUALITY ANALYSES FOR TWENTY EIGHT STREAM STATIONS. PARAMETERS ARE: TURBIDITY, PH, DO, COD, BOD, TSS, FECAL AND TOTAL COLIFORMS, CA, MG, NA, FE, HCO₃, CO₃, CDS, MICROPHOSPHOROUS CONDITION AND FLOW.

N-63
NUNNALLEE, DAVID A., AND BOTZ, M. K.
1976.

WATER QUALITY INVENTORY AND MANAGEMENT PLAN - LOWER CLARK FORK RIVER BASIN.

HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV., WATER QUALITY BUREAU. 129 PP. FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(LOWER CLARK FORK RIVER BASIN: SOUTHWEST PORTION, FLATHEAD RIVER BASIN). A COMPILATION AND EVALUATION OF EXISTING WATER QUALITY DATA. TOPICS INCLUDE: PHYSICAL CHARACTERISTICS OF BASIN, MONTANA WATER POLLUTION CONTROL PROGRAM, POLLUTION SOURCES, SURFACE WATER RESOURCES, WATER QUALITY, WASTE DISCHARGE PERMITS AND LOAD ALLOCATIONS, MANAGEMENT STRATEGY AND MUNICIPAL FACILITIES INVESTMENT AND PLANNING NEEDS. APPENDIX LISTS STATEWIDE PRIORITY FOR CONSTRUCTION GRANTS PROGRAM.

N-64
NUNNALLEE, DAVID A.; BOTZ, M. K.; AND WILLEMS, D. G.
1976.

FINAL REPORT - WATER QUALITY INVENTORY AND MANAGEMENT PLAN, FLATHEAD DRAINAGE BASIN, MONTANA.

HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV., WATER QUALITY BUREAU. 114 PP. FINAL, GENERAL, TECHNICAL, EXISTING DATA, BASIN-WIDE.

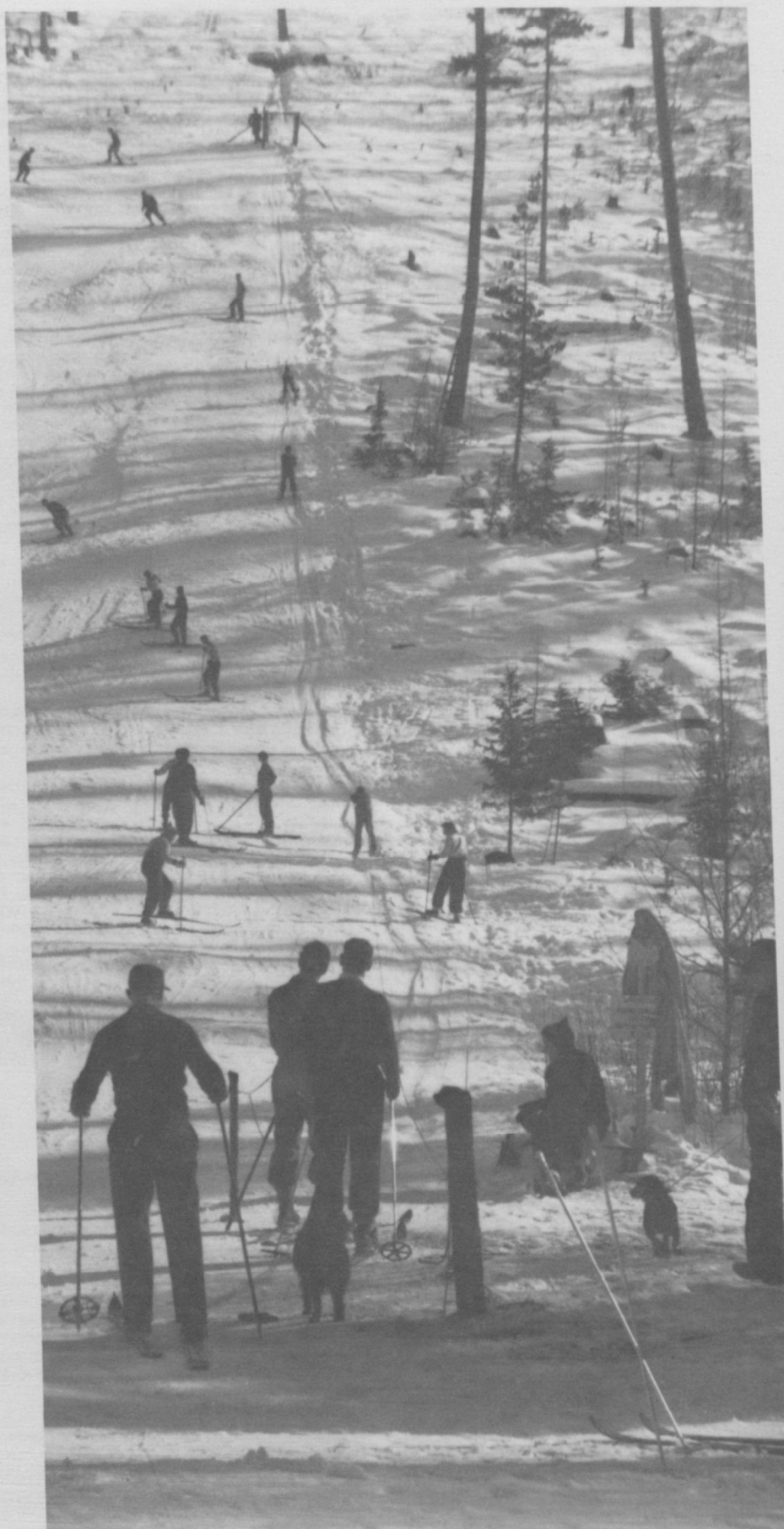
(FLATHEAD RIVER BASIN). A COMPILATION AND EVALUATION OF EXISTING WATER QUALITY DATA. TOPICS COVERED INCLUDE: PHYSICAL CHARACTERISTICS OF BASIN, MONTANA WATER POLLUTION CONTROL PROGRAM, POLLUTION SOURCES, SURFACE WATER RESOURCES, WATER QUALITY, WASTE DISCHARGE PERMITS AND LOAD ALLOCATIONS, MANAGEMENT STRATEGY, MUNICIPAL FACILITIES INVESTMENT AND PLANNING NEEDS. APPENDIX LISTS STATEWIDE PRIORITY CONSTRUCTION GRANTS PROGRAM.

N-65
NUNNALLEE, DAVID A.; HUGHES, G.; AND HALL, T.
1975.
LOGAN CREEK WATER QUALITY STUDY, FISCAL YEAR 1975 REPORT.
KALISPELL, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV., WATER QUALITY BUREAU. TECH. REPT. 75-2. 28+ PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: TALLY LAKE RANGER DISTRICT: LOGAN CREEK DRAINAGE AREA). THE PURPOSE OF THIS STUDY WAS TO DOCUMENT BASELINE WATER QUALITY INFORMATION AND WHERE POSSIBLE RELATE WATER QUALITY TO LOGGING OR ROAD CONSTRUCTION PRACTICES.

N-66
NYERGES, CHRISTOPHER J.
1974.
"GLACIER NATIONAL PARK - A LIFETIME OF MEMORIES."
NATIONAL PARKS & CONSERVATION MAGAZINE 48:4-8.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE DESCRIBES SOME OF THE WILD EDIBLE PLANTS AND NATURAL ATTRACTIONS ENCOUNTERED ON A TRIP THROUGH GLACIER NATIONAL PARK.



O-1

OAKLEY, GLENN.

1978.

"THE VALLEY THAT ROARED."

SERIATIM 2(WINTER 1978):27-33.

FINAL, GENERAL, EXISTING DATA, REGIONAL, ORIGINAL DATA, NATIONWIDE.

(NORTH FORK OF THE FLATHEAD RIVER). THE ARTICLE DESCRIBES THE ENVIRONMENTAL ISSUES CONFRONTING THE RIVER; THE LEASING OF OIL AND GAS CONTRACTS AND THE DEVELOPMENT OF COAL DEPOSITS IN THE VICINITY OF CABIN CREEK, BRITISH COLUMBIA. THE IMPACT OF THE EXPLORATORY PHASE OF THE COAL DEVELOPMENT IS NOTED. THE LEADERS, POLICIES, AND ACTIVITIES OF THE FLATHEAD COALITION ARE DISCUSSED.

O-2

OBER, MICHAEL J.

1973.

"ENMITY AND ALLIANCE: PARK SERVICE CONCESSIONER RELATIONS IN GLACIER NATIONAL PARK, 1892-1961."

M.A. THESIS, UNIV. MONTANA, MISSOULA. 211 PP. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS THESIS EXAMINES GREAT NORTHERN RAILWAY'S INVOLVEMENT IN GLACIER NATL. PARK AS PRINCIPAL CONCESSIONAIRE. IT DESCRIBES THE HISTORY OF THE RELATIONSHIP, INCLUDING THE CONSTRUCTION OF THE PARK'S HOTELS AND CHALET.

O-3

OBER, MICHAEL J.

1973.

"GLACIER'S SKYLAND CAMPS."

MONTANA 23:30-39.

FINAL, SPECIFIC, EXISTING DATA, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE ATTEMPT TO ESTABLISH A BOYS' CAMP FROM 1922 TO 1928 AND DISCUSSES ITS FAILURE. INADEQUATE PATRONAGE AND THE DECISION TO PLACE FACILITIES IN THE HANDS OF CONCESSIONAIRES ARE TOPICS DISCUSSED.

O-4

OBER, MICHAEL J.

1976.

"THE CCC EXPERIENCE IN GLACIER NATIONAL PARK."

MONTANA MAGAZINE OF WESTERN HISTORY 26(SUMMER 1976):30-39.

FINAL, GENERAL, EXISTING DATA, REGIONAL, ORIGINAL DATA, NATIONWIDE.

(GLACIER NATL. PARK). THIS PAPER GIVES A HISTORY OF THE EIGHT YEARS THAT THE CIVILIAN CONSERVATION CORPS WAS STATIONED IN GLACIER NATIONAL PARK. WORK PROJECTS ARE DESCRIBED, AND PHOTOGRAPHS ARE INCLUDED.

O-5

OBERSINNER, JOSEPH L., REV., AND GRITZMACHER, JUDY.

1977.

ST. IGNATIUS MISSION: NATIONAL HISTORIC SITE.

MISSOULA, MT.: GATEWAY PRINTING & LITHO. 18 PP. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ST. IGNATIUS). THIS BOOKLET PRESENTS A BRIEF DISCUSSION OF THE JESUIT MISSIONARY WORK AND THE ESTABLISHMENT OF THE MISSION. IT DESCRIBES THE WORK OF CATHOLIC NUNS, THE REMOVAL OF CHIEF CHARLOT'S BAND FROM THE BITTERROOT VALLEY, THE CLOSURE OF THE MISSION'S SCHOOLS, AND THE MISSION AS IT EXISTS TODAY.



O-6

O'BRIEN, DANIEL M.

1969.

"OCCURRENCE OF LIGHTNING-CAUSED FIRES IN GLACIER NATIONAL PARK 1910-1968."

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERV., GLACIER NATIONAL PARK. 12 PP.

FINAL, SPECIFIC, EXISTING DATA, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). BASIC DATA ABOUT FACTORS INFLUENCING LIGHTNING FIRES WAS EXAMINED IN RELATION TO TIME, DATE, LOCATION, ELEVATION AND ASPECT. CONCLUSIONS AND A SUMMARY ARE INCLUDED.

O-7

O'CONNOR, JAMES, REV.

1891.

"THE FLATHEAD INDIANS."

RECORDS AMERICAN CATHOLIC HISTORICAL SOCIETY PHILADELPHIA 3:85-110.

FINAL, GENERAL, EXISTING DATA, REGIONAL, ORIGINAL DATA, NATIONWIDE.

(FLATHEAD INDIAN RESERVATION: ST. IGNATIUS MISSION). THIS ARTICLE IS A PERSONAL NARRATIVE OF A PRIEST'S VISIT TO THE ST. IGNATIUS MISSION. THE NARRATIVE DESCRIBES AREAS AND PLACES THE PRIEST TRAVELED THROUGH ON HIS WAY, INCLUDING THE LITTLE BLACKFOOT RIVER, DEER LODGE, MISSOULA, AND THE JOCKO VALLEY. HE ARGUES THAT THE ADMINISTRATION OF INDIAN AFFAIRS SHOULD BE IN THE HANDS OF THE MILITARY. HE ALSO DISCUSSES HIS RECEPTION BY THE INDIANS, CHURCH SERVICE AND INSTRUCTION, A FUNERAL PROCESSION, A BRIEF HISTORIC ACCOUNT OF THE INDIANS' REQUEST FOR AND ARRIVAL OF JESUIT MISSIONARIES, AN ACCOUNT OF THE CHURCH'S ROLE AND STATUS IN THE GOVERNMENT ADMINISTRATION OF INDIAN AFFAIRS, PUNISHMENT PRACTICES OF THE FLATHEAD, AND A POSSIBLE NEZ PERCE UPRISING.

O-8

O'CONNOR, THOMAS F.

1935.

"PIERRE DE SMET, FRONTIER MISSIONARY."

MID-AMERICA 27:191-197.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS ARTICLE ADVOCATES THE CONSIDERATION OF FATHER PIERRE DE SMET TO BE AMONG THE INDIVIDUALS HONORED IN A PROPOSED MEMORIAL. IT DISCUSSES HIS WORK WITH THE FLATHEAD INDIANS AND HIS RESIDENCE AT SAINT LOUIS UNIVERSITY.

O-9

O'DELL, CLYDE A.

1970.

ANALYSIS OF U.S. FOREST SERVICE METEOROLOGICAL AND WASHINGTON STATE UNIVERSITY AIRCRAFT AIR QUALITY DATA FROM WESTERN MONTANA, 1968-1969.

PULLMAN, WA.: WASHINGTON STATE UNIV., COLL. ENGINEERING, RESEARCH DIV. 16 PP.

FINAL, SPECIFIC, EXISTING DATA, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). A PRIMARY OBJECTIVE OF THIS STUDY WAS TO DEVELOP A FIRST APPROXIMATION, LARGE-SCALE DIFFUSION MODEL OF FOREST FIRE SMOKE FROM AIRBORNE AIR QUALITY DATA. IT WAS HOPED THAT THE DATA AND SUBSEQUENT ANALYSIS WOULD YIELD RESULTS SUITABLE FOR PREDICTING SMOKE CONCENTRATIONS DOWNWIND UNDER A VARIETY OF PRACTICAL FUEL CONDITIONS AND LOADINGS, ATMOSPHERIC STABILITY, AND WIND CONDITIONS INCURRED IN MOUNTAINOUS TERRAIN. FLIGHT PATHS AND PLUME INTERCEPTS ARE CHARTED.

O-10

O'GARA, BART W.

1968.

"A STUDY OF THE REPRODUCTIVE CYCLE OF THE FEMALE PRONGHORN (ANTILOPACRA AMERICANA ORD)."

PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA.
161 PP.

FINAL, SPECIFIC, EXISTING DATA, TECHNICAL,
ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE & YELLOWSTONE NATL. PARK).
THE STUDY WAS DESIGNED TO SECURE BASIC IN-
FORMATION ON REPRODUCTION IN THE FEMALE
PRONGHORN (*ANTILOCAPRA AMERICANA*). SPECIAL
EMPHASIS WAS ON 1) EVIDENCE FOR RECURRENT
ESTROUS CYCLE, 2) CYCLIC CHANGES IN THE
OVARIES AND UTERUS, 3) THE GROWTH CURVE OF
THE FETUSES, 4) PRENATAL SEX RATIOS AND IN-
CIDENT OF MULTIPLE BIRTHS, AND 5) THE TIME
AND MANNER IN WHICH INTRAUTERINE MORTALITY
OCCURRED. 137 PRONGHORNS WERE COLLECTED,
78 OF WHICH WERE PREGNANT. A GENERAL
DESCRIPTION OF FETAL DEVELOPMENT IS
PRESENTED AS WELL AS THE MEANS AND STAND-
ARD DEVIATIONS OF FIELD WEIGHTS AND
MEASUREMENTS BY YEAR CLASSES AND MONTHS
OF COLLECTION. PHYSICAL CONDITION OF THE
DOES USING THE KIDNEY FAT INDEX WAS NOTED.

O-11
O'GARA, BART W.

1969.
"HORN CASTING BY FEMALE PRONGHORNS."
J. MAMMALOGY 50(JUNE 1969):373-375.
FINAL, SPECIFIC, EXISTING DATA, TECHNICAL,
ORIGINAL DATA, WITHIN THE BASIN.

(YELLOWSTONE NATL. PARK AND THE NATL. BISON
RANGE). THE ARTICLE DESCRIBES THE DECIDUOUS
HORNS OF THE FEMALE PRONGHORN (*ANTILOCAPRA AMERICANA*) AND REPORTS ON THE
COLLECTION OF 95 ADULT DOES FROM THE TWO
AREAS.

O-12
O'GARA, BART W.

1969.
"UNIQUE ASPECTS OF REPRODUCTION IN THE
FEMALE PRONGHORN (*ANTILOCAPRA AMERICANA*
ORD)." *AMERICAN J. ANATOMY* 125(JUNE 1969):217-232.
FINAL, SPECIFIC, EXISTING DATA, TECHNICAL,
ORIGINAL DATA, WITHIN THE BASIN

(NATL. BISON RANGE). THE ARTICLE REPORTS ON
THE INVESTIGATION OF THE REPRODUCTIVE TRACTS
OF 78 PREGNANT PRONGHORNS (*ANTILOCAPRA AMERICANA*). THE DEVELOPMENT OF MULTIPLE EM-
BRYOS, THREAD-STAGE MORTALITY, BICORNATE
UTERUS, EPIHELIOCHORIAL PLACENTA, ETC. ARE
TOPICS DISCUSSED.

O-13
O'GARA, BART W.

1970.
"DERIVATION OF WHOLE WEIGHTS FOR THE PRO-
NGHORN." *J. WILDLIFE MANAGEMENT* 34(APRIL 1970):470-472.
FINAL, SPECIFIC, EXISTING DATA, TECHNICAL,
ORIGINAL DATA, WITHIN THE BASIN.

(YELLOWSTONE NATL. PARK & THE NATL. BISON
RANGE). THE ARTICLE PRESENTS APPROXIMATE
VALUES BY WHICH WHOLE WEIGHTS OF PRO-
NGHORNS (*ANTILOCAPRA AMERICANA*) CAN BE
DERIVED FROM PARTIAL WEIGHTS. ANIMALS FOR
THE STUDY WERE COLLECTED IN THE TWO AREAS.

O-14
O'GARA, BART W.

1970.
"INTRAUTERINE MORTALITY IN THE PRONGHORN."
PROC. 4TH ANNUAL ANTELOPE STATES WORKSHOP
4:82-92.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(YELLOWSTONE NATL. PARK & NATL. BISON RANGE).
THE ARTICLE REPORTS ON THE EXAMINATION OF
THE REPRODUCTIVE TRACTS OF 78 PREGNANT PRO-
NGHORNS (*ANTILOCAPRA AMERICANA*) TO DETER-
MINE THE CAUSE FOR DISPARITIES IN NUMBERS OF
CORPORA LUTEA AND FETUSES IN UTERO. THREAD
STAGE MORTALITY, THE DISPLACEMENT OF THE EM-
BRYO DISTAL TO THE CORPUS UTERI, AND THE PUNC-
TURE OF ITS MEMBRANE BY THE PROXIMAL EMBRYO
ARE TOPICS DISCUSSED.

O-15
O'GARA, BART W.

1975.
"ON THE VALIDITY OF THE FAMILY AN-
TILOCAPRIDAE." ABSTRACT.
PROC. AMERICAN SOCIETY MAMMALOGISTS, 55TH
ANNUAL MEETING, UNIV. MONTANA, MISSOULA.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NATL. BISON RANGE). DIAGNOSTIC FAMILIAL
CHARACTERISTICS OF ANTILOCAPRIDAE AND
BOVIDAE ARE FOUND TO BE SIMILAR WITH THE EX-
CEPTION OF HORN FORMATION AND CASTING,
WHICH ARE SHOWN TO BE MORE ALIKE THAN
GENERALLY THOUGHT. RECLASSIFICATION OF AN-
TILOCAPRIDAE TO ANTILOCAPRINAE, THE SIXTH SUB
FAMILY OF BOVIDAE AND THE PRESENT SUB-
FAMILIES MERYCONDONTINAE AND AN-
TILOCAPRINAE TO TRIBES MERYCONDONTINI AND AN-
TILOCAPRINI WOULD MORE ACCURATELY REFLECT
THE TRUE RELATIONSHIP OF ANTILOCAPRIDS TO
OTHER ARTIODACTYLS THAN DOES THE PRESENT
CLASSIFICATION.

O-16
O'GARA, BART W., AND GREER, KENNETH R.

1970.
"FOOD HABITS IN RELATION TO PHYSICAL CONDI-
TION IN TWO POPULATIONS OF PRONGHORNS."
PROC. 4TH ANNUAL ANTELOPE STATES WORKSHOP
4:131-139.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(NATL. BISON RANGE & YELLOWSTONE NATL. PARK).
THE ARTICLE REPORTS ON THE ANALYSES OF
RUMEN CONTENTS FROM 112 PRONGHORNS (*ANTILOCAPRA AMERICANA*) COLLECTED FROM THE
TWO AREAS. DIETS OF THE TWO POPULATIONS ARE
NOTED TO BE DIFFERENT. PERCENTAGES OF
BROWSE, FORBS, AND GRASS ARE INDICATED; FAT
INDICES ARE USED TO INDICATE THE PRONGHORNS'
CONDITION.

O-17
O'GARA, BART W., AND MATSON, GARY.

1975.
"GROWTH AND CASTING OF HORNS BY PRO-
NGHORNS AND EXFOLIATION OF HORNS BY
BOVIDS." *J. MAMMALOGY* 56(NOVEMBER 1975):829-846.
FINAL, SPECIFIC, EXISTING DATA, TECHNICAL,
ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE ARTICLE DISCUSSES
THE GROWTH AND CASTING OF HORNS BY MATURE
MALE PRONGHORNS (*ANTILOCAPRA AMERICANA*).
THE HORN-FORMING PROCESS INVOLVING KERATIN
FORMATION, EXFOLIATION CONCERNING COR-
ESHAPE, SEX AND TIME OF YEAR WITH NEW
GROWTH INITIATION, ARE TOPICS DISCUSSED. THE
HORNS OF OTHER MAMMALS ARE DESCRIBED.

O-18
O'GARA, BART W., AND MOY, RANDALL F.

1972.
"HISTOLOGY AND MORPHOLOGY OF SCENT GLANDS
AND THEIR POSSIBLE ROLES IN PRONGHORN
BEHAVIOR." *5TH BIENNIAL ANTELOPE STATES WORKSHOP, BILL-*
INGS, MT. 17 PP.
PART OF A SERIES, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, SPECIFIC, REGIONAL.

(NATL. BISON RANGE). IN THIS STUDY THE
SUBAVRICULAR GLANDS OF ANTILOCAPRA
AMERICANA WERE COLLECTED AND EXAMINED
EVERY MONTH OF THE YEAR. IN ADDITION TO THOSE
GLANDS, RUMP, INTERDIGITAL, MEDIAN, AND HOCK
GLANDS WERE EXAMINED. A DISCUSSION IS INCLUD-
ED.

O-19
O'GARA, BART W.; MOY, RANDALL F.; AND BEAR,
GEORGE D.

1971.
"THE ANNUAL TESTICULAR CYCLE AND HORN
CASTING IN THE PRONGHORN (*ANTILOCAPRA AMERICANA*)."
J. MAMMALOGY 52(AUGUST 1971):537-544.
FINAL, SPECIFIC, EXISTING DATA, TECHNICAL,
ORIGINAL DATA, WITHIN THE BASIN.

(YELLOWSTONE NATL. PARK, COLORADO, & NATL.
BISON RANGE). THE ARTICLE REPORTS ON THE IN-
VESTIGATION OF 55 PAIRS OF TESTES FROM ADULT
AND YEARLING PRONGHORNS (*ANTILOCAPRA AMERICANA*). TESTICULAR WEIGHT, DIAMETER OF
INTERSTITIAL CELLS, DEGREE OF SPER-
MATOGENESIS, HARDENING OF NEW HORN TISSUE,
AND HORN CASTING ARE ALL DISCUSSED AND TIMES
OF THE YEAR ARE NOTED.

O-20
OGREN, HERMAN.

1954.
"A POPULATION STUDY OF THE ROCKY MOUNTAIN
BIGHORN SHEEP (*OVIS CANADENSIS CANADENSIS*)
ON WILDHORSE ISLAND." *M.S. THESIS, UNIV. MONTANA, MISSOULA. 77 PP.*
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE: WILDHORSE ISLAND). THE MAJOR
OBJECTIVE OF THIS STUDY WAS TO QUANTITATIVELY
DETERMINE THE ANNUAL INCREMENT AND LOSS IN
A SMALL ISOLATED SHEEP POPULATION. TO AC-
COMPLISH THIS, AN ATTEMPT WAS MADE TO MARK
ALL LAMBS AT BIRTH. PRECISE COUNTS WERE THEN
PERIODICALLY MADE OF THE LAMBS AND ALSO OF
THE ADULTS IN THE POPULATION.

O-21
O'KEEFE, COLONEL CORNELIUS. [THOMAS FRANCIS
MEAGHER].
1867.
"RIDES THROUGH MONTANA." *HARPER'S NEW MONTHLY MAGAZINE, 19 PP.*
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

AVAILABLE FROM: MONTANA COLLECTION,
FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(MISSION VALLEY: FLATHEAD INDIAN RESERVATION;
ST. IGNATIUS). THIS EARLY HISTORY, WRITTEN BY
THE SECRETARY FOR THE TERRITORY, T.F.
MEAGHER, DESCRIBES A VISIT THROUGH THE MIS-
SION VALLEY. THE REPORT MENTIONS TIME SPENT
ON THE FLATHEAD RESERVATION IN ST. IGNATIUS,
AND MEETINGS WITH MEMBERS OF THE CON-
FEDERATED TRIBES.

O-22
O'KENNEDY, JOHN J.

1943.
"ALMOST AS IN IRELAND." *INDIAN SENTINEL* 23(SEPTEMBER 1943):98-101.

THIS ARTICLE DESCRIBES THE DEATH AND BURIAL
OF CHIEF KOOSTATAH OF THE KOOTENAI. SKCC.

O-23
O'KENNEDY, JOHN J.

1943.
"THE CHURCH CHIEF." *INDIAN SENTINEL* 23(NOVEMBER 1943):141-143.

THIS ARTICLE DESCRIBES THE RESPONSIBILITIES OF BAPTISTE MATHIAS, THE CHURCH CHIEF OF THE KOOTENAI INDIANS. SKCC.

O-24
O'KENNEDY, JOHN J.
1944.
"OLD CUSTOMS IN CHRISTIAN DRESS."
INDIAN SENTINEL 24(APRIL 1944):55-56.

THIS ARTICLE DESCRIBES THE FEAST GIVEN BY BAPTISTE MATHIAS TO HONOR HIS RECENTLY DECEASED WIFE. SKCC.

O-25
O'KENNEDY, JOHN J., REV.
1950.
"A KOOTENAI JOINS HIS ANCESTORS."
THE CALUMET 37(AUGUST 1950):2-5.

THIS ARTICLE DESCRIBES THE DEATH AND FUNERAL OF ABRAHAM LEFTHAND, AN ELDERLY KOOTENAI. SKCC.

O-26
O'KENNEDY, JOHN J., REV.
1951.
"INDIAN SIGN LANGUAGE."
THE CALUMET 38(MAY 1951):6-9.

(ABORIGINAL LANDS OF THE KOOTENAI INDIANS). THIS ARTICLE DESCRIBES THE USE OF SIGN LANGUAGE BY SOME OF THE OLDER KOOTENAI AND HOW SIGN LANGUAGE WAS USED IN GIVING THE LAST RITES OF KATALGO, AN ELDERLY KOOTENAI. SKCC.

O-27
"AN OLD AMERICAN CUSTOM."
THE NEW FREEMAN, MAY 3 1930, PP. 175-176.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE POINTS TO THE PROPOSAL FOR MONTANA POWER CONTROL OF THE FLATHEAD DAMSITE AS AN ATTEMPT BY THE POWER TRUST TO CONTINUE DOMINATION OF MONTANA. SKCC.

O-28
OLLASON, JAMES.
1992.
"CANOEING ON THE FLATHEAD."
FINAL, SPECIFIC, EXISTING DATA, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE ARTICLE DESCRIBES THE EXPERIENCES OF TWO MEN WHO CANOED THE LAKE. THE SCENERY, WILDLIFE, INDIANS IN THE AREA, AND HUNTING AND FISHING ACTIVITIES ARE DISCUSSED.

O-29
OLSON, CARL EDMUND.
1963.
"A METHOD OF MEASURING THE COMPARATIVE GENERAL LEVEL OF MANAGEMENT FOR FARM OPERATORS ON THE JOCKO VALLEY DIVISION OF THE FLATHEAD IRRIGATION PROJECT."
M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 57 PP.
FINAL, SPECIFIC TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(JOCKO VALLEY). THIS STUDY WAS AN ATTEMPT TO TEST THE SIGNIFICANCE OF DIFFERENCES IN THE LEVEL OF MANAGEMENT AS IS REPRESENTED BY DIFFERENCES IN CROP YIELDS. THE EFFECTS OF SOIL AND WEATHER WERE REMOVED AS INPUTS AFFECTING YIELD. THE OBJECTIVES OF THIS STUDY WERE 1) TO DEVELOP A METHOD FOR MEASURING COMPARATIVELY THE GENERAL LEVEL OF MANAGEMENT OF DIFFERENT GROUPS (BOTH CULTURE AND TENURE) OF FARM OPERATORS OF A GIVEN AREA,

AND 2) TO DETERMINE WHETHER SUCH A METHOD CAN PRODUCE ESTIMATES THAT WILL BE OF USE IN ESTABLISHING LEVELS OF YIELDS FOR DIFFERENT OPERATORS IN FARM BUDGETING.

O-30
O'MALEY, WILLIAM.
1923.
"GOD HAS SENT US A NEW YEAR."
INDIAN SENTINEL 3(JANUARY 1923):3.

THIS ARTICLE DESCRIBES THE NEW YEAR'S CELEBRATIONS AMONG THE ELMO KOOTENAI. SKCC.

O-31
OMANG, R. J.; HULL, J. A.; AND PARRETT, CHARLES.
1979.
ANNUAL PEAK DISCHARGES FROM SMALL DRAINAGE AREAS IN MONTANA FOR STATIONS DISCONTINUED BEFORE 1978.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. OPEN-FILE REPT. 79-510.
FINAL, SPECIFIC, EXISTING AND ORIGINAL DATA, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: WEST GLACIER & POLSON AREAS). THIS REPORT INCLUDES DATA NOT CONTAINED IN THE ANNUAL SUMMARY OF PEAK STAGE, DISCHARGE, AND ACTIVITIES OF THE PROGRAM INVESTIGATING THE MAGNITUDE AND FREQUENCY OF FLOODS FROM SMALL DRAINAGE BASINS. IT TABULATES, BY WATER YEAR, THE ANNUAL PEAK STAGE AND DISCHARGE AT DISCONTINUED CREST-STAGE GAGE STATIONS. A LIST OF THE DISCONTINUED STATIONS IN DOWNSTREAM ORDER IS PROVIDED. THE BULK OF THE REPORT IS COMPOSED OF STATION DATA THAT NOTES THE STATION'S LOCATION, DRAINAGE AREA, AVAILABLE RECORDS, DATE OF GAGE INSTALLATION, ALTITUDE, AND ANNUAL MAXIMUM DATA. IT SHOULD BE POINTED OUT THAT, HEREAFTER, THE ANNUAL REPORT WILL EXCLUDE DISCONTINUED STATION DATA.

O-32
ON, DANNY.
1978.
SILVICS OF TREES OF THE FLATHEAD NATIONAL FOREST.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 13 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS PAPER WAS WRITTEN TO PROVIDE A REFERENCE FOR STAND EXAMINERS AND TIMBER MARKERS ON THE CHARACTERISTICS OF TREE SPECIES ENCOUNTERED ON THE FLATHEAD NATIONAL FOREST. SPECIES DISCUSSED ARE: SUBALPINE FIR, WESTERN LARCH, ENGELMANN AND WHITE SPRUCE, LODGEPOLE PINE, WESTERN WHITE PINE, DOUGLASS-FIR, GRAND FIR, WESTERN RED CEDAR, AND WESTERN HEMLOCK. TOLERANCE IS ALSO DISCUSSED.

O-33
ON, DANNY.
1978.
TREE IMPROVEMENT 10-YEAR WORK PLAN, FLATHEAD NATIONAL FOREST.
KALISPELL, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FLATHEAD NATIONAL FOREST. 31 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS PLAN PROVIDES FOR 1) IMPROVING TREES THROUGH ALL SILVICULTURAL TREATMENTS, INCLUDING NATURAL REGENERATION FROM HARVEST CUTTINGS AS WELL AS THE DEVELOPMENT AND PLANTING OF GENETICALLY IMPROVED TREES; AND 2) ENSURING GENETIC PLANNING IN ALL MANAGEMENT

TREATMENTS WHICH AFFECT THE FUTURE EVOLUTION OF FOREST PLANT COMMUNITIES. THE PLAN LISTS TREE IMPROVEMENT JOBS, RESPONSIBILITIES, PRIORITIES, REFERENCES, AND COSTS FOR THE NEXT TEN FISCAL YEARS.

O-34
"ON THE FLATHEAD RESERVATION." 1896.
THE NORTHWEST MAGAZINE, AUGUST 1896, PP. 7-8.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE DEPICTS THE JOCKO AND MISSION VALLEYS AND DISCUSSES MAJOR RONAN AND THE INDIANS' ADJUSTMENT TO RESERVATION LIFE.

O-35
O'NEAL, JEROME S.
1968.
"FLATHEAD LAW: PAST AND PRESENT."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 89 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(FLATHEAD INDIAN RESERVATION). THE STUDY EXAMINES THE TYPE OF LAW FROM A SOCIOLOGICAL PERSPECTIVE. IT DESCRIBES THE HISTORY OF THE INDIANS, EARLY LAW AS EXTRACTED FROM THE LITERATURE, EFFECTS OF JESUITS AND CATHOLICISM, AND EARLY CASES. AN APPENDIX CONTAINS CURRENT RESERVATION ORDINANCES.

O-36
O'NEIL, SUSAN.
1971.
"DEMERSVILLE: STEAMBOAT MECCA ON THE FLATHEAD."
MONTANA HISTORIAN 2(AUTUMN 1971):21-23.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: KALISPELL AREA). THE ESTABLISHMENT OF DEMERSVILLE BY T. J. DEMERS AND ITS GROWTH FROM A STORE SITE TO A THRIVING COMMUNITY IS DESCRIBED. THE IMPORTANCE OF STEAMBOAT TRAFFIC TO THE ECONOMIC LIFE OF THE TOWN AND THE MOVEMENT OF THE TOWN TO THE KALISPELL AREA IS DISCUSSED.

O-37
OPPEDAHL, R. JAMES.
1976.
"CONFLICTS BETWEEN RESOURCE DEVELOPMENT AND PRESERVATION AT GLACIER NATIONAL PARK."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 161 PP.
FINAL, SPECIFIC, EXISTING DATA, TECHNICAL, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE HISTORY OF SELECTED CONFLICTS BETWEEN RESOURCE DEVELOPMENT AND PRESERVATION IS EXAMINED. TOPICS COVERED INCLUDE: THE CONFLICT OF EARLY EXPLORATION, SETTLEMENT, AND RESOURCE DEVELOPMENT ACTIVITIES AND THE PRESERVATIONISTS' DESIRE TO ESTABLISH THE AREA AS A NATIONAL PARK; THE ALLOWANCE OF CONTINUED RESOURCE DEVELOPMENT WITHIN PARK BOUNDARIES ONCE THE PARK WAS SET ASIDE; THE PROVISION GRANTING THE RECLAMATION SERVICE PERMISSION TO USE ANY PARK AREA FOR THE DEVELOPMENT OF GOVERNMENT RECLAMATION PROJECTS; THE USE OF THE SHERBURNE VALLEY ON THE PARK'S EAST SIDE FOR A STORAGE RESERVOIR; AND THE ARMY CORPS OF ENGINEERS PROPOSAL TO BUILD A DAM IN THE NORTH FORK VALLEY THAT WOULD FLOOD 20,000 ACRES IN THE PARK.

O-38
OREGON HISTORICAL SOCIETY.
1957.
A BIBLIOGRAPHY OF PACIFIC NORTHWEST HISTORY.
PORTLAND, ORE.: OREGON CENTENNIAL PUBLICATIONS. 44 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS BIBLIOGRAPHY OF THE REGION'S HISTORY COVERS A BROAD RANGE OF MATERIALS. IT INCLUDES BOOKS, ARTICLES, AND DOCUMENTS PUBLISHED UP TO THE FALL OF 1957.

O-39
OREGON HISTORICAL SOCIETY.
1978.
UNION GUIDE TO PHOTOGRAPHIC COLLECTIONS IN THE PACIFIC NORTHWEST.
PORTLAND, ORE.: OREGON HISTORICAL SOCIETY.
419 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: MONTANA). THIS BOOK PROVIDES A COMPREHENSIVE GUIDE TO PHOTOGRAPHIC COLLECTIONS IN MONTANA, OREGON, WASHINGTON, AND IDAHO. FOR COLLECTIONS THROUGHOUT THE STATE IT NOTES THE TYPE OF COLLECTION AND WHETHER OR NOT IT IS AVAILABLE TO THE PUBLIC.

O-40
ORSAK, J. STEVE.
1971.
REPORT ON ENVIRONMENTAL HEALTH FACILITIES AT GLACIER NATIONAL PARK, MONTANA.
DENVER: U.S. PUBLIC HEALTH SERVICE. 47 PP.
FINAL, SPECIFIC, EXISTING DATA, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). INSPECTIONS WERE MADE ON THE GLACIER PARK INC. FOOD CONCESSION FACILITIES, THE FOOD SERVICE OPERATIONS AT SPERRY AND GRANITE PARK CHALETs, THE WATER, SEWAGE AND SOLID WASTE OPERATIONS; AND THE GENERAL ENVIRONMENTAL CONDITIONS OF THE PARK. SUGGESTIONS ARE MADE FOR GENERAL IMPROVEMENTS AND CORRECTIONS.

O-41
ORTIZ, ALFONSO.
1978.
"D'ARCY MCNICKLE (1904-1977), ACROSS THE RIVER AND UP THE HILL: A PERSONAL REMEMBRANCE."
AMERICAN INDIAN JOURNAL 4 (APRIL 1978): 12-16.

MCNICKLE PLAYED AN INFLUENTIAL ROLE IN AMERICAN INDIAN AFFAIRS BETWEEN THE 1930'S AND THE 1970'S AND WAS A MEMBER OF THE SALISH AND KOOTENAI TRIBES. SKCC.

O-42
OTTERSBERG, ROBERT JOSEPH.
1977.
"AMORPHOUS CHARACTER IN TWENTY WESTERN MONTANA FOREST SOILS WITH APPARENT EOLIAN INFLUENCE."
M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 125 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: CORAM EXPR. FOREST). IN THIS STUDY, TWENTY FOREST SOILS REPRESENTING ANDEPT SUBORDERS AND ANDIC AND ANDEPTIC SUBGROUPS WERE SAMPLED AND CHARACTERIZED. THE OBJECTIVE OF THE STUDY WAS TO CLARIFY THE FOLLOWING QUESTIONS: 1) IS AMORPHOUS CHARACTER FOUND IN ALL FOREST SOILS WITH APPARENT EOLIAN MANTLES AND, IF SO, IS IT STRONG ENOUGH FOR TAXONOMIC RECOGNITION; 2) CAN AMORPHOUS CHARACTER BE DETERMINED IN THE FIELD BY USING MORPHOLOGICAL CHARACTERISTICS; AND 3) DOES AMORPHOUS CHARACTER RELATE TO ANY PHYSICAL OR CHEMICAL PROPERTIES OF THE SOIL?



P-1
PACE, MAURICE D.
 1933.
 "FISHES NATIVE TO FLATHEAD LAKE."
 M.S. THESIS, UNIV. IDAHO, MOSCOW. 19 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
 WITHIN THE BASIN.

(FLATHEAD LAKE). THE STUDY DESCRIBES SEVEN FISH SPECIES WHICH WERE TAKEN IN GILL NETS: MYLOCHEILUS CAURINUS (PEA MOUTH), PTYCHOCHEILUS OREGONENSIS (SQUAWFISH), COREGONUS WILLIAMSONI (WHITEFISH), CATOSTOMUS MACROCHEILUS (SUCKER), SALMO CLARKII (FLAT TROUT), SALVELINUS MALMA (BULL TROUT), AND MICROPTERUS SALMOIDES (BLACK BASS). SIZE, COLOR, MARKINGS, THE NUMBER CAUGHT, FOOD, AND IMPORTANCE OF EACH SPECIES ARE DISCUSSED.

P-2
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
 1968.
ELECTRIC POWER RESOURCES IN THE PACIFIC NORTHWEST.
 VANCOUVER, WA. 40 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS REPORT SUMMARIZES THREE POWER STUDIES THAT ESTIMATE ELECTRIC POWER LOADS AT ABOUT 1970, 1980, AND 2000 LEVELS OF DEVELOPMENT. PRESENT AND FUTURE HYDROELECTRIC PROJECTS ARE DISCUSSED.

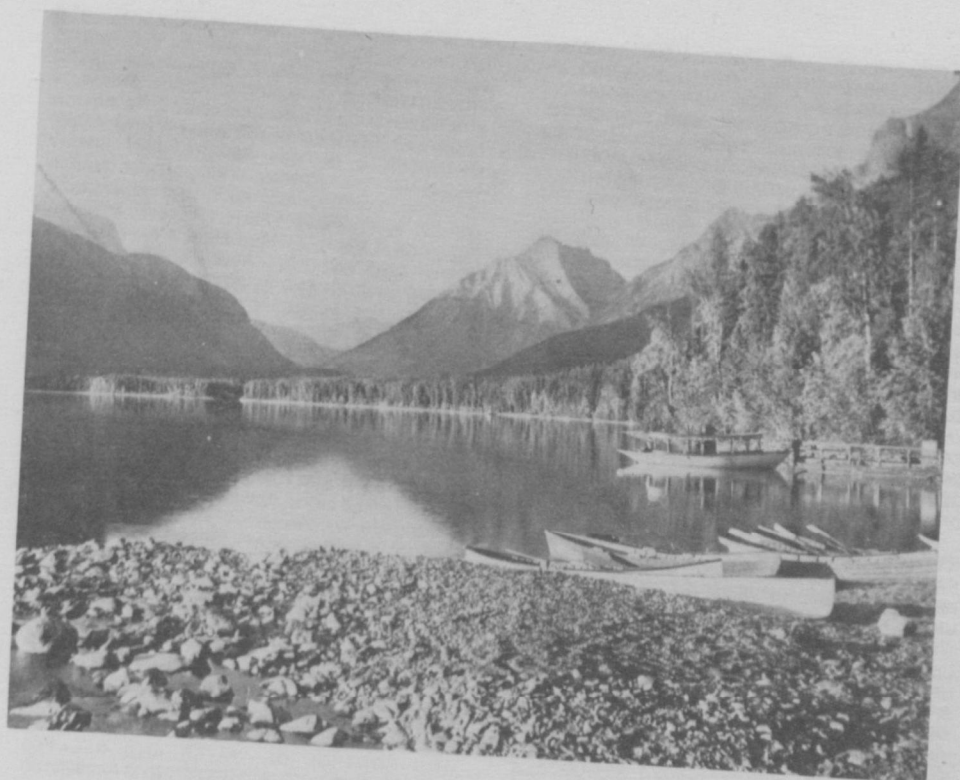
P-3
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
 1968 & 1969.
CLIMATOLOGICAL HANDBOOK: COLUMBIA BASIN STATES. VOL. 1: PART A & B, VOL. 2, AND VOL. 3: PART A & B.
 VANCOUVER, WA. 250 PP. PER VOLUME.
 FINAL, PART OF A SERIES, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD & LAKE COUNTIES, KALISPELL, ST. IGNATIUS, & HUNGRY HORSE). THIS HANDBOOK BRINGS INTO ONE PUBLICATION PRACTICALLY ALL AVAILABLE SUMMARIZED SURFACE CLIMATOLOGICAL INFORMATION FOR THE NORTHWEST PRIOR TO 1968. IN THE PREPARATION OF VOLUMES 1 AND 2 (TEMPERATURE AND PRECIPITATION), DATA WAS OBTAINED FROM WEATHER STATIONS WHICH INCLUDED THE DAILY HIGHEST AND LOWEST TEMPERATURE, TOTAL PRECIPITATION, SNOWFALL, AND DEPTH OF SNOW ON GROUND. VOLUME 3 (HOURLY DATA) CONTAINS TABLES ON WINDSPEED, SKY COVER, TEMPERATURE, AND RELATIVE HUMIDITY FROM THOSE WEATHER STATIONS WITH OBSERVATIONS FOR EACH OF THE 24 HOURS OF THE DAY. ALL DATA IN THESE VOLUMES IS IN THE FORM OF TABLES.

P-4
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
 1970.
WATER QUALITY PROBLEMS AND DATA NEEDS IN THE PACIFIC NORTHWEST.
 VANCOUVER, WA.: PACIFIC NORTHWEST RIVER BASINS COMMISSION, WATER SUPPLY & WATER POLLUTION CONTROL COMMITTEE. 36 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS DOCUMENT LISTS WATER QUALITY PROBLEMS AND DATA NEEDS FOR STATE AND FEDERAL WATER QUALITY PLANNING PROGRAMS. IT ALSO ADDRESSES ADDITIONAL LABORATORY FACILITIES AND SAMPLING PROCEDURES THAT ARE NEEDED.

P-5
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
 1971.
CLIMATOLOGICAL HANDBOOK: COLUMBIA BASIN, CANADIAN DATA.



VANCOUVER, WA. 277 PP.
 FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(COLUMBIA RIVER BASIN: CANADIAN PORTION). THIS VOLUME INCLUDES DATA ON DAILY HIGH AND LOW TEMPERATURES, PRECIPITATION, SNOWFALL, AND SNOW DEPTH FOR 3-5 YEARS FOR THE CANADIAN PORTION OF THE COLUMBIA BASIN.

P-6
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
 1972.
INDEX OF SELECTED MAPS: PACIFIC NORTHWEST REGION.
 VANCOUVER, WA. 16 PP.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD RIVER BASIN). THIS INDEX OF MAPS PERTINENT TO WATER ISSUES IS LISTED IN GROUPS BY THE PUBLISHING AGENCY. THE STATE OF MONTANA'S DEPARTMENT OF NATURAL RESOURCES MAPS ARE INCLUDED.

P-7
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
 1972.
TWENTY QUESTIONS ON ELECTRIC POWER LOADS AND RESOURCES IN THE PACIFIC NORTHWEST: BONNEVILLE POWER ADMINISTRATION RESPONSES TO QUESTIONS POSED BY THE OREGON NUCLEAR AND THERMAL ENERGY COUNCIL.
 VANCOUVER, WA.: PACIFIC NORTHWEST RIVER BASINS COMMISSION, POWER PLANNING COMMITTEE.
 FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS PUBLICATION PROVIDES BACKGROUND INFORMATION ON THE AREA'S ELECTRIC POWER LOAD-RESOURCE SITUATION. QUESTIONS ADDRESS: PRESENT POWER USES AND FUTURE NEEDS, INTERRUPTIBLE POWER, NET BILLING, ENVIRONMENTAL CLEAN-UP, POPULATION PROJECTIONS, INDUSTRY POLICIES, FACILITY SCHEDULING, AND THE EFFECTS OF DELAYS, POWER IMPORT AND EXPORT, FUTURE RATES, POWER GENERATION, AND NITROGEN SUPERSATURATION.

P-8
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
 1975.
LOWER ATMOSPHERE HANDBOOK: COLUMBIA BASIN STATES. VOLS. 5 & 6.
 VANCOUVER, WA.
 PART OF A SERIES, FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS VOLUME IS PRIMARILY BASED ON AN ANALYSIS OF UPPER AIR TEMPERATURE DATA OBTAINED BY RADIO SOURCE TECHNIQUES. TABLES LIST: LOWER ATMOSPHERIC CHARACTERISTICS, STABLE LAYERS AND TEMPERATURE INVERSIONS, PERSISTENCE OF STABILITY AND TEMPERATURE INVERSION CONDITIONS, LAPSE RATES, DISTRIBUTION OF LAPSE RATES, FREEZING LEVELS, AND WIND STABILITY.

P-9
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
 1975.
REGIONAL RECREATION DATA PROGRAM FOR THE NORTHWEST.
 VANCOUVER, WA. 60 PP.
 FINAL, ORIGINAL DATA, SPECIFIC, REGIONAL, TECHNICAL.

(PACIFIC NORTHWEST). THIS REPORT ATTEMPTS TO STANDARDIZE RECREATION DATA, BOTH ACTIVITIES AND SUPPLY, FOR REGIONAL AND INTERSTATE PLANNING PURPOSES. IT MODIFIES AND USES A GRAVITY MODEL DEVELOPED BY THE U.S. DEPARTMENT OF TRANSPORTATION. A NUMBER OF ASSUMPTIONS AND ARBITRARY DECISIONS WERE MADE IN ORDER TO USE THE GRAVITY MODEL, WHICH DISTRIBUTES RECREATION USE BY ACTIVITY FROM COUNTY OF ORIGIN TO COUNTY OF DESTINATION. ESTIMATES OF FUTURE RECREATION USE FOR 1980, 2000, AND 2020 WERE MADE.

P-10
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
 1975.
TECHNICAL MEMORANDUM: ELECTRIC POWER, PLAN FORMULATIONS FOR THE FLATHEAD RIVER BASIN STUDY AREA, MONTANA.
 VANCOUVER, WA. 27 PP.
 DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN: LOWER & MAINSTEM OF THE FLATHEAD RIVER). THIS REPORT CONSOLIDATES MATERIAL FROM VARIOUS SOURCES FROM THE INITIATION OF THE LEVEL B STUDY TO MID-1975. THE EXISTING ENERGY SITUATION IS DESCRIBED, PROJECTIONS AND RESOURCE REQUIREMENTS ARE SUMMARIZED, AND POTENTIAL RESOURCES ARE EXAMINED. SPECIFIC HYDROELECTRIC PROJECTS ARE PROPOSED.

P-11
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
1978.

RIVER MILE INDEX: CLARK FORK-PEND D'OREILLE RIVER, COLUMBIA RIVER BASIN: WASHINGTON, IDAHO, MONTANA, AND BRITISH COLUMBIA. REV. ED. VANCOUVER, WA.: PACIFIC NORTHWEST RIVER BASINS COMMISSION, HYDROLOGY & HYDRAULICS COMMITTEE. 53 PP.

GENERAL, TECHNICAL, PART OF A SERIES, EXISTING DATA, REGIONAL.

(CLARK FORK-PEND D'OREILLE RIVER & FLATHEAD RIVER). THIS REPORT IS ONE OF A SERIES OF REPORTS ISSUED ON RIVER MILEAGES OF THE COLUMBIA RIVER BASIN. RIVER MILE DISTANCE OF TRIBUTARIES ARE MEASURED NORMAL TO THE MAIN CHANNEL UPSTREAM FROM THE MOUTH TO THE NEAREST TENTH OF A MILE. TRIBUTARIES ARE SHOWN AS ENTERING FROM THE RIGHT OR LEFT FROM A POSITION FACING DOWNSTREAM. ELEVATION OF WATER SURFACE IS SHOWN AT AVERAGE FLOW CONDITIONS; DRAINAGE AREAS ARE SHOWN IN SQUARE MILES.

P-12
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
1977.

THE FLATHEAD RIVER BASIN. A LEVEL "B" STUDY OF WATER AND RELATED RESOURCES. STATUTORY REVIEW COMMENTS.

VANCOUVER, WA. 30 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD RIVER BASIN). COPIES OF COMMENTS RECEIVED FROM STATE AND FEDERAL AGENCIES ON THE LEVEL "B" STUDY OF WATER AND RELATED LAND RESOURCES. PACIFIC NORTHWEST RIVER BASINS COMMISSION'S ANALYSIS OF AND RESPONSES TO COMMENTS RECEIVED ARE INCLUDED.

P-13
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
1978.

POWER PLANNING ORGANIZATIONS IN THE PACIFIC NORTHWEST.

VANCOUVER, WA.: PACIFIC NORTHWEST RIVER BASINS COMMISSION, POWER PLANNING COMMITTEE. 50 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS REPORT LISTS SOME OF THE ORGANIZATIONS WHICH PROVIDE INFORMATION ON LOADS AND RESOURCES, REVIEWS THEIR POWER PLANNING ACTIVITIES, AND IDENTIFIES THEIR POWER AREAS. FEDERAL AGENCIES SUCH AS BONNEVILLE POWER ADMINISTRATION, BUREAU OF RECLAMATION, CORPS OF ENGINEERS, FEDERAL ENERGY REGULATORY COMMISSION, NUCLEAR REGULATORY COMMISSION, STATE AGENCIES, AND INTER-UTILITY AGENCY ORGANIZATIONS ARE INCLUDED.

P-14
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
1979.

WATER - TODAY AND TOMORROW: PROGRAM SUMMARY. COMMISSION FIELD LEVEL REVIEW. DRAFT. VANCOUVER, WA. 17 PP.

DRAFT, PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: CLARK FORK, KOOTENAI, & SPOKANE RIVER BASINS). IN MID-1970 THE PACIFIC NORTHWEST RIVER BASINS COMMISSION BEGAN PREPARATION OF A REGIONAL ACTION PROGRAM FOR WATER AND RELATED RESOURCES. THE ACTION PROGRAM, PREPARED AS A RESULT OF THAT STUDY, IS DESCRIBED IN THIS REPORT. THE REPORT DISCUSSES THE REGION, THE FUTURE MAJOR REGIONAL FUNCTIONAL NEEDS AND INTERSTATE ISSUES. IT PROPOSES HIGH PRIORITY ACTIONS, FUNCTIONAL PROGRAM ELEMENTS, AND PRIORITIES FOR FUTURE ACTIONS. TABLES SUMMARIZE THE REGIONAL WATER AND RELATED RESOURCES PROGRAM, AND DETAIL THE POTENTIAL ECONOMIC, ENVIRONMENTAL AND SOCIAL IMPACTS OF THE PROPOSALS.

P-15
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
1979.

WATER - TODAY AND TOMORROW: THE REGION COMMISSION FIELD LEVEL REVIEW. DRAFT.

VANCOUVER, WA. 210 PP.

PART OF A SERIES, DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: CLARK FORK, KOOTENAI, & SPOKANE RIVER BASINS). THIS VOLUME CONCENTRATES ON REGIONAL ISSUES OF AN INTERSTATE NATURE, SUGGESTING SHORT TERM, FIRST PRIORITY ACTIONS FOR A REGIONAL PROGRAM. THIS REPORT PROVIDES GUIDANCE FOR ESTABLISHING REGIONAL POLICIES AND STRATEGIES FOR THE USE AND CONTROL OF WATER AND RELATED RESOURCES. THE REGIONAL SETTING IS PRESENTED IN TERMS OF ITS NATURAL AND SOCIO-ECONOMIC ENVIRONMENT, PRESENT WATER USE, AND CONTROL AND INSTITUTIONAL SYSTEMS.

P-16
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
1979.

WATER - TODAY AND TOMORROW: THE STATES. COMMISSION FIELD LEVEL REVIEW DRAFT.

VANCOUVER, WA. 303 PP.

DRAFT, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: CLARK FORK, KOOTENAI, & SPOKANE RIVER BASINS). THE PURPOSE OF THIS VOLUME IS TO DOCUMENT THE STATUS OF WATER RESOURCE PROBLEMS AND ISSUES AS WELL AS PROGRAMS AND PLANS FOR THE PART OF EACH OF THE FIVE MEMBER STATES WITHIN THE COMMISSION'S JURISDICTION. THE REPORT FOCUSES ON IDENTIFYING AND SUMMARIZING, FOR EACH STATE, PROGRAM ELEMENTS FROM VARIOUS SOURCES WHICH APPEAR TO HAVE A REASONABLE DEGREE OF FEASIBILITY AND ACCEPTABILITY AND WHICH, IF IMPLEMENTED, WOULD SOLVE WATER-RELATED PROBLEMS AND RESOLVE RELATED ISSUES. THE FLATHEAD RIVER BASIN IS INCLUDED IN THE SECTION ON MONTANA.

P-17
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
ANNUAL
ANNUAL REPORT.

WASHINGTON, D.C.: WATER RESOURCES COUNCIL. 25 PP.

PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THESE REPORTS SUMMARIZE THE COMMISSION'S ACTIVITIES: RESEARCH PROJECTS AND MANAGEMENT PLANNING PERTAINING TO LAND USE, HYDROPOWER GENERATION, WILDLIFE, ECONOMIC FACTORS, METEOROLOGY, HYDROLOGY, WATER SUPPLY, AND POLLUTION.

P-18
PACIFIC NORTHWEST RIVER BASINS COMMISSION.
ECOLOGY AND THE ECONOMY: A CONCEPT FOR BALANCING LONG-RANGE GOALS.

VANCOUVER, WA. 118 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

NOTE: PACIFIC NORTHWEST AS A WHOLE. NO SPECIFIC REFERENCE TO FLATHEAD BASIN. EXTENSIVE TABLES.

(PACIFIC NORTHWEST). THIS REPORT EXPLORES CARRYING CAPACITY, IN TERMS OF POPULATION AND PRODUCTION OF GOODS AND SERVICES PER YEAR, AS A POSSIBLE ALTERNATIVE MEANS FOR IDENTIFYING LONG RANGE GOALS, NEEDS, AND DEMANDS OF THE PACIFIC NORTHWEST POPULACE.

P-19
PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE.
1978.

ECONOMETRIC MODEL, ELECTRIC SALES FORECAST FOR THE WEST GROUP AREA.

SPOKANE, WA. 230 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THE PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE/ECONOMETRIC MODEL USES HISTORICAL DATA TO RELATE ELECTRICITY DEMAND TO THE FACTORS WHICH INFLUENCE IT AND THEN FORECASTS ELECTRICITY DEMAND USING THESE RELATIONSHIPS. THE MODEL ALSO PROVIDES SEPARATE FORECASTS FOR THE RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL SECTORS.

P-20
PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE.
1978.

LONG RANGE PROJECTION OF POWER LOADS AND RESOURCES FOR THERMAL PLANNING: WEST GROUP AREA. 1978-1979 THROUGH 1997-1998. "THE BLUE BOOK."

SPOKANE, WA.

SPECIFIC, TECHNICAL, PART OF A SERIES, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD RIVER BASIN). THESE ANNUAL ESTIMATES ARE PREPARED ON AN AREA BASIS AND ALSO BY THE THREE MAJOR SUPPLY GROUPS: FEDERAL AGENCIES, PUBLIC AGENCIES, AND PRIVATE UTILITIES. THE REPORTS SUMMARIZE LOADS AND RESOURCES FOR JANUARY PEAK AND CONTRACT YEAR (JULY-JUNE) AVERAGE ENERGY (EXCEPT FOR HYDRO) CONDITIONS FOR EACH OPERATING YEAR IN THE STUDY PERIOD. A LIST OF ASSURED HYDRO PROJECTS AND ADDED UNITS SHOWING THE SCHEDULED OPERATION DATES AND NAMEPLATE RATINGS ARE SHOWN. THE POTENTIAL HYDRO RESOURCES ARE LISTED BY PROJECT, AND POTENTIAL PUMPED STORAGE PROJECTS ARE ALSO INDICATED.

P-21
PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE.
1978.

WEST GROUP FORECAST (11-YEAR). "THE BLACK BOOK."

SPOKANE, WA.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THE PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE WEST GROUP FORECAST, PREPARED ANNUALLY SINCE 1964 BY THE PACIFIC NORTHWEST UTILITIES CONFERENCE COMMITTEE SUBCOMMITTEE ON LOADS AND RESOURCES, IS THE SUMMATION OF INDIVIDUAL FORECASTS SENT TO THE SUBCOMMITTEE BY 119 INDIVIDUAL UTILITIES, SEVERAL FEDERAL AGENCIES, AND 18 DIRECT SERVICE INDUSTRIAL CUSTOMERS IN THE WEST GROUP AREA. MOST OF THESE INDIVIDUAL FORECASTS USE THE SIMPLE TREND ANALYSIS METHOD.

**P-22
PACIFIC POWER AND LIGHT COMPANY.**

1980.
SWEET CHERRIES IN NORTHWESTERN MONTANA.
PORTLAND, ORE.: PACIFIC POWER & LIGHT CO., INDUSTRIAL DEVELOPMENT DEPT. 1, PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE AREA). THIS BROCHURE OUTLINES A PACIFIC POWER AND LIGHT STUDY AND DESCRIBES THE CLIMATE AND GROWING CONDITIONS, ORCHARD LAND SELECTION, ORCHARD NEEDS AND MANAGEMENT, MARKETING, INVESTMENT PATTERNS, AND TAX TREATMENT. IT IS VERY GENERAL IN NATURE.

**P-23
PACIFIC POWER AND LIGHT COMPANY.**

1984.
THE FABULOUS FLATHEAD VALLEY IN NORTHWESTERN MONTANA: KALISPELL, WHITEFISH, COLUMBIA FALLS. INDUSTRIAL SURVEY.
PORTLAND, ORE.: PACIFIC POWER & LIGHT CO., INDUSTRIAL DEVELOPMENT DEPT.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(COLUMBIA FALLS, KALISPELL, & WHITEFISH). THIS PROMOTIONAL PUBLICATION SUMMARIZES THE LOCAL ECONOMY TO PROVIDE INFORMATION TO PROSPECTIVE INDUSTRIAL FIRMS AND BUSINESSES. LOCATIONAL ADVANTAGES, INVESTMENT OPPORTUNITIES, PROPOSED PROJECTS, AND RECREATION POTENTIALS ARE BRIEFLY OUTLINED. IT REVIEWS MAJOR COMPONENTS OF THE ECONOMY, CHARACTERISTICS OF THE COMMUNITY, COMMUNITY SERVICES, AND LOCAL GEOGRAPHY.

**P-24
PACIFIC POWER AND LIGHT COMPANY.**

1987.
THE PACIFIC NORTHWEST: ECONOMIC GROWTH IN A QUALITY ENVIRONMENT-RESEARCH PAPERS AND STATISTICS. VOL. 2.
PORTLAND, ORE.: PACIFIC POWER & LIGHT CO.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: MONTANA). THIS VOLUME OF RESEARCH PAPERS AND STATISTICS IS A COMPILATION OF DATA DEVELOPED AS AN INPUT TO AN ECONOMIC STUDY OF THE PACIFIC NORTHWEST BY BATTELLE MEMORIAL INSTITUTE - COLUMBUS LABORATORIES. RESEARCH PAPERS PUBLISHED IN THIS DOCUMENT WERE PREPARED BY ECONOMISTS, ACADEMICIANS, AND INDUSTRY SPECIALISTS. TOPICS COVERED INCLUDE THE ENVIRONMENT, BASIC INDUSTRIES, AND ANCILLARY INDUSTRIES. ALSO INCLUDED IS A COMPLETE COLLECTION OF EMPLOYMENT DATA PRESENTED IN DETAIL BY INDUSTRY AND BY STATE FOR THE TIME PERIOD FROM 1980 TO 1986.

**P-25
PACIFIC POWER AND LIGHT COMPANY.**

1972.
MONTANA'S FLATHEAD VALLEY WELCOMES INDUSTRY.
PORTLAND, ORE.: PACIFIC POWER & LIGHT CO. 24 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY & FLATHEAD LAKE). THIS BOOKLET SUMMARIZES THE VALLEY'S GEOGRAPHY AND CLIMATE, ECONOMIC BASE, LABOR POOL, TRANSPORTATION, UTILITIES, EDUCATION, TAXES, COMMUNITY PROFILE, AND SITE AVAILABILITY IN HOPES OF ENCOURAGING NEW INDUSTRIAL DEVELOPMENT.

**P-26
PACK, ARTHUR N.**

1928.
"BANDITS OF THE BORDER."
NATURE MAGAZINE, 1928, PP. 21-25.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE, BASED ON THE PACK-FINLEY EXPEDITION TO PHOTOGRAPH MOUNTAIN GOATS, RECOUNTS SOME OF THE INCIDENTAL EXPERIENCES OF THE PARTY IN GLACIER NATIONAL PARK.

**P-27
PACK, ARTHUR N.**

1928.
"CAMERA HUNTING ON THE CONTINENTAL DIVIDE."
NATURE MAGAZINE, JANUARY 1928, PP. 9-15.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: INCLUDES PHOTOGRAPHS.

(GLACIER NATL. PARK). THE ARTICLE RECORDS THE EXPERIENCES OF PHOTOGRAPHERS TRAVELLING BY HORSE THROUGH THE PARK. CAMP LIFE, SCENERY, PICTURE-TAKING, WILDLIFE, AND FELLOW TOURISTS ARE DESCRIBED.

**P-28
PACK, ARTHUR N.**

1929.
"SHOOTING WILDLIFE WITH A MOVIE CAMERA."
SCIENTIFIC AMERICAN, AUGUST 1929, PP. 140-143.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE RELATES HOW GOAT COSTUMES AND IMPROVISED BLINDS ENABLE SCIENTISTS TO OBTAIN INTERESTING RECORDS OF ANIMALS IN THEIR NATIVE HAUNTS. BEAVERS, GOATS, ELK, AND MOOSE WERE AMONG THE WILDLIFE PHOTOGRAPHED.

**P-29
PACKER, PAUL E.**

1972.
"EFFECTS OF PRESCRIBED SLASH BURNING ON WATERSHED BEHAVIOR OF LARCHDOUGLAS-FIR FOREST."
PROC. XV IUFRO CONGRESS, UNIV. FLORIDA, GAINESVILLE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: MILLER CREEK DRAINAGE NEAR OLNEY). EXPERIMENTS SHOWED THAT JAMMER LOGGING CHANGED SURFACE SOIL PROPERTIES AND VEGETATIVE CHARACTERISTICS TO ENHANCE HYDROLOGY AND SOIL STABILITY. PRESCRIBED BURNING PROVED TO BE DETRIMENTAL TO THE WATERSHEDS IN TERMS OF RUNOFF AND SOIL EROSION, BUT THE EFFECT APPEARED TO LAST ONLY A FEW YEARS. THE SOIL EROSION BEHAVIOR OF LOGGED, BURNED UNITS SEEMED RELATED MORE TO THE AMOUNT OF PROTECTIVE GROUND COVER AND CLIMATE THAN TO OTHER SITE FACTORS.

**P-30
PACKER, PAUL E.**

1972.
"SITE PREPARATION IN RELATION TO ENVIRONMENTAL QUALITY."
PROC. 1971 ANNUAL MEETING WESTERN FORESTRY & CONSERVATION ASSOC., PP. 23-28.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: MILLER CREEK DRAINAGE NEAR OLNEY). THIS ARTICLE SUMMARIZES THE CURRENT KNOWLEDGE ABOUT OBJECTIVES AND METHODS OF SITE PREPARATION FOR

FOREST REGENERATION IN RELATION TO ENVIRONMENTAL QUALITY. IT DISCUSSES DISPOSITION OF LOGGING RESIDUE, REDUCTION OR ELIMINATION OF PLANT COMPETITION, PREPARATION OF MINERAL SOIL SEED BEDS, AND PROVISION OF FAVORABLE MICRO ENVIRONMENTS. THE REPORT COVERS THE EFFECT OF PRESCRIBED FIRE, CHEMICAL TREATMENT, AND VARIOUS MECHANICAL METHODS OF SITE PREPARATION IN RELATION TO AIR AND WATER POLLUTION. NEW AND NEEDED DEVELOPMENTS IN SITE PREPARATIONS ARE REVIEWED.

**P-31
PACKER, PAUL E., AND WILLIAMS, B.**

1976.
"LOGGING AND PRESCRIBED BURNING EFFECTS ON THE HYDROLOGIC AND SOIL STABILITY BEHAVIOR OF LARCHDOUGLAS-FIR FORESTS IN THE NORTHERN ROCKY MOUNTAINS."
PROC. MONTANA TALL TIMBERS FIRE ECOLOGY CONFERENCE AND FIRE & LAND MANAGEMENT SYMPOSIUM, TALL TIMBERS RESEARCH STATION, TALLAHASSEE, FLA. NO. 14, PP. 465-479.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: MILLER CREEK DRAINAGE NEAR OLNEY). THIS PAPER REPORTS THE IMMEDIATE AND SHORT-TERM EFFECTS OF JAMMER LOGGING AND PRESCRIBED BURNING ON FOREST WATERSHEDS HAVING STABLE SOILS. SURFACE RUNOFF AND SOIL EROSION PLOTS WERE INSTALLED WHICH PROVIDED DATA ON BULK DENSITY, TOTAL SOIL POROSITY, SOIL ORGANIC MATTER, TOTAL COVER DENSITY, EFFECTS ON OVERLAND FLOW AND SOIL EROSION FROM SNOWMELT AND SUMMER STORMS.

**P-32
PAGE, WILLIAM DELANO.**

1983.
"RECONNAISSANCE GEOLOGY OF THE NORTH QUARTER OF THE HORSE PLAINS QUADRANGLE, MONTANA."
M.S. THESIS, UNIV. COLORADO, BOULDER. 66 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD & SANDERS COUNTIES: HORSE PLAINS QUADRANGLE). THIS REPORT IS PART OF A MINERAL SURVEY AND GEOLOGIC MAPPING PROJECT DESIGNED TO AID IN THE DEVELOPMENT OF NORTHWEST MONTANA. MAPPING WAS DONE ON U.S. FOREST SERVICE PLANIMETRIC MAPS AT A SCALE OF 2 INCHES EQUALS 1 MILE. THE TOPICS COVERED ARE PRECAMBRIAN ROCKS, TERTIARY ROCKS, QUATERNARY ROCKS, FOLDING AND FAULTING, HYDROTHERMAL ALTERATION, ORE DEPOSITS, GROUNDWATER, AND A SUMMARY OF GEOLOGIC HISTORY. PHOTOGRAPHS AND GEOLOGIC MAPS ARE INCLUDED.

**P-33
PAGE, WILLIAM DELANO.**

1985.
"RECONNAISSANCE GEOLOGY OF THE HOG HEAVEN MINING DISTRICT AND VICINITY, FLATHEAD AND SANDERS COUNTIES, MONTANA."
GEOLOGICAL SOCIETY AMERICA ABSTRACTS FOR 1984. SPEC. PAPERS NO. 82, P. 341
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD & SANDERS COUNTIES: HOG HEAVEN MINING DISTRICT). THIS ABSTRACT DESCRIBES THE STRATIGRAPHY AND STRUCTURE OF THE AREA. THE OCCURRENCE OF SILVER AND BASE METAL ORE DEPOSITS IS NOTED.

P-34
PALLADINO, LAWRENCE B., S. J.
 1872.
"LETTER OF REV. F. L. PALLADINO, (SIC) IN CHARGE OF ST. IGNATIUS MISSION." IN FOURTH ANNUAL REPORT OF THE BOARD OF INDIAN COMMISSIONERS, 1872.
 WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.

FATHER PALLADINO COMPLAINS THAT THE GOVERNMENT HAS NOT KEPT THE PROMISES MADE TO ASSIST THE CONFEDERATED TRIBES IN THE 1855 TREATY. IT ALSO NOTES THE INCREASED PRESSURE FROM WHITES IN THE BITTERROOT AND ON THE JOCKO RESERVATION. IT APPENDS TWO LETTERS FROM INDIAN STUDENTS AT THE MISSION SCHOOLS. SKCC.

P-35
PALLADINO, LAWRENCE B., S. J.
 1906.
"HOW THE FLATHEADS WERE CHRISTIANIZED." THE WESTERN HOMESEAKER, OCTOBER 1906, PP. 6-7.

THIS ARTICLE PROVIDES A SHORT INTRODUCTION TO THE HISTORY OF THE MISSIONS AMONG THE FLATHEADS. SKCC.

P-36
PALLADINO, LAWRENCE B., S. J.
 1919.
"HISTORICAL NOTES ON THE FLATHEAD." THE INDIAN SENTINEL 1:6-16.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(ABORIGINAL LANDS OF THE FLATHEADS). THIS EARLY ARTICLE DESCRIBES THE FIRST ENCOUNTERS BETWEEN THE LEWIS AND CLARK EXPEDITION AND THE FLATHEADS, THE CONVERSION OF SOME OF THE TRIBE TO CHRISTIANITY, THEIR DETERMINATION TO HAVE THE BLACKROBES, THE FIRST PRIEST AMONG THE FLATHEADS, AND THE EAGERNESS OF THE FLATHEADS TO BE INSTRUCTED.

P-37
PALLADINO, LAWRENCE B., S. J.
 1922.
INDIAN AND WHITE IN THE NORTHWEST: A HISTORY OF CATHOLICITY IN MONTANA, 1831-1891. 2ND ED. LANCASTER, PA.: WICKERSHAM PUBL. CO. 504 + PP.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: PART I INCLUDES EXTENSIVE ACCOUNTS OF CATHOLICISM AMONG THE FLATHEAD INDIANS.

(MONTANA). THE BOOK GIVES AN HISTORIC RECORD OF CATHOLICISM FROM ITS BEGINNINGS WITH THE FLATHEADS IN 1831 TO THE YEAR 1891. IT DISCUSSES THE FLATHEAD EXPEDITIONS TO ST. LOUIS TO LOCATE CATHOLIC PRIESTS, THE FIRST BAND OF MISSIONARIES, THE INDIANS' VIEW OF CATHOLICISM, AND THE FOUNDING OF THE ST. IGNATIUS MISSION AND SCHOOLS.

P-38
PALLISER, J., CAPTAIN.
 1860.
FURTHER PAPERS RELATIVE TO THE EXPLORATION BY THE EXPEDITION UNDER CAPTAIN PALLISER OF THAT PORTION OF BRITISH NORTH AMERICA WHICH LIES BETWEEN THE NORTHERN BRANCH OF THE RIVER SASKATCHEWAN AND THE FRONTIER OF THE UNITED STATES; AND BETWEEN THE RED RIVER AND THE ROCKY MOUNTAINS, AND THENCE TO THE PACIFIC OCEAN.
 LONDON. 75 PP.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, NATIONAL.

AVAILABLE FROM: RECORDAK CORP., NEW YORK. (MICROFILM COPY).

(WESTERN PORTION OF HISTORIC BRITISH TERRITORY IN NORTH AMERICA). MAP OF THE AREA EXPLORED BY THE EXPEDITION HEADED BY CAP. PALLISER, VARIOUS LETTERS BY THE CAPTAIN, AND REPORTS BY MEMBERS OF THE EXPEDITION ARE CONTAINED IN THIS PUBLICATION. THE CAPABILITIES OF EXPLORED AREAS FOR AGRICULTURAL SETTLEMENT ARE DISCUSSED IN THE LETTERS, ALONG WITH THE PROGRESS OF THE EXPEDITION. A REPORT OF THE MAGNETIC OBSERVER AND REPORTS BY CAPTAIN BLAKISTON OF HIS EXPLORATION ACTIVITIES ARE PRESENTED. CAPTAIN BLAKISTON EXPLORED THE KOOTENAI, FLATHEAD, AND CROWSNEST PASSES, WHICH LIE JUST NORTH, EAST, AND WEST OF THE FLATHEAD BASIN. A MAP DEPICTING HIS ROUTES AND THE TOPOGRAPHY OF THE AREA IS INCLUDED. ALSO DESCRIBED IN REPORTS ARE INDIAN INHABITANTS, INCLUDING THE FLATHEAD AND THE KOOTENAI.

P-39
PALLISER, J., CAPTAIN.
 1863.
THE JOURNALS, DETAILED REPORTS, AND OBSERVATIONS RELATIVE TO THE EXPLORATION OF THAT PORTION OF BRITISH NORTH AMERICA, WHICH, IN LATITUDE, LIES BETWEEN THE BRITISH BOUNDARY LINE AND THE HEIGHT OF LAND OR WATERSHED OF THE NORTHERN OR FROZEN OCEAN, RESPECTIVELY, AND IN LONGITUDE, BETWEEN THE WESTERN SHORE OF LAKE SUPERIOR AND THE PACIFIC OCEAN, DURING THE YEARS 1857, 1858, 1859, AND 1860.
 LONDON. 325 PP.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, NATIONAL.

AVAILABLE FROM: RECORDAK CORP., NEW YORK. (MICROFILM COPY).

(WESTERN PORTION OF HISTORIC BRITISH TERRITORY IN NORTH AMERICA). NARRATIVES OF AN EXPEDITION WHICH DESCRIBES THE FEATURES OF THE COUNTRY EXPLORED AND THE ECONOMIC VALUES OF VARIOUS AREAS ARE PRESENTED. THE GENERAL GEOGRAPHY OF THE COUNTRY, ITS RIVERS, MOUNTAINS, AND PLAINS, IS LAID DOWN; CONSIDERATION IS GIVEN TO THE HUDSON BAY COMPANY'S TRADING ROUTES AND OUTPOSTS. JOURNALS OF NOT ONLY THE EXPEDITION HEAD BUT MEMBERS WHO WERE IN CHARGE OF THEIR OWN JOURNEYS ARE INCLUDED. ALSO PRESENTED ARE OUTLINES OF ITINERARIES AND SCIENTIFIC REPORTS DETAILING ASTRONOMICAL OBSERVATIONS, INDIAN TRIBES LIVING IN THE AREA AND THEIR LANGUAGES, GEOLOGIC FEATURES, BOTANY, AND METEOROLOGICAL OBSERVATIONS.

P-40
PALMER, ART, AND PALMER, PEGGY.
 1978.
"GEOLOGY OF THE SILVERTIP KARST, MONTANA." ALPINE KARST (SUMMER 1978):31-39.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THIS ARTICLE REPORTS ON A SURFACE SURVEY OF KARST FEATURES, ROCK UNITS, AND GEOLOGIC STRUCTURES IN THE NORTH CIRQUE, TO SHOW THE RELATIONSHIP OF THE CAVES AND SURFACE FEATURES TO THE LOCAL GEOLOGIC SETTING AND TO POINT OUT CONDITIONS THAT FAVOR CAVE DEVELOPMENT IN THE REGION. MAPS ARE INCLUDED.

P-41
PALMER, T. S.
 1921.
"THE HARLEQUIN DUCK IN MONTANA." THE CONDOR 23(JULY 1921):133.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: GLACIER NATL. PARK, FLATHEAD LAKE, & NORTH FORK OF THE FLATHEAD RIVER). THIS

PAPER CLARIFIES THE OCCURRENCE OF THE HARLEQUIN DUCK, *HISTRIONICUS HISTRIONICUS*. INCLUDED IN THE BRIEF PRESENTATION ARE THE EIGHT RECORDS OF THE DUCK IN "DISTRIBUTIONAL LIST OF BIRDS OF MONTANA," BY ARETOS A. SAUNDERS, AND ADDITIONAL RECORDS FOUND IN F.M. BAILEY'S "BIRDS OF GLACIER NATIONAL PARK," 1918.

P-42
PARDEE, J. T.
 1910.
"THE GLACIAL LAKE MISSOULA." J. GEOLOGY 18(MAY-JUNE 1910):378-386.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(NORTHWESTERN MONTANA & NORTHERN IDAHO). THE OCCURRENCE OF AN ICE-DAMMED LAKE IN THE CLARK FORK RIVER BASIN IS ARGUED BY CITING EVIDENCE SUCH AS THE SERIES OF PARALLEL WATERMARKS ON HILLSIDES SURROUNDING THE MISSOULA AREA AND THE BITTERROOT VALLEY. THE TOPOGRAPHY OF THE AREA IS USED TO HELP EXPLAIN AND DETERMINE THE LOCATION OF THE GLACIAL LAKE.

P-43
PARDEE, J. T.
 1950.
"LATE CENOZOIC BLOCK FAULTING IN WESTERN MONTANA." BULL. GEOLOGICAL SOCIETY AMERICA 61(APRIL 1950):360-404.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). MOUNTAIN RANGES AND ADJOINING INTERMONTANE BASINS ARE INTERPRETED CHIEFLY AS THE RESULT OF BLOCK FAULTING IN THIS PAPER. FOLLOWING GENERAL STATEMENTS CONCERNING GEOGRAPHY AND GEOLOGIC FORMATION, A HISTORY OF THE NORTHERN ROCKY MOUNTAINS IS PRESENTED.

P-44
PARKER, BRUCE C.; SAMSEL, GENE L., JR.; AND PRESCOTT, G. W.
 1973.
"COMPARISON OF MICROHABITATS OF MICROSCOPIC SUBALPINE STREAM ALGAE." THE AMERICAN MIDLAND NATURALIST, 1973, PP. 143-153.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTHERN BOUNDARY GLACIER NATL. PARK: DEER LICK CREEK & BEAR CREEK). COMPARATIVE STUDIES OF THE MICROHABITATS OF THE ALGAE *HYDRURUS FOETIDUS*, *MONOSTROMA QUATERNARIUM*, AND TWO SPECIES OF *BRACHIOSPERMUM* ARE PRESENTED. INFLUENCES WHICH APPARENTLY CONTROL THE SPECIFIC DISTRIBUTION OF THESE ALGAE WITHIN THE SAME SUBALPINE STREAMBEDS ARE CONSIDERED. RADIATION, TEMPERATURE, FLOW RATE, VARIOUS CHEMICAL AND NUTRIENT LEVELS, EXTRACTABLE CHLOROPHYLL, AND PHOTOSYNTHETIC PRIMARY PRODUCTIVITY OF THE ALGAE WERE MEASURED EVERY 45 DAYS. LABORATORY EXPERIMENTS WERE CONDUCTED TO DETERMINE THE EFFECTS OF ARTIFICIAL SHADING, CHANGE IN FLOW REGIME, AND SUBSTRATE DIFFERENCES ON THE ALGAL COMMUNITIES. FINDINGS REPRESENT PRELIMINARY INSIGHTS INTO THE CAUSAL FACTORS OF THE ALGAE DISTRIBUTION.

P-45
PARKER, JAMES L.
 1968.
"A STUDY OF THE ALGAL FLORA, PHYTOPLANKTON, AND CHEMISTRY OF RAINBOW LAKE, SANDERSON COUNTY, MONTANA." M.A. THESIS, UNIV. MONTANA, MISSOULA. 48 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SANDERS COUNTY: RAINBOW LAKE). THE STUDY OF ALGAL FLORA INVOLVES A QUANTITATIVE ANALYSIS AND A DETERMINATION OF THE DISTRIBUTION AND PERIODICITY OF THE PHYTOPLANKTON, LAKE CHEMISTRY IS CHARACTERIZED. A CHECKLIST OF ALGAE GENERA AND SPECIES AND A LISTING OF CHEMICAL PARAMETERS IS INCLUDED.

P-48
PARKER, LARRY
1973.
"SKALEE KOO NKWALKWALTN (INDIAN LANGUAGE)." THE DOVETAIL MAGAZINE, SPRING 1973, PP. 44-48.

THIS ARTICLE MAINLY COVERS PRONUNCIATION OF SOUNDS IN SALISH THAT ARE NOT FOUND IN ENGLISH. PARKER WAS THE INSTRUCTOR IN INDIAN LANGUAGE AT RONAN HIGH SCHOOL. SKCC.

P-47
PARRATT, LLOYD P.
1969.
"GLACIER'S NOISY GOSHAWKS." NATURE MAGAZINE, MARCH 1959, PP. 129-132. TECHNICAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE, WRITTEN BY A FORMER RANGER-NATURALIST, DESCRIBES TWO MONTHS OF OBSERVATION AND STUDY OF A FAMILY OF GOSHAWKS IN GLACIER NATIONAL PARK.

P-46
PARRATT, LLOYD P.
1963.
CHECKLIST OF BIRDS OF GLACIER NATIONAL PARK. WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 9 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS LIST CONTAINS THE SCIENTIFIC AND COMMON NAMES OF BIRDS SIGHTED IN GLACIER PARK, AND HOW COMMON THEY ARE TO THE PARK.

P-46
PARRATT, LLOYD P.
1964.
BIRDS OF GLACIER NATIONAL PARK. KALISPELL, MT.: THOMAS PRINTING, INC. GLACIER NATURAL HISTORY ASSOC., INC. SPEC. BULL. NO. 9. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS BULLETIN DESCRIBES BIRDS OF THE PARK AND THEIR HABITAT. IT WAS COMPILED FROM A VARIETY OF SOURCES FROM THE WORKS OF GEORGE BIRD GRINNELL AND ARETAS A. SANDERS TO STUDIES CONDUCTED BY PARK NATURALISTS AND UNIVERSITY RESEARCHERS.

P-50
PARSONS, JOHN E.
1963.
WEST ON THE 49TH PARALLEL. NEW YORK: WILLIAM MORROW & CO. 208 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(WESTERN CANADA - UNITED STATES BORDER). THE TASK AND DIFFICULTIES OF BRITISH SURVEYING EXPEDITIONS FROM 1872-1976 IN DEFINING THE INTERNATIONAL BORDER ARE RECOUNTED, USING THE DIARIES AND LETTERS OF THE PEOPLE INVOLVED. INCLUDED ARE CAPTAIN ANDERSON'S EXPLORATION OF THE SUMMIT AREA; LIEUTENANT GREEN'S EXPLORATION OF AKAMINA CREEK AND THE NORTH FORK OF THE FLATHEAD; AND DESCRIPTIONS OF THE COUNTRY SIDE.

P-51
PARSONS, MARION R.
1914.
"THE GLACIER NATIONAL PARK OUTING." THE MOUNTAINEER 7:17-42. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: INCLUDES A MAP OF TRAILS TAKEN. AUTHORED BY R.H. MCKEE AND M.D. HARGRAVE. PHOTOGRAPHS OF SCENERY AND WILDLIFE ARE INCLUDED.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES TRAVEL TO AND WITHIN THE PARK, THE ESTABLISHED CHALETS, THE ROCKY MOUNTAIN PASSES AND SCENERY, FLORA, THE WEATHER, CAMP ACTIVITIES, MOUNTAIN CLIMBING, HIKING, ETC. THE TRAILS TRAVELLED CROSS THE CONTINENTAL DIVIDE AND RUN NORTH TO SOUTH.

P-52
PARTOLL, ALBERT J.
1930.
"THE SELISH: SPARTANS OF THE WEST." M.A. THESIS, UNIV. MONTANA, MISSOULA. 35 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS & FLATHEAD INDIAN RESERVATION). THIS HISTORICAL NARRATIVE DESCRIBES THE FLATHEAD TRIBE FROM AVAILABLE RECORDS (JOURNALS OF EARLY EXPLORERS, FURTRADERS, AND MISSIONARIES). FLATHEAD TRIBAL TERRITORY; THEIR RELATIONSHIP WITH THE PEND D'OREILLE AND KOOTENAI; THE DERIVATION OF THE NAME "FLATHEAD;" THEIR DRESS, HOUSING, PHYSICAL APPEARANCE, MORTALITY, MARRIAGE CUSTOMS, CHIEFTAINSHIP, USE OF FOOD PLANTS, BUFFALO HUNTING, WARFARE WITH THE BLACKFEET, HORSES, QUEST FOR AND ARRIVAL OF JESUIT MISSIONARIES; AND TREATY NEGOTIATIONS IN 1865 ARE THE TOPICS ADDRESS-ED.

P-53
PARTOLL, ALBERT J.
1939.
"FORT CONNAH: A FRONTIER TRADING POST, 1847-1871." PACIFIC NORTHWEST QUARTERLY 30(OCTOBER 1939):399-415. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(LAKE COUNTY: FORT CONNAH HISTORIC SITE). THIS PAPER PRESENTS AN HISTORIC ACCOUNT OF THE FRONTIER TRADING POST OF THE HUDSON BAY COMPANY, FORT CONNAH. IT DESCRIBES THE PURPOSE OF THE POST, ITS CONSTRUCTION IN 1848, AND FRONTIER CONDITIONS FROM A LETTER OF ONE OF THE FORT'S EARLY CLERKS. IT COMMENTS ON THE TRADE IN BUFFALO MEAT AND HIDES, AND FORT CONNAH'S RELATIONSHIP TO OTHER POSTS IN THE BITTERROOT AND KOOTENAI. THE 1863 TREATY WHICH RESULTED IN A NEW RELATIONSHIP BETWEEN THE HUDSON BAY COMPANY AND THE AMERICAN GOVERNMENT AND THE RESULTING PROBLEMS INVOLVING THE POST AND THE FLATHEAD INDIAN RESERVATION'S INDIAN AGENTS ARE TOPICS DISCUSSED.

P-54
PARTOLL, ALBERT J.
1951.
"THE FLATHEAD-SALISH INDIAN NAME IN MONTANA NOMENCLATURE." MONTANA MAGAZINE OF WESTERN HISTORY 25(JANUARY 1951):37-47.

THIS ARTICLE STUDIES THE VARIOUS EXPLANATIONS FOR THE ORIGINS OF THE NAME "FLATHEAD" AS APPLIED TO THE MONTANA SALISH. SKCC.

P-55
PARTOLL, ALBERT J.
1950.
THE GRASS DANCE OF THE SALISH. MISSOULA, MT.: HISTORICAL SOCIETY OF WESTERN MONTANA, INSTITUTE ON INDIAN AFFAIRS IN MONTANA, MONTANA STATE UNIV. 4 PP. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT WAS PREPARED FROM RESEARCH AND PERSONAL FIELD NOTES COLLECTED OVER THE YEARS FROM INTERVIEWS WITH TRIBAL ELDERS. THE THREE DISTINCT PARTS OF THE GRASS DANCE ARE DESCRIBED AND ITS ORIGIN AS A WOMAN'S DANCE IS DETAILED.

P-56
PARTOLL, ALBERT J.
1966.
CHIEF CHARLOT, 1830-1910, PATRIOT OF THE SALISH. MISSOULA, MT.: UNIV. MONTANA FOUNDATION, DIV. INDIAN SERVICES. 1 P. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS & FLATHEAD INDIAN RESERVATION). THE EVENTS LEADING TO CHIEF CHARLOT'S BAND OF FLATHEAD INDIANS' DEPARTURE FROM THE BITTERROOT ARE THE TOPIC OF THIS PAPER. IT INCLUDES THE TREATY OF 1855, INVOLVING CHARLOT'S FATHER VICTOR; THE GARFIELD DOCUMENT, UPON WHICH CHARLOT'S MARK APPEARED ALTHOUGH HE HAD NEVER AUTHORIZED SUCH A MARK; GENERAL HENRY B. CARRINGTON'S NEGOTIATIONS IN 1889; AND THE TRIBE'S MOVE TO THE JOCKO IN 1891.

P-57
PARTOLL, ALBERT J., COMP.
1938.
"THE FLATHEAD INDIAN TREATY COUNCIL OF 1865." PACIFIC NORTHWEST QUARTERLY 25(JULY 1938):283-314. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE ARTICLE REPRODUCES THE OFFICIAL PROCEEDINGS OF THE TREATY COUNCIL ALONG WITH EDITORIAL NOTES AND ANNOTATIONS AND A LETTER BY GOV. ISSAC STEVENS RELATING TO THE TREATY AND EXPLAINING THE DECISION OF VICTOR. THE INDIAN LEADERS' OPINIONS CONCERNING POINTS OF THE TREATY AND THE FUTURE OF THEIR NATION ARE PRESENTED.

P-58
PARTOLL, ALBERT J., ED.
1938.
"MENGARINI'S NARRATIVE OF THE ROCKIES: MEMOIRS OF OLD OREGON, 1841-1850, AND ST. MARY'S MISSION." FRONTIER AND MIDLAND, SPRING 1938, PP. 193-202. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: OREGON AND ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE PERSONAL MEMOIR OF GREGORY MENGARINI, A JESUIT MISSIONARY AT ST. MARY'S MISSION, BITTERROOT VALLEY, IS PRESENTED IN PART. THE BEGINNINGS, DEVELOPMENT, AND DECLINE OF THE MISSION IS NARRATED, AS WELL AS THE JOURNEY TO THE VALLEY. FOOTNOTES FURTHER EXPLAIN PEOPLE AND EVENTS INCLUDED.

P-59
PARTOLL, ALBERT J., ED.
1938B.
MENGARINI'S NARRATIVE OF THE ROCKIES: MEMOIRS OF OLD OREGON, 1841-1850, AND ST. MARY'S MISSION.

FRONTIER AND MIDLAND, SUMMER 1938, PP. 258-266.
PART OF A SERIES, GENERAL, NON-TECHNICAL,
ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: OREGON AND ABORIGINAL
LANDS OF THE FLATHEAD INDIANS). GREGORY
MENGARINI'S NARRATIVE OF THE FOUNDING,
DEVELOPMENT, AND CLOSE OF THE ST. MARY'S MIS-
SION IN THE BITTERROOT VALLEY IS CONTINUED.

P-60

PEACOCK, DOUGLAS A.
1977.

OBSERVATIONS OF GRIZZLY BEARS IN THE APGAR
MOUNTAINS, GLACIER NATIONAL PARK, MONTANA.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL
PARK SERVICE, GLACIER NATIONAL PARK. 45 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER PRESENTS IN-
FORMATION ON OBSERVED *URSUS ARCTOS* ACTIVI-
TY FROM LATE JUNE TO EARLY OCTOBER IN 1976.
FINDINGS ARE DETAILED FOR THE PERIOD FROM
AUGUST TO SEPTEMBER, COINCIDING WITH THE
MAXIMUM UTILIZATION OF HUCKLEBERRIES BY
BEARS. NOTES ARE INCLUDED ON THE USE OF 16MM
FILM FOR THE IDENTIFICATION OF INDIVIDUAL
GRIZZLIES. INFORMATION ON DIET, FAMILY GROUPS,
AND THE ROLE OF PLAY IS ALSO PRESENTED. THE
1977 AND 1978 SEASONS ARE SUMMARIZED AND IM-
PLICATIONS FOR MANAGEMENT ARE DISCUSSED.

P-61

PEACOCK, JAMES D.
1964.

"DISCUSSION OF THE METHODS USED IN INTRODUC-
ING THE PARENT-TEACHER CONFERENCE TECHNI-
QUE INTO THE CHARLO PUBLIC SCHOOLS."
M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 43
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(CHARLO). THE INTRODUCTION OF THE PARENT-
TEACHER CONFERENCE TECHNIQUE INTO AD-
MINISTRATORS. QUESTIONNAIRES WERE AD-
MINISTERED TO PARENTS AND TEACHERS TO DETER-
MINE IF THE CONFERENCE METHOD OF REPORTING
IS SATISFACTORY.

P-62

PECK, RAY.
1954.

"A FOLLOW-UP STUDY OF EIGHTH GRADE
GRADUATES OF THE BIGFORK HIGH SCHOOL
DISTRICT FOR THE YEARS 1945, 1946, 1947, 1948, AND
1949."
M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 72
PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(BIG FORK). A FOLLOW-UP STUDY WAS MADE OF
EIGHTH GRADE GRADUATES FROM ELEMENTARY
SCHOOLS FOR THE YEARS FROM 1945-1949. AIMS OF
THE STUDY WERE: 1) TO OBTAIN A BASIS FOR POSSI-
BLE CURRICULUM REVISIONS BY DETERMINING
WHAT STUDENTS BELIEVE ARE NEEDED CHANGES,
WHAT PERCENT OF GRADUATES SOUGHT FURTHER
EDUCATION, HOW THESE STUDENTS VALUE THEIR
SCHOOL SUBJECTS, AND THE NEED FOR INCREASED
VOCATIONAL GUIDANCE AND COUNSELING SER-
VICE; 2) TO ASCERTAIN THE CAUSES FOR
WITHDRAWALS; 3) TO FURNISH DATA RELATIVE TO
THE ACHIEVEMENT, AGE, GRADE, SCHOLARSHIP,
AND SOCIO-ECONOMIC STATUS OF PUPILS DROPP-
ING OUT OF HIGH SCHOOL; 4) TO ASCERTAIN WHY
SOME EIGHTH GRADE GRADUATES ATTENDED HIGH
SCHOOLS OTHER THAN THE BIG FORK HIGH
SCHOOL; AND 5) TO PROPOSE CHANGES IN LIGHT OF
THESE FINDINGS.

P-63

PEDCO-ENVIRONMENTAL SPECIALISTS, INC., AND
U.S. ENVIRONMENTAL PROTECTION AGENCY, DIVI-
SION OF AIR AND WATER PROGRAMS.
1973.

FLUORIDE IN GLACIER NATIONAL PARK: A FIELD IN-
VESTIGATION.
DENVER, CO.: U.S. ENVIRONMENTAL PROTECTION
AGENCY, REGION 8, AIR & WATER PROGRAMS-DIV. 84
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT PRESENTS
RESULTS OF THE EPA STUDIES, WHICH INCLUDE
METEOROLOGICAL ANALYSES, MEASUREMENT OF
AMBIENT FLUORIDE CONCENTRATIONS, AND
ASSESSMENT OF THE EFFECTS OF FLUORIDE ON
SPECIAL TEST VEGETATION AND INDIGENOUS
FLORA WITHIN THE PARK. THE EPA FIELD IN-
VESTIGATIONS WERE DESIGNED TO DETERMINE THE
PREDOMINANT PATTERNS OF MOVEMENT OF AIR-
BORNE FLUORIDES FROM THE ALUMINUM PLANT TO
THE PARK, TO MEASURE AMBIENT CONCENTRA-
TIONS OF FLUORIDES IN THE PARK, AND TO ASSESS
EFFECTS OF FLUORIDES ON INDIGENOUS FLORA
WITHIN THE PARK.

P-64

PEEK, JAMES M.
1965.

"SEVEN MONTANA ELK HERDS."
MONTANA WILDLIFE, JUNE 1965, PP. 4-10.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: FLATHEAD & SWAN RIVER AREAS). ELK
MANAGEMENT IN SEVEN DIFFERENT AREAS IS
DISCUSSED AND COMPARED. WINTER FORAGE,
CALF PRODUCTION AND SURVIVAL, HUNTER
HARVEST, HUNTER SUCCESS, AGE DISTRIBUTION,
AND WINTER MALNUTRITION FOR EACH OF THE
AREAS IS DESCRIBED. THE AREAS CONSIDERED ARE
THE BITTERROOT, FLATHEAD, GALLATIN, GRAVELLY
RANGE, LITTLE BELTS, MISSOURI BREAKS, AND SUN
RIVER.

P-65

PEMBLE, RICHARD HOPPE.
1965.

"A SURVEY OF DISTRIBUTIONAL PATTERNS IN THE
MONTANA ALPINE FLORA."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 146 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(LAKE & FLATHEAD COUNTIES: MISSION, SWAN, &
FLATHEAD MTN. RANGES, & GLACIER NATL. PARK).
THE PURPOSE OF THIS STUDY WAS TWO FOLD.
FIRST, THE AUTHOR ATTEMPTED TO DETERMINE AS
COMPLETELY AS POSSIBLE THE RANGE OF THE
ALPINE SPECIES PRESENT IN THE FLORA OF MONTANA
AS SHOWN BY COLLECTIONS IN THE UNIVERSITY
OF MONTANA, MONTANA STATE UNIVERSITY,
USFS: REGION 1, AND GLACIER NATIONAL PARK. SE-
COND, USING DISTRIBUTION MAPS BASED ON THOSE
COLLECTIONS, THE AUTHOR TRIED TO DETERMINE
THE FLORISTIC ELEMENTS IN THE MONTANA ALPINE
FLORA, TO SHOW THEIR TOTAL DISTRIBUTION PAT-
TERN, AND TO ANALYZE THEIR DISTRIBUTION IN
MONTANA.

P-66

PENGELLY, W. LESLIE.
1960.

ELK POPULATION PROBLEMS IN THE BOB MARSHALL
WILDERNESS AREA.
MISSOULA, MT.: UNIV. MONTANA, COOP. WILDLIFE
RESEARCH UNIT. 80 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THIS REPORT
EXAMINES THE COMPLEX OF ELK NUMBERS AND
HABITS, PLANT SUCCESSION, FIRE SUPPRESSION,

AND THE INTERRELATED PROBLEMS OF BIOLOGICAL
AND ADMINISTRATIVE RELATIONSHIPS PECULIAR TO
WILDERNESS AREAS. THE VEGETATION OF THE
AREA IS DESCRIBED, ELK FORAGING PREFERENCES
ARE EXAMINED, AND DAMAGE TO THE WINTER
RANGE IS DISCUSSED. A SECTION ON ELK POPULA-
TION CONDITIONS INCLUDES THE HISTORY OF ELK
NUMBERS, PRESENT ELK NUMBERS, OUTFITTER
NUMBERS, LOSSES, AND MIGRATION.

P-67

PENGELLY, W. LESLIE.
1963.

"TIMBERLANDS AND DEER IN THE NORTHERN
ROCKIES."
J. FORESTRY 61:734-740.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(NORTHWESTERN MONTANA & IDAHO). THIS ARTICLE
EXAMINES THE FORCES, PRIMARILY FIRE AND LOGG-
ING, WHICH HAVE SHAPED LARGE PORTIONS OF THE
CONIFEROUS FORESTS OF THE NORTHERN ROCKIES
INTO DIVERSE MIXTURES OF TIMBER REMNANTS, SE-
COND GROWTH TIMBER STANDS, POLE STANDS,
AND BRUSHFIELDS OF VARYING SIZES. THE SERAL
SHRUBS IN THE FOREST UNDERSTORY ARE IMPOR-
TANT AS WINTER RANGE FOR WHITE-TAILED AND
MULE DEER. LOGGING IS THE MOST EFFECTIVE AND
LEAST EXPENSIVE HABITAT MANAGEMENT TOOL
AVAILABLE TO THE GAME MANAGER. THIS REPORT
DISCUSSES EXPECTED RESULTS FROM VEGETATIVE
MANIPULATION DIRECTED TOWARD THE IMPROVE-
MENT OF WINTER RANGE.

P-68

PENNAK, ROBERT W.
1941.

A BIBLIOGRAPHY OF HIGH ALTITUDE LIMNOLOGICAL
INVESTIGATIONS IN THE WESTERN UNITED STATES.
BOULDER, CO.: UNIV. COLORADO STUDIES, SERIES D,
VOL. 1. 5 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA,
REGIONAL.

(WESTERN UNITED STATES: FLATHEAD LAKE). IT IS
THE PURPOSE OF THIS PAPER TO GATHER AND
RECORD THE SIGNIFICANT LITERATURE OF
WESTERN LIMNOLOGY, ESPECIALLY THE
LITERATURE CONCERNED WITH LAKES AND
STREAMS SITUATED AT ALTITUDES OF MORE THAN
4000 FEET. THE BIBLIOGRAPHIC ENTRIES ARE LISTED
ALPHABETICALLY BY AUTHOR.

P-69

PEREGOY, ROBERT MEYER.
1979.

"EDUCATIONAL AND OCCUPATIONAL EXPECTA-
TIONS OF HIGH SCHOOL STUDENTS ON THE
FLATHEAD INDIAN RESERVATION."
PH.D. DISSERTATION, MONTANA STATE UNIV.,
BOZEMAN. 180 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE PURPOSE OF
THIS STUDY WAS TO DETERMINE WHETHER SIGNIFI-
CANT RELATIONSHIPS EXISTED BETWEEN THE
EDUCATIONAL AND OCCUPATIONAL EXPECTATIONS
OF AMERICAN INDIAN AND WHITE HIGH SCHOOL
STUDENTS WITH RESPECT TO SEX, STUDENT GRADE
LEVEL, PARENTS' EDUCATION, PARENTS' OCCUPA-
TION, AND FAMILY INCOME. THE EDUCATIONAL AND
OCCUPATIONAL EXPECTATIONS OF THE SUBJECTS
OF THIS STUDY WERE DIVIDED INTO LOW, MEDIUM,
AND HIGH CATEGORIES. THE STUDY WAS BASED ON
108 INDIAN AND 418 WHITE STUDENTS ATTENDING
HIGH SCHOOLS ON THE FLATHEAD RESERVATION
DURING THE 1978-1979 SCHOOL YEAR.

P-70

PERRY, EUGENE S.
1933.

POSSIBILITIES OF GROUNDWATER SUPPLY FOR CER-
TAIN TOWNS AND CITIES OF MONTANA.

BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. MISC. CONT. NO. 2. 49 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: KALISPELL). INFORMATION REGARDING GROUNDWATER SUPPLY FOR INDIVIDUAL CITIES AND TOWNS IS GIVEN. THE DISCUSSION CONCERNING THE KALISPELL GROUNDWATER SUPPLY COVERS 20-30 FOOT WELLS OCCURRING IN DIFFERENT GRAVEL BEDS, SHALLOW GRAVEL WELLS, THE RELATIONSHIP OF GROUNDWATER TO THE WATER LEVEL OF THE FLATHEAD RIVER AND FLATHEAD LAKE, AND DRILLING FOR WATER IN THE BELT SERIES.

P-71
PERRY, EUGENE S.

1933.
SHALLOW WELLS AS A SOURCE OF IRRIGATION WATER IN FRENCHTOWN AND CAMAS PRAIRIE VALLEYS, MONTANA.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY, MONTANA SCHOOL MINES. MISC. CONT. NO. 5. 8 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FRENCHTOWN & CAMAS PRAIRIE VALLEYS). THE USE OF GROUNDWATER FOR IRRIGATION IN THESE TWO AREAS IS EXAMINED. THE AREAS ARE INDIVIDUALLY DISCUSSED AND IN EACH DISCUSSION THE FOLLOWING INFORMATION IS BRIEFLY PRESENTED: GEOLOGY, GROUNDWATER CONTENT OF VALLEY FILL, DEPTH TO WATER, AMOUNT OF WATER, AND BED ROCK FORMATIONS. AN ASSESSMENT OF PUMPING PLANTS FOR IRRIGATION PURPOSES IS INCLUDED AND FOLLOWED BY RECOMMENDATIONS.

P-72
PERRY, EUGENE S.

1945.
DISTRIBUTION OF SEDIMENTARY ROCKS IN MONTANA AND THE NORTHWESTERN GREAT PLAINS.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. MISC. CONT. NO. 8. 10 PP. PRELIMINARY, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(NORTHWESTERN PLAINS & MONTANA). GEOLOGICAL INFORMATION PERTAINING TO THE DISTRIBUTION OF VARIOUS STRATA IS SHOWN FOR THE PERIOD JUST PRIOR TO ROCKY MOUNTAIN (LARAMIDE) DEFORMATION. A GROUP OF MAPS IS INCLUDED AS WELL AS A BRIEF SYNOPSIS OF THE STATE'S GEOLOGIC HISTORY. A CORRELATION CHART OF THE VARIOUS FORMATIONS CONCLUDES THE REPORT.

P-73
PERRY, EUGENE S.

1960.
"THE BELT SERIES OF MONTANA."
BILLINGS GEOLOGICAL SOCIETY, FIRST ANNUAL FIELD CONFERENCE 1:40-43.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: GLACIER NATL. PARK). THIS ARTICLE DISCUSSES IN GENERAL TERMS THE BELT SERIES OF WESTERN MONTANA AND REFERS TO THE ALTYN LIMESTONE NEAR GLACIER NATIONAL PARK. A CORRELATION CHART OF THE BELT STRATA IS INCLUDED.

P-74
PERRY, EUGENE S.

1982.
MONTANA IN THE GEOLOGIC PAST.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY. BULL. 26. 78 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS REPORT IS AN ATTEMPT TO DESCRIBE THE GEOLOGIC EVENTS RESPONSIBLE FOR MONTANA'S PRESENT CONFIGURATION AND UNDERGROUND MAKEUP. THE CHARACTER AND CAUSE OF THE PRESENT LAND SURFACE, GLACIAL ACTIVITY, STREAM PATTERNS, AND THE SHIFTING OF DRAINAGE PATTERNS CAUSED BY EARTH MOVEMENTS AND GLACIAL ACTION ARE DESCRIBED. THE LOCATION AND MANNER OF OCCURRENCE OF ECONOMIC DEPOSITS SUCH AS OIL, COAL, AND METALS ARE ALSO ADDRESSED.

P-75
PETERS, ADAM.

1977.
"A CHECKLIST OF BUTTERFLIES OF GLACIER NATIONAL PARK." REV. ED.
GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 5 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS CHECKLIST LISTS THE SPECIES AND EXPLAINS HOW TO LOCATE SPECIMENS IN THE GLACIER NATIONAL PARK BUTTERFLY COLLECTION.

P-76
PETERS, JOHN C., AND ALVORD, WILLIAM.

1964.
"MAN-MADE CHANNEL ALTERATIONS IN THIRTEEN MONTANA STREAMS AND RIVERS." REPRINTED FROM TRANSACTIONS OF THE 29TH NORTH AMERICAN WILDLIFE AND NATURAL RESOURCES CONFERENCE, PP. 83-102.
WASHINGTON, D.C.: WILDLIFE MANAGEMENT INSTITUTE.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: ASHLEY CREEK). THIS STUDY CONSIDERS THE EFFECT OF CHANNEL ALTERATIONS ON TROUT. IT DETERMINES THE LOCATION OF ALTERATIONS, THE TYPE (RELOCATION, RIPRAPING, CLEARANCE, AND DIKING), THE LOSS OF TOTAL STREAM LENGTH, AND THE HUMAN ACTIVITIES INVOLVED (ROAD CONSTRUCTION, AGRICULTURE, INDUSTRIAL DEVELOPMENT). THE NUMBER, WEIGHT, AND VARIETIES OF FISH OF ALTERED STREAMS ARE COMPARED WITH THOSE OF UNALTERED STREAMS.

P-77
PETERS, WILLIAM S., AND JOHNSON, MAXINE C.

1959.
PUBLIC LANDS IN MONTANA: THEIR HISTORY AND CURRENT SIGNIFICANCE.
MISSOULA, MT.: MONTANA STATE UNIV., BUREAU BUSINESS & ECONOMIC RESEARCH. REG. STUDY NO. 10. 69 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE STUDY OF THE USE OF PUBLIC LANDS INCLUDES BASIC INFORMATION OF EVENTS, FACTS, ORGANIZATIONS, AND MANAGEMENT PROCEDURES. REVIEW OF THE HISTORY OF FEDERAL LANDS AND PUBLIC POLICIES, THE LANDS IN MONTANA, THE ACTIVITIES OF FEDERAL AGENCIES, THE FISCAL SIGNIFICANCE OF FEDERAL LAND OWNERSHIP, AND THE ROLE OF THE STATE AS A LANDOWNER IS PRESENTED.

P-78
PETERS, WILLIAM S., AND WRIGHT, J. S.

1958.
TOURIST TRAVEL AND EXPENDITURES IN MONTANA. A STUDY OF HIGHWAY BENEFITS.
HELENA, MT.: MONTANA DEPT. HIGHWAYS. 107 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE PRIMARY OBJECTIVE OF THIS STUDY WAS TO COMPILE INFORMATION ABOUT THE BENEFITS WHICH RESULT TO THE TOURIST IN-

DUSTRY IN MONTANA FROM THE PRESENCE OF HIGHWAYS IN THE STATE. AN IMPORTANT REQUISITE OF THE STUDY HAS BEEN TO DETERMINE WHAT CONTRIBUTIONS ARE MADE BY THE TRAVELER TO THE OVER ALL ECONOMY OF THE STATE.

P-79
PETERSON, LARRY C.

ANNUAL.
"ANNUAL REPORT: DIVISION OF FISHERY SERVICE, REGION 1."
U.S. DEPT. INTERIOR, FISH & WILDLIFE SERVICE, BUREAU SPORT FISHERIES & WILDLIFE, PORTLAND, ORE. (TYPEWRITTEN).
GENERAL, TECHNICAL, PART OF A SERIES, EXISTING DATA, REGIONAL.

(WESTERN U.S.). THESE REPORTS SUMMARIZE FISHERY MANAGEMENT ACTIVITIES OF THE U.S. FISH & WILDLIFE SERVICE ON INDIAN RESERVATIONS, IN NATIONAL PARKS, AND COOPERATIVE FISHERY UNITS. THE REPORTS INCLUDE GLACIER NATIONAL PARK AND THE FLATHEAD INDIAN RESERVATION.

P-80
PETERSON, LAURA H.

1917.
"WITH THE PRAIRIE CLUB IN GLACIER PARK."
MAZAMA 5:4-8.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN,

(GLACIER NATL. PARK). THIS DESCRIPTION OF AN EARLY CAMPING TRIP THROUGH GLACIER PARK RECOUNTS HIKES TO SPERRY GLACIER, MOUNT HENRY, DAWSON PASS, AND GRANITE PARK.

P-81
PETERSON, MARIE P.

1977.
HOMESTEAD MEMORIES.
33 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). PERSONAL RECOLLECTIONS OF A PIONEER HOMESTEADER'S 42 YEARS IN THE NORTH FORK.

P-82
PETRIDES, GEORGE.

1948.
"FOUR SPECIES OF CHICKADEES IN GLACIER NATIONAL PARK."
THE AUK 65(OCTOBER 1948):606.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). SIGHT RECORDS FOR FOUR SPECIES OF CHICKADEES (PARUS ATRICAPILLUS, P. GAMBELI, P. HUDSONICUS, P. RUFESCENS) ARE PRESENTED. LOCATIONS OF THE SITINGS IN THE PARK AND HABITAT PREFERENCES OF THE DIFFERENT SPECIES ARE NOTED, ALONG WITH PREVIOUS RECORDED SITINGS OF CHICKADEE SPECIES.

P-83
PETRINI, STEPHEN T., ET. AL.

1971.
COMPREHENSIVE DEVELOPMENT PLAN.
KALISPELL, MT.: FLATHEAD-KALISPELL CITY-COUNTY PLANNING AREA. 87 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: TABLES AND MAPS OF DEMOGRAPHIC AND LAND USE DATA ARE INCLUDED.

(FLATHEAD COUNTY & KALISPELL). THE STUDY ESTABLISHES GENERAL GUIDELINES FOR DESIRABLE DEVELOPMENT. IT DESCRIBES THE

REGION'S PHYSICAL CHARACTERISTICS, SOIL, SLOPE, AND FLOODPLAIN. PAST AND FUTURE EMPLOYMENT, RETAIL TRADE, AGRICULTURE, POPULATION PROJECTION AND OTHER DEMOGRAPHIC DATA IS DISCUSSED. THE STUDY FOCUSES ON EXISTING LAND USES AND ON FORECASTING.

P-84
PETTICORD, DAVID V.
1975.

"IMPLEMENTATION AND EVALUATION OF THE NESA PROGRAM AT GLACIER NATIONAL PARK."

M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 59 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE NATIONAL ENVIRONMENTAL STUDY AREA (NESA) PROGRAM WAS INSTITUTED BY THE NATIONAL PARK SERVICE TO MAKE THE NATURAL AND CULTURAL RESOURCES OF THE NATIONAL PARK SYSTEM FORMALLY AVAILABLE TO THE NATION'S EDUCATIONAL COMMUNITY. THIS STUDY FOCUSES ON NESA IMPLEMENTATION ACTIVITIES BEGINNING IN FALL 1970 THROUGH 1974. QUESTIONNAIRES WERE DISTRIBUTED TO TEACHERS PARTICIPATING IN THE PILOT PROGRAM TO ESTABLISH THEIR OPINION OF THE PROGRAM.

P-85
PFISTER, ROBERT D.
1977.

ECOLOGICAL CLASSIFICATION OF FOREST LAND IN IDAHO AND MONTANA.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. 29 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE PURPOSES OF THIS PAPER ARE TO BRIEFLY REVIEW SOME OF THE DIFFERENT KINDS OF CLASSIFICATION THAT HAVE BEEN APPLIED TO FOREST LANDS IN IDAHO AND MONTANA, TO EVALUATE THEM AS ECOLOGICAL CLASSIFICATIONS, AND TO SUGGEST IMPROVEMENTS IN CLASSIFICATION AND MAPPING SYSTEMS. LAND CLASSIFICATION TERMINOLOGY IS CLARIFIED. A LISTING OF ALL CLASSIFICATION COMPLETED OR IN PROGRESS IS INCLUDED.

P-86

PFISTER, ROBERT D.
1977.

"ECOLOGICAL CLASSIFICATION OF FOREST LANDS IN IDAHO AND MONTANA."

PROC. 1977 ECOLOGICAL CLASSIFICATION OF FOREST LAND IN CANADA AND NORTHWESTERN U.S.A., PP. 329-358.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

AVAILABLE FROM: U.S. FOREST SERVICE.

(IDAHO & MONTANA). THE PAPER BRIEFLY REVIEWS SOME OF THE DIFFERENT KINDS OF CLASSIFICATIONS THAT HAVE BEEN APPLIED TO FOREST LANDS, EVALUATES THEM AS ECOLOGICAL CLASSIFICATIONS, AND SUGGESTS IMPROVEMENTS IN CLASSIFICATION AND MAPPING SYSTEMS. INCLUDED ARE: CLASSIFICATIONS BASED ON VEGETATION, SOILS, PHYSICAL FEATURES, REGIONALIZATION, AND SYSTEMS OF ECOLOGICAL CLASSIFICATION.

P-87

PFUHL, CHARLES.
1975.

REPORT OF THE SIXTH ANNUAL EAGLE SCOUT TRAIL BUILDING CAMP AT BOWMAN LAKE, GLACIER NATIONAL PARK, 1931.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT RECORDS THE TRAIL BUILDING ACTIVITIES OF EAGLE SCOUTS IN 1931, WHEN THE BOWMAN LAKE TRAIL WAS CONSTRUCTED. EXCERPTS FROM PERSONAL CORRESPONDENCE AS WELL AS PHOTOGRAPHS OF THE CAMPS AND WORK PROJECTS ARE INCLUDED.

P-88

PHILLEY, M. PETER, AND MCCOOL, S. F.
1978.

WILDHORSE ISLAND RECREATION STUDY.

MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, AND MONTANA COOP. RESEARCH UNIT. 83 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: APPENDIX INCLUDES QUESTIONNAIRE AND ITS RESULTS.

(FLATHEAD LAKE: WILDHORSE ISLAND). THE STUDY IDENTIFIES PUBLIC USE, PUBLIC AND OFFICIAL PREFERENCE FOR RECREATIONAL MANAGEMENT ALTERNATIVES, AND MAKES RECOMMENDATIONS REGARDING ALTERNATIVES. A PHYSICAL DESCRIPTION, HISTORICAL FOUNDATION, EXISTING MANAGEMENT, AND MANAGEMENT ISSUES ARE DISCUSSED.

P-89

PHILLIPS, PAUL C.
1974.

HISTORY OF THE CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD RESERVATION. IN INTERIOR SALISH AND EASTERN WASHINGTON INDIANS III.

NEW YORK: GARLAND PUBL., INC.

PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD AND KOOTENAI INDIANS & THE FLATHEAD INDIAN RESERVATION). THIS HISTORY OF THE SALISH AND KOOTENAI INDIANS WAS COMPILED FROM THE WRITINGS OF 19TH CENTURY FUR TRADERS SUCH AS DAVID THOMPSON AND EARLY MISSIONARIES SUCH AS FATHER PIERRE DE SMET. IT DESCRIBES THE TRIBES' RELATIONSHIP WITH WHITES, TRIBAL POPULATIONS, OCCUPATION AND THE USE OF LAND, WARS WITH THE BLACKFEET TRIBE, ETC.

P-90

PICTON, HAROLD D.

MIGRATION PATTERNS OF THE SUN RIVER ELK HERD, MONTANA.

J. WILDLIFE MANAGEMENT 24(JULY 1960):279-290.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SUN RIVER, SOUTH & MIDDLE FORKS OF THE FLATHEAD RIVER). TO AID IN THE MANAGEMENT OF THE SUN RIVER ELK HERD, A STUDY OF ITS MOVEMENTS AND RELATIONS TO VEGETATIVE TYPES WAS UNDERTAKEN. COLORED PLASTIC EAR MARKERS WERE USED TO TAG THE ELK AND VEGETATION DESCRIPTIONS WERE MADE FROM AERIAL AND GROUND OBSERVATIONS. ELK USE OF VEGETATION TYPES IS DESCRIBED AND MIGRATION PATTERNS ARE DOCUMENTED.

P-91

PICTORIAL FEATURES OF THE FLATHEAD COUNTRY.

1972.

KALISPELL, MT.: TRIPPETT'S PRINTING. 63 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THIS COLLECTION OF PHOTOGRAPHS INCLUDES SCENES DEPICTING THE PAST, SUCH AS THE PICTOGRAPHS NEAR KILA,

HOMESTEADS, AND WINDMILLS. THE PRESENT IS REPRESENTED BY PHOTOGRAPHS OF THE FLATHEAD RIVER, FLATHEAD LAKE, ASHLEY CREEK, ECHO LAKE, AND OTHER FEATURES. A PICTURE ESSAY ON WHAT THE FUTURE HOLDS FOR FARMING, RANCHING, AND INDUSTRY IS PRESENTED.

P-92

PIERCE, WILLIAM R.
1960.

DWARF MISTLETOE AND ITS EFFECT UPON THE LARCH AND DOUGLAS-FIR OF WESTERN MONTANA. MISSOULA, MT.: MONTANA STATE UNIV., SCHOOL FORESTRY. 38 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THE STUDY PRESENTED IN THIS PAPER MEASURED THE LOSSES CAUSED BY DWARF MISTLETOE IN INDIVIDUAL TREES. THOSE MEASUREMENTS CAN BE APPLIED TO ANY STAND CONTAINING INFECTED LARIX OCCIDENTALIS OR PSEUDOTSUGA MENZIESII IF THE INFECTED TREES ARE TALLIED DURING THE CRUISE ACCORDING TO THE INFECTION CATEGORIES DESCRIBED. RECOMMENDATIONS ARE GIVEN ON HOW MISTLETOE (ARCEUTHOBIVUM SPP) INFECTED STANDS SHOULD BE MANAGED. A BIBLIOGRAPHY AND PHOTOGRAPHS ARE INCLUDED.

P-93

PIERCE, WILLIAM R.
1965.

FARM WOODLOT MANAGEMENT IN MONTANA.

MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, MONTANA FOREST & CONSERVATION EXPR. STAT. BULL. NO. 28. 22 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE STUDY ATTEMPTS TO INTEREST OWNERS OF SMALL FORESTS IN DEVELOPING THEIR TIMBER AND RECOMMENDS FORESTRY PRACTICES TOWARDS THAT END. THE REHABILITATION OF EXISTING TIMBER STANDS AND THE PRACTICES OF THINNING, PRUNING, HARVEST CUTTING, REPRODUCTION, SLASH DISPOSAL, AND FIRE PROTECTION ARE DISCUSSED. APPENDICES OUTLINE THE TIMBER SPECIES AND THE HAZARD REDUCTION LAW.

P-94

PILLING, JAMES CONSTANTINE.
1893.

BIBLIOGRAPHY OF THE SALISHAN LANGUAGES.

WASHINGTON, D.C.: SMITHSONIAN INSTITUTION, BUREAU OF ETHNOLOGY. 86 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). IN THE COMPILATION OF THIS BIBLIOGRAPHY THE AIM HAS BEEN TO INCLUDE EVERYTHING PRINTED OR IN MANUSCRIPT RELATING TO THE SALISHAN LANGUAGE. THE PRIMARY ARRANGEMENT IS ALPHABETICAL BY AUTHORS, TRANSLATORS OF WORKS BEING TREATED AS AUTHORS. SHORT DESCRIPTIVE ANNOTATIONS ACCOMPANY MANY OF THE CITATIONS AND BIOGRAPHICAL DATA IS GIVEN FOR MANY OF THE AUTHORS.

P-95

PILSBAY, H. A.
1902.

"PYRAMIDULA ELRODI AND EPIPHRAGMOPHORA CIRCUMCARINATA."

THE NAUTILUS 10(MAY 1902):62-63.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTNS.). THE DISSIMILARITIES BETWEEN TWO HELICES (PYRAMIDULA ELRODI AND EPIPHRAGMOPHORA CIRCUMCARINATA) ARE ARGUED. DIFFERENCES BETWEEN THE SPECIES ARE LISTED. SIMILARITIES BETWEEN THE SPECIES ARE CONSIDERED SUPERFICIAL.

P-98

PLOPPER, CAROL E.
1968.

"INSULAR AND MAINLAND POPULATIONS OF PEROMYSCUS MANICULATUS AT FLATHEAD LAKE, MONTANA."

M.A. THESIS, UNIV. MONTANA, MISSOULA, MT. 91 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD & LAKE COUNTIES: FLATHEAD LAKE). THE MAIN OBJECTIVE OF THIS STUDY WAS TO OBTAIN QUANTITATIVE AND QUALITATIVE INFORMATION ON THREE POPULATIONS OF PEROMYSCUS MANICULATUS. THESE POPULATIONS WERE LOCATED IN THREE GEOGRAPHICALLY CLOSE AND ECOLOGICALLY SIMILAR AREAS SEPARATED BY WATER BARRIERS.

P-97

PLUNKETT, R. T.
1952.

EVALUATION OF STREAMFLOW RECORDS IN FLATHEAD RIVER BASIN, MONTANA.
WASHINGTON, D.C.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. CIRC. 182. 30 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THIS REPORT PRESENTS DATA WHICH ARE SUPPLEMENTARY TO THOSE OF THE SURFACE WATER INVESTIGATIONS MADE IN THE PAST BY THE GEOLOGICAL SURVEY. THE DATA PRESENTED WERE OBTAINED FROM A DETAILED FIELD INVESTIGATION OF THE VARIOUS MAN MADE DEVICES THAT ARE FACTORS INFLUENCING THE QUANTITY OR REGIMEN OF THE FLOW AT THE GAGING STATIONS. THESE FACTORS INCLUDE DIVERSIONS FROM THE STREAM, BYPASS CHANNELS, RETURN FLOW FROM IRRIGATION, AND STORAGE AND RELEASE OF FLOOD WATERS. WHERE FEASIBLE, THE LOCATION, SIZE EFFECT UPON STREAMFLOW AND PERIODS OF USE ARE GIVEN.

P-96

POINT, NICHOLAS, S. J.
1967.

"RELIGION AND SUPERSTITION: VIGNETTES OF A WILDERNESS MISSION." TRANS. BY JOSEPH P. DONNELLY, S.J.

THE AMERICAN WEST 4(NOVEMBER 1967):34-43;70-73.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, BASIN-WIDE.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE TEXT AND PAINTINGS INCLUDED IN THIS ARTICLE ARE FROM A BOOK, WILDERNESS KINGDOM - INDIAN LIFE IN THE ROCKY MOUNTAINS: 1840-1847, WHICH IS A TRANSLATION OF THE JOURNALS, ILLUSTRATED WITH OVER TWO HUNDRED PAINTINGS, OF FATHER NICHOLAS POINT, ONE OF THE FIRST JESUITS TO DO MISSIONARY WORK AMONG THE FLATHEAD, COEUR D'ALENE, AND BLACKFEET INDIANS.

P-99

POINT, NICHOLAS, S. J.
1967.

WILDERNESS KINGDOM, INDIAN LIFE IN THE ROCKY MOUNTAINS: 1840-1847. THE JOURNALS AND PAINTINGS OF NICHOLAS POINT, S. J. TRANSLATED AND INTRODUCED BY JOSEPH P. DONNELLY.
NEW YORK: HOLT, RINEHART, & WINSTON. 273 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHWESTERN U.S.). THESE JOURNAL WRITINGS AND PAINTINGS RECORD THE PRIESTS' EXPERIENCES AND OBSERVATIONS OF INDIAN LIFE AND CUSTOMS PRIOR TO 1850. PART OF THAT TIME WAS SPENT WITH THE FLATHEAD INDIANS.

P-100

POLK, R. BROOKS, AND BOE, KENNETH N.
1951.

"SUCCESSION OF TREES IN CUT-OVER LARCH/DOUGLAS-FIR STANDS IN WESTERN MONTANA."

PROC. MONTANA ACADEMY SCIENCES. TENTH ANNUAL MEETING, BUTTE, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THIS STUDY EXAMINED SUCCESSIONAL CHANGES ON CUT-OVER LARCH/DOUGLAS-FIR STANDS. NINETY-SEVEN SITES REPRESENTING VARIOUS INTENSITIES OF CUTTING AND SEVERAL HABITATS WERE SAMPLED. SPECIES OCCUPYING THE SITES AND THEIR DIAMETER AND HEIGHT WERE RECORDED. OTHER DATA ALLOWED THE RECONSTRUCTION OF THE ORIGINAL STANDS AT THE TIME OF LOGGING. THESE TWO STANDS WERE THEN COMPARED. ENVIRONMENTAL FACTORS THAT MAY HAVE INFLUENCED THE CHANGES ARE CONSIDERED.

P-101

POLZIN, PAUL E.
1972.

THE ECONOMIC IMPACT OF ALTERNATIVES. TIMBER MANAGEMENT PLANS; FLATHEAD NATIONAL FOREST.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, DIV. TIMBER MANAGEMENT. 10 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE PURPOSE OF THIS REPORT IS TO OUTLINE THE COMMERCIAL TIMBER OPERATIONS IN THE FLATHEAD NATIONAL FOREST, THE ECONOMIC ENVIRONMENT OF THE LOCAL AREA, AND ESTIMATES OF THE ECONOMIC IMPACT OF CHANGES IN THE TIMBER MANAGEMENT PLAN RELATING TO THE LEVEL OF HARVEST.

P-102

POLZIN, PAUL E., AND SCHWEITZER, D. L.
1975.

ECONOMIC IMPORTANCE OF TOURISM IN MONTANA.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH PAPER INT-171. 19 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE ECONOMIC IMPORTANCE OF TOURISM TO MONTANA DEPENDS NOT ONLY ON THE NUMBER OF TOURISTS AND THE NUMBER OF DOLLARS THEY SPEND, BUT ALSO UPON HOW THEY SPEND THEIR MONEY. THIS REPORT FIRST EXAMINES HOW NON-RESIDENT VISITORS DISTRIBUTE THEIR EXPENDITURES AMONG PURCHASES OF FOOD, LODGING, TRANSPORTATION, AND ALL OTHERS ITEMS. THESE FIGURES ARE THEN USED TO ESTIMATE THE PROPORTION OF TOURIST EXPENDITURES THAT ACCRUE TO MONTANANS AS DIRECT INCOME.

P-103

POND, DANIEL B., AND SPEER, C. A.
1979.

"SARCOCYSTIS IN FREE-RANGING HERBIVORES ON THE NATIONAL BISON RANGE."

J. WILDLIFE DISEASES 1(JANUARY 1979).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). HEART, ESOPHAGUS, DIAPHRAGM, AND SKELETAL MUSCLE TISSUE OBTAINED FROM VARIOUS HERBIVORES WAS EXAMINED GROSSLY FOR SARCOCYSTIS.

P-104

PONDER, THOMAS C., AND GERSTLE, RICHARD W.
1974.

PARTICULATE AND FLUORIDE EMISSIONS CONTROL, ANACONDA ALUMINUM COMPANY, COLUMBIA FALLS, MONTANA.

WASHINGTON, D.C.: U.S. ENVIRONMENTAL PROTECTION AGENCY, DIV. STATIONARY SOURCE ENFORCEMENT. 38 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THE REPORT ASSESSES THE FEASIBILITY OF REDUCING ATMOSPHERIC EMISSIONS OF FLUORIDES AND PARTICULATES FROM THE ANACONDA ALUMINUM PLANT. THE INSTALLATION OF EQUIPMENT TO REDUCE EMISSIONS IS DISCUSSED. THE PLANT AND ITS EMISSIONS, THE POSSIBLE TYPES OF CONTROL, THE DESIGN OF A SECONDARY CONTROL SYSTEM, ITS COST AND THE AMOUNT OF TIME NEEDED FOR INSTALLATION ARE DESCRIBED.

P-105

PORTERFIELD, RICHARD L.
1975.

A PROFILE OF FORESTRY EMPLOYMENT IN MONTANA.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH PAPER INT-172. 24 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, LINCOLN, MISSOULA & SANDERS COUNTIES). THE WOOD PRODUCTS INDUSTRY IS A MAJOR PART OF THE TOTAL MANUFACTURING INDUSTRY IN MONTANA. THIS REPORT COMPARES EMPLOYMENT IN MONTANA'S FOREST PRODUCT INDUSTRY TO OTHER INDUSTRIES IN THE STATE AND THE UNITED STATES FOREST PRODUCTS INDUSTRY. FOREST EMPLOYMENT REPRESENTS A SIGNIFICANT PORTION OF MANUFACTURING JOBS IN MONTANA AND THE WORK FORCE IS YOUNGER, LESS EDUCATED, AND LESS SKILLED THAN IN OTHER INDUSTRIES. EARNINGS ARE HIGHER THAN OTHER STATE INDUSTRIES AND THE U.S. AVERAGE; HOWEVER, FORESTRY EQUIPMENT IS HAZARDOUS. NEW CAPITAL EXPENDITURES BY MONTANA'S FOREST PRODUCTS INDUSTRY HAVE BEEN HIGH, YET VALUE ADDED PER EMPLOYEE IS LOW.

P-106

POST, HUBERT A.
1893.

"A MODEL INDIAN MISSION: ST. IGNATIUS' MISSION, FLATHEAD RESERVE, MONTANA, 1884-1893."
MESSENGER OF THE SACRED HEART 28(1893):712-725.

(ST. IGNATIUS MISSION). THIS ARTICLE IS MOSTLY A COLLECTION OF TESTIMONIALS OF THE SUCCESS OF THE ST. IGNATIUS MISSION AND ITS HISTORY. IT REFERS TO A NUMBER OF EARLIER HISTORICAL DOCUMENTS WHICH HAVE MADE FAVORABLE COMMENTS ABOUT THE MISSION. SKCC.

P-107

POST, HUBERT A.
1894.

"WORSHIP AMONG THE FLATHEADS AND KALISPELS."
MESSENGER OF THE SACRED HEART 29(1894):528-539.

(ST. IGNATIUS). THIS DESCRIPTION OF THE DEDICATION AND WORSHIP OF THE BALISH AT ST. IGNATIUS ALSO CONTAINS SOME QUOTES FROM SOME EARLIER DOCUMENTS OF THE DEDICATION OF THE BALISH. SKCC.

P-108

POST, HUBERT A.
1918.

"AMONG THE FLATHEAD."

THE INDIAN SENTINEL 2(JANUARY 1920):49-51.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: ST. IGNATIUS). THIS IS A MISSIONARY'S ACCOUNT OF CHIEF CHARLO'S ARRIVAL ON THE FLATHEAD INDIAN RESERVATION AND THE CONDITION OF THE CATHOLIC MISSION IN ST. IGNATIUS.

P-100
POST, HUBERT A.
1919.

THE LANGUAGE OF THE SALISH.
THE INDIAN SENTINEL 1(JULY 1918):16-17.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). A BRIEF ARTICLE
IN WHICH THE LORD'S PRAYER AND THE HAIL MARY
ARE TRANSLATED PHONETICALLY INTO THE
FLATHEAD LANGUAGE.

P-110
POSTON, RICHARD W.
1950.
*SMALL TOWN RENAISSANCE: A STORY OF THE MON-
TANA STUDY.*
NEW YORK: HARPER & BROTHERS. 231 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA: LONEPINE & DIXON). THIS BOOK
DESCRIBES AN EXPERIMENT TO IMPROVE THE SITU-
ATION OF THE STATE'S SMALL TOWNS. COMMUNITY
PROJECTS IN LONEPINE, DARBY, STEVENSVILLE,
CONRAD, LEWISTOWN, LIBBY, AND DIXON WERE
UNDERTAKEN. THE DISCUSSION OF DIXON IN-
CLUDES THE FOUNDING OF THE COMMUNITY, ITS
RELATIONSHIP TO THE FLATHEAD RESERVATION,
THE FORMATION OF THE DIXON STUDY GROUP, THE
PROBLEMS AFFECTING THE INDIAN COMMUNITY,
AND THE PREPARATION AND PRODUCTION OF THE
DRAMA, "A TALE OF SHINING MOUNTAINS."

P-111
POTTER, DAVID S.
1978.
*"THE ZOOPLANKTON OF FLATHEAD LAKE: AN
HISTORICAL REVIEW WITH SUGGESTIONS FOR CON-
TINUING LAKE RESOURCE MANAGEMENT."*
PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA.
371 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). FLATHEAD LAKE ROTIFERS AND
CRUSTACEANS WERE SAMPLED BY SEVERAL
METHODS IN THE EARLY 1970'S AND WERE ANALYZ-
ED QUANTITATIVELY IN ORDER TO DEFINE COMPOSI-
TION OF THE LIMNETIC PLANKTON COMMUNITY, TO
COMPARE THE MODERN ZOOPLANKTON COMMUNI-
TY WITH COMMUNITIES DESCRIBED AT INTERVALS
SINCE 1891, AND TO ANALYZE SUSPECTED CHANGES
IN ZOOPLANKTON COMMUNITY COMPOSITION WITH
RESPECT TO KNOWN AND SUSPECTED NATURAL
PHENOMENA AND CULTURAL PERTURBATIONS.

P-112
POTTER, DAVID S., AND STANDFORD, JACK A.
1975.
*"INFLUENCES ON THE PLANKTON COMMUNITIES OF
OLIGOTROPHIC FLATHEAD LAKE."*
VERH. INTERNAT. VEREIN. LIMNOL. 19(NOVEMBER
1975):1790-1797.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). CHEMICAL CHARACTERISTICS OF
THE LAKE ARE REVIEWED, AND THE EFFECTS OF
NUTRIENT LOADING AND SEDIMENTATION ARE
DESCRIBED.

P-113
POTTER, DAVID S., AND TIBBS, JOHN F.
1975.
*PLANKTON MICRO-FOSSILS AS INDICATORS OF
PALEOTROPHIC DYNAMISM IN FLATHEAD LAKE.*

BOZEMAN, MT.: MONTANA STATE UNIV., WATER
RESOURCES RESEARCH CENTER. REPT. NO. 54. 31
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE PRIMARY STUDY OBJECTIVES
WERE TO DETERMINE THE ROTIFER, COPEPOD, AND
CLADOCERAN FAUNA OF THE LAKE AND, TO
DESCRIBE THE DAILY AND TEMPORAL VARIATIONS
OF DENSITY AND SPATIAL DISTRIBUTION AS IN-
FLUENCED BY PHYSICAL, CHEMICAL, AND
BIOLOGICAL FEATURES OF THE LAKE. ANOTHER OB-
JECTIVE WAS THE RECOVERY OF RECORDS, NOTES,
AND COLLECTIONS OF PREVIOUS INVESTIGATIONS.
THIS WAS THE FIRST ATTEMPT TO RECOVER
DISCRETE SEDIMENT SAMPLES FROM FLATHEAD
LAKE. THESE CORES WERE ANALYZED FOR
GENERAL CORE STRUCTURE, CRUSTACEAN
MICROFOSSIL CONTENT, AND SOME CHEMICAL
PARAMETERS.

P-114
POTTER, DAVID S., AND TIBBS, JOHN F.
1976.
*"A BIBLIOGRAPHY OF GRADUATE THESES AND
DISSERTATIONS RESEARCHED AT OR NEAR THE
UNIVERSITY OF MONTANA BIOLOGICAL STATION."*
PROC. MONTANA ACADEMY SCIENCES 36:101-109.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE: YELLOW BAY BIOL. STAT.,
GLACIER NATL. PARK). THIS BIBLIOGRAPHY IN-
CLUDES GRADUATE THESES AND DISSERTATIONS
WHICH HAVE BEEN RESEARCHED WHOLLY OR IN
PART WITHIN THE FLATHEAD VALLEY. SOME CIT-
ATIONS FOR THESES CONDUCTED IN GLACIER NA-
TIONAL PARK, THE MISSIONS, THE JOCKO, CLEAR-
WATER, AND LITTLE BITTERROOT VALLEYS AND
CONTIGUOUS AREAS PROVIDE A FURTHER
REGIONAL PERSPECTIVE. THE LIST INCLUDES
STUDIES COMPLETED THROUGH 1974.

P-115
POTTER, LOUISE F., AND BAKER, GLADYS E.
1956.
*"THE MICROBIOLOGY OF FLATHEAD AND ROGERS
LAKES, MONTANA. I: PRELIMINARY SURVEY OF THE
MICROBIAL POPULATIONS."*
ECOLOGY 37(APRIL 1956):351-355.
PART OF A SERIES, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD & ROGERS LAKE). A PRELIMINARY
SURVEY OF THE MICROBIOLOGY OF TWO LAKES.
FLATHEAD LAKE BEING A LARGE OLIGOTROPHIC
LAKE AND ROGERS LAKE, A SMALL EUTROPHIC
LAKE, IS REPORTED. THAT VARIATION MAY RESULT
DUE TO THE AREA OF THE LAKE RATHER THAN THE
TYPE OF LAKE IS ONE EXPLANATION CONSIDERED.
DATA REGARDING HIGHER POPULATIONS LOCATED
AT INLET AREAS OF BOTH LAKES ARE CITED.

P-116
POTTER, LOUISE F., AND BAKER, GLADYS E.
1961.
*"THE MICROBIOLOGY OF FLATHEAD AND ROGERS
LAKES, MONTANA. II: VERTICAL DISTRIBUTION OF
THE MICROBIAL POPULATIONS AND CHEMICAL
ANALYSES OF THEIR ENVIRONMENTS."*
ECOLOGY 42(APRIL 1961):338-348.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL
DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & ROGERS LAKE). THIS PAPER
REPORTS ON THE VERTICAL DISTRIBUTION OF
MICROBIAL POPULATIONS AND CHEMICAL
ANALYSES OF LAKE WATERS FOR 4 LOCATIONS ON
FLATHEAD LAKE AND 3 LOCATIONS ON ROGERS
LAKE. THE TWO LAKES WERE THEN COMPARED. THE
PAPER ALSO REPORTS ON THE OCCURRENCE OF
HIGH COUNTS OF BACTERIA IN SURFACE AND/OR
BOTTOM WATERS; THE PRESENCE OF

CHROMOGENS, ALGAE, DOMINANT BACTERIAL
TYPES, AND A DIVERSITY OF FUNGUS SPECIES; AND
IDENTIFICATION, POPULATION COUNTS, AND
SPECIES ANALYSES OF FUNGI.

P-117
POTTER, LOUISE F., AND BAKER, GLADYS E.
1961.
*"THE ROLE OF FISH AS CONVEYORS OF
MICROORGANISMS IN AQUATIC ENVIRONMENTS."*
CANADIAN J. MICROBIOLOGY 7:595-606.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). MICROBIAL ANALYSIS OF 80 FISH
CAUGHT IN THREE AREAS OF THE LAKE WAS CON-
DUCTED TO SUBSTANTIATE THE THEORY THAT FISH
CARRY A SIGNIFICANT POPULATION OF BACTERIA
AND FUNGI ON THEIR BODY SURFACES AND IN
THEIR DIGESTIVE TRACTS. THE ROLE FISH PLAY IN
MICROBIAL DISTRIBUTION IS CONSIDERED.

P-118
POWELL, ACE.
1967.
*TALES OF GLACIER NATIONAL PARK. EDITED BY VAN
KIRKE NELSON.*
KALISPELL, MT.: THOMPSON PRINTING. 44 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS IS A COLLECTION OF
STORIES ABOUT GLACIER NATIONAL PARK WHEN IT
WAS IN ITS INFANCY. THE STORIES ARE IL-
LUSTRATED BY THE AUTHOR, A NOTED WESTERN AR-
TISTS AND SCULPTOR.

P-119
"THE POWER TRUST AND THE INDIANS."
THE NATION, APRIL 16, 1930, P. 440.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE
CALLS FOR MORE CAUTION AND MORE CAREFUL
STUDY BEFORE THE FLATHEAD POWER SITE IS
TURNED OVER TO THE MONTANA POWER COMPANY
MONOPOLY. SKCC.

P-120
PREECE, S. J.
1964.
IRIS PSEUDOCARUS IN MONTANA.
PROC. MONTANA ACADEMY SCIENCES 24:1-4.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(LAKE COUNTY: NINEPIPE NATL. WILDLIFE REFUGE).
SEVERAL FRUITING SPECIMENS OF PLANTS
THOUGHT TO BELONG TO THE GENUS *IRIS* WERE
COLLECTED IN THE MISSION VALLEY, ALONG THE
PERIMETERS OF THE NINEPIPE NATIONAL WATER-
FOWL REFUGE. THIS PAPER DISCUSSES PHYSICAL
CHARACTERISTICS OF THE PLANT AND EXPLORES
POSSIBLE METHODS OF INTRODUCTION.

P-121
PRESCOTT, GERALD W.
1955.
*"THE FRESH-WATER ALGAE OF MONTANA. I: NEW
SPECIES OF CHAETOPHORACEAE."*
HYDROBIOLOGIA 7:52-59.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). THE COLLECTION OF THREE NEW
MEMBERS OF THE CHAETOPHORACEAE IS
REPORTED. EACH SPECIES IS DESCRIBED: 1)
DRAPARMALDIOPSIS SALISH ENSIS SP. NOV.; 2) IN-
CLUDED IN THE DESCRIPTIONS ARE CELLULAR
CHARACTERISTICS, COLLECTION SITE LOCATION,
AND HABITAT.

P-122

PRESCOTT, GERALD W., AND DILLARD, G. E.
1979.

"A CHECKLIST OF ALGAL SPECIES REPORTED FROM MONTANA, 1891 TO 1977." MONTANA ACADEMY SCIENCES. SUPPLEMENT TO THE PROCEEDINGS. MONOGRAPH NO. 1, VOL. 38. 102 PP. FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, & SANDERS COUNTIES). THIS CHECKLIST INCLUDES ALL ALGAL TAXA REPORTED IN LITERATURE PRIOR TO 1977. IT ALSO INCLUDES NAMES OBTAINED FROM THESES AND DISSERTATIONS. NINE OF THE 32 MAJOR COLLECTING SITES LISTED OCCUR WITHIN THE FLATHEAD RIVER BASIN.

P-123

PRICE, GLADYS B.
1952.

TUNE ON AN ASPEN LEAF. NEW YORK: VANTAGE PRESS, INC. 114 PP. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION IN THE VICINITY OF PARADISE & HOG HEAVEN). THE BOOK IS AN ACCOUNT OF LIFE ON A CATTLE RANCH. IT DESCRIBES THE RANCH'S SETTING AND PRESENTS A PERSONAL HISTORY. LIFESTYLE, WORK, AND RECREATION, ARE THE BASIC THEMES.

P-124

PRICE, RAY F.

"AVALANCHE TRAGEDY."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 6 PP. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: GOING-TO-THE-SUN HIGHWAY). THE MANUSCRIPT IS AN ACCOUNT OF THE 1953 AVALANCHE ACCIDENT WHICH OCCURRED WHILE CREWS WERE INVOLVED IN A SNOW-CLEARING OPERATION. THE AUTHOR, A CREW MEMBER, DESCRIBES THE EQUIPMENT USED IN THE OPERATIONS, SLIDE CONDITIONS ON THE DAY OF THE ACCIDENT, HIS DISCOVERY OF THE AVALANCHE, THE SEARCH FOR THE MISSING MEN, AND FINDING THE DEAD AND THE SURVIVORS.

P-125

PRICE, RAYMOND ALEX.
1958.

"STRUCTURE AND STRATIGRAPHY OF THE FLATHEAD NORTH MAP-AREA (EAST HALF), BRITISH COLUMBIA AND ALBERTA." PH.D. DISSERTATION, PRINCETON UNIV., PRINCETON, N.J. 394 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BRITISH COLUMBIA: FLATHEAD VALLEY). THIS REPORT DEALS MAINLY WITH THE STRATIGRAPHY AND STRUCTURAL GEOLOGY OF 190 SQUARE MILES OF MOUNTAINOUS TERRAIN IN THE SOUTHERN ROCKY MOUNTAINS OF BRITISH COLUMBIA AND ALBERTA. ROCKS EXPOSED WITHIN THE AREA RANGE IN AGE FROM PRECAMBRIAN TO CENOZOIC. A DETAILED LITHOLOGICAL SUBDIVISION OF THE SEQUENCE OF ROCKS IS PRESENTED. THE UNITS ARE UTILIZED IN DESCRIBING THE COMPLEX STRATIGRAPHIC RELATIONSHIPS, AND THEIR CORRELATION IS DISCUSSED. THE MESOZOIC SEQUENCE IS DESCRIBED AND EVIDENCE INDICATING THE PRESENCE OF AN UNCONFORMITY WITHIN THE LEWIS THRUST SHEET, BETWEEN BLAIRMORE AND KOOTENAY STRATA, IS CONSIDERED. LOWER CRETACEOUS ALKALINE INTRUSIVE BODIES OCCURRING IN THE LEWIS THRUST SHEET ARE DESCRIBED AS ARE TERTIARY SEDIMENTS OCCURRING IN THE FLATHEAD VALLEY AND THEIR GENERAL RELATIONSHIPS TO CENOZOIC BLOCK-FAULTING.

P-126

PRICE, RAYMOND ALEX, AND KLUVVER, H. MARINUS.
1974.

"STRUCTURE OF THE ROCKY MOUNTAINS OF THE GLACIER-WATERTON LAKES NATIONAL PARK AREA." IN ROCK MECHANICS: THE AMERICAN NORTHWEST. EXPEDITION GUIDE, SPECIAL PUBLICATION. STATE UNIVERSITY, PA.: INTERNATL. SOCIETY FOR ROCK MECHANICS, 3RD CONGRESS, PENNSYLVANIA STATE UNIV., COLL. EARTH & MINERAL SCIENCES. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(GLACIER NATL. PARK). THE FOLDS AND FAULTS WHICH DEFINE THE FORELAND THRUST AND FOLD BELT OUTLINE A SERIES OF BROAD ARCuate, STRUCTURAL SALIENTS WHICH MEET IN A SERIES OF REENTRANTS. ONE OF THESE REENTRANTS IS THE LOCUS OF SOME IMPORTANT CHANGES IN THE CHARACTER OF THE NORTHEASTERLY TAPERING WEDGE OF SUPRA CRUSTAL ROCKS AND OF THE STRUCTURES THAT HAVE DEVELOPED WITHIN IT. THESE STRUCTURES AND THE NATURE AND SIGNIFICANCE OF THE CHANGES AFFECTING THEM ARE THE MAIN FOCUS OF THIS BRIEF PAPER.

P-127

"THE PROPOSED GLACIER NATIONAL PARK." 1910. THE OUTLOOK, APRIL 16, 1910, P. 826. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE AREA AND ITS POTENTIAL AS A NATIONAL PARK AND PLAYGROUND. THE MOUNTAINS, LAKES, AND GLACIERS AND THE AREA'S FISH AND WILDLIFE RESOURCES ARE DESCRIBED. SUCH SPORTS AS MOUNTAINEERING ARE ALSO DISCUSSED.

P-128

PURDY, LAURENCE H.; HOFFMANN, J. A.; MEINERS, J. P.; AND STEWART, V. R.
1963.

"TIME OF YEAR OF INFECTION OF WINTER WHEAT BY THE DWARF BUNT FUNGUS." PHYTOPATHOLOGY 53(DECEMBER 1963):1419-1421. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THE ARTICLE DISCUSSES THE INVESTIGATION OF THE TIME OF YEAR WHEN WINTER WHEAT BECOMES INFECTED BY DWARF BUNT. IT DESCRIBES THE BIOLOGY OF DWARF BUNT (TILLETIA CONTROVERSA) AND COMMON BUNT (T. CARIES AND T. FOETIDA). THE TIME PERIOD OF INFECTION OCCURRENCE WAS DETERMINED BY PERIODIC APPLICATIONS OF HEXACHLOROBENZENE TO THE SOIL SURFACE OF STUDY PLOTS AND BY PERIODICALLY REMOVING WHEAT PLANTS FROM INFESTED SOIL.

P-129

PURDY, MARY LOUISE.
1941.

"DESIGN IN MONTANA INDIAN ART." M.A. THESIS, COLORADO STATE COLL. EDUCATION, GREELEY.

THIS THESIS DISCUSSES THE RELATIONSHIP BETWEEN THE DESIGNS USED BY THE FLATHEADS AND OTHER TRIBES, ESPECIALLY THE BLACKFEET AND THE CROW. SKCC.

P-130

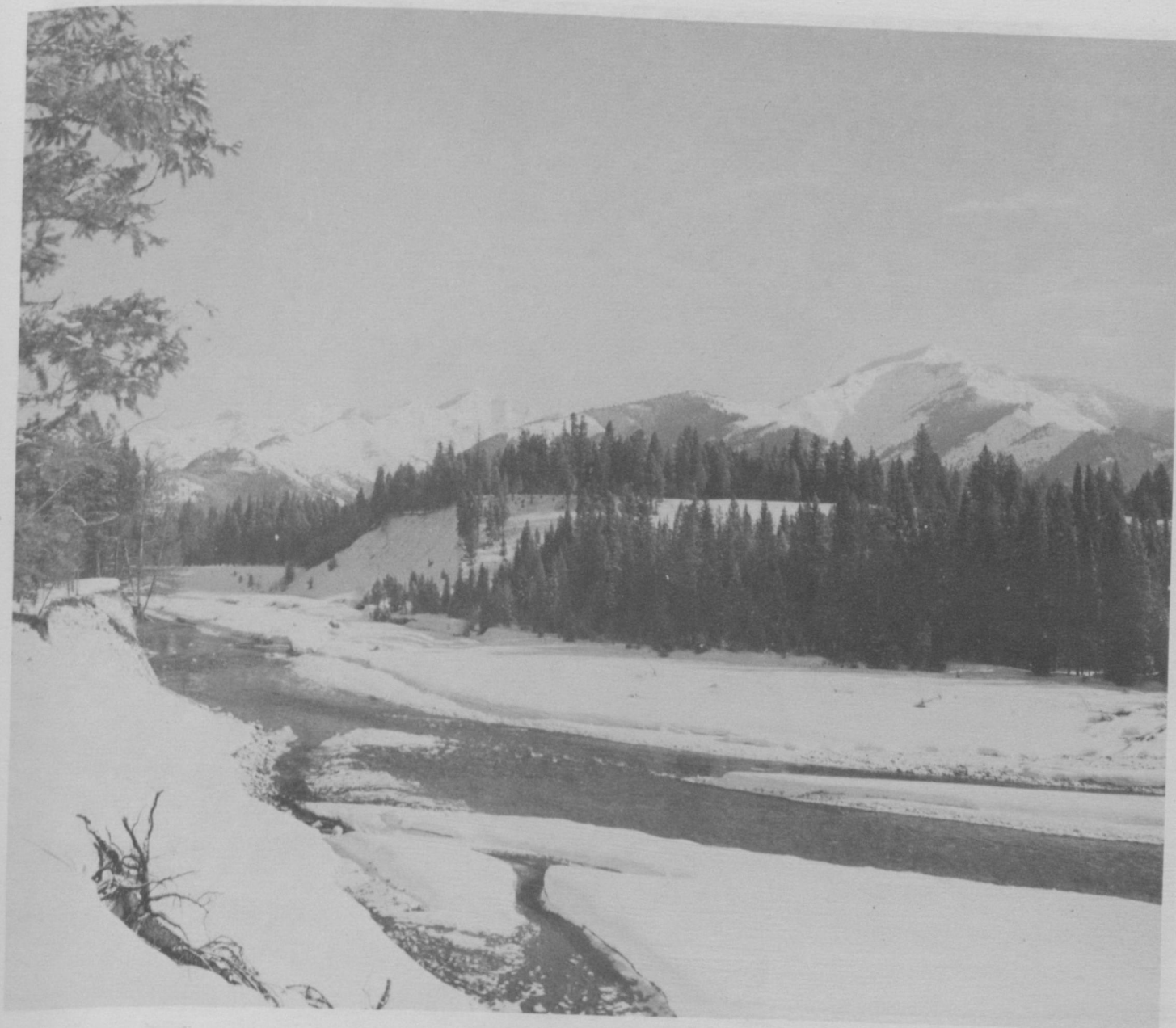
PROCEEDINGS OF THE WESTERN SNOW CONFERENCE, RENO, NEVADA, APRIL 15-17, 1948. SIXTEENTH ANNUAL MEETING. 1949.

FT. COLLINS, CO.: WESTERN SNOW CONFERENCE, AND RENO, NV.: NEVADA AGRIC. EXPER. STAT. 271 PP. PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, NATIONAL.

(WESTERN U.S.: MARIAS PASS). SEVERAL PAPERS PRESENTED AT THE CONFERENCE INCLUDED DATA OBTAINED AT THE UPPER COLUMBIA SNOW LAB LOCATED JUST WEST OF MARIAS PASS.







Q-1
QUAMAR, ANTHONY.
1975.

SEISMIC INVESTIGATION OF THE INTERMOUNTAIN SEISMIC BELT IN MONTANA.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. ANNUAL TECH. REPT. FOR CONTRACT NO. 14-08-001-14586. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD REGION). THE UNIVERSITY OF MONTANA BEGAN THE INSTALLATION OF AN EIGHT-STATION TELEMETERED SEISMOGRAPH ARRAY IN JULY 1974. THIS PAPER REPORTS ON THE ANALYSIS OF EARTHQUAKE DATA RECORDED ON THESE STATIONS FOR EVENTS THROUGH FEBRUARY, 1975. EPICENTER LOCATIONS ARE GIVEN, WHILE EARTHQUAKE DEPTHS ARE NOT. VARIOUS SEISMIC EVENTS ARE DISCUSSED.

Q-2
QUAMAR, ANTHONY.
1976.

"BOREHOLE TEMPERATURE PROFILE AT CAMAS HOT SPRINGS."

NORTHWEST GEOLOGY 5:11-22.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SANDERS COUNTY: CAMAS HOT SPRINGS). THIS TEMPERATURE PROFILE WAS TAKEN FOR THE PURPOSE OF EVALUATING THE GEOTHERMAL POTENTIAL OF THE AREA. AN INTERPRETATION OF THE PROFILE, GRAPHS OF TEMPERATURE GRADIENTS VS. DEPTH, AND CONCLUSIONS ARE INCLUDED.

Q-3
QUANDE, BRUCE H.
1971.

A MARKETING ANALYSIS OF THE GROWTH TRANSITION OF THE BIG MOUNTAIN.

M.S. THESIS, UNIV. MONTANA, MISSOULA, MT. 73 PP. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH: BIG MOUNTAIN SKI RESORT). THE PRIMARY PURPOSE OF THIS THESIS WAS TO PROVIDE INSIGHT ON GUESTS' OPINIONS OF PRESENT APRES-SKI ACTIVITIES OFFERED ON THE BIG MOUNTAIN.

THE SCOPE OF THE STUDY WAS TO SURVEY THE OPINIONS OF PREVIOUS GUESTS IN AN ATTEMPT TO DETERMINE WHAT STEPS MANAGEMENT SHOULD TAKE IN ADJUSTING ITS APRES-SKI ACTIVITIES IN LINE WITH THE CHARACTERISTICS OF THE GROWTH TRANSITION OF THE CLIENTELE.

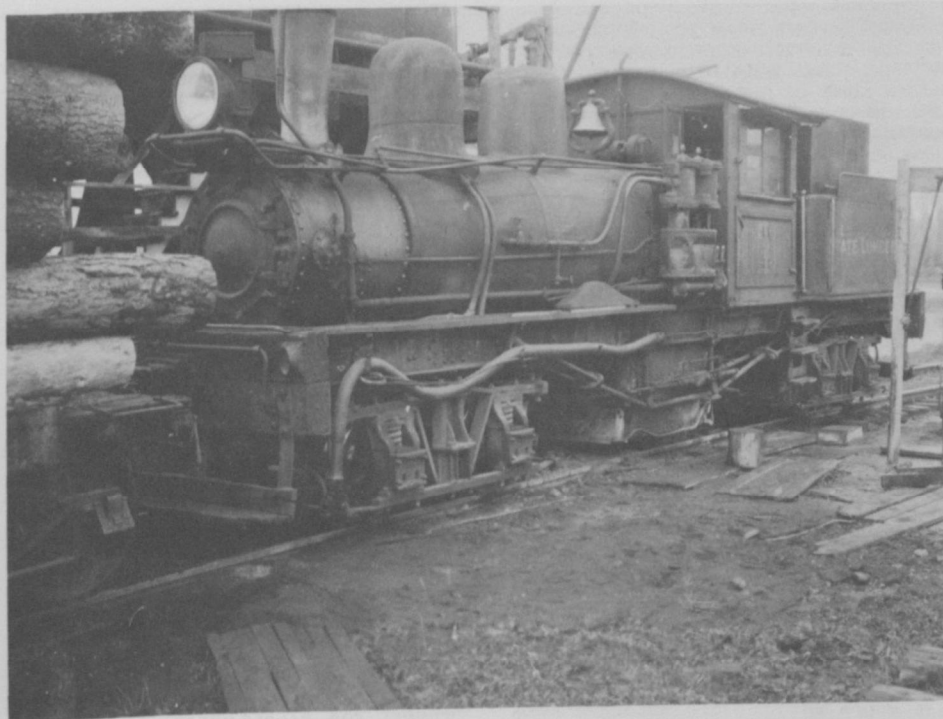
Q-4
QUICKENDEN, KENNETH L., AND JAMISON, V. C.
1979

MONTANA MOSQUITOES. PART I: IDENTIFICATION AND BIOLOGY.

HELENA, MT.: MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES, ENVIRONMENTAL SCIENCES DIV., FOOD & CONSUMER SAFETY BUREAU. VECTOR CONTROL BULL. NO. 1, 35 PP. FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA COUNTIES). THE REPORT IDENTIFIES MOSQUITO SPECIES, DEVELOPMENTAL STAGES AND PHYSICAL CHARACTERISTICS, AND PRESENTS LIMITED KEYS TO LARVAE AND ADULT FEMALES. NOTES OF THE INSECT'S DISTRIBUTION, BIONOMICS, AND IMPORTANCE ARE INCLUDED.





R-1
RACICOT, ROBERT H.
1953.
"THE USE AND EVALUATION OF AUDIO-VISUAL AIDS
WITHIN THE EDGERTON GRADE SCHOOL IN
KALISPELL, MONTANA."
M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 37
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(KALISPELL). THE VALUE OF AUDIO-VISUAL AIDS IN
SOCIAL STUDIES CLASSES OF THE EDGERTON
PUBLIC SCHOOL WAS MEASURED BY COMPARING
THE RESULTS OBTAINED WITH AN EXPERIMENTAL
GROUP WHICH USED VISUAL AIDS AGAINST THE
RESULTS OBTAINED WITH A CONTROL GROUP
WHICH USED ONLY A MINIMUM OF VISUAL AIDS. THE
PURPOSES OF THE STUDY WERE TO SHOW HOW THE
USES OF AUDIO-VISUAL AIDS MAY IMPROVE IN-
TEREST IN INSTRUCTION AND TO DEVELOP COM-
MUNITY UNDERSTANDING AND INTEREST AMONG
THE STUDENTS. METHODS INVOLVED THE PREPARA-
TION AND ADMINISTRATION OF A TEST, THE
GRADING OF TEST SCORES, AND TEST SCORE COM-
PARISONS. A QUESTIONNAIRE EVALUATING THE
AUDIO-VISUAL PROGRAM WAS GIVEN TO TEACHERS
AND STUDENTS.

R-2
RAHRER, JEROLD FRANCIS
1963.
"AGE AND GROWTH OF FOUR SPECIES OF FISH
FROM FLATHEAD LAKE, MONTANA."
M.S. THESIS, MONTANA STATE COLL., BOZEMAN. 16
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). AN AGE AND GROWTH STUDY
WAS CONDUCTED ON: DOLLY VARDEN (*SALVELINUS
MALMA*), YELLOW PERCH (*PERCA FLAVESCENS*),
PEAMOUTH (*MYLOCHEILUS CAURINUS*), AND NOR-
THERN SQUAWFISH (*PTYCHOCEILUS OREGONEN-
SIS*). COLLECTIONS WERE CONFINED TO THAT POR-
TION OF THE LAKE LYING NORTH OF A LINE FROM
WOODS BAY ON THE EAST SHORE TO ANGEL POINT
ON THE WEST SHORE. EQUIPMENT AND METHODS
ARE OUTLINED, AGE AND GROWTH DATA ARE SUM-
MARIZED.

R-3
RAHRER, JEROLD FRANCIS
1963.
"AGE AND GROWTH OF FOUR SPECIES OF FISH
FROM FLATHEAD LAKE, MONTANA."
PROC. MONTANA ACADEMY SCIENCES 23:144-156.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). AN AGE AND GROWTH STUDY
WAS CONDUCTED OF DOLLY VARDEN (*SALVELINUS
MALMA*), YELLOW PERCH (*PERCA FLAVESCENS*),
PEAMOUTH (*MYLOCHEILUS CAURINUS*), AND NOR-
THERN SQUAWFISH (*PTYCHOCEILUS OREGONEN-
SIS*). SIX COLLECTING SECTIONS WERE ESTABLISH-
ED AT THE NORTH END OF THE LAKE. FOR EACH
SPECIES THE PAPER SUMMARIZES THE NUMBER OF
SPECIMENS CAPTURED IN VARIOUS AGE CLASSES,
ANNUAL GROWTH INCREMENTS, AVERAGE GROWTH
RATES, MEAN CALCULATED TOTAL LENGTHS, AND
THE AGE OF THE OLDEST FISH AND ITS
MEASUREMENTS.

R-4
"RAILROAD ACROSS FLATHEAD RESERVATION IS
ASSURED."
1905.
THE WES. SKCC.

R-5
RAMIREZ, PEDRO, JR.
1977.
"SMALL MAMMAL POPULATIONS IN DIFFERENT AGED
CLEARCUTS AND UNCUT FORESTS IN NORTHWESTERN
MONTANA."
M.S. THESIS, UNIV. IDAHO, MOSCO. 73 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SULLIVAN & QUIN-
TUNKON CREEKS). THIS STUDY MAKES AN ESTIMA-
TION AND COMPARISON OF THE DIVERSITY AND
DENSITY OF SMALL MAMMALS IN VARIOUS SUCCESSIONAL
STAGES IN DIFFERENT-AGED CLEARCUTS, IN
PARTIAL CUTS, IN OPEN SUBALPINE BASINS, AND IN
UNCUT FORESTS. THE STUDY WAS DESIGNED TO
DESCRIBE THE VEGETATION AND COMPARE THE
SMALL MAMMAL POPULATIONS IN THE VARIOUS
TYPES.

R-6
RAMIREZ, PEDRO, JR., AND HORNOCKER, MAURICE
G.
1979.
"SMALL MAMMAL POPULATIONS IN DIFFERENT AGED
CLEARCUTS IN NORTHWESTERN MONTANA."
MOSCOW, ID.: IDAHO COOP. WILDLIFE RESEARCH
UNIT, UNIV. IDAHO. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SOUTH FORK OF THE
FLATHEAD RIVER & BOB MARSHALL WILDERNESS
AREA). TO BETTER UNDERSTAND THE EFFECTS OF
VEGETATIVE SUCCESSION ON WOLVERINE (*GULO
GULO*) POPULATIONS, AS WELL AS ON OTHER
PREDATORS, THIS STUDY EXAMINED THE IN-
FLUENCE OF CLEARCUTTING ON THEIR PREY: SMALL
MAMMALS. ESTIMATES AND COMPARISONS OF THE
DIVERSITY AND DENSITY OF SMALL MAMMALS WERE
MADE IN 5, 11, AND 15-YEAR OLD CLEARCUTS; IN
1-YEAR OLD PARTIAL CUTS; IN OPEN SUBALPINE
BASINS; AND IN UNCUT FORESTS.

R-7
RANFT, WILLIAM Q.
1905.
"FLATHEAD RESERVATION PRESENTS ANOTHER OP-
PORTUNITY."
THE WESTERN HOMESSEEKER, OCTOBER 1905, PP. 3-6.

(FLATHEAD INDIAN RESERVATION). THIS INTRODUCTORY
ARTICLE DESCRIBES CONDITIONS ON THE
RESERVATION JUST BEFORE IT WAS OPENED.

R-8
RANFT, WILLIAM Q.
1905.
"OLD TIME CHRISTMAS AS SPENT ON POST CREEK."
WESTERN HOMESSEEKER, CHRISTMAS 1905, PP. 6-7.

(FORT CONNAH). THIS ARTICLE CONTAINS STORIES
WHICH THE AUTHOR COLLECTED ABOUT FORT CON-
NAH AND CHRISTMAS CELEBRATIONS AT THE FORT.
SKCC.

R-9
RANFT, WILLIAM Q.
1905.
"TRIP THROUGH THE FAMOUS FLATHEAD RESERVA-
TION."
THE WESTERN HOMESSEEKER, NOVEMBER 1905, PP.
12-13, 16.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE
DESCRIBES THE ST. IGNATIUS MISSION COMMUNITY
AND VALLEY. SKCC.

R-10
RANFT, WILLIAM Q.
1906.
"GLADIATORIAL COMBAT ON SHORES OF FLATHEAD
LAKE: STORY OF THE OLDEN DAYS."
WESTERN HOMESSEEKER, APRIL-MAY 1906, PP. 1-5, 7.

(FLATHEAD LAKE). THIS ARTICLE RELATES THE
STORY OF INDIVIDUAL CONTESTS BETWEEN
KOOTENAI AND PEND D'OREILLE LEADERS TO SET-
TLE INTER-TRIBAL DISPUTES POSSIBLY BEFORE 1800.
SKCC.

R-11
RANFT, WILLIAM Q.
1906.
"ONE OF THE GARDEN SPOTS OF THE FLATHEAD."
THE WESTERN HOMESSEEKER, JANUARY 1906, PP.
11-15.

(MISSION VALLEY). THIS ARTICLE DESCRIBES THE
COUNTRY IN THE MISSION VALLEY AND THE FALL
AND SPRING ROUND-UP IN THE MISSION VALLEY.

R-12
RAUSCH, ROBERT L.
1963.

"GEOGRAPHIC VARIATION IN SIZE IN NORTH AMERICAN BROWN BEARS, *URSUS ARCTOS* L., AS INDICATED BY CONDYLOBASAL LENGTH." CANADIAN J. ZOOLOGY 41(JANUARY 1963):33-45. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN NORTH AMERICA). THE VARIATION IN THE SIZE OF BROWN BEARS AS INDICATED BY CONDYLOBASAL LENGTH OF THE SKULL WAS STUDIED IN 357 SPECIMENS, COMPRISING SERIES FROM 28 REGIONS, INCLUDING THE MONTANA-WYOMING REGION. WELL DEFINED GRADIENTS ALONG THE PACIFIC COASTAL ZONE, THE ARCTIC COAST, ETC. ARE DEMONSTRATED. FORMAL RECOGNITION OF SEGMENTS OF INTERGRADING POPULATIONS OF BROWN BEARS AT THE SUBSPECIFIC LEVEL IS CONSIDERED AS NOT JUSTIFIABLE.

R-13
RAY, VERNE F.
1937.

"THE BLUEJAY CHARACTER IN THE PLATEAU SPIRIT DANCE." AMERICAN ANTHROPOLOGIST 39(OCTOBER-DECEMBER 1937):593-601. FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(IDAHO & MONTANA: FLATHEAD INDIAN RESERVATION). THE ROLE OF THE GUARDIAN SPIRIT CONCEPT AND THE GUARDIAN SPIRIT DANCE IS DESCRIBED IN THIS ARTICLE, WHICH FOCUSES ON THE BLUEJAY AS A TUTELARY. THE OCCURRENCE OF THE BLUEJAY CHARACTER IN CEREMONIES OF THE FLATHEAD AND KALISPELL INDIANS IS TRACED, AND ITS CHARACTERISTICS AMONG THE VARIOUS TRIBES ARE COMPARED. THE FLATHEAD BLUEJAY CEREMONIAL DANCE IS DESCRIBED AS AN EXPRESSION OF THE INDIANS' HOPES AND PROBLEMS. IT INCLUDES A CURSOR ROLE, AND LASTS 4 DAYS.

R-14
RAY, VERNE F.
1939.

CULTURAL RELATIONS IN THE PLATEAU OF NORTHWESTERN AMERICA. VOL. 3. LOS ANGELES: FREDERICK HOBBS HODGE ANNIVERSARY FUND. 154 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PLATEAU OF NORTHWESTERN AMERICA: FLATHEAD RIVER BASIN). THIS BOOK ATTEMPTS TO DESCRIBE THE CONDITIONS UNDER WHICH THE CULTURAL DIVERSITY OF THE PLATEAU INDIANS DEVELOPED. SOCIAL CULTURE IS EXAMINED, INCLUDING POLITICAL ORGANIZATION, SOCIAL STRATIFICATION, WARFARE AND PACIFISM, PUBERTY OBSERVANCES AND DISPOSAL OF THE DEAD. THE RELIGIOUS LIFE SECTION COVERS THE GUARDIAN SPIRIT CONCEPT, CONCEPTS OF DISEASE, THE WINTER SPIRIT DANCE, AND THE RELATION OF THE SUN DANCE TO THE SPIRIT DANCE. FLATHEAD AND KOOTENAI CULTURES ARE DESCRIBED IN DETAIL.

R-15
RAYMOND, RICHARD G.
1953.

"CERTAIN AQUATIC BACTERIA ASSOCIATED WITH WESTERN MONTANA WATERS." M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 39 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). 184 BACTERIA CULTURES FROM A NUMBER OF SOURCES, INCLUDING FLATHEAD AND MCDONALD LAKES, THE HATCHERIES AT ARLEE, CRESTON, SOMERS, AND THE HARRIMAN-VAUGHN HATCHERY LOCATED AT POST CREEK, WERE ISOLATED. THE INVESTIGATION INVOLVED PRIMARI-

LY THE GRAM-NEGATIVE GROUP OF BACTERIA, ALTHOUGH SEVERAL GRAM POSITIVE CULTURES WERE ALSO ISOLATED. THE DETERMINATION OF THE BACTERIAL FORMS ISOLATED IN THIS STUDY INDICATES SOME OF THE TYPES OF BACTERIAL POPULATIONS EXISTING IN WATERS OF WESTERN MONTANA. CULTURES ISOLATED FROM FISH AND THOSE FOUND TO OCCUR IN THE WATER WERE INVESTIGATED TO ASCERTAIN A POSSIBLE RELATIONSHIP.

R-16
READ, DON
1970

"SUMMARY OF FISHERIES WORK DONE IN THE NORTH FORK FROM 1963-1970." HELENA, MT.: MONTANA FISH & GAME DEPT. 6 PP. FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THE PAPER PRESENTS INFORMATION ABOUT CREEL CENSUSES, TRAPPING, FISH SAMPLING, TAGGING AND RECAPTURE, AND SPAWNING HABIT STUDIES UNDERTAKEN FROM 1963-1970. STUDY PURPOSES AND RESULTS FISHERMEN CONTACTED, WEIR LOCATIONS, TRAPS SET, ELECTROFISHING, RECOVER OF TAGGED TROUT, FISH OBSERVATIONS, HABITAT SURVEYS, AND WATER QUALITY ARE OUTLINED.

R-17
READ, JOHN B., ED.
1904.
MONTANA: THE TREASURE STATE. ST. LOUIS, MO.: MONTANA'S WORLD'S FAIR COMMISSION. 84 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD COUNTY: KALISPELL). THIS PAMPHLET WAS DESIGNED TO DESCRIBE THE STATE'S RESOURCES AND ATTRACTIONS TO PROSPECTIVE SETTLERS. CHAPTERS COVER AGRICULTURE, LIVESTOCK, TIMBER, FLATHEAD COUNTY AND KALISPELL. PHOTOGRAPHS OF MAJOR BUILDINGS ARE INCLUDED.

R-18
REAM, ROBERT, AND MATTSO, URSULA.
1979.

WOLF ECOLOGY PROJECT ANNUAL REPORT: OCTOBER 1978-SEPTEMBER 1979. MISSOULA, MT.: UNIV. MONTANA, WILDERNESS INSTITUTE, AND MONTANA FOREST & CONSERVATION EXPER. STAT. 33 PP. PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN IDAHO, BRITISH COLUMBIA, & WESTERN MONTANA: NORTH FORK OF THE FLATHEAD RIVER, BOB MARSHALL WILDERNESS AREA, & GLACIER NATL. PARK). THIS PAPER SUMMARIZES 7.5 YEARS OF INFORMATION ON THE STATUS OF WOLVES IN THE NORTHERN ROCKIES. APPENDICES PRESENT A SYSTEM DEVELOPED FOR RATING WOLF REPORTS, DATA ON THE FEMALE WOLF CAPTURED AND TAGGED IN APRIL 1979, AND A LIST OF PROJECT REPORTS TO DATE. MAPS SHOWING THE LOCATION OF WOLF SIGHTINGS AND WOLF SIGN ARE INCLUDED.

R-19
REAM, ROBERT; MATTSO, URSULA; AND HARRIS, R.
1979.
WOLF ECOLOGY PROJECT REPORT: JANUARY 1977 - MARCH 1979. MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, WOLF ECOLOGY PROJECT. PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(EAST SLOPE OF CONTINENTAL DIVIDE FROM BADGER CREEK TO WATERTON PARK, CANADA). REPORTS OF WOLF SIGHTINGS AND SIGN ARE COL-

LETED BY 1) GROUND FIELD SURVEYS IN AREAS OF RECENT WOLF REPORTS FOR TRACKS, HOWLING, SCATS, OR OTHER EVIDENCE OF WOLVES; AND 2) INTERVIEWS OF LOCAL PEOPLE AND AGENCY PERSONNEL FOR RECENT AND HISTORICAL WOLF INFORMATION.

R-20
REAM, ROBERT; ROCKWELL, DAVID; AND FICHTLER, RICHARD.
1978.

"MISSION MOUNTAINS: PLANNING FOR A TRIBAL WILDERNESS." IN PROCEEDINGS OF RECREATIONAL IMPACTS ON WILDLANDS, OCTOBER 27-28. SEATTLE: U.S. DEPT AGRICULTURE, FOREST SERVICE. 17 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: MISSION MTN. TRIBAL WILDERNESS). THIS PAPER DETAILS METHOD USED TO FORMULATE A MANAGEMENT PLAN FOR THE PROPOSED TRIBAL WILDERNESS WHICH INCLUDED BOUNDARY DETERMINATIONS, POLICY GUIDELINES AND OBJECTIVES, RESOURCE ATTRIBUTES, AND BOTH LONG AND SHORT TERM RECOMMENDATIONS.

R-21
REED, GEORGE W.
1931.

"TUNNEL FOR SADDLE-HORSE USE ON NEW GLACIER PARK TRAIL." ENGINEERING NEWS-RECORD 93(5 NOVEMBER 1931):730. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE DISCUSSES A TUNNEL SHORTENING THE DISTANCE TO WATERTON LAKE FROM MANY GLACIER. IT DESCRIBES THE TUNNEL'S LOCATION, DIMENSIONS, CONSTRUCTION, ROCK, AND USE.

R-22
REED, T. E., AND MCMURTREY, R. G.
1967-1970.
WATER LEVELS AND ARTESIAN PRESSURES IN OBSERVATION WELLS IN MONTANA. BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY, MONTANA COLL. MINERAL SCIENCE & TECH. BULL. 57, 65, 71, & 78. PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THESE REPORTS CONTAIN WATER-LEVEL RECORDS FOR PERMANENT OBSERVATION WELLS AND ARE PART OF A CONTINUING PROGRAM OF SYSTEMATIC COLLECTION OF WATER-LEVEL RECORDS IN SELECTED WELLS IN VARIOUS AQUIFERS. THE FOLLOWING DATA IS GIVEN FOR EACH WELL: LOCATION, OWNER'S NAME, TYPE OF WELL, GEOLOGIC SETTING, DIAMETER, DEPTH, WATER LEVELS, AVAILABILITY OF RECORDS, AND DATES OF RECORDS.

R-23
REEDER, EDGAR H., ET AL.
1982.
MONTANA COUNTIES MANPOWER GUIDEBOOK. HELENA, MT.: UNEMPLOYMENT COMPENSATION COMMISSION OF MONTANA, RESEARCH AND STATISTICS SECTION. 115 PP. FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, LINCOLN, MISSOULA LEWIS & CLARK, & POWELL COUNTIES). THE PUBLICATION CONSISTS OF COUNTY CENSUS DATA FOR 1940, 1950, AND 1980 RELATING TO: POPULATION, LABOR FORCE, UNEMPLOYMENT, AND EMPLOYMENT. INFORMATION APPEARS IN TABULAR FORM, BAR CHARTS, AND BRIEF COUNTY NAR-

RATIVES. ITEMIZED 1950 AND 1960 DATA FOR WOMEN IS CARRIED IN THE COUNTY TABLES.

R-24

REESIDE, JOHN B.

1967.

"PALEOECOLOGY OF THE CRETACEOUS SEAS OF WESTERN INTERIOR OF THE UNITED STATES." GEOLOGICAL SOCIETY AMERICA. MEMOIR 67, PP. 506-542.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(WESTERN INTERIOR UNITED STATES). CRETACEOUS ROCK DEPOSITS AND THEIR GEOGRAPHIC DISTRIBUTION AND GENERAL CHARACTERISTICS ARE DISCUSSED. THE FLUCTUATING SEA ENVIRONMENT IN WHICH THE DEPOSITS WERE LAID IS DESCRIBED, AND THE PRESENCE OF PRESERVED FAUNA, DOMINANTLY MOLLUSCAN, IS DISCUSSED. OBSERVABLE ECOLOGICAL DATA SUCH AS THE CHARACTER OF THE FAUNA AND THE KINDS OF SEDIMENT ARE DISCUSSED FOR 17 EPOCHS CHOSEN FROM A STANDARD TIME SCALE. INCLUDED IN THE DISCUSSIONS OF THE EPOCHS IS INFORMATION ON SEA EXPANSION OR RETREAT, DEPOSITION OF VOLCANIC MATERIAL, OCCURRENCE OF COSMOPOLITAN AND/OR ENDEMIC FAUNA, DEPOSITION OF BARREN AND/OR CALCAREOUS MUDS, DEPOSITION OF SANDS, AND PREVALENCE OF NON-MARINE CONDITIONS AFTER THE SEA'S FINAL WITHDRAWAL.

R-25

REGAN, CLARE W.

1939.

"FLOWERS OF THE AMERICAN ALPS."

COUNTRYLIFE AND THE SPORTSMAN, JUNE 1939, P. 71.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE DESCRIBES A HORSEBACK TRIP TAKEN THROUGH GLACIER NATIONAL PARK AND THE FLORA ENCOUNTERED.

R-26

A REGIONAL ANALYSIS AND FISCAL IMPACTS OF THE ALUMINUM INDUSTRY IN THE PACIFIC NORTHWEST.

1974.

ARTHUR D. LITTLE, INC. 154 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS STUDY EXAMINES THE ECONOMIC IMPACTS OF THE INDUSTRY, ITS POWER REQUIREMENTS IN RELATION TO PRESENT POWER AVAILABILITY, CURRENT AND LONG RANGE PROGRAMS FOR POLLUTION ABATEMENT, AND THE INDUSTRY'S PROBABLE FUTURE ECONOMIC ROLE IN THE REGION.

R-27

REGIONAL PLANNING ASSOCIATION OF WESTERN MONTANA.

1973.

REGIONAL PLANNING ASSOCIATION OF WESTERN MONTANA: PHASE 2 REPORT.

MISSOULA, MT. 96 PP.

PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THE ASSOCIATION'S OBJECTIVES WERE TO DEVELOP A RESOURCE INVENTORY FOR WESTERN MONTANA FOLLOWING DELINEATION OF WATERSHEDS AND CORRIDORS, TO ASSIST COUNTIES WITH THE ORGANIZATION OF PLANNING BOARDS, AND SUBSEQUENTLY TO ASSIST THOSE BOARDS WITH THEIR PLANNING ACTIVITIES. TO MEET THOSE OBJECTIVES THIS REPORT CON-

TAINS AN EXPLANATION AND INTERPRETATION OF THE NEEDLE SORT SYSTEM AND COUNTY MAP OVERLAYS.

R-28

REGIONAL PLANNING ASSOCIATION OF WESTERN MONTANA.

1974.

LOCAL GOVERNMENT IN WESTERN MONTANA. THE PEOPLE AND THE COST.

MISSOULA, MT. 58 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD, LAKE, LINCOLN, MISSOULA, MINERAL, & SANDERS COUNTIES). THIS BOOKLET EXAMINES THE POSSIBILITY OF INTER-LOCAL GOVERNMENT COOPERATION OPPORTUNITIES. CENSUS GRAPHS AND COUNTY GOVERNMENT COSTS FOR ALL COUNTIES INVOLVED ARE INCLUDED.

R-29

REGIONAL PLANNING ASSOCIATION OF WESTERN MONTANA.

1977.

PROCESS PLANNING IN RURAL REGIONS. A BACKGROUND TO THE GRANT PROPOSAL.

MISSOULA, MT. 20 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THIS REPORT DESCRIBES A GRANT PROPOSAL TO DEVELOP A PLANNING PROJECT WHICH WOULD BOTH SERVE THE NEEDS OF WESTERN MONTANA AND BE A DEMONSTRATION OF HOW TO ADAPT URBAN ORIENTED PLANNING TECHNIQUES TO THE RURAL REALITY AND REMAIN WITHIN RURAL ABILITIES TO AFFORD THEM. ENVIRONMENTAL AWARENESS CENTERS ARE SUGGESTED, WITH PLANNING DONE BY INTER-DISCIPLINARY TEAMS.

R-30

REMFELDT, GERALD E.

1978.

"GENETIC DIFFERENTIATION OF DOUGLAS-FIR POPULATIONS FROM THE NORTHERN ROCKY MOUNTAINS."

ECOLOGY 59:1264-1270.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WASHINGTON, IDAHO, & MONTANA). THIS STUDY OF DOUGLAS-FIR WAS ESTABLISHED TO DETERMINE WHETHER GENETIC DIFFERENTIATION OF POPULATIONS WAS RELATED TO THE RECURRING ENVIRONMENTS ASSOCIATED WITH HABITAT TYPES AND TO PROVIDE A GENERAL ASSESSMENT OF THE GENETIC STRUCTURE OF POPULATIONS. GROWTH POTENTIAL, PHENOLOGY, AND COLD HARDINESS WERE COMPARED IN PROGENIES OF 5 TREES FROM EACH OF 18 DOUGLAS-FIR POPULATIONS. FIVE-YEAR-OLD SEEDLINGS GROWING IN TWO NURSERY ENVIRONMENTS ALLOWED ASSESSMENT OF POPULATION DIFFERENTIATION ACCORDING TO 6 VARIABLES RELATED TO GROWTH AND PHENOLOGY.

R-31

REICHEL, JAMES D.

1978.

"COYOTE-PREY RELATIONSHIPS ON THE NATIONAL BISON RANGE."

M.S. THESIS. UNIV. OF MONTANA, MISSOULA. 94 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). COYOTE (CANIS LATRANS) DIETS WERE DETERMINED IN THIS STUDY, UTILIZING SCAT ANALYSES. THE MOST IMPORTANT ANNUAL AND SEASONAL FOOD SOURCES WERE IN-

VESTIGATED. A COYOTE POPULATION WAS MONITORED WITH THE USE OF SCENT STATION LINES, RUN MONTHLY DURING SUMMER AND FALL. ALSO STUDIED WERE HABITAT SELECTION, THE CORRELATION OF COYOTE DENS AND PRONGHORN (ANTILOPCA AMERICANA) FAWN MORTALITY, AND THE AVAILABILITY OF DEER (ODOCOILEUS SPP.), PRONGHORNS, AND BIGHORN SHEEP (OVIS CANADENSIS) AS FOOD SOURCES VERSUS BISON (BISON BISON) AND ELK (CERVUS ELAPHUS) AVAILABILITY.

R-32

REILLY, LOUIS W.

1927.

"FATHER RAVALLI, PIONEER INDIAN MISSIONARY." CATHOLIC WORLD 125:67-78.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS ACCOUNT OF THE MISSIONARY WORK OF REV. ANTHONY RAVALLI, S.J., DESCRIBES THE RECRUITMENT OF THE PRIEST BY FATHER DESMET, AND FATHER RAVALLI'S LIFE AT THE FIRST MISSION OF ST. MARY'S IN THE BITTERROOT. HIS ACCOMPLISHMENTS IN THE AREAS OF AGRICULTURE, MEDICINE, THE ESTABLISHMENT OF A SMALL WATER POWER GRISTMILL, CARPENTRY, AND BLACKSMITHING ARE DISCUSSED. THE ST. MARY'S MISSION CLOSED IN 1850 AND THE ARTICLE GOES ON TO DESCRIBE HIS WORK AT OTHER MISSIONS INCLUDING ST. IGNATIUS. IT ALSO DISCUSSED THE REOPENING OF THE ST. MARY'S MISSION IN 1866 BY THE PRIEST, HIS ILLNESS, HIS TESTIMONY THAT CHIEF CHARLOT DID NOT SIGN THE GARFIELD TREATY OF 1872, AND HIS DEATH.

R-33

REINER, RALPH E.

1969.

INTRODUCING THE FLOWERING BEAUTY OF GLACIER NATIONAL PARK AND THE MAJESTIC HIGH ROCKIES.

GLACIER PARK, INC.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ROCKY MTNS.: GLACIER NATL. PARK). THIS IS A GUIDE TO THE WILDFLOWERS OF THE PARK. IT CONTAINS 246 COLOR PHOTOGRAPHS AND A KEY IN WHICH BOTH COMMON AND SCIENTIFIC NAMES ARE LISTED.

R-34

REINITZ, GARY L.

1974.

"INTROGRESSIVE HYBRIDIZATION AND VARIATION IN SALMO CLARKI AND S. GAIRDNERI IN MONTANA."

M.A. THESIS. UNIV. OF MONTANA, MISSOULA. 82 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA & YELLOWSTONE NATL. PARK). INTRASPECIFIC AND INTERSPECIFIC VARIATION WAS INVESTIGATED IN THE WESTSLOPE AND YELLOWSTONE CUTTHROAT TROUT (SALMO CLARKI) AND THE RAINBOW TROUT (S. GAIRDNERI). THE EXTENT OF INTROGRESSIVE HYBRIDIZATION BETWEEN THESE SPECIES WAS ALSO EXAMINED. 547 TROUT WERE COLLECTED FROM POPULATIONS AT 25 DIFFERENT LOCATIONS. INFORMATION PERTAINING TO THE FOLLOWING WAS OBTAINED: VARIATION IN SPOTTING PATTERN, COLORATION AND SPOT SIZE OF WESTSLOPE CUTTHROAT; STARCHGEL ELECTROPHORESIS RESULTS CONCERNING SERUM PROTEINS, ESTERASES, LACTATE DEHYDROGENASES AND HEMOBLOGINS; OVERALL PHENOTYPES; VISUAL, BIOCHEMICAL AND GENETIC SIMILARITY. THE STOCKING OF EXOTIC TROUT SPECIES IS CONSIDERED THE GREATEST THREAT THE NATIVE POPULATIONS OF WESTSLOPE CUTTHROAT TROUT.

R-35
RENNE, ROLAND R., AND HELBURN, N.
1941.

AREA ANALYSIS: KALISPELL-FLATHEAD SUBREGION,
MONTANA (PRELIMINARY STATEMENT).
PORTLAND, ORE.: NATL. RESOURCES PLANNING
BOARD, REGION 9. PACIFIC NORTHWEST REGIONAL
PLANNING COMMISSION, AND HELENA, MT.: MON-
TANA STATE PLANNING BOARD. 57 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, EXISTING
DATA, BASIN-WIDE.

(FLATHEAD BASIN: FLATHEAD, LAKE, LINCOLN, &
SANDERS COUNTIES, & KALISPELL). THE REPORT
ASSESSES BASIC NATURAL RESOURCES AND PAT-
TERNS FOR: POPULATION, EMPLOYMENT, LOCAL
GOVERNMENT FINANCING, TRANSPORTATION, AND
SUCH INDUSTRIES AS AGRICULTURE, TIMBER, MIN-
ING, AND MANUFACTURING. TAX DELINQUENCY,
PUBLIC ASSISTANCE, UNEMPLOYMENT, AND LAND
USE PROBLEMS ARE CONSIDERED; RECOMMENDA-
TIONS TO MEET THESE ECONOMIC DIFFICULTIES
ARE VENTURED.

R-36
RENNE, ROLAND R., AND PAULSON, MARTIN L.
1978.

MONTANA NONRESIDENT MOTOR VEHICLE TRAVEL
SURVEY, SUMMER, 1978.
BOZEMAN, MT.: MONTANA STATE UNIV. INTERNATL.
TRADE PROGRAMS. STAFF PAPER NO. 76-29. 47 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA). THIS PAPER REPORTS ON THE RESULTS
OF A SURVEY OF NON-RESIDENT MOTOR VEHICLE
TRAFFIC TO MONTANA DURING JUNE, JULY, AND
AUGUST OF 1978. DATA OBTAINED IN THE SURVEY IN-
CLUDED: NUMBER OF OUT-OF-STATE HIGHWAY
TRAVEL PARTIES; TOTAL NUMBER OF OUT-OF-STATE
VISITORS; MONEY SPENT (FOR FOOD, GASOLINE,
AND LODGING); LENGTH OF STAY; POPULAR TYPE OF
ACCOMMODATIONS; ATTRACTIONS; ACTIVITIES PAR-
TICIPATED IN; AND ORIGIN OF VISITORS.

R-37
REYNOLDS, ALAN J.
1974.

"SUBDIVISION IN THE FLATHEAD"
M.S. THESIS, UNIV. OF MONTANA, MISSOULA. 123 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD & LAKE COUNTIES). MANY FACETS OF
SUBDIVISION ARE CONSIDERED IN THIS GENERAL
THESIS, WHICH INCLUDES SEVEN CASE STUDIES
AND A SET OF RECOMMENDATIONS. THE
BACKGROUND INFORMATION PROVIDED INCLUDES
A BRIEF HISTORY OF FLATHEAD AREA DEVELOP-
MENT; DESCRIPTIONS OF THE AREA'S PHYSICAL EN-
VIRONMENT, POPULATION, ECONOMY, LAND
OWNERSHIP AND POLICIES; AND A DISCUSSION OF
THE SUBDIVISION REVIEW PROCESS, THE AREAWIDE
PLANNING ORGANIZATION, AND POLICIES OF
FLATHEAD COUNTY PLANNING BOARDS. INCLUDED
IN THE CASE STUDIES ARE CAN MONT, WESTERN
VIEW, DEER MEADOWS, SWAN MEADOWS,
SOUTHGATE VILLAGE, MANY LAKES, AND PTAR-
MIGAN.

R-38
REYNOLDS, ALBERT, AND REYNOLDS DEXTER B.
1905 AND 1912-1913.
DAILY SERVICE REPORTS.
WEST GLACIER, MONTANA
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE ORIGINAL REPORTS
RECORD THE DAILY ACTIVITIES OF TWO RANGERS IN
THE GLACIER NATIONAL PARK AREA. WEATHER
CONDITIONS AND ENCOUNTERS WITH WILDLIFE ARE
NOTED.

R-39
REZAK, RICHARD
1953.

"ALGAL ZONES IN THE BELT SERIES IN THE GLACIER
NATIONAL PARK REGION, MONTANA." PAPER
PRESENTED AT MAY MEETING IN BUTTE, MONTANA.
GEOLOGICAL SOCIETY AMERICA BULL. 64:1553.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OCCURRENCE OF
FOSSIL ALGAE IN THE BELT SERIES IS BRIEFLY
DISCUSSED IN THIS ONE-PARAGRAPH ABSTRACT.
THE FOSSILS ARE DESCRIBED AS SIMILAR IN FORM
TO ALGAL COLONIES GROWING TODAY ALONG THE
GREAT BAHAMAS BANK AND PLEISTOCENE COL-
ONIES THAT GREW ALONG THE SHORES OF LAKE
LAHONTAN. THE LACK OF MICROSTRUCTURE OF THE
BELT ALGAE IS NOTED; SEVEN ALGAL ZONES HAVE
BEEN RECOGNIZED: 1) THE COLLENTIA COLUMNARIS
ZONE IN THE ALTYN LIMESTONE, 2) THE C. SYM-
METRICA #1, 3) C. FREQUENS #1, AND 4) THE C.
WILLISII ZONES IN THE SIYEH LIMESTONE; 5) C. UN-
DOSA, 6) C. SYMMETRICA #2, AND 7) C. FREQUENS #2
ZONES IN THE MISSOULA GROUP. THE ZONES,
CHARACTERIZED BY ONE OR TWO DISTINCTIVE
SPECIES, SERVE AS GOOD HORIZON MARKERS FOR
LOCAL CORRELATION.

R-40
REZAK, RICHARD.
1957.

"STROMATOLITES OF THE BELT SERIES IN GLACIER
NATIONAL PARK."
PH.D. DISSERTATION, SYRACUSE UNIV., SYRACUSE,
N.Y. 84 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PRIMARY PURPOSE OF
THIS STUDY WAS TO DETERMINE IF STROMATOLITES
COULD BE USED AS STRATIGRAPHIC MARKERS. THIS
INVESTIGATION INCLUDES CLASSIFICATION OF
STROMATOLITES, A KEY TO THE IDENTIFICATION OF
STROMATOLITES IN THE BELT SERIES, DESCIP-
TIONS OF GENERA AND SPECIES, STRATIGRAPHY OF
THE RAVALLI, PIEGAN AND MISSOULA GROUPS, AND
ECOLOGY. PHOTOGRAPHS ARE INCLUDED.

R-41
REZAK, RICHARD.
1957.

STROMATOLITES OF THE BELT SERIES IN GLACIER
NATIONAL PARK AND VICINITY, MONTANA.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROFES-
SIONAL PAPER 284-D. 28 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). EIGHT ZONES OF PRECAM-
BRIAN STROMATOLITES ARE RECOGNIZED IN THE
BELT SERIES OF GLACIER NATIONAL PARK. THIS
REPORT CLASSIFIES THESE ZONES BASED UPON:
MODE OF GROWTH, GROSS FORM OF THE COLONY,
AND NATURE AND ORIENTATION OF THE LAMINAE.

R-42
RICE, DUDLEY D.
1977.

PETROLEUM EVALUATION OF THE BOB MARSHALL
WILDERNESS AND ADJACENT STUDY AREAS, LEWIS
AND CLARK, TETON, PONDERA, FLATHEAD, LAKE,
MISSOULA, AND POWELL COUNTIES.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. OPEN-
FILE REPT. NO. 77-542. 39 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD, LAKE, MISSOULA, LEWIS & CLARK, &
POWELL COUNTIES). THE PETROLEUM POTENTIAL
WAS ASSESSED BY SURFACE MAPPING BECAUSE
ALL OF THE PROSPECTIVE RESERVOIR AND SOURCE
ROCKS WHICH ARE PROBABLY PRESENT IN THE SUB-
SURFACE ARE EXPOSED. THE AREA IS GEOLOGICAL-

LY DIVIDED INTO TWO PARTS. THE EASTERN PART IS
IN THE NORTHERN DISTURBED BELT OF MONTANA,
WHICH IS CHARACTERIZED BY NUMEROUS CLOSELY-
SPACED THRUST FAULTS AND FOLDS INVOLVING
PALEOZOIC AND MESOZOIC ROCKS. THE CENTRAL
AND WESTERN SECTION, WEST OF THE CONTINEN-
TAL DIVIDE, CONTAINS MOSTLY PRECAMBRIAN BELT
ROCKS IN THRUST PLATES WITH NORMAL FAULTS.

R-43
RICE, DUDLEY D., AND COBBAN, W. A.
1977.

"CRETACEOUS STRATIGRAPHY OF THE GLACIER NA-
TIONAL PARK AREA, NORTHWESTERN MONTANA."
BULL. CANADIAN PETROLEUM GEOLOGY 25:329-347.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: GLACIER NATL. PARK).
A SEQUENCE OF CRETACEOUS FORMATIONS CROPS
OUT IN THE EASTERN AND SOUTHEASTERN PARTS
OF THE PARK. THE FORMATIONS EXAMINED IN THIS
REPORT ARE: THE KOOTENAI, BLACKLEAF, MARIAS
RIVER SHALE, TELEGRAPH CREEK, VIRGELLE SAND-
STONE, TWO MEDICINE, BEARPAW SHALE,
HORSETHIEF SANDSTONE, ST. MARY, AND WILLOW
CREEK. A DESCRIPTION OF THE PHYSICAL
FEATURES AND THICKNESSES OF ASSOCIATED
MEMBERS IS INCLUDED.

R-44
RICHARD, JIM EARL.
1966.

"A STUDY OF THE BIG GAME ANIMALS OF THE
FLATHEAD INDIAN RESERVATION, MONTANA."
M.S. THESIS, UNIV. OF MONTANA, MISSOULA. 93 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS STUDY WAS
DESIGNED TO PROVIDE INFORMATION ON BIG GAME
DISTRIBUTION, RANGE CONDITION, AND FORAGE TO
DETERMINE WHAT EFFECTS THE YEAR-LONG HUN-
TING HAS ON THE BIG GAME POPULATION. A
HISTORY AND DESCRIPTION OF THE RESERVATION
IS INCLUDED.

R-45
RICHARD, JIM EARL; GRANZOW, STEVE R.; AND
SEAROSLEE, MARK.
1977.

LAND DIVISION IN MONTANA: THE SUBDIVISION AND
PLATTING ACT IN PRACTICE.
HELENA, MT.: MONTANA DEPT. COMMUNITY AF-
FAIRS. 23 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: LEWIS & CLARK & FLATHEAD COUNTIES).
THIS REPORT PROVIDES INFORMATION ON THE EF-
FECTIVENESS OF THE SUBDIVISION AND PLATTING
ACT RELATIVE TO REGULATION AND PUBLIC REVIEW.
AN INVENTORY OF LAND RECORDS FILED SINCE THE
ENACTMENT OF THE ACT WAS CONDUCTED IN NINE
COUNTIES TO DETERMINE THE EXTENT AND
CHARACTER OF LAND DIVISION AND TO IDENTIFY
ANY PROBLEMS WITH THE PRESENT LAW. SEVERAL
RECOMMENDATIONS ARE MADE TO STRENGTHEN
THE LAW.

R-46
RICHARDS, RONALD P., AND PRICE, H. M.
1975.

MONTANA'S LOCAL PLANNING LEGISLATION.
HELENA, MT. 58 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA). THE PUBLICATION INCLUDES REPRINTS
OF SECTIONS FROM: THE CITY AND COUNTY PLANN-
ING ENABLING ACT, MONTANA SUBDIVISION AND
PLATTING ACT AND COUNTY ZONING BY PETITION.
UNOFFICIAL COPIES OF THE SECTIONS CONCERN

ING CITY AND COUNTY PLANNING BOARDS, BUILDING REGULATIONS, THE ZONING COMMISSION, ZONING DISTRICTS, AND COUNTY PLANNING ARE INCLUDED.

R-47
RICHMOND, GERALD M.
1965.

"GLACIATION OF THE ROCKY MOUNTAINS." IN THE QUARTERNARY OF THE UNITED STATES: A REVIEW VOLUME FOR THE VII CONGRESS OF THE INTERNATIONAL ASSOCIATION FOR QUARTERNARY RESEARCH, PP. 217-230.
PRINCETON, N. J.: PRINCETON UNIV. PRESS.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(ROCKY MTNS.). THE ARTICLE DESCRIBES THE COMPLEXITIES OF THE MOUNTAIN RANGE, NOTING THAT IN WESTERN MONTANA, INDIVIDUAL RANGES ARE NARROW, 7-9,000 FEET IN ALTITUDE, AND SEPARATED BY BROAD VALLEYS. CORRELATIONS OF GLACIAL DEPOSITS SUCH AS THOSE IN GLACIER NATIONAL PARK ARE PRESENTED.

R-48
RICHMOND, GERALD M.; FRYXELL, RONALD; NEFF, GEORGE E.; AND WEIS, PAUL L.
1965.

"THE CORDILLERAN ICE SHEETS OF THE NORTHERN ROCKY MOUNTAINS AND RELATED QUATERNARY HISTORY OF THE COLUMBIA PLATEAU." IN THE QUATERNARY OF THE UNITED STATES: A REVIEW VOLUME FOR THE VII CONGRESS OF THE INTERNATIONAL ASSOCIATION FOR QUATERNARY RESEARCH, PP. 231-254.
PRINCETON, N.J.: PRINCETON UNIV. PRESS.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(NORTHERN ROCKY MTNS. & THE COLUMBIA PLATEAU). THE ARTICLE DISCUSSES THE NATURE AND EXTENT, NOMENCLATURE AND ITS CORRELATION, AND LOBES OF THE CORDILLERAN ICE SHEET. IT DESCRIBES THE ROCKY MOUNTAINS OF WESTERN MONTANA AS CONSISTING OF NORTHWEST-TRENDING RANGES AND VALLEYS CONTROLLED BY FAULTS AND UNDERLAIN BY PRECAMBRIAN SEDIMENTARY ROCKS OF THE BELT SERIES. THE FLATHEAD LAKE, ITS THREE GLACIATIONS, AND ITS CORRELATION TO GLACIAL LAKE MISSOULA ARE TOPICS CONSIDERED.

R-49
RICKER, MAURICE
1903.

PLANKTON STUDIES AND THEIR UTILITY.
BIOLOGICAL SERIES, NO. 5
MISSOULA, MT.: UNIV. MONTANA. BULL NO. 16.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(UNIV. MONTANA BIOL. STAT.). THE REASONS FOR THE IMMEDIATE STUDY OF MICROSCOPIC LIFE OF FLATHEAD-AREA WATERS WERE: 1) TO GAIN KNOWLEDGE OF THE PLACE AND IMPORTANCE IN NATURE OF THESE PLANTS AND ANIMALS, 2) TO SHOW THEIR ECONOMIC IMPORTANCE AS FOOD FOR HIGHER FORMS AND THEIR WORK AS SCAVENGERS, AND 3) TO STUDY CONDITIONS WHERE LIFE IS IN ITS NATURAL BALANCE, BEFORE MAN CAN ALTER IT. COLLECTION WORK AT THE STATION IS BRIEFLY SUMMARIZED.

R-50
RIDENOUR, JIM.
1961.

POEMS OF GLACIER PARK, THE LEGEND OF THE HUNGRY HORSE AND OTHER VERSES.
BY THE AUTHOR. 70 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE BOOK OF POETRY DESCRIBES THE SETTING OF THE AUTHOR'S HOMESTEAD LOCATED IN THE VICINITY OF GLACIER PARK.

R-51
RIDEOUT, CHESTER B.
1969.

"MOVEMENTS AND BEHAVIOR OF THE ROCKY MOUNTAIN GOAT IN GLACIER NATIONAL PARK."
29 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK.

(GLACIER NATL. PARK). THIS PAPER REPORTS ON A STUDY OF THE MOVEMENTS AND BEHAVIOR OF OREAMNOS AMERICANUS. COMPOSITION OF THE GUNSIGHT PASS HERD, VOCALIZATION, THE USE OF SALT LICKS, DUST BATHS, SHEDDING, THE BEHAVIOR OF KIDS AND OF FEMALES TO KIDS, AGGRESSIVE BEHAVIOR, AND DAILY MOVEMENTS ARE EXAMINED. THE EFFECT OF HUMAN PRESENCE ON GOAT MOVEMENT, BEHAVIOR, AND MIGRATION ARE DISCUSSED.

R-52
RIDEOUT, CHESTER B.
1974.

"GOATS OF GUNSIGHT PASS."
NATIONAL PARKS & CONSERVATION MAGAZINE 48:18-21.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ARTICLE REPORTS ON A STUDY OF THE BEHAVIOR OF MOUNTAIN GOATS CENTERED AROUND GUNSIGHT PASS IN GLACIER NATIONAL PARK. PHOTOGRAPHS ACCOMPANY THE ARTICLE.

R-53
RIDEOUT, CHESTER B.
1974.
"A RADIO TELEMETRY STUDY OF THE ECOLOGY AND BEHAVIOR OF THE ROCKY MOUNTAIN GOAT IN WESTERN MONTANA."
PH.D. DISSERTATION, UNIV. KANSAS. 146 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SAPPHIRE MTNS. & GLACIER NATL. PARK: GUNSIGHT PASS). THIS STUDY OF MOUNTAIN GOAT ECOLOGY AND BEHAVIOR WAS INITIATED TO DETERMINE HOME RANGES, DAILY ACTIVITY PATTERNS, HABITAT USE, POPULATION SIZE AND COMPOSITION, AND REACTIONS TO LOGGING. DATA WERE COMPILED FROM FOUR SUMMERS OF OBSERVATIONS IN THE TWO FIELD AREAS.

R-54
RIEGELHUTH, RICHARD.
1966.
"GRIZZLY BEARS AND HUMAN VISITATION."
M.S. THESIS, COLORADO STATE UNIV., FORT COLLINS. 80 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(WESTERN NORTH AMERICAN NATL. PARKS & WILDERNESS AREAS). THE STUDY INVESTIGATES RELATIONSHIPS BETWEEN URSUS ARCTOS HORRIBILIS AND HUMAN VISITATION IN WILDLANDS. DATA REPRESENTS QUESTIONNAIRE RESPONSES RECEIVED FROM 18 PARKS, WILDERNESS AREAS, AND WILDLAND DESIGNATIONS. THE EFFECT ON A GRIZZLY POPULATION OF HIGH NUMBERS OF NON-HUNTING RECREATIONISTS, THE SAFETY OF THE RECREATIONISTS USING GRIZZLY RANGE, THE TYPE OF WILDLAND MANAGEMENT NECESSARY TO PERPETUATE THE GRIZZLY, AND THE DIMENSIONS OF A MANAGEMENT UNIT ARE TOPICS CONSIDERED.

R-55
RIEKE CARROLL MULLER, INC.
1973.
PRELIMINARY REPORT ON THE MUNICIPAL WATER SUPPLY FACILITIES FOR COLUMBIA FALLS, MONTANA.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT. 61 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THIS REPORT WAS PRIMARILY CONCERNED WITH THE WATER SUPPLY PROBLEMS IN COLUMBIA FALLS AND THEIR ECONOMIC SOLUTIONS. PRESENT CONDITIONS WERE REVIEWED, THE PROBLEM DEFINED, AND ALTERNATIVE SOLUTIONS EXAMINED. A FINANCIAL REVIEW AND COST ESTIMATES WERE PRESENTED AS A BASIS FOR THE RECOMMENDATIONS.

R-56
RIGGS, ROBERT A.
1978.
"GRIZZLY BEAR HABITAT USE. 1977 PROJECT SUMMARY AND 1978 PROPOSAL GLACIER NATIONAL PARK."
WEST GLACIER, MT. (MIMEO). 23 PP.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PURPOSE OF THIS DOCUMENT IS TO SUMMARIZE THE PROGRESS MADE IN THE ORIGINAL STUDY PLAN AND TO SUGGEST WAYS TO INCREASE THE PRODUCTIVITY OF THE STUDY. ADDITIONAL STUDIES ARE PROPOSED IN AN EFFORT TO MAKE GLACIER NATIONAL PARK'S GRIZZLY BEAR RESEARCH EFFORT MORE RESPONSIVE TO THE UNIQUE PROBLEMS OF MANAGING GRIZZLY BEARS IN THE PARK. THE FUNDING PROPOSALS DESCRIBED ARE FOR THE FIRST YEAR OF A COMPREHENSIVE RESEARCH EFFORT IN THE NORTH FORK DRAINAGE.

R-57
RIGGS, VIC, AND SKATES, R.
1978.
ACID SPILL WITHIN FLATHEAD INDIAN RESERVATION, SEPTEMBER 20, 1978.
KALISPELL, MT.: U.S. FISH & WILDLIFE SERVICE, KALISPELL FIELD STATION. 11 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: ARLEE & FINLEY CREEK). THIS REPORT EXAMINES THE EFFECTS OF CONCENTRATED SULFURIC ACID BEING SPILLED INTO FINLY CREEK OUTSIDE OF ARLEE AFTER A BURLINGTON NORTHERN TRAIN DERAILMENT. WATER, FISH, AND INVERTEBRATE SAMPLES WERE COLLECTED; THAT DATA IS RECORDED WITHIN THE REPORT. THE NUMBER AND SPECIES OF FISH KILLED, AND THE LENGTH AND WIDTH OF FISH COLLECTED DURING SAMPLING ARE INCLUDED.

R-58
RINEHART, MARY R.
1916.
THROUGH GLACIER NATIONAL PARK WITH HOWARD EATON: PART I.
COLLIER'S, APRIL 22, 1916, PP. 11-13; 34-36.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES A TRIP THROUGH THE PARK ON HORSEBACK. FISHING, CAMPING, TRAIL SIGHTS, FELLOW TRAVELERS AND THEIR GUIDE ARE DISCUSSED. THE GOVERNMENT ADMINISTRATION OF THE PARK IS NOTED.

R-59
RINEHART, MARY R.
1916.
THROUGH GLACIER PARK: SEEING AMERICA FIRST WITH HOWARD EATON.
NEW YORK: HOUGHTON MIFFLIN CO. 92 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE BOOK DESCRIBES TRAVELING ACROSS THE ROCKY MOUNTAINS ON HORSEBACK. DEPICTS RECREATION ACTIVITIES AND SCENERY.

R-60
RINEHART, MARY R.
1916.

"TENTING TONIGHT: A CHRONICLE OF SPORT AND ADVENTURE IN GLACIER PARK AND THE CASCADE MOUNTAINS.
BOSTON AND NEW YORK: HOUGHTON MIFFLIN CO. 188 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN GLACIER PARK & KALISPELL). THIS NARRATIVE OF A FAMILY'S TRIP BY HORSEBACK AND BOAT BEGINS AT LAKE MCDONALD AND DESCRIBES BOWMAN AND KINTLA LAKES, THE NORTH FORK RIVER AND VALLEY, THE MIDDLE FORK AND ITS CANYON. THE RUNNING OF THE NORTH FORK FROM THE CANADIAN BORDER TO COLUMBIA FALLS AND A ROUND-UP AT KALISPELL IS DESCRIBED.

R-61
RINEHART, MARY R., AND YARD, R. S.
THE CALL OF THE MOUNTAINS: VACATIONS IN GLACIER NATIONAL PARK.
GREAT NORTHERN RAILROAD. 32 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PUBLICATION DESCRIBES THE SCENERY AND SUCH PLACES AS MANY GLACIER, TWO MEDICINE, ST. MARY'S LAKE, THE GARDEN WALL, LAKE MACDONALD, AND KINTLA LAKE. SIGHTSEEING ALTERNATIVES (HORSEBACK, HIKING) AND ACCOMODATIONS ARE DISCUSSED.

R-62
RINGSTAD, NORMAN R., AND DEMARCHI, RAYMOND A.
1976.
"NORTH FORK OF THE FLATHEAD: A CANADIAN VIEW."
WESTERN WILDLANDS 20(SPRING 1976):12.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THE HISTORY OF HUMAN ACTIVITY—FORESTRY, AGRICULTURAL, WILDLIFE AND FISHERIES, COAL DEVELOPMENT, AND INTEGRATED RESOURCE MANAGEMENT IN THE FLATHEAD VALLEY ARE EXAMINED.

R-63
ROATH, C. W.
1959.
"FERTILIZERS CAN IMPROVE BOTH QUALITY AND YIELD OF FORAGES."
MONTANA FARMER STOCKMAN, 15 JANUARY 1959, P. 1.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: CRESTON). THIS SHORT ARTICLE CONSIDERS THE RELATIONSHIP OF FORAGE QUALITY TO SOIL FERTILITY. SPECIFIC QUALITY FACTORS ARE DISCUSSED AND A YIELD-QUALITY RELATIONSHIP IS NOTED.

R-64
ROATH, C. W.
1968.
"ALTERNATE CROPS FOR ALFALFA."
NOW (SPRING 1968):1.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: CRESTON). THE ARTICLE DISCUSSES FORAGE ALTERNATIVES TO ALFALFA. IRRIGATION AND SOIL REQUIREMENTS, YIELDS, HARVEST TIMES, NUTRIENT LEVELS, AND THE SUITABILITY FOR CATTLE ARE THE ADVANTAGES OR DISADVANTAGES DISCUSSED.

R-65
ROATH, C. W.
1968.
"WANT POTATOES OF PARTICULAR SIZE? HERE'S HOW."
MONTANA FARMER-STOCKMAN, 1 FEBRUARY 1968, P. 1
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: CRESTON). THE ARTICLE REPORTS ON PROCEDURES STUDIED TO DEVELOP PRODUCTION OF THE CORRECT NUMBER OF TUBERS AT THE DESIRED SIZE TO NET THE GREATEST PRACTICAL YIELD. LAND SELECTION, FERTILIZER APPLICATION, SEED PIECE SIZE, HILL SPACING, AND VARIETAL CHARACTERISTICS ARE THE TOPICS DISCUSSED.

R-66
ROATH, C. W.
1970.
"EVALUATE FORAGES."
NOW (SPRING 1970):1.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MONTANA: CRESTON). THE ARTICLE REPORTS ON FORAGE EVALUATION STUDIES. THE FEEDING VALUE OF SAINFOIN IS TESTED; FORAGE SELECTION BY SHEEP IS NOTED.

R-67
ROBINSON, DONALD H.
1940.
MOOSE STUDY - NORTH FORK RANGER STATION.
WINTER - 1939-1940.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATL. PARK SERVICE, GLACIER NATL. PARK. 10 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PRINCIPAL OBJECTIVES OF THIS REPORT WERE: TO COMPILE DATA ON THE LIFE HISTORY, TO DETERMINE THE DEPTH AND CONDITION OF SNOW RESPONSIBLE FOR GAME MOVEMENTS, TO ASCERTAIN MORE DEFINITELY THE AMOUNT AND SPECIES OF FORAGE PREFERRED DURING THE WINTER MONTHS, TO SECURE COUNTS ON HERDS USING DIFFERENT WINTER CONCENTRATION AREAS, AND TO DETERMINE THE AREA OF RANGE AVAILABLE AND RANGE UTILIZED DURING THE MOST SEVERE PART OF THE WINTER.

R-68
ROBINSON, DONALD H.
1940-1941.
"MOOSE STUDY: LAKE MCDONALD DISTRICT AND NORTH FORK AREA."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 8 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER & LAKE MCDONALD). THESE REPORTS, COMPILED FROM STUDIES CARRIED OUT IN 1940 AND 1941, REPORT ON MOOSE OBSERVATIONS IN THE NORTH FORK AND LAKE MCDONALD AREAS. TOPICS COVERED INCLUDE: HABITAT, DISTRIBUTION AND NUMBER, HABITS AND BEHAVIOR, REPRODUCTION FOOD HABITS, RELATION TO MAN, AND CONCLUSIONS.

R-69
ROBINSON, DONALD H.
1950.
"MOUNTAIN CLIMBING IN GLACIER NATIONAL PARK."
(TYPEWRITTEN). 5 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE FOLLOWING MOUNTAINS ARE DESCRIBED IN THE HISTORICAL CONTEXT OF EARLY CLIMBS: MT. ST. NICHOLAS, MT. WILBUR, CHIEF MOUNTAIN, MT. CLEVELAND, GOING-TO-THE-SUN MOUNTAIN, MT. ROCKWELL, CITADEL MOUNTAIN, FUSILADE MOUNTAIN, HEAVENS PEAK, AND KINNERLY PEAK. BRIEF BIOGRAPHICAL SKETCHES OF EARLY PARK CLIMBERS PETER HAUSER, G. M. KILBOURN, LEOPOLD SEETHALER, AND NORMAN CLYDE ARE INCLUDED.

R-70
ROBINSON, DONALD H.
1951.
"TENTATIVE CHECKLIST OF MAMMALS OF GLACIER NATIONAL PARK."
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. 9 PP.
DRAFT, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS CHECKLIST LISTS MAMMALS BY COMMON NAME. IT INCLUDES BRIEF DESCRIPTIONS WHICH NOTE HABITAT AND SIGHTINGS. A TABLE REPORTING POPULATIONS FOR VARIOUS SPECIES FOR THE 1949 TO 1950 PERIOD IS INCLUDED.

R-71
ROBINSON, DONALD H.
1960.
"PLACE NAMES IN GLACIER NATIONAL PARK: IN THROUGH THE YEARS IN GLACIER NATIONAL PARK: AN ADMINISTRATIVE HISTORY. EDITED BY C. B. BOWE JR.
WEST GLACIER, MT.: GLACIER NATURAL HISTORY ASSOC. 20 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE BOOK PRESENTS A HISTORY OF THE ORIGIN OF PLACE NAMES. MOST NAMING IS DERIVED FROM HISTORIC PERSONS OR EVENTS AND OCCURRED FROM 1890-1910. IT INCLUDES AN ALPHABETICAL LISTING OF THE NAMES AND EXPLANATIONS.

R-72
ROBINSON, DONALD H.
"MOVE TOWARD PARKHOOD." IN SEE IT NOW: HISTORIC MONTANA. EDITED BY HARRY B. ROBINSON. HERITAGE SERIES, NO. 9.
HELENA, MT.: HISTORICAL SOCIETY OF MONTANA PRESS.
PART OF A SERIES, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: REVISED FROM GLORIOUS GLACIER.

(GLACIER NATL. PARK). THIS ARTICLE IS CONCERNED WITH THE PERIOD FROM 1850 TO 1900: THE PERIOD OF EXPLORATION THAT RESULTED IN THE CREATION OF THE PARK. THE PURCHASING OF THE PARK AREA IN 1896 FROM THE BLACKFEET, ITS OPENING FOR MINING AND PROSPECTING, THE CALL FOR THE CREATION OF A PARK IN THE AREA BY GRINNELL AND OTHERS, AND THE FEDERAL AND STATE LEGISLATION INVOLVED TOPICS INCLUDED IN THE DISCUSSION.

R-73
ROBINSON, DONALD H., AND BOWERS, M. C., EDS.
1960.
THROUGH THE YEARS IN GLACIER NATIONAL PARK: AN ADMINISTRATIVE HISTORY.

WEST GLACIER, MT.: GLACIER NATURAL HISTORY ASSOC., INC. 127 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ACCOUNT DESCRIBES THE PARK'S HISTORY BEFORE AND AFTER ITS ESTABLISHMENT AS A PARK. A PREHISTORY OF THE BLACKFEET; THE PARK'S DISCOVERY AND EXPLORATION BY FUR TRADERS, SURVEYORS, AND SUCH INDIVIDUALS AS HUGH MONROE, DUNCAN MACDONALD, GEORGE B. GRINNELL, AND DR. L. B. SPERRY; THE COMING OF THE RAILROAD; MINING; AND THE OIL PERIOD ARE TOPICS DISCUSSED. THE ADMINISTRATIVE STORY GIVES AN ACCOUNT OF THE COMING OF MAJOR LOGAN, THE EARLY RANGERS, AND PARK HEADQUARTERS. VISITOR USE, PARK ACCOMMODATIONS AND SADDLE HORSE OPERATIONS ARE DEPICTED. FOREST FIRES, ROADS AND TRAILS, THE DEDICATION OF THE GOING-TO-THE SUN ROAD, AND THE ESTABLISHMENT OF THE INTERNATIONAL PEACE PARK IS ALSO DESCRIBED.

R-74
ROBSON, ELEAN BENJAMIN.
1968.
"THE LIMNOLOGY OF A GLACIAL STREAM IN MONTANA."
M.S. THESIS, UNIV. UTAH, SALT LAKE CITY. 72 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, ADJACENT TO THE BASIN.

(GLACIER NATL. PARK: GRINNELL CREEK). A GLACIAL STREAM IN NORTHWESTERN MONTANA WAS STUDIED TO DETERMINE THE DEVELOPMENT OF HABITAT TYPES IN IT AND THE EFFECTS OF HUMANS, IF ANY, ON THEM. HYDROLOGIC DATA WAS OBTAINED FROM THE INTERNATIONAL SNOW SURVEY AND THE USGS; CHEMICAL ANALYSES WERE MADE; BOTANICAL FAUNA WAS COLLECTED; AND COLIFORM TESTS WERE MADE.

R-75
ROCKETT, THOMAS JOHN.
1968.
"THE LEWIS OVERTHRUST AND ASSOCIATED MINOR STRUCTURES."
M.S. THESIS, BOSTON COLLEGE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE MAJOR PART OF THE FIELD WORK BEHIND THIS THESIS WAS DEVOTED TO OBSERVATIONS OF THE MINOR STRUCTURES BOTH IN THE PRE-CAMBRIAN ROCKS WHICH OVERLIE THE THRUST AND THE CRETACEOUS ROCKS BELOW THE FAULT. THE THESIS DESCRIBES THE REGIONAL GEOLOGY IN TERMS OF STRATIGRAPHY AND GEOLOGIC HISTORY, THE LEWIS OVERTHRUST, AND MINOR STRUCTURAL FEATURES.

R-76
ROCKWELL, DAVID B.; HOSFORD, SHARON; MARNEAU, DAWN; SWIFT, TIM; AND TAYLOR, FINN.
1978.
MISSION MOUNTAIN TRIBAL WILDERNESS MANAGEMENT PROPOSAL.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, WILDERNESS INSTITUTE. 144 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: MISSION MTS.). THIS PROPOSAL DEALS ONLY WITH THAT TRIBALLY-OWNED PORTION OF THE MISSION MOUNTAINS SOUTH OF HELL ROARING CREEK AND NORTH OF THE JOCKO RIVER: APPROXIMATELY 95,000 ACRES. THIS DOCUMENT CONSISTS OF THREE MAIN PARTS: 1) A PROPOSED BOUNDARY AND OVERALL MANAGEMENT DIRECTION FOR LANDS WITHIN THE AREA; 2) A PROPOSED MANAGEMENT PLAN FOR THE AREA; AND 3) A DETAILED LOOK AT ITS TRAILS AND CAMPSITES, WITH RECOMMENDATIONS FOR THEIR MAINTENANCE AND PROTECTION.

R-77
ROCKWOOD, ELEANOR R., COMP.
1923.
BOOKS ON THE PACIFIC NORTHWEST FOR SMALL LIBRARIES.
NEW YORK: THE H. W. WILSON CO. 55 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: MONTANA). THIS BIBLIOGRAPHY OF SIGNIFICANT BOOKS ON THE PACIFIC NORTHWEST INCLUDES MATERIALS RELATING TO HISTORY, INDIANS, EXPLORATION, FUR TRADE, MISSIONARY HISTORY, POLITICAL HISTORY, ECONOMIC HISTORY, BIOGRAPHIES, PIONEER NARRATIVES, TRAVEL, BIRDS, BOTANY, GEOLOGY, INDUSTRY, AND FICTION.

R-78
ROE, ARTHUR L.
1948.
THIRTY-NINE YEARS' GROWTH IN A CUT-OVER LARCH STAND.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, NORTHERN ROCKY MTN. FOREST & RANGE EXPR. STAT. NO. 70. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, ADJACENT TO THE BASIN.

(MISSOULA COUNTY: SEELEY LAKE). THIS PAPER REPORTS ON A DETAILED GROWTH STUDY MADE OF THE 1908 TIMBER HARVEST ON THE EAST SIDE OF SEELEY LAKE. INFORMATION INCLUDES: A COMPARISON OF GROWTH RATES BY SPECIES, COMBINED GROWTH OF ALL SPECIES, MORTALITY, PERIODIC ANNUAL GROWTH, AND MEAN ANNUAL GROWTH.

R-79
ROE, ARTHUR L.
1950.
"RESPONSE OF WESTERN LARCH AND DOUGLAS-FIR TO LOGGING RELEASE IN WESTERN MONTANA."
NORTHWEST SCIENCE 24(AUGUST 1950):99-104.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). FACTORS AFFECTING THE GROWTH RESPONSES OF WESTERN LARCH AND DOUGLAS-FIR FOLLOWING LOGGING ARE ANALYZED. DATA WERE GATHERED ON 124 ONE-FIFTH-ACRE TEMPORARY SAMPLE PLOTS LOCATED ON 20 DIFFERENT CUT-OVER AREAS THROUGHOUT THE LARCH-FIR TYPE IN AREAS CUT 8 TO 80 YEARS AGO. TREES WERE CLASSIFIED INTO ONE OF THREE VIGOR CLASSES BASED UPON VARIOUS EXTERNAL CHARACTERISTICS. SPECIFIC ATTENTION WAS GIVEN TO INVESTIGATING THE FOLLOWING FACTORS AFFECTING GROWTH: COMPETITION WITH NEIGHBORING TREES, EXPRESSED AS RESERVE STAND VOLUME IN TREES 10 INCHES D.B.H. AND LARGER; SPECIES; AND VIGOR. SITE QUALITY, CLIMATIC FACTORS, BIOTIC FACTORS, AND AGE WERE CONSIDERED ONLY IN A GENERAL WAY.

R-80
ROE, ARTHUR L.
1951.
GROWTH TABLES FOR CUT-OVER LARCH/DOUGLAS-FIR STANDS IN THE UPPER COLUMBIA BASIN.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, NORTHERN ROCKY MTN. FOREST & RANGE EXPR. STAT. 25 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THIS STUDY WAS BASED ON FIELD DATA OBTAINED ON 124 ONE-FIFTH-ACRE SAMPLE PLOTS LOCATED IN 20 CUT-OVER LARCH/DOUGLAS-FIR STANDS IN WESTERN MONTANA. ANALYSIS OF THE DATA PRODUCED A SET OF TABLES FOR PREDICTING GROWTH OF RESIDUAL TREES AFTER LOGGING. THESE TABLES ARE USEFUL IN DETERMINING GROWTH OF SHELTERWOOD, SEED

TREES, AND PARTIALLY-CUT STANDS WHICH RETAIN SUFFICIENT VIGOR TO JUSTIFY LEAVING AS A RESERVE.

R-81
ROE, ARTHUR L.
1955.
"CUTTING PRACTICES IN MONTANA LARCH/DOUGLAS-FIR."
NORTHWEST SCIENCE 29:23-34.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: CORAM EXPR. FOREST). THIS PAPER REPORTS THE RESULTS OF STUDIES ON THE ADVANTAGES AND DISADVANTAGES OF DIFFERENT LARCH/DOUGLAS-FIR CUTTING PRACTICES. SHELTERWOOD, SEED-TREE, AND CLEARCUTTING WERE THE CUTTING SYSTEMS TESTED.

R-82
ROE, ARTHUR L.
1956.
"THE EFFECT OF COMPETITION IN OLD-GROWTH WESTERN LARCH/DOUGLAS-FIR STANDS."
PROC. MONTANA ACADEMY SCIENCES. PP. 41-45.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THE EFFECT OF ROOT COMPETITION BY THE UNDERSTORY ON AN OVERSTORY OF LARCH (LARIX OCCIDENTALIS), AND DOUGLAS-FIR (PSEUDOTSUGA MENZIESII), WAS QUANTITATIVELY INVESTIGATED. TWO TREATMENTS IN A SEEDBED PREPARATION TEST WERE CONDUCTED: 1) CONTROL PLOTS WHERE UNDERSTORY WAS NOT REMOVED AND THERE HAD BEEN NO DISTURBANCE OF THE STAND OTHER THAN THAT CAUSED BY PAST LOGGING, AND 2) UNDERSTORY REMOVED - 4 PLOTS WHICH WERE LOGGED IN 1944 AND 1945 AND IN WHICH ALL UNDERSTORY WAS REMOVED IN 1949 AND 1950. ANALYSIS OF DATA OBTAINED FROM THE PLOTS INVOLVED AN ASSESSMENT OF PRELOGGING GROWTH AND TWO FIVE-YEAR PERIODS OF POST LOGGING GROWTH.

R-83
ROE, ARTHUR L.
"LARCH/DOUGLAS-FIR REGENERATION STUDIES IN MONTANA."
NORTHWEST SCIENCE 26:95-102.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN MONTANA: CORAM EXPR. FOREST). POST AND CURRENT INVESTIGATIONS BY THE NORTHERN ROCKY MOUNTAIN FOREST EXPERIMENT STATION ON HABITAT CONDITIONS THAT FAVOR WESTERN LARCH (LARIX OCCIDENTALIS) REPRODUCTION AND SURVIVAL ARE REVIEWED. THE PAPER ALSO SUMMARIZES FURTHER INVESTIGATIVE WORK THAT APPEARS TO BE NEEDED IN ORDER TO ATTAIN THE GOAL OF ENCOURAGING REGENERATION OF LARCH.

R-84
ROE, ARTHUR L.
A PRELIMINARY CLASSIFICATION OF TREE VIGOR FOR WESTERN LARCH AND DOUGLAS-FIR TREES IN WESTERN MONTANA.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, NORTHERN ROCKY MTN. FOREST & RANGE EXPR. STAT. 5 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(LOLO, KOOTENAI, & FLATHEAD NATL. FORESTS: SEELEY LAKE & CORAM EXPR. FOREST). THIS STUDY EXAMINED 686 TREES AND CLASSIFIED THEM INTO THREE BROAD VIGOR GROUPS ON THE BASIS OF CERTAIN CROWN AND BARK CHARACTERISTICS. THE GROWTH OF EACH CLASSIFIED TREE WAS THEN COMPARED WITH MEAN CURVED GROWTH BY D.B.H. CLASSES IN FIVE INCREMENTS.

R-85

ROE, ARTHUR L., AND BOUILLACE, A. E.
1963.

"EFFECTS OF CUTTING METHODS ON LOGGING COSTS IN LARCH-DOUGLAS-FIR."

J. FORESTRY 51:4-8.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THIS STUDY WAS DESIGNED TO ENCOMPASS FINANCIAL ASPECTS OF TIMBER MANAGEMENT IN ADDITION TO THE PURELY BIOLOGICAL FACTORS. THIS REPORT IS A SUMMARY AND AN ANALYSIS OF HOW LOGGING COSTS WERE AFFECTED DIFFERENTLY BY 1) SEED TREE CUTTING, 2) AN ECONOMIC SELECTIVE CUTTING, AND 3) A TWO-CUT SHELTERWOOD SYSTEM. MARKING RULES ARE DESCRIBED, AND THE SILVICULTURAL OBJECTIVES ARE OUTLINED. THE EFFECT OF CUTTING METHOD UPON THE COST OF PRESENT CUT AS WELL AS THE PROBABLE EFFECT OF CUTTING METHOD UPON THE COST OF FUTURE CUTS ARE DETAILED.

R-86

ROELLE, JAMES E.

1977.

"REFUGE MANAGEMENT MODELLING: THE NATIONAL BISON RANGE."

PH.D. DISSERTATION, COLORADO STATE UNIV., FORT COLLINS. 336 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE RESEARCH REPORTED HERE EXPLORES THE UTILITY OF A SIMULATION MODEL FOR EXAMINING THE MANAGEMENT CONSEQUENCES OF POPULATION MANIPULATION. SPECIFICALLY, HE PROJECT IS CONCERNED WITH VALIDATING A POPULATION MODEL BY DEMONSTRATING ITS ABILITY TO MIMIC HISTORICAL DEMOGRAPHIC DATA FROM BIG GAME POPULATIONS AND TO PROVIDE INFORMATION USEFUL IN MAKING MANAGEMENT DECISIONS. DEMOGRAPHIC DATA AND MANAGEMENT GOALS FOR SIX BIG GAME SPECIES ON THE NATIONAL BISON RANGE WERE USED FOR THE VALIDATION PROCESS. HISTORICAL INFORMATION CONCERNING REPRODUCTION, NATURAL MORTALITY, AND REMOVALS WAS SYNTHESIZED FOR PERIODS RANGING UP TO 83 YEARS.

R-87

ROEMHILD, GEORGE.

1975.

THE DAMSELFLIES (ZYGOPTERA) OF MONTANA.

BOZEMAN, MT.: RESEARCH REPT. 87. 53 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS IS THE ONLY TAXONOMIC KEY FOR THE SUBORDER ZYGOPTERA IN THE NORTHWESTERN U.S. DRAWINGS OF PARTS OF THE INSECT AS WELL AS RANGE MAPS ARE INCLUDED.

R-88

ROEMHILD, GEORGE.

1976.

THE AQUATIC HETEROPTERA (TRUE BUGS) OF MONTANA.

BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT. RESEARCH REPT. NO. 102. 70 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS TAXONOMIC KEY INCLUDES ALL SIXTEEN FAMILIES OF AQUATIC HETEROPTERA, WITH REPORTS ON SPECIES COLLECTED IN THE STATE AS WELL AS THOSE SPECIES WHICH COULD BE EXPECTED TO BE FOUND. A MAP INDICATES WHERE EACH SPECIMEN WAS COLLECTED AND LINE DRAWINGS ILLUSTRATE THE MALE PALA AND WING PATTERN.

R-89

ROGNRUD, MERLE.

1946.

A PRELIMINARY INVESTIGATION OF MOUNTAIN GOATS IN THE CONTINENTAL BIG GAME MANAGEMENT UNIT, SUN RIVER - FLATHEAD AREA MONTANA. HELENA, MT.: WILDLIFE RESTORATION DIV., 1-R PROJECT. 55 PP.

PRELIMINARY, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: EXTENSIVE TABLES INCLUDED.

(FLATHEAD NATIONAL FOREST: CONTINENTAL BIG GAME MANAGEMENT AREA). THIS REPORT HAS COMPILED ALL AVAILABLE MOUNTAIN GOAT DATA WHICH WOULD BE OF VALUE IN THE MANAGEMENT OF THE SPECIES. THE GOAT RANGE WAS MAPPED, THE 1946 CENSUS MADE, AND HERD STATUS DETERMINED. PROBLEMS WERE OUTLINED FOR FUTURE STUDY AND METHODS OF OPERATIONAL PROCEDURE WORKED OUT.

R-90

ROGNRUD, MERLE.

1948.

A STUDY OF BIG GAME IN THE CONTINENTAL AND ADJACENT UNITS.

HELENA, MT.: MONTANA FISH & GAME DEPT., WILDLIFE RESTORATION DIV. 188 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FLATHEAD-SUN RIVER UNIT & SWAN RIVER). THE CHIEF CONCERN OF THIS WINTER STUDY OF BIG GAME WAS OBTAINING A TOTAL CENSUS OF ELK AND WHITE-TAILED DEER POPULATIONS. INFORMATION WAS ALSO GATHERED ON PRODUCTIVITY, RANGE CONDITIONS, AND GENERAL ECOLOGY. THE HISTORY OF ELK IN THE AREA AND CHANGING MANAGEMENT POLICIES ARE DISCUSSED.

R-91

ROMAN, MARGARET.

1932.

"MEMOIRS OF A FRONTIER WOMAN, MARY C. ROMAN."

M.A. THESIS, STATE UNIV. OF MONTANA, MISSOULA, 381 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN UNITED STATES: FLATHEAD INDIAN RESERVATION). THIS THESIS PRESENTS THE MEMOIRS OF MARY ROMAN: THE RESULT OF A COLLABORATION BETWEEN MARY ROMAN AND THE AUTHOR, HER DAUGHTER. REMINISCENCES OF A NUMBER OF EPISODES OF MARY ROMAN'S LIFE FROM GIRLHOOD IN FRONTIER TIMES ARE INCLUDED. TRANSCRIPTIONS OF MOTHER-DAUGHTER TALKS AND IN FORMAL QUESTION-ANSWER PERIODS ARE ORGANIZED IN THE FOLLOWING MANNER: ACCOUNTS OF MARY'S EXPERIENCES TRAVELING WEST AS A CHILD TO MONTANA'S HELENA AREA, YEARS IN CALIFORNIA, LIFE AMONG THE FLATHEAD INDIANS, AND ACCOUNTS OF HER LIFE AS PETER ROMAN'S WIFE LIVING IN THE JOCKO VALLEY. THE MEMOIRS ARE A PERSONAL NARRATIVE, PRESENTED FROM MARY ROMAN'S VIEWPOINT.

R-92

ROMAN, MARGARET.

1973.

FRONTIER WOMAN - THE STORY OF MARY ROMAN. EDITED BY H. G. MERRIAM.

MISSOULA, MT.: UNIV. MONTANA, PUBLICATIONS IN HISTORY. 172 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). IN THESE PERSONAL RECOLLECTIONS OF THE WIFE OF THE

FLATHEAD INDIAN AGENT FROM 1877 TO 1893, DAILY LIFE IS DESCRIBED, AND INTERACTIONS WITH INDIANS INCLUDING CHIEF CHARLO, ARLEE, AND ENEAS ARE RELATED.

R-93

ROMAN, PETER.

1890.

HISTORICAL SKETCH OF THE FLATHEAD INDIAN NATION FROM THE YEARS 1813-1890.

HELENA, MT.: JOURNAL PUBL. CO. 80 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS EARLY HISTORICAL ACCOUNT WRITTEN BY THE UNITED STATES INDIAN AGENT DESCRIBES THE HISTORY OF THE ESTABLISHMENT OF ST. MARY'S INDIAN MISSION, THE MISSIONARY LIFE OF FATHER DE SMET AND OTHER MISSIONARIES, AND TRAPPING AND TRADING IN THE EARLY DAYS.

R-94

ROMAN, PETER, ED.

1965.

HISTORY OF THE FLATHEAD INDIANS.

MINNEAPOLIS: ROSS AND HAINES, INC. 90 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS, & FLATHEAD INDIAN RESERVATION). THIS HISTORICAL SKETCH COVERS THE PERIOD FROM THE INITIAL CONTACTS WITH WHITES TO 1890. THE ESTABLISHMENT OF CATHOLICISM, THE FUR TRADE, POSTS AND TRADERS, THE WAR FARE BETWEEN THE BLACKFEET AND THE FLATHEADS, THE TREATY-MAKING COUNCILS, AND THE CHIEFS--VICTOR, CHARLO, AND ARLEE, ARE ALL DISCUSSED. IN ADDITION, THE TRADITIONS OF BUFFALO HUNTS, MARRIAGE, MORALITY, CUSTOMS AND MANNERS ARE DEPICTED.

R-95

ROSCOE, JAMES W.

1974.

"SYSTEMATICS OF THE WESTSLOPE CUTTHROAT TROUT."

M.S. THESIS, COLORADO STATE UNIV., FORT COLLINS. 82 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(MONTANA & IDAHO). THE TAXONOMIC STATUS OF CUTTHROAT TROUT, NATIVE TO THE CLARK FORK AND COEUR D'ALENE RIVERS, WAS INVESTIGATED. THESE WEST SIDE POPULATIONS WERE COMPARED WITH MISSOURI RIVER POPULATIONS TO DETERMINE DIFFERENCES IN MORPHOLOGICAL AND MERISTIC CHARACTERISTICS. ZOOGEOGRAPHICAL EVIDENCE WAS ALSO CONSIDERED IN AN ATTEMPT TO CLARIFY THE TAXONOMY OF THE TWO POPULATIONS.

R-96

ROSCOE, WILL.

1972.

"THE BITTER EXODUS OF THE SALISH TRIBES."

MONTANA HISTORIAN 2(WINTER 1972):2-5.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS PAPER COVERS THE EVENTS LEADING TO THE FLATHEADS' DEPARTURE FROM THE BITTERROOT VALLEY. IT DEALS WITH TREATY NEGOTIATIONS WITH ISAAC STEVENS IN 1855, PRESIDENT GRANT'S DEALINGS WITH THE FLATHEADS, GARFIELD'S WORK AND THE FORGERY OF CHARLOT'S SIGNATURE, CHARLOT'S TRIP TO WASHINGTON, AND GENERAL CARRINGTON'S NEGOTIATIONS WITH CHARLOT IN 1891.

R-97

ROSE, FRANK H.
1929.

"U.S. CUTS ELK HERD ON BISON RANGE."

MONTANA WILDLIFE, MAY 1929, PP. 10-11.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(NATIONAL BISON RANGE). THE ARTICLE EXPLAINS
THE REMOVAL AND DISPERSAL OF ELK; HOW THE
ANIMALS WERE CAPTURED, WHERE THEY WERE
TAKEN, AND HOW THEY WERE TRANSPORTED BY
RAIL.

R-98

ROSECRANS, ANNA D.

1899.

"SINIELEMEN."

THE CATHOLIC WORLD, MARCH 1899, PP. 734-738.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: ST. IGNATIUS).
THE ARTICLE DESCRIBES A YEARLY MEETING ON A
"FEAST DAY" OF SEVERAL HUNDRED INDIANS AND A
TOUR OF THE ST. IGNATIUS MISSION AND SCHOOLS.
THE MOUNTAIN SETTING OF THE RESERVATION, THE
INDIANS AND THEIR ATTIRE, AND DISPLAYS OF WOR-
SHIP ARE DEPICTED.

R-99

ROELAND, KRISTINE KAY.

1977.

"MORPHOLOGY OF THE PRONGHORN OVARY (AN-
TLOCAPRA AMERICANA ORD)."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 45 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NATL. BISON RANGE). MORPHOLOGICAL
CHARACTERISTICS, RELATIVE HORMONAL PRODUC-
TION, AND OVULATION INCIDENCES OF OVARIES OF
PRONGHORNS WERE ELUCIDATED LARGELY BY
MICROSCOPIC EXAMINATION OF STAINED SECTIONS
OF OVARIES FROM 26 DOES.

R-100

ROSS, CLYDE P.

1949.

"THE BELT PROBLEM."

J. WASHINGTON ACADEMY SCIENCES 39(15 MA
RCH):111-113.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA ,
STATEWIDE.

(MONTANA). THIS STUDY PROPOSED PROVISIONAL
INCLUSION OF THE LOWER PART OF THE BELT
SERIES IN THE RAVALLI GROUP (WITH THE EXCEP-
TION OF THE PRICHARD FORMATION AND THE
NEIHART QUARTZITE), THE MIDDLE PORTION IN THE
PIEGAN GROUP, AND THE UPPER PART IN THE
MISSOULA GROUP.

R-101

ROSS, CLYDE P.

1950,

"GEOLOGIC REPORT AND MAP OF GLACIER NA-
TIONAL PARK, MONTANA."

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY, AND NA-
TIONAL PARK SERVICE. (TYPEWRITTEN). 41 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OBJECTIVES OF THIS
WORK WERE: TO STUDY UNPUBLISHED MATERIAL
GATHERED FROM 1911-1914 (INCLUSIVE) BY M. R.
CAMPBELL OF THE USGS, TO MAKE NECESSARY
REVISIONS TO PREPARE THE MATERIAL FOR
PUBLICATION, AND TO COMPARE THE
STRATIGRAPHIC SUBDIVISIONS OF THE BELT SERIES
IN THE PARK WITH THOSE IN OTHER REGIONS, PAR-
TICULARLY IN THE REGION JUST SOUTH OF AND IN
THE SOUTHERN TIP OF THE PARK. THIS REPORT AND

MAP WERE COMPLETED AT THE CLOSE OF 2 MON-
THS' GEOLOGIC FIELD WORK. FURTHER WORK WAS
COMPLETED BY ROSS SUBSEQUENT TO THIS
REPORT.

R-102

ROSS, CLYDE P.

1954.

"THE GEOLOGY OF GLACIER NATIONAL PARK AND
VICINITY IN MONTANA."

SCIENCE 119:659-659.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). FIELD WORK FOR THE USGS
IN GLACIER NATIONAL PARK WAS CONDUCTED
FROM 1948 TO 1951, AND R. REZAK'S WORK ON THE
STROMATOLITES THERE CONTINUED THROUGH 1953.
THE RESULTS OF THOSE FIELD STUDIES, SUP-
PLEMENTED BY THE USE OF UNPUBLISHED DATA
GATHERED BETWEEN 1911 AND 1914, ARE SUM-
MARIZED WITHIN THIS REPORT.

R-103

ROSS, CLYDE P.

1959.

GEOLOGY OF GLACIER NATIONAL PARK AND THE
FLATHEAD REGION, NORTHWESTERN MONTANA.

WASHINGTON, D.C.: U.S. DEPT. INTERIOR,
GEOLOGICAL SURVEY. GEOLOGICAL SURVEY PROF.
PAPER 206. 125 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, BASIN-WIDE.

(GLACIER NATL. PARK, FLATHEAD REGION). THIS
REPORT SUMMARIZES AVAILABLE DATA ON THE
GEOLOGIC, STRUCTURAL AND GEOMORPHIC
STUDIES OF THE ROCKS, RANGING FROM PRECAM-
BRIAN TO RECENT IN AGE, IN TWO ADJACENT MOUN-
TAINOUS REGIONS OF MONTANA. TOPICS COVERED
INCLUDE GEOGRAPHY, GENERAL GEOLOGY:
PALEOZOIC STRATA, MESOZOIC ROCKS,
STRATIGRAPHY, MOUNTAIN BUILDING STRUCTURAL
FEATURES, INTERPRETATION OF THE STRUCTURE,
AND GEOMORPHOLOGY. MAPS ARE INCLUDED.

R-104

ROSS, CLYDE P.

1963.

THE BELT SERIES IN MONTANA.

WASHINGTON, D.C.: U.S. DEPT. INTERIOR,
GEOLOGICAL SURVEY. PROF. PAPER 346. 122 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA: GLACIER NATIONAL PARK). IN THIS
REPORT A GENERAL STRATIGRAPHIC SCHEME IS
PROPOSED FOR THE BELT SERIES IN MONTANA. AN
ATTEMPT IS MADE TO COORDINATE AND MODIFY
THE USAGE OF THE NAMES OF MAJOR SUBDIVI-
SIONS IN SUCH A WAY THAT THEY WILL BE USEFUL
IN THE FUTURE. UNITS ARE DEFINED PRIMARILY ON
THE BASIS OF THEIR UTILITY IN MAPPING RATHER
THAN ON DISTINCTIONS DETECTABLE IN MEASURED
SECTIONS. STRATIGRAPHIC CORRELATIONS OF THE
SERIES, LITHOLOGIC DESCRIPTIONS, AND GENETIC
PROBLEMS ARE EXAMINED. MAPS ARE INCLUDED.

R-105

ROSS, ROBERT L., AND HUNTER, H. E.

1976.

CLIMAX VEGETATION OF MONTANA. BASED ON
SOILS AND CLIMATE.

BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CON-
SERVATION SERVICE.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, STATEWIDE.

(MONTANA). THIS PUBLICATION IS AN EFFORT TO
CATEGORIZE, ON A BROAD SCALE, GEOGRAPHIC
AREAS, AVERAGE ANNUAL PRECIPITATION, GROUPS
OF SOILS WITH SIMILAR CHARACTERISTICS, AND
THE CORRESPONDING NATURAL PLANT COM-

MUNITIES. THE REPORT INCLUDES A 1:100,000,000
SCALE REMOVEABLE FULL COLOR MAP.

R-106

ROSS, ROBERT L.; MURRAY, EARL P.; AND HAIGH,
JUNE G.

1973.

SOIL AND VEGETATION INVENTORY OF NEAR-
PRISTINE SITES IN MONTANA.

BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, SOIL CON-
SERVATION SERVICE. 59 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS REPORT
IS CONCERNED WITH THE MONITORING OF
RANGELAND ECOSYSTEMS USING CLIMAX PLANT
COMMUNITIES AS ECOLOGICAL STANDARDS.
CLIMAX OR NEAR-PRISTINE AREAS WERE INVEN-
TORIED AND CATEGORIZED BY GEOGRAPHICAL
AREA, AVERAGE ANNUAL PRECIPITATION, AND SOIL
CHARACTERISTICS.

R-107

ROWE, ROYLE C.

1974.

GEOLOGY OF OUR WESTERN NATIONAL PARKS AND
MONUMENTS.

PORTLAND, ORE.: BINFORD AND MORT. 220 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
NATIONAL.

(WESTERN NATL. PARKS: GLACIER NATL. PARK). THIS
WORK INCLUDES A FIVE PAGE, GENERAL OVERVIEW
ON THE GEOLOGY OF GLACIER NATIONAL PARK.

R-108

RUCKDASHEL, VIRGIL.

1963.

"ARTIFACTS FOUND ALONG THE LOWER FLATHEAD
RIVER." IN ARCHAEOLOGICAL SITES OF THE
FLATHEAD REGION: A SYMPOSIUM.

MISSOULA, MT.: UNIV. MONTANA, ANTHROPOLOGY &
SOCIOLOGY PAPERS NO. 15. 5 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(POLSON). THIS REPORT DESCRIBES TWO QUARTZITE
'SWALLOW TAIL' POINTS WHICH ARE THE EARLIEST
FORM OF POINT KNOWN IN WESTERN MONTANA. A
QUARTZITE HAND MAUL FOUND BELOW KERR DAM
IS ALSO DESCRIBED.

R-109

RUGG, HAROLD.

1933.

"CYSTOPTERIS MONTANA IN GLACIER NATIONAL
PARK."

AMERICAN FERN JOURNAL 23:66-67.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). A BRIEF REPORT ON THE
DISCOVERY OF A SMALL COLONY OF CYSTOPTERIS
MONTANA, WHICH WAS PREVIOUSLY UNREPORTED
IN GLACIER NATIONAL PARK.

R-110

RUHL, GEORGE C.

1972.

ROADS AND TRAILS OF WATERTON-GLACIER NA-
TIONAL PARKS.

MINNEAPOLIS: JOHN W. FORNEY. 164 PP.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS BOOK IS A GENERAL
GUIDE TO GLACIER NATIONAL PARK. RUNNING
DESCRIPTIONS OF MAJOR HIGHWAYS IN AND
AROUND THE PARK NOTE MILEAGES, SCENIC
FEATURES, AND VISITOR FACILITIES. SHORT WALKS,
HALF DAY HIKES, AND SOME LONGER HIKES ARE
DESCRIBED.

R-111
RUHLE, GEORGE C.
1972.

**THE RUHLE HANDBOOK: ROADS AND TRAILS OF
WATERTON-GLACIER NATIONAL PARKS.**
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A COMPLETE DIRECTORY TO
THE HIGHWAYS AND TRAILS OF THE PARKS. INCLUD-
ED ARE NOTES ON THE GEOLOGY, GLACIOLOGY,
AND ECOLOGY OF THE PARK.

R-112
RUSSELL, RICHARD H.
1967.

**"FRESHWATER SNAILS OF THE FAMILY LYMNÆIDAE
(MOLLUSCA: BASOMMATOPHORA) FROM WESTERN
MONTANA."**

M. A. THESIS, UNIV. MONTANA, MISSOULA. 139 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

NOTE: APPENDIX CONTAINS A LISTING OF SPECIES
BY COUNTIES, AS WELL AS MAPS OF THE SPECIES'
DISTRIBUTIONS AND DRAWINGS OF SHELLS.

(WESTERN MONTANA). THIS STUDY WAS UNDER-
TAKEN TO SURVEY THE FAMILY LYMNÆIDAE IN
WESTERN MONTANA AND TO CONSTRUCT KEYS TO
AID IN THE IDENTIFICATION OF MEMBERS OF THE
FAMILY. 300 SPECIMENS WERE COLLECTED. NOTES
ON SHELL CHARACTERISTICS, GENITALIA, RADULA,
AND DISTRIBUTION WERE MADE.

R-113
RUSSELL, RICHARD H., AND BRUNSON, ROYAL B.
1967.
**"A CHECK-LIST OF MOLLUSCS OF GLACIER NA-
TIONAL PARK, MONTANA."**
STERKIANA 26(JUNE 1967):1-5.
FINAL, GENERAL.

(GLACIER NATL. PARK). THE CHECKLIST PRESENTS A
SURVEY OF THE MOLLUSCA, NOTING TO SOME
DEGREE THE RANGE OF EACH SPECIES. FAMILIES
WITHIN THE CLASSES PEPECYPODA AND
GASTROPODA ARE DESCRIBED.

R-114
RUST, CHARLES, AND ST. GEORGE, G.
1969.
GRAIN SHIPMENTS IN MONTANA.
BOZEMAN, MT.: MONTANA STATE COLL., MONTANA
AGRIC. EXPER. STAT., AND MONTANA WHEAT
RESEARCH AND MARKETING COMMITTEE. BULL. 624.
16 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA). THE STUDY OF THE GRAIN TRANSPOR-
TATION SYSTEM CONSIDERS GRAIN MOVEMENT BY
TRUCK AND RAIL FROM ELEVATORS AND FIRMS IN
SEVEN CROP-REPORTING DISTRICTS. SURVEYS OF
GRAIN ELEVATOR FIRMS IN ALL DISTRICTS AND OF
SAMPLE FARMS IN THE NORTHEAST, NORTHCEN-
TRAL, AND CENTRAL DISTRICTS WERE CONDUCTED.
THE SUPPLIED INFORMATION IS DEPICTED IN
TABLES AND MAPS AND INCLUDES: PROJECTED PUR-
CHASE BY ELEVATORS, TURNOVER RATE, PRODUC-
TION, ESTIMATED TOTAL AMOUNT OF GRAIN SHIP-
PED, AND MODE OF SHIPMENT.

R-115
RYDBERG, PER AXEL.
1900.
**CATALOGUE OF THE FLORA OF MONTANA AND THE
YELLOWSTONE NATIONAL PARK.**
NEW YORK: MEMOIRS OF THE NEW YORK
BOTANICAL GARDEN. 492 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA). THIS EXTENSIVE LIST CONTAINS ALL
THE PLANTS FOUND IN MONTANA THAT WERE EX-
AMINED BY THE AUTHOR IN THE FIELD OR IN COL-
LECTIONS. COLLECTION SITES ARE NOTED.

R-116
RYDBERG, PER AXEL.
1901.

**"STUDIES ON THE ROCKY MOUNTAIN FLORA. IV:
PENSTEMON WILCOXII SP. NOV. AND LUPINUS CAN-
DICANS."**

BULL. TORREY BOTANICAL CLUB 28:20-38.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(ROCKY MTNS.: KALISPELL & COLUMBIA FALLS).
PENSTEMON WILCOXII AND LUPINUS CANDICANS
ARE DESCRIBED IN THIS LIST OF ROCKY MOUNTAIN
FLORA. COLLECTION DATES AND LOCATIONS ARE
NOTED ALONG WITH PHYSICAL CHARACTERISTICS
OF THE PLANTS.

R-117
RYDBERG, PER AXEL.
1902.

**"STUDIES ON THE ROCKY MOUNTAIN FLORA. VII:
RANUNCULUS HELLERI."**

BULL. TORREY BOTANICAL CLUB 29:145-160.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(ROCKY MTNS.: SPERRY GLACIER). RANUNCULUS
HELLERI IS DESCRIBED IN THIS LIST OF ROCKY
MOUNTAIN FLORA. COLLECTION DATES AND LOCA-
TIONS ARE NOTED ALONG WITH PHYSICAL
CHARACTERISTICS OF THE SPECIES.

R-118
RYDBERG, PER AXEL.
1903.

**"STUDIES ON THE ROCKY MOUNTAIN FLORA. X:
LUPINUS PULCHERRIMUS SP. NOV."**

BULL. TORREY BOTANICAL CLUB 30:247-262.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MCDONALD & CAMAS LAKES). LUPINUS PULCHER-
RIMUS IS DESCRIBED IN THIS DESCRIPTIVE LIST OF
ROCKY MOUNTAIN FLORA. COLLECTION DATES,
LOCATIONS, AND PHYSICAL CHARACTERISTICS OF
THE SPECIES ARE NOTED.

R-119
RYDBERG, PER AXEL.
1907.

**"STUDIES ON THE ROCKY MOUNTAIN FLORA. VIII:
CASTILLEJA UREELANDII, CASTILLEJA AMPLIFLORA,
AND LUPINUS SUBULATUS."**

BULL. TORREY BOTANICAL CLUB 34:35-50.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MCDONALD & CAMAS LAKES, & COLUMBIA FALLS).
CASTILLEJA UREELANDII, CASTILLEJA AMPLIFLORA,
AND LUPINUS SUBULATUS ARE DESCRIBED IN THIS
DESCRIPTIVE LIST OF ROCKY MOUNTAIN FLORA.
COLLECTION DATES AND LOCATIONS ARE NOTED
ALONG WITH PHYSICAL CHARACTERISTICS OF THE
SPECIES.

R-120
RYDBERG, PER AXEL.
1910.

**"STUDIES ON THE ROCKY MOUNTAIN FLORA. XXI:
CHRYSOPSIS BUTLERi; SP. NOV., SOLIDAGO
GLAUCOPHYLLA SP. NOV., AND ASTER UMBACHII SP.
NOV."**

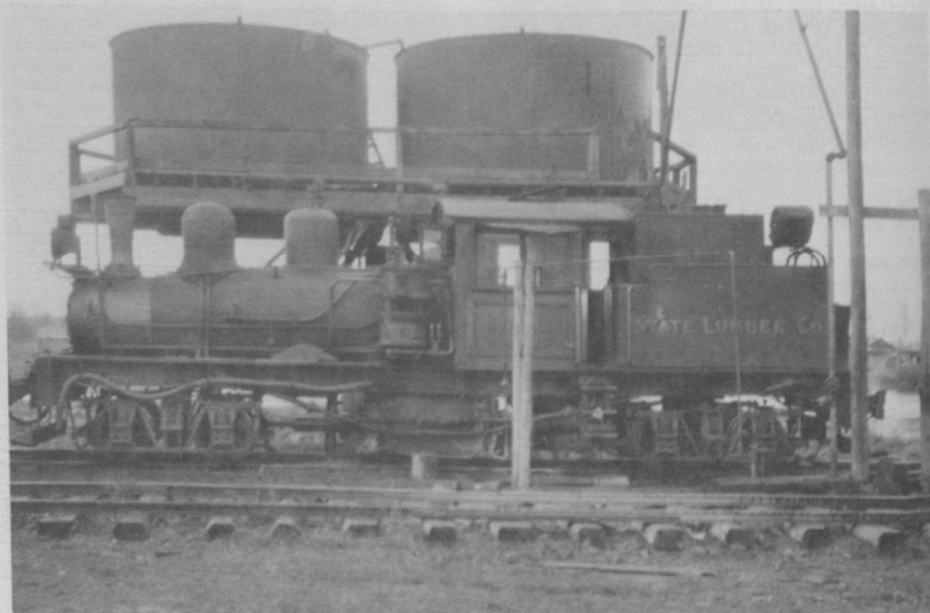
BULL. TORREY BOTANICAL CLUB 37:127-148.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(WILD HORSE ISLAND, KALISPELL, & LAKE
MCDONALD). CHRYSOPSIS BUTLERI, SOLIDAGO
GLAUCOPHYLLA, AND ASTER UMBACHII ARE
DESCRIBED IN THIS DESCRIPTIVE LIST OF ROCKY
MOUNTAIN FLORA. COLLECTION DATES, LOCA-
TIONS, AND PHYSICAL CHARACTERISTICS OF THE
SPECIES ARE LISTED.

R-121
RYKER, RUSSELL.
1975.

**A SURVEY OF FACTORS AFFECTING REGENERATION
OF ROCKY MOUNTAIN DOUGLAS-FIR.**
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST
SERVICE, INTERMTN. FOREST & RANGE EXPER. STAT.
19 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(ROCKY MTNS.: USFS REGIONS). THIS REPORT CON-
TAINS THE RESULTS OF A FIELD RECONNAISSANCE
TO LOCATE PROBLEMS RELATIVE TO STAND
ESTABLISHMENT OF PSEUDOTSUGA MENZIESII VAR
GLAUCA IN THE INTERMOUNTAIN AREA. RESULTS
WERE USED TO DEVELOP A RESEARCH PROGRAM
FOR THE REGENERATION OF DOUGLAS-FIR.





S-1
SAHINEN, U. M., AND CROWLEY, F. A.
1959.
SUMMARY OF MONTANA MINERAL RESOURCES.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY.
BULL. 11. 51 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA). THIS PUBLICATION SUMMARIZES THE
KNOWN OCCURRENCES AND STATE PRODUCTION
OF A VARIETY OF MINERALS INCLUDING: AGATE,
BISMUTH, COAL, FELDSPAR, GARNET, IRON, LEAD,
TUNGSTEN, MAGNESIUM, NICKLE, PLATINUM,
QUARTZ, SALT, URANIUM, VERMICULITE, AND ZINC.

S-2
SAHINEN, U. M.; JOHNS, W. M.; AND LAWSON, D. C.
1965.
**GEOCHEMICAL RECONNAISSANCE STREAM-
SEDIMENT SAMPLING IN FLATHEAD AND LINCOLN
COUNTIES.**
BUTTE, MT.: MONTANA COLLEGE MINERAL SCIENCE
& TECHNOLOGY, MONTANA BUREAU MINES &
GEOLOGY. BULL. 48. 16 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD COUNTY: SALISH MTNS.; STAR
MEADOWS & HOG HEAVEN). SAMPLES OF STREAM
SEDIMENT WERE COLLECTED AT HALF-MILE INTER-
VALS ALONG ALL DRAINAGES IN THE STAR
MEADOWS AND HOG HEAVEN AREAS OF THE SALISH
MOUNTAINS. SAMPLES WERE ANALYZED FOR TOTAL
HEAVY METALS BY THE CITRATE METHOD AND FOR
COPPER, LEAD AND ZINC (INDIVIDUALLY) BY THE
PYROSULFATE-FUSION METHOD. A FEW SELECTED
SAMPLES WERE ANALYZED FOR BERYLLIUM AND
MOLYBDENUM. FURTHER INVESTIGATION OF
TWENTY-FIVE SPECIFIC LOCALITIES BY SOIL SAMPL-
ING IS RECOMMENDED.

S-3
SAHINEN, U. M.; JOHNS, W. M.; AND LAWSON, D. C.
1967.
**GEOCHEMICAL INVESTIGATIONS IN LINCOLN AND
FLATHEAD COUNTIES, MONTANA.**
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY.
BULL. NO. 61.
FINAL, SPECIFIC, ORIGINAL DATA, WITHIN THE
BASIN.

(LINCOLN & FLATHEAD COUNTIES). SOIL SAMPLES
AT 1/8-MILE INTERVALS AND STREAM SEDIMENT
SAMPLES AT 1/2-MILE INTERVALS WERE COLLECTED
FROM 4 AREAS IN NORTHWESTERN MONTANA.
ANALYSES WERE FOR COPPER, LEAD, AND ZINC.

S-4
"SAINT IGNATIUS' MISSION RISES FROM RUINS."
1922.
INDIAN SENTINEL 2(OCTOBER 1922):583.

(ST. IGNATIUS MISSION). THIS ARTICLE DESCRIBES
THE PROGRESS IN BUILDING NEW URSULINES
SCHOOL AND EFFORTS TO RAISE MONEY. SKCC.

S-5
"ST. IGNATIUS: THE PIONEER INDIAN MISSION OF
THE NORTHWEST."
THE INDIAN SENTINEL (1904-1905):4-12.

(ST. IGNATIUS). THIS ARTICLE PROVIDES A
HISTORICAL SKETCH OF THE ST. IGNATIUS MISSION.
SKCC.

S-6
"THE ST. IGNATIUS TRAGEDY: RESTORE ST. IG-
NATIUS."
1922.
INDIAN SENTINEL 2(APRIL 1922):482.

(ST. IGNATIUS MISSION). THIS ARTICLE DESCRIBES
WESTERN MONTANA'S SUPPORT FOR THE ST. IG-
NATIUS MISSION AFTER THE SCHOOL FIRE AND AP-
PEALS FOR HELP FROM OTHER AREAS. SKCC.

S-7
SALISH CULTURE COMMITTEE.
1978.
COYOTE AND THE MAN WHO SITS ON TOP.
BEAVERTON, ORE.: EDUCATIONAL SYSTEMS, INC.

THIS ILLUSTRATED TRADITIONAL COYOTE STORY IS
TOLD AT THE SECOND GRADE READING LEVEL.
SKCC.

S-8
SALISH CULTURE COMMITTEE.
1978.
COYOTE AND THE MEAN MOUNTAIN.
BEAVERTON, ORE.: EDUCATIONAL SYSTEMS, INC.

THIS TRADITIONAL SALISH COYOTE STORY WITH IL-
LUSTRATIONS IS TOLD AT THE THIRD GRADE
READING LEVEL. SKCC.

S-9
SALISH CULTURE COMMITTEE.
1979.
SALISH COYOTE STORIES.
BEAVERTON, ORE.: EDUCATIONAL SYSTEMS, INC.

THIS COLLECTION OF TRADITIONAL SALISH COYOTE
STORIES IS TOLD AT THE FOURTH GRADE READING
LEVEL. SKCC.

S-10
SANDERS, HELEN FITZGERALD.
1909.
"THE GLACIER PARK."
OVERLAND MONTHLY, JUNE 1909, PP. 495-501.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES
THE PARK'S FEATURES AND GIVES A BRIEF HISTORY
OF THEIR DISCOVERY AND NAMING. LAKE
MCDONALD IS PICTURED; ITS EXPLORATION BY SIR
JOHN AND DUNCAN MCDONALD NOTED. THE
FORESTS, FLORA, AND WILDLIFE OF THE CAMAS-
QUARTZ LAKE AREA ARE DISCUSSED.

S-11
SANDERS, HELEN FITZGERALD.
1909.
"THE OPENING OF THE FLATHEAD RESERVATION."
OVERLAND MONTHLY, AUGUST 1909, PP. 120-140.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE
DESCRIBES THE RESERVATION COUNTRY, SKET-
CHES THE HISTORY OF THE TRIBES, GIVES AN EXAM-
PLE OF THEIR FOLKLORE, AND DESCRIBES THE 1908
SUMMER POWWOW. SKCC.

S-12
SANDERS, HELEN FITZGERALD.
1910.
"SOME INDIAN MISSIONS OF THE NORTHWEST."
OVERLAND MONTHLY, JUNE 1910, PP. 561-573.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
REGIONAL.

(ABORIGINAL LANDS OF THE SALISH (FLATHEAD
AND PEND O'REILLE) INDIANS). THE ARTICLE GIVES
AN ACCOUNT OF THE FOUNDING OF THE ST. IG-
NATIUS MISSION. DESCRIBES THE ATTEMPTS MADE
BY THE SALISH AND THEIR IROQUOIS FRIENDS TO
LOCATE PRIESTS, THEIR RELIGION PRIOR TO
CATHOLICISM, THE ARRIVAL OF FATHERS DESMET
AND RAVALLI, THE CLASH OF TWO CULTURES, THE
SALISH FEUDS WITH THE BLACKFEET, THE TWO DIF-
FERENT ABANDONMENTS OF THE ST. MARY'S MIS-
SION, AND THE GROWTH OF THE MISSION IN THE
FLATHEAD VALLEY.

S-13
SANDERS, HELEN FITZGERALD.
1913.

HISTORY OF MONTANA. VOL. 1.
CHICAGO: LEWIS PUBL. CO.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

AVAILABLE FROM: MONTANA FILES, FLATHEAD
COUNTY LIBRARY, KALISPELL.

(FLATHEAD COUNTY: KALISPELL, WHITEFISH,
POLSON, & COLUMBIA FALLS). THIS VOLUME
DESCRIBES THE SCENERY, CLIMATE, AGRICULTURE,
AND CITIES OF MONTANA. STATISTICS FOR GRAIN
AND LUMBER PRODUCTION IN 1911 AND POPULA-
TION DATA IN 1910 AND 1911 ARE LISTED.

S-14
SANDO, WILLIAM J.
1972.

*"BEE-NEST PSEUDO FOSSILS FROM MONTANA,
WYOMING AND SOUTHWEST AFRICA."*
J. PALEONTOLOGY 46:421-425.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(SOUTHWEST AFRICA, WYOMING, & MONTANA:
GLACIER NATL. PARK). SUBOVATE CELL-LIKE PAT-
TERNS FOUND ON ROCK SURFACES ON THE ALTYN
LIMESTONE IN GLACIER NATIONAL PARK, WYOMING,
MONTANA: AND SOUTHWEST AFRICA ARE DESCRIBED
AND ILLUSTRATED IN THIS PAPER. EVIDENCE IS
GIVEN FOR THEIR ORIGIN AS THE RESULT OF NEST
BUILDING, MONTANA: ACTIVITIES OF MODERN BEES.

S-15
SAUNDERS, ARETAS A.
1914.

*"THE ENGLISH SPARROW AS OCCURRING IN NOR-
THWESTERN MONTANA."*
THE CONDOR 16(JULY-AUGUST 1914):183.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: LEWIS & CLARK COUN-
TY). THE ADDITION OF THE ENGLISH SPARROW
(PASSER DOMESTICUS) TO SAUNDERS' LIST OF
BIRDS OF NORTHWESTERN MONTANA IS NOTED. IN-
CLUDED IS THE FOLLOWING INFORMATION ABOUT
THE BIRD: ITS ABUNDANCE, THE HABITAT IT FRE-
QUENTS, AND POSSIBLE POPULATION INCREASES.

S-16
SAUNDERS, ARETAS A.
1915.
*"HARLEQUIN DUCK IN THE GLACIER NATIONAL
PARK, MONTANA."*
THE AUK 32(APRIL 1915):225.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OCCURRENCE OF THE
HARLEQUIN DUCK (HISTRIONICUS HISTRIONICUS)
AND OF BARROW'S GOLDENEYE (CLANGULA ISLAN-
DICA) IN THE PARK IS DISCUSSED. EVIDENCE THAT
THE HARLEQUIN DUCK IS A REGULAR SUMMER RESI-
DENT AND THAT IT BREEDS IN THE PARK IS CITED. A
BROOD OF BARROW'S GOLDENEYE, A SPECIES NOT
RECENTLY RECORDED, IS REPORTED.

S-17
SAUNDERS, ARETAS A.
1915.
"A SUMMER AT FLATHEAD LAKE, MONTANA."
THE CONDOR 17(MAY-JUNE 1915):109-115.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). OBSERVATIONS OF BIRD SPECIES
ARE REPORTED INCLUDING SITINGS OF
UNREPORTED SPECIES. THE ABUNDANCE OF THE
OLIVE-BACKED THRUSH, HYLOCICHLA USTULATA
SWAINSONI; THE NESTS OF OSPREYS, PANDION

HALIAETUS CAROLINENSIS; AND THE OCCURRENCE
OF SPECIES NEW TO THE AREA WHICH INCLUDE THE
LEAST FLYCATCHER, EMPIDONAX MINIMUS; CASSIN
VIREO, LANIVIREO SOLITARIUS CASSINI; AND
ORANGE-CROWNED WARBLER, VERMIVORA CELATA,
ARE DISCUSSED. THE VARIATION IN BIRD LIFE OF
THE WEST AND EAST SHORES OF THE LAKE IS
DESCRIBED. THE AUTHOR ALSO QUESTIONS THE
IDENTIFICATION OF SOME SUBSPECIES FORMERLY
REPORTED IN THE AREA.

S-18
SAUNDERS, ARETAS A.
1916.

*"ADDITIONS AND CHANGES TO THE SUMMER BIRDS
OF FLATHEAD LAKE, MONTANA."*
THE CONDOR 18(MARCH-APRIL 1916):85-98.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE). THIS PAPER CONSISTS OF A LIST
OF BIRD SPECIES PREVIOUSLY UNREPORTED IN THE
AREA AND SOME CHANGES IN THE IDENTIFICATION
OF OTHERS. 13 SPECIES ARE LISTED, AND ACCOMP-
ANYING STATEMENTS DESCRIBE THE NUMBER OF
BIRDS OBSERVED AND THE LOCATION.

S-19
SAWYER, PAUL THOMPSON.
1987.
*"BIOSYSTEMATIC STUDIES OF SPECIES OF
DELPHINIUM OCCURRING IN MONTANA."*
M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 80
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: LAKE & FLATHEAD COUNTIES;
WHITEFISH & ST. IGNATIUS). THE ELEVEN SPECIES
OF DELPHINIUM OCCURRING IN OR EXPECTED TO BE
IN MONTANA WERE STUDIED. THE ELEVEN SPECIES
WERE GROUPED INTO 3 COMPLEXES BASED UPON
MORPHOLOGICAL SIMILARITIES OR
DISSIMILARITIES. DESCRIPTIONS AND DISTRIBUTION
MAPS ARE PROVIDED, ALONG WITH A KEY
SEPARATING THE SPECIES. DELPHINIUM ADACIS IS
FOUND WITHIN THE FLATHEAD RIVER BASIN.

S-20
SCATTERGOOD, J. HENRY.
1930.
*"FLATHEAD POWER DEVELOPMENT: MEMO ON THE
DEVELOPMENT OF FLATHEAD RIVER POWER SITES,
MONTANA."*
SENATE DOC. NO. 153, 71ST CONGRESS, 2ND SES-
SION (1930), SERIAL 9220.

(FLATHEAD INDIAN RESERVATION). THIS DOCUMENT
CONTAINS THE BUREAU OF INDIAN AFFAIRS'
EVALUATION OF THE CONTROVERSY OF THE LICENS-
ING OF THE FLATHEAD DAM SITES. SKCC.

S-21
SCHAEFFER, CLAUDE E.
1935.
*"AN ACCULTURATION STUDY OF THE INDIANS OF
THE FLATHEAD RESERVATION OF WESTERN MON-
TANA."*
SUBMITTED TO THE U.S. COMMISSIONER OF INDIAN
AFFAIRS.
AVAILABLE FROM: U.S. DEPT. INTERIOR LIBRARY,
WASHINGTON, D.C.

(FLATHEAD INDIAN RESERVATION). THIS
ETHNOLOGY AND HISTORY OF THE TRIBES OF THE
FLATHEAD RESERVATION CONTAINS AN EXTENDED
EXAMINATION OF THE CONDITIONS ON THE RESER-
VATION IN THE 1930'S AND RECOMMENDATIONS FOR
OFFICIAL ACTION. SKCC.

S-22
SCHAEFFER, CLAUDE E.
1936.
*"FUTURE POSSIBILITIES OF SELF-GOVERNMENT
AMONG THE FLATHEAD."*

WASHINGTON, D.C.: OFFICE INDIAN AFFAIRS, AP-
PLIED ANTHROPOLOGY UNIT. (MIMEO).

(FLATHEAD INDIAN RESERVATION). IN THIS ARTICLE
SCHAEFFER OUTLINES THE PROBLEMS AND
POSSIBILITIES FACING THE NEW TRIBAL COUNCIL
ON THE FLATHEAD RESERVATION. SKCC.

S-23
SCHAEFFER, CLAUDE E.
1936.
"THE NEW FLATHEAD TRIBAL COUNCIL."
INDIANS AT WORK, 15 FEBRUARY 1936, PP. 19-21.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE
DESCRIBES THE EARLY ACTIVITIES OF THE
FLATHEAD TRIBAL COUNCIL. SKCC.

S-24
SCHAEFFER, CLAUDE E.
1937.
*"THE FIRST JESUIT MISSION TO THE FLATHEAD,
1840-1850: A STUDY IN CULTURE CONFLICTS."*
PACIFIC NORTHWEST QUARTERLY 37(JULY,
1937):227-250.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE ARTICLE CON-
SIDERS THE PERIOD OF INDIAN AND WHITE CON-
TACT AND RESULTING TRANSITIONAL CULTURE. THE
DESCRIPTION OF FLATHEAD'S ACCULTURATION
FOCUSES ON THE WHITE CULTURE AS PRESENTED
BY CATHOLIC MISSIONARIES, ITS CONFLICT WITH
PRE-EXISTING CULTURE, AND THE INDIANS' REAC-
TIONS. THE FLATHEAD'S INITIAL RECEPTIVITY TO
CHRISTIANITY, THEIR ABANDONMENT AND RETURN
TO THEIR WAY OF LIFE, A SKETCH OF NATIVE LIFE
(FOOD, HUNTING/GATHERING, CEREMONIES, WAR-
FARE, MARRIAGE), AND AN EXPLANATION OF THE
REJECTION OF CATHOLICISM ARE TOPICS DISCUSS-
ED.

S-25
SCHAEFFER, CLAUDE E.
1940.
*"THE SUBSISTENCE QUEST OF THE KUTENAI: A
STUDY OF THE INTERACTION OF CULTURE AND EN-
VIRONMENT."*
PH.D. DISSERTATION, UNIV. PENNSYLVANIA,
PHILADELPHIA.

(ABORIGINAL LANDS OF THE KUTENAI INDIANS).
THIS DISSERTATION EXAMINES THE ENVIRONMENT
AND ECONOMY OF THE KUTENAI INDIANS BEFORE
THE ARRIVAL OF THE WHITES. SKCC.

S-26
SCHAEFFER, CLAUDE E.
1947.
*"THE BEAR FOSTER PARENT TALE: A KUTENAI VER-
SION."*
J. AMERICAN FOLKLORE 60(JULY-SEPTEMBER
1947):296-298.

THIS ARTICLE RELATES THE KUTENAI VERSION OF A
TALE ALSO FOUND AMONG A NUMBER OF OTHER
TRIBES. SKCC.

S-27
SCHAEFFER, CLAUDE E.
1949.
*"WOLF AND TWO-POINTED BUCK: A LOWER KUTENAI
TALE OF THE SUPERNATURAL WORLD."*
PRIMITIVE MAN 22(JANUARY-APRIL 1949):1-22.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE KUTENAI INDIANS).
THIS ARTICLE PRESENTS A MYTH TO PROVIDE
UNDERSTANDING OF THE KUTENAI CULTURE AND
HISTORY. IT DESCRIBES THE COSMOLOGICAL
BELIEFS OF THE INDIANS WHO BELIEVED MANKIND

WAS PRECEDED ON EARTH BY DIFFERENT BEINGS, SUPERNATURAL SPIRITS. THE ACTIVITIES OF THESE SPIRIT BEINGS PROVIDE THE CONTENT OF MUCH OF KUTENAI ORAL LITERATURE. IN THE STORY PRESENTED, THE DEEDS OF SUPERNATURAL CHARACTERS INVOLVED IN THE INVENTION OF MOC-CASINS ARE DESCRIBED.

S-28
SCHAEFFER, CLAUDE E.
 1985.

"THE KUTENAI FEMALE BERDACHE: COURIER, GUIDE, PROPHETESS, AND WARRIOR." *ETHNOHISTORY* 12(SUMMER 1985):193-236.

THIS ARTICLE RELATES THE UNUSUAL CAREER OF THIS KUTENAI WOMAN DURING THE FIRST THIRD OF THE NINETEENTH CENTURY. SKCC.

S-29
SCHAEFFER, CLAUDE E.
 1986.

BEAR CEREMONIALISM OF THE KUTENAI INDIANS. *STUDIES IN PLAINS ANTHROPOLOGY AND HISTORY*, NO. 4. BROWNING, MT.: U.S. DEPT. INTERIOR, INDIAN ARTS & CRAFTS BOARD, MUSEUM OF THE PLAINS INDIAN. 54 PP. FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE KUTENAI INDIANS). THIS PAPER BRINGS TOGETHER INFORMATION FROM A NUMBER OF SOURCES AND DEFINES THE RELATIONSHIP OF KUTENAI BEAR CEREMONIALISM TO SIMILAR RITES IN THE PLATEAU, PLAINS, AND GREAT BASIN TRIBES. INCLUDED IN THE DISCUSSION ARE THE CHANGES IN KUTENAI BEAR ATTITUDE DURING THE LAST TWO CENTURIES, THE DIFFERING DEGREES OF IMPORTANCE APPLIED TO BLACK AND GRIZZLY BEARS, LINGUISTIC TERMINOLOGY REGARDING BEARS, KUTENAI BELIEFS ABOUT BEAR HIBERNATION, THE HUNTING OF BEAR, THE BEAR AS A FOOD ANIMAL, THE ANNUAL GRIZZLY BEAR CEREMONIAL, THE GRIZZLY BEAR AS A MALEVOLENT SPIRIT, THE GRIZZLY BEAR AND TOBACCO, AND THE BEAR FOSTER PARENT TALE.

S-30
SCHAFER, BETTY, AND ENGELTER, MABLE.
 1973.

FROM STUMPTOWN TO SKI TOWN. THE STORY OF WHITEFISH, MONTANA. WHITEFISH, MT.: WHITEFISH LIBRARY ASSOC. 286 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(WHITEFISH). A CHRONOLOGICAL HISTORY OF THE CITY FROM INDIAN DAYS TO THE PRESENT. INCLUDED ARE CHAPTERS ON SCHOOLS, CHURCHES, HOSPITALS, AND ORGANIZATIONS.

S-31
SCHAFER, STEPHEN C.
 1971.

"SOME ECOLOGICAL RELATIONSHIPS OF GRIZZLY BEARS AND BLACK BEARS OF THE APOAR MOUNTAINS IN GLACIER NATIONAL PARK, MONTANA." M.S. THESIS, UNIV. MONTANA, MISSOULA. 134 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS STUDY INVESTIGATES SOME OF THE RELATIONSHIPS BETWEEN *URSUS ARCTOS HORRIBILIS* AND *URSUS AMERICANUS PALLUS* WHICH MAY BE PERTINENT TO BEAR MANAGEMENT AND VISITOR PROTECTION. UTILIZATION PATTERNS OF HABITAT ARE INVESTIGATED. FOOD HABITS COMPARED THROUGH FIELD OBSERVATIONS AND SCAT ANALYSIS. UTILIZATION OF BEAR TREES STUDIED, AND THE USE OF ROADSIDES, FIRELINES AND TRAILS IS EVALUATED. A STUDY AREA DESCRIPTION, HUCKLEBERRY FIRE ECOLOGY

AND TECHNIQUES OF CROP MEASUREMENT ARE INCLUDED. BROAD PARK MANAGEMENT IMPLICATIONS ARE DISCUSSED.

S-32
SCHARFF, ROBERT, ED.
 1987.
 GLACIER NATIONAL PARK AND WATERTON LAKES NATIONAL PARK.
 NEW YORK: DAVID MCKAY CO. INC.

(GLACIER NATL. PARK). A GENERAL GUIDEBOOK TO THE PARKS WHICH COVERS SIGHTSEEING FROM THE ROADS, PLANT AND ANIMAL LIFE OF THE PARK, FISHING AND BOATING, ACCOMMODATIONS, A GEOLOGIC HISTORY, AND AN OUTLINE OF THE TRAILS.

S-33
SCHUEFELE, ROY W., AND THE PACIFIC NORTHWEST RIVER BASINS COMMISSION.
 1970.

HISTORY OF THE COLUMBIA BASIN INTER-AGENCY COMMITTEE. VANCOUVER, WA.: U.S. DEPT. AGRICULTURE; U.S. DEPT. DEFENSE; U.S. DEPT. HEALTH, EDUCATION, & WELFARE; U.S. DEPT. LABOR; BONNEVILLE POWER ADMINISTRATION; AND FEDERAL POWER COMMISSION. 182 PP. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: APPENDIX INCLUDES A COMPLETE LISTING OF DATES, PLACES, ATTENDANCE, AND SUBJECT MATTER OF THE MEETINGS.

(PACIFIC NORTHWEST). THE BOOK DESCRIBES THE COMMITTEE'S PURPOSE AND LIMITATIONS. THE GENESIS, A RESUME OF ACTIVITIES, AND A SUMMARY OF ACCOMPLISHMENTS AND FAILURES IS PRESENTED. THE HISTORY IS BASED ON OFFICIAL COMMITTEE RECORDS.

S-34
SCHMIDT, WYMAN C.
 1981.
 "RAPID VIABILITY TESTS FOR WESTERN LARCH SEED." *PROC. MONTANA ACADEMY SCIENCES* 21:26-32. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THE RESULTS OF AN EXPERIMENT USING COLD-SOAKING, HYDROGEN PEROXIDE, AND THIOUREA TREATMENTS WITH WESTERN LARCH (*LARIX OCCIDENTALIS*) SEED ARE REPORTED. THE TREATMENTS ARE EVALUATED TO DETERMINE THEIR RELATIVE MERITS IN STIMULATING GERMINATION. THREE METHODS THAT GIVE RELIABLE VIABILITY TESTS WITHIN 28 DAYS ARE SUGGESTED.

S-35
SCHMIDT, WYMAN, C.
 1986.
 GROWTH OPPORTUNITIES FOR YOUNG WESTERN LARCH. OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH NOTE INT-50. 44 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THIS STUDY REPORTS ON HOW EARLY IN THE LIFE OF A HEAVILY OVERSTOCKED LARCH STAND, OVERSTOCKING BEGINS RESTRICTING THE GROWTH OF INDIVIDUAL CROP TREES. A DESCRIPTION OF THE STUDY AREA AND METHODS IS INCLUDED.

S-36
SCHMIDT, WYMAN, C.
 1989.
 SEEDBED TREATMENTS INFLUENCE SEEDLING DEVELOPMENT IN WESTERN LARCH FORESTS.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH NOTE INT-93. 7 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THE CONDITION OF SEEDBEDS AFTER HARVESTING IS A KEY FACTOR INFLUENCING INITIAL ESTABLISHMENT OF *LARIX OCCIDENTALIS* STANDS IN TERMS OF SPECIES, COMPOSITION, AND DISTRIBUTION. THIS PAPER REPORTS ON A STUDY CONDUCTED TO EXAMINE THE EFFECTS OF DIFFERENT TYPES OF SEED BEDS ON NATURAL REGENERATION. THE STUDY RESULTS ARE DISCUSSED WITH REGARD TO GROWTH, COMPOSITION AND DOMINANCE.

S-37
SCHMIDT, WYMAN C.
 1970.
 CHRISTMAS TREE CULTURE IN NATURAL STANDS OF DOUGLAS-FIR IN MONTANA. OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH PAPER INT-84. 17 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: KALISPELL). THIS TEN YEAR STUDY WAS AIMED AT DETERMINING IF CULTURAL TREATMENTS WOULD INCREASE TOTAL PRODUCTION AND QUALITY OF DOUGLAS-FIR CHRISTMAS TREES PRODUCED IN NATURAL STANDS. CULTURAL METHODS TESTED INCLUDED: TWO TYPES OF STUMP CULTURE (BRANCH TURNUP AND ADVENTITIOUS SHOOTS); FIVE DIFFERENT BASAL PRUNING METHODS TO DETERMINE IF HEIGHT, GROWTH, AND DISTANCE BETWEEN WHORLS COULD BE REDUCED, RESULTING IN A HIGHER QUALITY TREE; AND LIGHT, MEDIUM, AND HEAVY THICKET THINNING.

S-38
SCHMIDT, WYMAN C.
 1978.
 "SOME BIOLOGICAL AND PHYSICAL RESPONSES TO FOREST STAND DENSITY." PAPER PRESENTED TO THE EIGHTH WORLD FORESTRY CONGRESS, JAKARTA, INDONESIA, OCTOBER 16-22, 1978. U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., OGDEN, UTAH. 11 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: CORAM EXPR. FOREST). THIS PAPER IS BASED UPON 15 YEARS OF DATA FROM A SPACING STUDY INSTALLED IN 7 AND 9-YEAR-OLD NATURALLY REGENERATED STANDS OF WESTERN LARCH. THIS PAPER ILLUSTRATES THAT STAND CULTURE NOT ONLY AFFECTS GROWTH ON SELECTED TREES, BUT ALSO OTHER FOREST FACTORS SUCH AS WATER, YIELD, AND INSECT RELATIONSHIPS.

S-39
SCHMIDT, WYMAN C., AND FELLIN, DAVID G.
 1970.
 "BUDWORM REDUCES FORM QUALITY AND HEIGHT GROWTH OF YOUNG WESTERN LARCH." FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). A FIVE YEAR STUDY OF SPRUCE BUDWORM DAMAGE TO WESTERN LARCH SHOWED THAT LARVAE WERE SEVERING CURRENT YEAR TERMINAL AND BRANCH SHOOTS AS WELL AS FEEDING ON THE FOLIAGE. THIS DAMAGE, WHICH INCREASED ANNUALLY, PRODUCED MULTIPLE-TOPPED TREES AND REDUCED ANNUAL HEIGHT-GROWTH. RAPID JUVENILE HEIGHT GROWTH AND EXCELLENT FORM WERE THUS BEING THREATENED.

S-40
SCHMIDT, WYMAN C., AND FELLIN, DAVID G.
 1973.
"WESTERN SPRUCE BUDWORM DAMAGE AFFECTS FORM AND HEIGHT GROWTH OF WESTERN LARCH."
 CANADIAN J. FOREST RESEARCH 3(MARCH 1973):17-26.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTS.: NORTHERN IDAHO & WESTERN MONTANA). THE EFFECT OF THE UNUSUAL FEEDING BEHAVIOR OF WESTERN SPRUCE BUDWORM (CHORISTONEURA OCCIDENTALIS) ON THE RAPID JUVENILE HEIGHT GROWTH AND EXCELLENT FORM OF WESTERN LARCH (LARIX OCCIDENTALIS) IS DISCUSSED. NOT ONLY DO BUDWORM LARVAE FEED ON THE FOLIAGE BUT ALSO SEVER THE STEMS OF THE CURRENT YEAR TERMINAL AND LATERAL SHOOTS. A FIVE-YEAR STUDY WAS CONDUCTED TO DETERMINE THE VULNERABILITY OF YOUNG LARCH TO THIS TYPE OF BUDWORM DAMAGE.

S-41
SCHMIDT, WYMAN C., AND LOTAU, J. E.
 1980.
PHENOLOGY OF COMMON FOREST FLORA OF THE NORTHERN ROCKIES, 1929-1937.
 OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMtn. FOREST & RANGE EXPR. STAT. 23 PP.
 SPECIFIC, TECHNICAL, FORTHCOMING, GENERAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(NORTHERN ROCKY MTS.: FLATHEAD VALLEY). THIS PAPER PRESENTS 10 YEARS OF PHENOLOGICAL OBSERVATIONS OF COMMON FOREST FLORA OF THE NORTHERN ROCKIES. IT INCLUDES DESCRIPTIONS OF IMPORTANT PHENOLOGICAL EVENTS AND EARLIEST, LATEST, AND AVERAGE DATES OF THEIR OCCURRENCE. FIFTY FOREST SPECIES ARE INCLUDED IN THE SUMMARIES. SIX SUMMARY TABLES ARE USED TO STRATIFY THE PHENOLOGICAL INFORMATION FOR THE THREE VEGETATION GROUPINGS (CONIFERS, HARDWOODS AND HERBACEOUS) BOTH EAST AND WEST OF THE CONTINENTAL DIVIDE. THIS INFORMATION HAS THE POTENTIAL FOR PRACTICAL APPLICATION WHERE TIMING OF EVENTS SUCH AS LEAFING, POLLINATION, CONE OPENING, ETC. ARE KEY TO SCHEDULING SPECIFIC MANAGEMENT AND RESEARCH ACTIVITIES.

S-42
SCHMIDT, WYMAN C., AND SCHMIDT, JACK.
 1979.
RECOVERY OF SNOW BENT YOUNG WESTERN LARCH.
 OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMtn. FOREST & RANGE EXPR. STAT. GEN. TECH. REPT. INT-54. 13 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THIS PAPER ILLUSTRATES HOW YOUNG WESTERN LARCH RESPOND TO SNOW BEND. A 13 YEAR OLD VIGOROUS STAND WAS FLATTENED BY A HEAVY WET SNOW IN 1966. THIS PAPER RECORDS PHOTOGRAPHICALLY HOW TWO DIFFERENT CROWN CLASSES (DOMINANT AND NON-DOMINANT) OF YOUNG LARCH SUBJECTED TO FOUR LEVELS OF SNOW BEND (SLIGHT TO SEVERE) RECOVERED DURING THE 11 YEAR PERIOD FOLLOWING DAMAGE.

S-43
SCHMIDT, WYMAN C.; SHEARER R.; AND ROE, A.
 1976.
ECOLOGY AND SILVICULTURE OF WESTERN LARCH FORESTS.
 OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, FOREST & RANGE EXPR. STAT. TECH. BULL. NO. 1520. 96 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHERN ROCKY MTS.: CORAM EXPR. FOREST). THIS REPORT SUMMARIZES AND CONSOLIDATES ECOLOGICAL AND SILVICULTURAL KNOWLEDGE OF WESTERN LARCH FORESTS. IT DESCRIBES ECONOMIC, BIOLOGICAL AND ENVIRONMENTAL VALUES; TREE REGENERATION AND STAND MANAGEMENT OPPORTUNITIES; AND GROWTH AND YIELD ESTIMATES.

S-44
SCHNAIDT, MARTHA.
 1972.
"MCINTOSH'S OPERA BLOCK IN KALISPELL."
 MONTANA HISTORIAN 3(AUTUMN 1972): 17-19.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL). THE CONSTRUCTION AND DESIGN OF AN OPERA HOUSE IN 1890 BY JOHN MCINTOSH IS THE SUBJECT OF THIS ARTICLE. THE ARTICLE ALSO DISCUSSES THE USES OF THE HOUSE, ITS DESTRUCTION IN A FIRE, AND ITS PRESENT STATE.

S-45
SCHNEIDER, BILL.
 1974.
"MAKING MOLEHILLS OUT OF MOUNTAINS. FLATHEAD COAL DEVELOPMENT."
 MONTANA OUTDOORS, SEPTEMBER-OCTOBER 1974, PP. 4-8.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, CANADA.

(CABIN CREEK, BRITISH COLUMBIA & NORTH FORK OF THE FLATHEAD RIVER). THIS IS AN ARTICLE OUTLINING THE ENVIRONMENTAL IMPACTS OF THE PROPOSED CANADIAN COAL DEVELOPMENT AT CABIN CREEK. THE POSSIBILITY OF ACID MINE DRAINAGE ENTERING THE NORTH FORK, THE TYPE OF RECLAMATION, AND THE SOCIO-ECONOMIC IMPACTS OF THE DEVELOPMENT ON THE NORTH FORK ARE EXAMINED.

S-46
SCHNEIDER, BILL.
 1975.
"LAKE MARY RONAN—WHERE THE PUBLIC INTEREST COMES FIRST."
 MONTANA OUTDOORS, JULY-AUGUST 1975, PP. 11-13.

(LAKE MARY RONAN). THIS ARTICLE TELLS THE STORY OF A LARGE SUBDIVISION PROPOSED FOR LAKE MARY RONAN NEAR POLSON. SKCC.

S-47
SCHNEIDER, BILL.
 1976.
"GOODBYE NORTH FORK?"
 MONTANA OUTDOORS, JANUARY-FEBRUARY 1976, PP. 5-10.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THE IMPACTS OF THE PROPOSED CANADIAN CABIN CREEK COAL DEVELOPMENT AND FEDERAL OIL AND GAS LEASING ON THE NORTH FORK ARE DISCUSSED IN THIS ARTICLE.

S-48
SCHOENBERG, WILFRED P., S. J.
 1957.
JESUIT MISSION PRESSES IN THE PACIFIC NORTHWEST, A HISTORY AND BIBLIOGRAPHY OF IM-PRINTS, 1878-1956.
 PORTLAND, ORE.: CHAMPOEG PRESS. 76 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD INDIAN RESERVATION). THIS STUDY DESCRIBES ALL THE WORKS PUBLISHED AT THE ST. IGNATIUS MISSION. THE

AUTHORS, THE CONTENT AND A PHYSICAL DESCRIPTION OF THE WORKS ARE INCLUDED. A HISTORY OF THE MISSION IS GIVEN.

S-49
SCHOENBERG, WILFRED P., S. J.
 1980.
JESUITS IN MONTANA, 1840-1980.
 PORTLAND, ORE.: THE OREGON-JESUIT. 120 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: ST. IGNATIUS & ARLEE). THIS HISTORIC ACCOUNT OF JESUIT MISSIONARY WORK DESCRIBES THE ARRIVAL OF FATHER PIERRE DESMET IN THE 1840'S, THE JESUIT MISSION PROCEDURE, THE ESTABLISHMENT OF THE FIRST MISSION, AND THE EDUCATION OF THE INDIANS IN AGRICULTURE. THE LINGUISTIC WORK OF FATHER MENGARINI, THE WORK OF FATHER RAVALLI, THE REOPENING OF THE MISSION IN 1866 BY FATHER GIORDA, AND THE FOUNDING OF ST. IGNATIUS MISSION BY FATHER HOECKEN IS DISCUSSED. IT ALSO DESCRIBES THE ARRIVAL OF THE SISTERS OF PROVIDENCE AND THEIR OPENING OF A GIRLS SCHOOL AND HOSPITAL; THE ARRIVAL OF URSULINE NUNS WHO OPENED A KINDERGARTEN FOR ORPHANS; THE ESTABLISHMENT OF ST. JOHN BERCKMAN'S MISSION AT ARLEE; MISSIONARY WORK AMONG THE BLACKFEET, CHEYENNE, CROWS, AND WHITE SETTLEMENTS.

S-50
SCHOENER, T. W.
 1979.
FEEDING STRATEGY ECOLOGY-THEORETICAL EXTENSIONS AND TESTS.
 SEATTLE: UNIV. WASHINGTON, SCHOOL ARTS & SCIENCES.
 IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(UNITED STATES: NATL. BISON RANGE). THIS RESEARCH DEALS WITH SIX AREAS IN WHICH THE FEEDING STRATEGY ECOLOGY IS NOT WELL DEVELOPED. IT WILL DETERMINE THE NUTRITIVE, TEMPORAL, ENERGETIC, DIGESTIVE-CAPACITY, AND OTHER CONSTRAINTS OF PHYTOPHAGOUS (MOSTLY MAMMALIAN) HERBIVORES ON THE NATIONAL BISON RANGE AND WILL ATTEMPT TO MODEL THESE CONSTRAINTS AND THE OPTIMAL DIET USING LINEAR PROGRAMMING.

S-51
SCHOOL PLANNING CENTER.
 1988.
EDUCATIONAL SPECIFICATIONS, PABLO ELEMENTARY SCHOOL.
 MISSOULA, MT.: UNIV. MONTANA, SCHOOL EDUCATION, DIV. RESEARCH & SERVICES. 30PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(PABLO). THIS REPORT DISCUSSES: THE PABLO ELEMENTARY INSTRUCTIONAL PROGRAM, EDUCATIONAL OUTCOMES, TRENDS, ORIENTATION AND RELATIONSHIPS, INTERNAL TRAFFIC, FURNITURE AND EQUIPMENT, STORAGE, GENERAL REQUIREMENTS, MULTIPURPOSE ROOM, ADMINISTRATIVE AREA, INSTRUCTIONAL MATERIALS CENTER, TEACHER PLANNING CENTER, AND CAFETERIUM.

S-52
SCHOOL PLANNING CENTER.
 1988.
A PLAN FOR SCHOOL REORGANIZATION FOR DISTRICT 28 LAKE COUNTY.
 MISSOULA, MT.: UNIV. MONTANA, SCHOOL EDUCATION, DIV. EDUCATIONAL RESEARCH & SERVICES. 43PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY: CHARLO & ST. IGNATIUS). THE CONTENT OF THIS PAPER WAS DEVELOPED THROUGH A SERIES OF MEETINGS WITH CITIZENS' COMMITTEES FROM CHARLO AND ST. IGNATIUS AND WITH THE BOARD OF TRUSTEES, AS WELL AS AN EXTENSIVE EXAMINATION OF EXISTING FACILITIES AND CURRICULUM. THE FACILITIES ARE EVALUATED, CONSOLIDATION IS CONSIDERED, COSTS ARE ANALYZED AND RECOMMENDATIONS ARE MADE.

S-53
SCHOOL PLANNING CENTER.
1968.

PROGRESS REPORT TO COLUMBIA FALLS.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL EDUCATION, DIV. EDUCATIONAL RESEARCH & SERVICES. 24 PP.
SPECIFIC, TECHNICAL, PRELIMINARY, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THIS REPORT EXAMINES: PRESENT AND PROJECTED ENROLLMENT, POPULATION GROWTH FACTORS, AND MAKES RECOMMENDATIONS FOR NEW CONSTRUCTION AND BUILDING IMPROVEMENTS.

S-54
SCHOOL PLANNING CENTER.
1969.
CURRICULUM STUDY AND RECOMMENDATIONS FOR CONSTRUCTION SCHOOL DISTRICT #28.
MISSOULA, MT. UNIV. MONTANA, SCHOOL EDUCATION, DIV. EDUCATIONAL RESEARCH & SERVICES. 212 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY: CHARLO & ST. IGNATIUS). THIS STUDY EXAMINES: ENROLLMENT, CURRICULUM, ECONOMIC CONSIDERATIONS, EXISTING FACILITIES, AND SPECIAL CONSIDERATIONS. RECOMMENDATIONS ARE MADE FOR THE CONSOLIDATION OF THE CHARLO AND ST. IGNATIUS HIGH SCHOOLS.

S-55
SCHOOL PLANNING CENTER.
1970.
AN EVALUATION OF FIFTEEN TITLE III PROJECTS IN THE STATE OF MONTANA.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL EDUCATION, DIV. EDUCATIONAL RESEARCH & SERVICES. 176 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: KALISPELL & WHITEFISH). THIS EVALUATION WAS DESIGNED TO MEASURE, IF POSSIBLE, THE DEGREE OF SUCCESS EXPERIENCED BY VARIOUS TITLE III PROJECTS THROUGHOUT THE STATE AS THEY OPERATED ALONG THE GUIDELINES WHICH THEY HAD PREVIOUSLY SET FOR THEMSELVES. THE STUDY ALSO ATTEMPTED TO DETERMINE WHAT CHANGES HAD OCCURRED IN STUDENTS, PARENTS, COMMUNITY AND TEACHERS AS A RESULT OF THE TITLE III PROJECTS. THE KALISPELL AREA RESOURCE CENTER FOR INSTRUCTION IN MUSIC, ART AND SCIENCE, AND WHITEFISH'S "PROJECT SEE" ARE EXAMINED.

S-56
SCHOOL PLANNING CENTER.
1972.
END OF GRANT REPORT: BIALMO-DAYTON PROJECT (1971-1972).
MISSOULA, MT.: UNIV. MONTANA, SCHOOL EDUCATION, DIV. EDUCATIONAL RESEARCH AND SERVICES. 26 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: ELMO). THIS END OF GRANT YEAR REPORT FINALIZES THE ACTIVITIES CARRIED OUT AT ELMO FOR THE 1971-1972 YEAR. THE

REPORT EXAMINES: THE HOME-SCHOOL COORDINATORS ACTIVITIES, STUDENT TEST RESULTS, THE COMMUNITY DEVELOPERS REPORT, AND FISCAL ACCOUNTING.

S-57
SCHOOL PLANNING CENTER.
FINAL REPORT AND RECOMMENDATIONS OF THE COMMUNITY CONSULTANT COUNCIL, POLSON, MONTANA.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL EDUCATION, DIV. EDUCATIONAL RESEARCH & SERVICES. 25 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(POLSON). SPECIFIC RECOMMENDATIONS FOR THE IMPROVEMENT OF THE SCHOOL CURRICULUM ARE MADE FOR THE FOLLOWING SUBJECTS: LANGUAGE ARTS; FOREIGN LANGUAGE; PREVOCATIONAL TRAINING; COMMERCIAL, BUSINESS COURSES; SPECIAL EDUCATION; HANDICAPPED CHILDREN; HEALTH; GUIDANCE; REMEDIAL PROGRAMS; SUMMER SCHOOL AND KINDEGARTEN. BUILDING NEEDS ARE EXAMINED.

S-58
SCHOOL PLANNING CENTER.
REMODELING AND NEW CONSTRUCTION OF SEELEY SWAN HIGH SCHOOL.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL EDUCATION, DIV. EDUCATIONAL RESEARCH & SERVICES. 35 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SEELEY LAKE). THIS REPORT DESCRIBES THE NEED FOR THE CONSTRUCTION OF GYMNASIUM FACILITIES. THE EDUCATIONAL SPECIFICATIONS INCLUDED INDICATE THE USE TO WHICH THE REMODELING AND NEW CONSTRUCTION SHOULD BE PUT.

S-59
SCHRAER, WILBUR D., AND WORTHAM, K. E.
1968.
A STUDY OF THE WATER QUALITY OF THE MCDONALD VALLEY, GLACIER NATIONAL PARK.
YELLOW BAY, MT.: UNIV. MONTANA BIOLOGICAL STAT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: MCDONALD VALLEY). THE PURPOSE OF THIS SURVEY WAS TO DETERMINE THE EFFECTS OF TOURISM ON THE WATER QUALITY OF THE MCDONALD VALLEY DRAINAGE SYSTEM. MCDONALD CREEK AND LAKE ALONG WITH MAJOR TRIBUTARIES WAS SURVEYED TWICE A WEEK FOR ONE MONTH DURING THE SUMMER OF 1968. THE SURVEY PROCEDURE INCLUDED WATER CHEMISTRY AND COLIFORM COUNTS BY THE MEMBRANE FILTER TECHNIQUE. WATER QUALITY PARAMETERS INCLUDED D. O., CO₂, PH, PHENOLPHTHALEIN ALKALINITY AND METHYL ORANGE ALKALINITY.

S-60
SCHULMAN, JON D.
1977.
"WILDERNESS, DEVELOPMENT, AND THE FLATHEAD BASIN."
M. A. THESIS, UNIV. MONTANA, MISSOULA. 121 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN). THE STUDY IS A JOURNALISTIC APPROACH TO THE CONTROVERSY OVER THE FUTURE USES OF RELATIVELY WILD LANDS IN THE BASIN. THE CHOICE IS BETWEEN PROTECTING THESE LANDS FOR THEIR VALUE AS WILDERNESS OR OPENING THEM TO TIMBER, ENERGY, MINERAL AND OTHER TYPES OF DEVELOPMENT. SEVERAL APPROACHES WERE INCORPORATED INTO THE STUDY.

THE INTRODUCTION PROVIDES A HISTORICAL PERSPECTIVE OF DEVELOPMENT AND SOME OF ITS EFFECTS. A PHOTO-ESSAY PROVIDES DIRECT VISUAL INFORMATION ON WILDERNESS AND THE EFFECTS OF DEVELOPMENT ON WILDERNESS. AN ESSAY PRESENTS THE AUTHOR'S IMPRESSIONS AND INSIGHTS GAINED DURING THE THESIS WORK. NO EDITORIAL OR ADVOCACY STATEMENT IS MADE DIRECTLY.

S-61
SCHULTZ, BILL.
1978.
WATER QUALITY MONITORING COMMENTS AND DATA-1977 AND 1978.
KALISPELL, MT.: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, NORTHWEST AREA. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(STILLWATER STATE FOREST & SWAN STATE FOREST). THIS PAPER REPORTS ON THE STATE FORESTRY WATER QUALITY MONITORING PROGRAM. THE FOLLOWING PARAMETERS WERE TESTED AT 10 STATIONS: DISCHARGE, STAGE, SUSPENDED SEDIMENT, SPECIFIC CONDUCTANCE, PH, TOTAL HARDNESS AND ALKALINITY. DATA IS INCLUDED.

S-62
SCHULTZ, JAMES W.
1907.
MY LIFE AS AN INDIAN: THE STORY OF A RED WOMAN AND A WHITE MAN IN THE LODGES OF THE BLACKFEET.
NEW YORK: DOUBLEDAY, PAGE & CO.

(ABORIGINAL LANDS OF FLATHEAD, KUTENAI, & PEND D'OREILLE INDIANS). SEVERAL OF SCHULTZ'S EXPERIENCES IN THE 1870'S RELATE TO THE TRIBES OF THE FLATHEAD RESERVATION, INCLUDING A TELLING OF THE BLACKFEET DRIVING THE KUTENAI AND PEND D'OREILLES OUT OF THE PLAINS. SKCC.

S-63
SCHULTZ, JAMES W.
1926.
"INDIAN NAMES IN GLACIER PARK."
THE OUTLOOK, JULY 28, 1926, PP. 442-444.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE ARGUES FOR THE USE OF BLACKFEET NAMES FOR THE PARK'S EASTSIDE AND KUTENAI NAMES FOR ITS WESTSIDE. DESCRIBES THE RESEARCH INVOLVED IN GATHERING AND RECORDING THE NAMES.

S-64
SCHULTZ, JAMES W.
1930.
"EARLY REMINISCENCES OF GLACIER NATIONAL PARK."
NORTHWEST MAGAZINE, APRIL 1930, PP. 61-64.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ADVENTURES OF THE AUTHOR AND EARLY EXPLORATIONS BY HUGH MONROE, FATHER DESMET AND GEORGE BIRD GRINNELL ARE DESCRIBED. EXPLANATIONS FOR PLACE NAMES IN THE PARK ARE GIVEN.

S-65
SCHULTZ, JAMES W.
1930.
"EARLY REMINISCENCES OF GLACIER NATIONAL PARK."
NORTHWEST MAGAZINE, MAY 1930, PP. 88-89.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE AUTHOR'S JOURNEYS AND THE ORIGIN OF PLACE NAMES IN GLACIER NATIONAL PARK ARE RECOUNTED.

8-66

SCHULTZ, JOHN L.
1978.

WHITE MEDICINE, INDIAN LIVES... AS LONG AS THE GRASS SHALL GROW....
FT. COLLINS, CO.: COLORADO STATE UNIV., DEPT. ANTHROPOLOGY.

THIS INTRODUCTION TO SOME OF THE PECULIAR PROBLEMS OF INDIAN MEDICINE WAS PREPARED FOR PROSPECTIVE PERSONNEL FOR THE INDIAN HEALTH SERVICE IN THE BILLINGS AREA. SKCC.

8-67

SCHULTZ, LEONARD P.

1941.

FISHES OF GLACIER NATIONAL PARK, MONTANA.
WASHINGTON, D.C.: U.S. DEPT. INTERIOR. CONSERVATION BULL. NO. 22. 42 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE BULLETIN DESCRIBES FISH FAUNA IN THE FOLLOWING REGIONS: LAKE McDONALD, SUMMIT CREEK NORTHWARD TO SHERBURNE LAKE, KENNEDY CREEK DRAINAGE TO WATERTON LAKE, KINTLA LAKE DRAINAGE TO QUARTZ LAKE DRAINAGE, BEAR CREEK NORTHWARD TO LOGGING, BOWMAN LAKE, WATERTON LAKE, SHERBURNE LAKE, AND MORAN'S BATH TUB. THIS STUDY WAS VIEWED AS NECESSARY FOR MAKING PLANTING RECOMMENDATIONS. 23 SPECIES ARE LISTED IN TABLES OF DISTRIBUTIONAL RECORDS.

8-68

SCHUMACHER, ROBERT E.

1976.

NORTH FORK FLATHEAD RIVER AND ITS INFLUENCE ON THE FISH SPECIES POPULATION AND LIFE HISTORY CHARACTERISTICS.

KALISPELL, MT.: MONTANA DEPT. FISH & GAME. 21 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THIS SUMMARY REPORTS: MAJOR LIFE HISTORIES, GENERAL DISTRIBUTION PATTERNS, SENSITIVITY TO POLLUTION ELEMENTS, EXISTING WATER QUALITY DATA, REVIEW OF CURRENT AND FUTURE AQUATIC BIOLOGICAL PROGRAMS, HUNGRY HORSE RESERVOIR, KOKANEE IN THE FLATHEAD DRAINAGE, AND WATER QUALITY DATA ON FLATHEAD LAKE.

8-69

SCHUMACHER, ROBERT E.

1978.

A STUDY OF PRESENT AND POTENTIAL HUNGRY HORSE RESERVOIR DRAINAGE VARIATIONS AND THEIR EFFECTS ON THE FLATHEAD SYSTEM FISHERY.

KALISPELL, MT.: MONTANA DEPT. FISH & GAME, FISHERIES DIV.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR: SOUTH FORK OF THE FLATHEAD RIVER). FLUCTUATING DISCHARGES AND THE ALTERED THERMAL REGIME OF THE FLATHEAD RIVER BELOW HUNGRY HORSE RESERVOIR ARE BELIEVED TO HAVE CONSIDERABLE IMPACT ON THE FISHERY OF THE FLATHEAD RIVER SYSTEM UNDER CURRENT OPERATIONS CRITERIA. THIS PAPER OUTLINES A PROPOSAL FOR A STUDY OF THE EFFECTS OF THE RESERVOIRS VARIATIONS ON THE FISHERY. IT DESCRIBES THE PROBLEM DEFINITION, OBJECTIVES, SOLUTION PROCEDURES, ASSUMP-

TIONS, METHODOLOGY AND ANALYSIS, AND REPORTS. AN APPENDIX REPORTS ON "NOTES ON KOKANEE RED EXAMINATION AND FRY EMERGENCE IN RELATION TO HUNGRY HORSE RESERVOIR DISCHARGE" BY R. DOMROSE.

8-70

SCHUSTER, ERVIN G.

1978.

ATTITUDES AND ACTIVITIES OF PRIVATE FOREST LANDOWNERS IN WESTERN MONTANA.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. 76 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD RIVER BASIN). THIS REPORT PRESENTS INFORMATION FROM A SURVEY OF PRIVATE FOREST LANDOWNERS. INFORMATION OBTAINED INCLUDED: SOCIO ECONOMIC CHARACTERISTICS, REASONS FOR OWNERSHIP, RECREATION AND TIMBER PRODUCTION ACTIVITIES, AND REASONS WHY TIMBER HARVEST DID OR DID NOT OCCUR.

8-71

SCHUSTER, ERVIN G.

1978.

MONTANA'S TIMBER HARVEST AND TIMBER-USING INDUSTRY: A STUDY OF RELATIONSHIPS.

MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, MONTANA FOREST & CONSERVATION EXPR. STAT. BULL. 41. 36 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THIS PAPER DEVELOPS THE INFORMATION BASE NEEDED TO ASSESS THE PROBABLE ECONOMIC EFFECTS OF CHANGES IN THE RATE OF GEOGRAPHICAL DISTRIBUTION OF TIMBER HARVEST. LAND MANAGERS CAN USE THIS INFORMATION IN ECONOMIC BASE OR INPUT-OUTPUT STUDIES TO MEASURE THE ECONOMIC IMPACTS OF MANAGEMENT ALTERNATIVES. THE PAPER PRESENTS AND ANALYZES DATA DESCRIBING THE AMOUNT OF EMPLOYMENT AND WAGES IN THE TIMBER USING INDUSTRY WHICH IS SUPPORTED BY EACH MILLION BOARD FEET OF TIMBER USED. A COMPREHENSIVE DESCRIPTION OF TIMBER HARVEST AND THE GEOGRAPHICAL MOVEMENT OF TIMBER FROM FOREST TO MILL IS ALSO PRESENTED. COUNTY LEVEL DATA ARE PRESENTED FOR 1970 AND 1975. STATE LEVEL DATA PERTAIN TO THE 1962-1976 TIME PERIOD.

8-72

SCHUYLER, ALFRED E.

1978.

"CHECKLIST OF THE AQUATIC FLOWERING PLANTS OF FLATHEAD LAKE, MONTANA."

BARTONIA 48:1.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE NAMES USED IN THIS CHECKLIST FOLLOW HITCHCOCK AND CRONQUIST (1973). THIS LIST IS NOT ALL INCLUSIVE BUT IT WILL PROVIDE A STARTING POINT FOR FURTHER EXPLORATION.

8-73

SCHUYLER, ALFRED E.

IN PRESS.

"CAREX CHORDORRHIZA IN GLACIER NATIONAL PARK."

RHODORA. 1 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A BRIEF REPORT ON THE DISCOVERY OF CAREX CHORDORRHIZA GROWING NORTH OF APOGAR IN GLACIER NATIONAL PARK. THIS

REPORT EXTENDS THE WESTERN NORTH AMERICAN RANGE OF THE PLANT SOUTHWARD TO NORTHWESTERN MONTANA FROM ALBERTA AND BRITISH COLUMBIA.

8-74

SCHWEITZER, DENNIS L.; BENSON, ROBERT E.; AND MCCONNEN, RICHARD J.

1975.

A DESCRIPTIVE ANALYSIS OF MONTANA'S FOREST RESOURCES.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, INTERMTN. FOREST & RANGE EXPR. STAT. RESOURCE BULL. INT-11. 100 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS REPORT UPDATES A 1959 REPORT, "FULL USE AND DEVELOPMENT OF TIMBER RESOURCES IN MONTANA" (SENATE DOCUMENT NO. 9, JANUARY 27), WHICH DISCUSSED THE TIMBER RESOURCE AND ITS POTENTIAL UTILIZATION AND INDUSTRIAL DEVELOPMENT. THE PRESENT ANALYSIS EXPANDS THE SCOPE OF THE PREVIOUS REPORT TO INCLUDE DATA ON EMPLOYMENT, INCOME AND ECONOMICS. AMENITY VALUES, NOW OF CRITICAL IMPORTANCE IN FOREST LAND USE AND MANAGEMENT, ARE PRESENTED IN AN ANALYTICAL FRAMEWORK TO THE EXTENT POSSIBLE WITH AVAILABLE DATA. THE CHAPTERS COVER: THE FOREST LAND BASE AND SUCH RESOURCES AS WILDERNESS, RECREATION, GRAZING, WILDLIFE, WATER, MINERAL AND NATURAL AREAS; TIMBER MANAGEMENT AND PRODUCTION (PRESENT HARVEST LEVELS AND FUTURE PRODUCTION); PRODUCTION AND MARKETING OF WOOD PRODUCTS; PRINCIPLE NON-TIMBER USES OF THE FOREST; ENVIRONMENTAL ASPECTS OF FORESTS USE; AND ECONOMIC IMPLICATIONS OF CHANGES IN TIMBER HARVESTING.

8-75

SCHWEITZER, DENNIS L.; ULLRICH, J.; AND BENSON, R.

1976.

ESTHETIC EVALUATION OF TIMBER HARVESTING IN THE NORTHERN ROCKIES-A PROGRESS REPORT.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH NOTE INT-203. 11 PP.

IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTS.: CORAM EXPR. FOREST). A REPORT ON THE FINDINGS TO DATE OF A RESEARCH EFFORT EVALUATING THE ESTHETIC DIMENSION OF HARVESTED AREAS IN THE NORTHERN ROCKIES. ONE ASPECT OF THE STUDY CONCERNS VARIOUS SILVICULTURAL PRESCRIPTIONS ON CORAM EXPERIMENTAL FOREST. TECHNIQUES USED TO DETERMINE PREFERENCES ARE EXPLAINED AND EVALUATIONS ARE TABULATED.

8-76

AUTH SCOTT, DONALD C.

1964.

"THE MONTANA SALISH."

THE PACIFIC NORTHWESTERNER, SUMMER 1964, PP. 39-46.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE ARTICLE DESCRIBES SALISH HISTORY: THE ORIGIN OF THE NAME "FLATHEAD," THE INDIAN'S TRADITIONAL HOME, CONTACT WITH LEWIS AND CLARK, EARLY EXPLORERS AND TRADERS, BATTLES WITH THE PIEGAN (BLACKFEET), THE ATTEMPTS TO OBTAIN CATHOLIC PRIESTS, THE FOUNDING OF THE MISSIONS, THE 1855 STEVENS TREATY, THE REMOVAL OF CHARLOT FROM THE BITTERROOT VALLEY, THE OPENING OF THE RESERVATION TO HOMESTEADERS, AND THE CURRENT STATUS OF THE INDIANS.

8-77

SCOTT, HUGH L.
1921.

"REPORT ON THE FLATHEAD INDIAN AGENCY, MONTANA," IN FIFTY-SECOND ANNUAL REPORT OF THE BOARD OF INDIAN COMMISSIONERS FOR THE FISCAL YEAR ENDED JUNE 30, 1921.

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.

(FLATHEAD INDIAN RESERVATION). THIS SURVEY OF FLATHEAD AGENCY AFFAIRS IN 1920 INCLUDES SCHOOLS, LANDS, TIMBER, LAW AND ORDER, AND HEALTH. SKCC.

8-78

SCOTT, LESLIE M.
1928.

"INDIAN DISEASES AS AIDS TO PACIFIC NORTHWEST SETTLEMENT." OREGON HISTORICAL QUARTERLY 29(JUNE 1928):144-181.

(PACIFIC NORTHWEST). THIS ARTICLE DISCUSSES THE IMPACTS OF DISEASES ON THE INDIANS OF THE PACIFIC NORTHWEST. SKCC.

8-79

SCOTT, M. DOUGLAS.
IN PROGRESS.

PTARMIGAN STUDIES.

BOZEMAN, MT.: INSTITUTE OF APPLIED RESEARCH, MONTANA STATE UNIV.

IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: GLACIER NATL. PARK, MISSION MTNS.). THIS IS A THREE YEAR STUDY INVESTIGATING THE CURRENT RANGE, POPULATION, HABITAT, FOOD HABITS AND SEASONAL MOVEMENTS OF THE WHITE-TAILED PTARMIGAN IN MONTANA. THE THIRD YEAR OF THE STUDY WILL FOCUS ON INTRODUCING THE BIRD TO AREAS IN THE STATE WITH SUITABLE HABITAT. PRELIMINARY INDICATIONS ARE THAT PTARMIGAN POPULATIONS ARE LOWER THAN PREVIOUSLY ASSUMED.

8-80

SCOTT, RUTH NAVARRE.
1982.

"THE TIME OF SPAWNING, AGE, AND SECONDARY SEX CHARACTERS OF ADULT CHUBS (MYLOCHEILUS CAURINUS) FROM FLATHEAD LAKE, MONTANA, AS CORRELATED WITH HISTOLOGICAL CHANGES IN THEIR TESTES."

M. A. THESIS. MONTANA STATE UNIV., MISSOULA. 56 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN. GEOC.31,50,51.

(FLATHEAD LAKE). THIS THESIS ON THE COLUMBIA RIVER CHUB (MYLOCHEILUS CAURINUS) DESCRIBES ITS BREEDING CYCLE IN TERMS OF HISTOLOGICAL CHANGES OCCURRING IN ITS TESTES, AND MACROSCOPICAL CHANGES IN ITS OVARIES. SECONDARY SEX CHARACTERS WHICH MAY SERVE TO INDICATE SEXUAL MATURITY ARE DISCUSSED AND CORRELATED WITH THE TESTICULAR CYCLE; DIMORPHIC CHARACTERS WHICH MAY DISTINGUISH MALES FROM FEMALES ARE EVALUATED. THE AGES OF SPAWNING FISH ARE NOTED AS WELL AS SUCH MISCELLANEOUS ITEMS AS FEEDING ACTIVITIES AND PARASITISM.

8-81

SEAGO, J. B.
1988.

ENGINEERING INTERPRETATIONS FOR THE UPPER FLATHEAD VALLEY SOIL SURVEY.

KALISPELL, MT.: U.S. DEPT. AGRICULTURE, SOIL CONSERVATION SERVICE.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE INFORMATION IN THIS PUBLICATION CAN BE USED FOR PRELIMINARY ESTIMATES FOR CONSTRUCTION PURPOSES PERTINENT TO THE PARTICULAR AREA, AS AN AID IN LOCATING PROBABLE SOURCES OF PARTICULAR TYPES OF CONSTRUCTION MATERIAL AND AS A GUIDE FOR MORE EFFICIENT SAMPLING AND TESTING PROCEDURES. THE FORMS DESCRIBE SOIL TEXTURE, AVAILABLE WATER CAPACITY, PH, SHRINK-SWELL POTENTIAL, CORROSIVITY, SEPTIC TANK DISPOSAL FIELD, AND AGRICULTURAL DRAINAGE.

8-82

SEARS, HOWARD S.
1955.

"CERTAIN ASPECTS OF THE REPRODUCTIVE PHYSIOLOGY OF THE FEMALE MULE DEER."

M. S. THESIS, MONTANA STATE UNIV., MISSOULA. 82 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE PRIMARY PURPOSES OF THIS STUDY WERE 1) TO PRESENT THE CHRONOLOGICAL CHANGES IN THE REPRODUCTIVE TRACTS AND ASSOCIATED ORGANS OF THREE AGE CLASSES OF MULE DEER, AND 2) TO DETERMINE THE RELIABILITY OF "PIGMENTED AREA" COUNTS AS AN INDEX TO PREVIOUS OVULATION AND PREGNANCY INCIDENCE.

8-83

SEARS, HOWARD S., AND BROWMAN, LUDWIG G.
1955.

"QUADRUPLETS IN MULE DEER." ANATOMICAL RECORD 122: 335-339.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). FEMALE DEER OF SEVERAL AGES WERE COLLECTED EVERY MONTH OF THE YEAR AS PART OF AN INVESTIGATION OF FEMALE ROCKY MOUNTAIN MULE DEER (ODOCOILEUS HEMIONUS HEMIONUS). THE DISCOVERY OF FOUR NORMAL FETUSES IN A PREGNANT DOE IN THIS SERIES WAS SO UNUSUAL THAT IT WAS REPORTED HERE. FETUS SIZE, DISTRIBUTION, AND CHARACTERS ARE DESCRIBED.

8-84

SEASHORE, ROBERT HOLMES.
1924.

"THE GEOLOGY OF THE REGION ABOUT BELTON IN NORTHWESTERN MONTANA."

M. S. THESIS, UNIV. IOWA CITY. 75 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: BELTON (WEST GLACIER), MIDDLE FORK OF THE FLATHEAD RIVER, COLUMBIA FALLS, & LAKE McDONALD). THE CHIEF PURPOSE OF THIS STUDY WAS TO DETERMINE THE STRUCTURE, STRATIGRAPHY, AND PHYSIOGRAPHY OF THE MOUNTAIN RANGES CROSSED BY THE GREAT NORTHERN RAILROAD WHERE IT FOLLOWS THE VALLEY OF THE MIDDLE FORK OF THE FLATHEAD RIVER FROM ROCK HILL TO COLUMBIA FALLS. THE REPORT ATTEMPTS TO EXPLAIN THE SERIES OF DRAINAGE CHANGES WHICH TOOK PLACE IN THE BELTON (WEST GLACIER) AREA; AND ATTEMPTS TO EXTEND WILLIS'S STRUCTURE SECTION OF THE LEWIS AND LIVINGSTON RANGES FROM THE HEAD OF LAKE McDONALD TO COLUMBIA FALLS.

8-85

SEASTEDT, T. R., AND TIBBS, JOHN F.
1974.

LAND USE AND WATER QUALITY IN THE FLATHEAD DRAINAGE.

DENVER: U.S. ENVIRONMENTAL PROTECTION AGENCY; VANCOUVER, WA.: PACIFIC NORTHWEST RIVER BASINS COMMISSION; AND HELENA, MT.: MONTANA

DEPT. NATURAL RESOURCES & CONSERVATION, AND MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES. 155 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THE STUDY OBJECTIVES WERE TO: 1) COMPILE EXISTING WATER QUALITY AND LAND MANAGEMENT DATA, 2) EVALUATE METHODS USED IN OBTAINING DATA, AND 3) DEVELOP METHODS FOR THE ASSESSMENT OF IMPORTANT ECOLOGICAL PARAMETERS TOWARD THE PREVENTION OF WATER QUALITY DEGRADATION FROM LAND USE ACTIVITIES. A LITERATURE REVIEW WAS CONDUCTED AND LAND MANAGEMENT AGENCIES WERE CONTACTED. POPULATION AND ECONOMIC STATISTICS AND TRENDS WERE EXAMINED.

8-86

SEIBERT, ROBERT R.
1978.

AN ANALYSIS OF THE WILDERNESS ZONE BACK COUNTRY CAMPING PERMIT SYSTEM IN GLACIER NATIONAL PARK.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PROGRESS REPORT DESCRIBES THE FIRST SEASON OF FIELD WORK SPENT IN ATTEMPTING TO DETERMINE: 1) USER COMPLIANCE WITH BASIC ZONE SYSTEM REGULATIONS, 2) THE LOCATION AND DOCUMENTATION OF EXISTING CONDITIONS IN NON-DESIGNED SITES THAT ARE ATTRACTING OVERNIGHT VISITOR USE, 3) THE PRESENT STATE OF TRADITIONAL CAMPSITE DETERIORATION, 4) THE AVAILABILITY OF NON-DESIGNED SITES OFFERING ADEQUATE CAMPING OPPORTUNITIES, 5) USER DEMAND FOR THE ADDED FREEDOM OF ZONE TYPE TRAVEL, 6) THE ABILITY OF USERS TO EFFECTIVELY DISPERSE THEMSELVES TO THE SATISFACTION OF ALL PARTIES INVOLVED, AND 7) USER ACCEPTANCE OF AND SATISFACTION WITH THE SYSTEMS.

8-87

SEIFRIED, RICHARD D.
1968.

"EARLY ADMINISTRATION OF THE FLATHEAD INDIAN RESERVATION, 1855 TO 1893."

M. A. THESIS, UNIV. MONTANA, MISSOULA, MT. 216 PP.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). GOVERNMENT ADMINISTRATION OF INDIAN AFFAIRS ON FLATHEAD RESERVATION IS REVIEWED. THE FIRST AGENTS, 1855 TO 1865; AGENTS APPOINTED FROM 1865 TO 1877; PETER RONAN'S ADMINISTRATION, 1877-1893; AND GOVERNMENT POLICIES AND ACTIVITIES SUCH AS THE GARFIELD AGREEMENT AND THE REMOVAL ACT OF 1872 ARE THE TOPICS ADDRESSED.

8-88

SELJAK, HARLAND D.
1950.

"A SURVEY OF THE SUBJECTS TAUGHT IN LAKE COUNTY HIGH SCHOOLS WITH RECOMMENDATIONS FOR CURRICULUM REVISION."

M. E. THESIS, MONTANA STATE UNIV., MISSOULA. 81 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY). THE PURPOSES OF THIS STUDY WERE TO: 1) ANALYZE THE PRINCIPLE GEOGRAPHICAL, ECONOMIC AND SOCIOLOGICAL CHARACTERISTICS OF LAKE COUNTY AND INDICATE WHAT SEEMS TO BE THEIR MAJOR IMPLICATIONS FOR THE SECONDARY SCHOOL CURRICULUM OF THE HIGH SCHOOLS OF THAT COUNTY; 2) DETERMINE

(GLACIER NATL. PARK: LAKE MCDONALD). EACH FALL LARGE NUMBERS OF BALD EAGLES (*Haliaeetus leucocephalus*) CONCENTRATE IN GLACIER NATIONAL PARK TO FEED ON SPAWNING KOKANEE SALMON (*Oncorhynchus nerka*). THIS PAPER DEALS WITH A MANAGEMENT ORIENTED STUDY CONDUCTED DURING THE 1971 AND 1972 SEASONS, WITH ADDITIONAL OBSERVATIONS ON BALD EAGLE NUMBERS, MOVEMENTS, ROOSTING, FEEDING BEHAVIOR, INTRASPECIFIC AND INTERSPECIFIC BEHAVIOR.

S-113
SHEA, MARIE CUFFE.
1977.

EARLY FLATHEAD AND TOBACCO PLAINS: A NARRATIVE HISTORY OF NORTHWESTERN MONTANA.
EUREKA, MT.: BY THE AUTHOR. 278 PP.

(NORTHWESTERN MONTANA). THIS LOCAL HISTORY OF THE NORTHWESTERN MONTANA AREA INCLUDES MUCH NEW MATERIAL, INCLUDING A NUMBER OF REFERENCES TO FLATHEAD AND KOOTENAI INDIANS. SKCC.

S-114
SHEARER, RAYMOND C.
1959.

"WESTERN LARCH SEED DISPERSAL OVER CLEAR-CUT BLOCKS IN NORTHWESTERN MONTANA."
PROC. MONTANA ACADEMY SCIENCES 19:130-134.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: CORAM EXPR. FOREST). DISPERSALS OF WESTERN LARCH (*Larix occidentalis*) SEED THROUGH A 6 YEAR EXPERIMENTAL PERIOD WERE INVESTIGATED ON CLEAR-CUT AREAS OF THE FOREST. THE VARIATION OF SEED DISPERSAL BY YEAR, DISTANCE, AND DIRECTION FROM TIMBER EDGE WAS ASSESSED. SEED DISSEMINATION PROVISIONS FOR ADEQUATE RESTOCKING ARE PRESENTED.

S-115
SHEARER, RAYMOND C.
1960.

"FIRST-YEAR MORTALITY OF CONIFEROUS SEEDLINGS IN THE WESTERN LARCH-DOUGLAS-FIR TYPE."
PROC. MONTANA ACADEMY SCIENCES. VOL. 20.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THE RESULTS OF AN INVESTIGATION OF FIRST-YEAR MORTALITY OF CONIFEROUS SEEDLINGS ARE SUMMARIZED IN ABSTRACT FORM. SEEDS OF WESTERN LARCH (*Larix occidentalis*), DOUGLAS-FIR (*Pseudotsuga menziesii*), ENGELMANN SPRUCE (*Picea engelmannii*), AND SUBALPINE FIR (*Abies lasiocarpa*) WERE SOWN. THE AMOUNT OF MORTALITY BY CAUSE WAS MEASURED ON WATERSHED, WEEDED, SHADED, AND NONTREATED QUADRANTS. LOSSES DUE TO BIOTIC AGENTS (FUNGI, BIRDS, AND RODENTS), INSOLATION AND DROUGHT ARE PRESENTED.

S-116
SHEARER, RAYMOND C.
1967.
INSOLATION LIMITS INITIAL ESTABLISHMENT OF WESTERN LARCH SEEDLINGS.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH NOTES INT-64.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THIS PAPER DESCRIBES THE EFFECTS OF INSOLATION ON YOUNG LARCH SEEDLINGS, AS INFLUENCED BY SEED PRETREATMENT, SCREENING, ASPECT AND SOWING TIME: FACTORS INFLUENCING INSOLATION ARE EXAMINED AND RECOMMENDATIONS MADE FOR THE SUCCESSFUL SEEDING OF LARCH.

S-117
SHEARER, RAYMOND C.
1970.

"SURFACE SOIL MOISTURE FOLLOWING LOGGING AND SLASHING IN WESTERN LARCH FORESTS."
NORTHWEST SCIENCE 44: 70.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THE MEASUREMENT OF SOIL MOISTURE ON SITES THAT WERE CLEARCUT AND BURNED MAY THROUGH OCTOBER IN WESTERN LARCH (*Larix occidentalis*) STANDS IS REPORTED IN AN ABSTRACT. THE RESULT OF CUTTING ON THE REDUCTION OF MOISTURE DEPLETION WITHIN THE SURFACE FOUR INCHES OF ADJACENT UNDERCUT AREAS. WATER LOSS BELOW THE SURFACE INCH OF SOIL DUE TO PRESCRIBED BURNING WAS ALSO NOTED.

S-118
SHEARER, RAYMOND C.
1971.

"SILVICULTURAL SYSTEMS IN WESTERN LARCH FORESTS."
J. FORESTRY 69: 732-735.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(NORTHERN ROCKY MTNS.: CORAM EXPR. FOREST). THIS PAPER REVIEWS THE REGENERATION REQUIREMENTS OF WESTERN LARCH, *Larix occidentalis*, AND DISCUSSES SEVERAL SILVICULTURAL SYSTEMS IN LIGHT OF THESE REQUIREMENTS AND MULTIPLE USE CONSIDERATIONS.

S-119
SHEARER, RAYMOND C.
1975.

SEEDBED CHARACTERISTICS IN WESTERN LARCH FORESTS AFTER PRESCRIBED BURNING.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. 26 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THIS REPORT EXAMINES THE EFFECTIVENESS OF PRESCRIBED BROADCAST BURNING FOR SEEDBED PREPARATION-REDUCTION OF DUFF AND ROOT MORTALITY. SOIL WATER BEFORE AND AFTER BURNING AND SOIL TEMPERATURE DURING BURNING WERE ALSO STUDIED.

S-120
SHEARER, RAYMOND C.
1976.

"EARLY ESTABLISHMENT OF CONIFERS FOLLOWING PRESCRIBED BROADCAST BURNING IN WESTERN LARCH-DOUGLAS-FIR FORESTS."
PAPER PRESENTED AT THE TALL TIMBERS FIRE ECOLOGY CONFERENCE NO. 14 AND INTERMOUNTAIN FIRE RESEARCH COUNCIL FIRE AND LAND MANAGEMENT SYMPOSIUM. 20 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). A MAJOR OBJECTIVE OF THIS STUDY WAS TO DETERMINE THE EFFECTS OF VARYING INTENSITIES OF PRESCRIBED BURNING ON THE SUBSEQUENT ESTABLISHMENT OF CONIFERS ON AREAS THAT HAVE BEEN CLEARCUT. EARLY ESTABLISHMENT OF CONIFERS FOLLOWING BURNING WAS INFLUENCED BY SEVERAL FACTORS WHICH ARE DISCUSSED.

S-121
SHEARER, RAYMOND C.
1979.

"REGENERATION ESTABLISHMENT AND INITIAL DEVELOPMENT IN RESPONSE TO HARVESTING AND RESIDUE MANAGEMENT." IN ENVIRONMENTAL CONSEQUENCES OF TIMBER HARVESTING IN ROCKY MOUNTAIN CONIFEROUS FORESTS.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., FORESTRY SCIENCES LAB.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHERN ROCKY MTNS.: CORAM EXPR. FOREST). THIS ARTICLE DESCRIBES THE FACTORS WHICH CONTRIBUTED TO SLOW REGENERATION RATE FOLLOWING TIMBER HARVEST AT CORAM EXPERIMENTAL FOREST.

S-122
SHEARER, RAYMOND C., AND HALVORSON, CURTIS H.
1967.

ESTABLISHMENT OF WESTERN LARCH BY SPRING SPOT SEEDING.
J. FORESTRY 65 (MARCH 1967): 188-193.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: CORAM EXPR. FOREST). A THREE-YEAR EXPERIMENT TO DETERMINE THE FEASIBILITY OF SPOT SEEDING WESTERN LARCH (*Larix occidentalis*) IN THE SPRING YIELDED INFORMATION ON FAVORABLE ASPECT AND DATES FOR PLANTING, EFFECTIVENESS OF TWO SEED TREATMENTS IN INCREASING GERMINATION, AND MEANS FOR PREVENTING LOSSES TO RODENTS. INCLUDED IN THE FINDINGS ARE: SOWING METHODS PRODUCING THE BEST GERMINATION, AND SURVIVAL; THE SEED TREATMENT OR LACK OF, RESULTING IN POOR GERMINATION, ON SLOPES WHERE SEEDLING SURVIVAL WAS LOW; CAUSES OF SEEDLING MORTALITY (DROUGHT, INSOLATION, FROST HEAVING, AND FUNGI); AND THE LOSSES AND CONTROL OF RODENT DEPREDATIONS.

S-123
SHEARER, RAYMOND C., AND HAMMER, ROGER Q.
1968.

"ROOT MORTALITY FOLLOWING BURNING OF LOGGING SLASH."
NORTHWEST SCIENCE 42:43
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA). A STUDY OF AN OF
PRESCRIBED BURNING IS SUMMARIZED IN ABSTRACT. GREATER ROOT MORTALITY FOLLOWING BURNING WHEN SOIL MOISTURE WAS LOWEST IS NOTED ALONG WITH GREATER DEGREES OF HEAT PENETRATION AND DUFF CONSUMPTION. METHODS OF MEASURING ROOT MORTALITY INVOLVED THE USE OF THE VITAL STAIN, ORTHOTOLIDINE.

S-124
SHEARER, RAYMOND C., AND MIELKO, J. L.
1958.

AN ANNOTATED LIST OF THE DISEASES OF WESTERN LARCH.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. BULL. NO. 53. 8 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(OREGON, WASHINGTON, IDAHO, & MONTANA). THIS PAPER ASSEMBLES IN BRIEF, ANNOTATED FORM A LISTING OF SEEDLING DISEASES, FOLIAGE FUNGI, ROOT ROT, DECAY FUNGI, CANKERS, AND DWARF MISTLETOE, AGENTS THAT ATTACK *Larix occidentalis*. A LIST OF THE LITERATURE THAT CONTAIN REFERENCES TO THESE AGENTS IS INCLUDED.

S-125
SHEARER, RAYMOND C., AND TACKLE, D.
1960.

EFFECT OF HYDROGEN PEROXIDE ON GERMINATION IN THREE WESTERN CONIFERS.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. BULL. NO. 80. 4 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). SEEDS OF LARIX OCIDENTALIS, PSEUDOTSUGA MENZIESII AND ABIES LASIOCARPA GERMINATE VERY SLOWLY IN STANDARD GERMINATION TESTS WITHOUT PRETREATMENT. THIS PAPER DESCRIBES THE RESULTS OF TESTS USING H₂O₂ INSTEAD OF WATER AS THE WETTING AGENT DURING A GERMINATION TEST TO HASTEN GERMINATION AND SHORTEN THE TEST PERIOD.

S-126
SHEIRE, JAMES W.
1970.
GLACIER NATIONAL PARK-HISTORIC RESOURCE STUDY.
U.S. DEPT. INTERIOR, OFFICE OF HISTORY & HISTORIC ARCHITECTURE, EASTERN SERVICE CENTER. 228 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). PART ONE OF THIS STUDY DEALS WITH THE NORTH AMERICAN INDIAN AND HIS RELATIONSHIP TO THE AREA. PART TWO EXAMINES THE INTERACTION BETWEEN AMERICANS AND MOUNTAINS; THE DISCOVERY, EXPLORATION, SETTLEMENT, AND EXPLOITATION OF THE AREA BEFORE IT BECAME A PARK.

S-127
SHENON, PHILIP J.
1935.
"GENESIS OF THE ORE AT THE FLATHEAD MINE, NORTHWESTERN MONTANA."
ECONOMIC GEOLOGY 30(SEPT-EMBER-OCTOBER 1935):29-58.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: FLATHEAD MINE). THE DEPOSIT AT THE FLATHEAD MINE FORMED AT SHALLOW DEPTHS DURING COMPARATIVELY RECENT GEOLOGIC TIME; IT CONTAINS ORE OF HIGH TENOR ENCLOSED IN IGNEOUS ROCKS OF LATE TERTIARY AGE. DESCRIBED IN THIS REPORT ARE THE GEOMORPHOLOGY, ORE BODY, MINERALOGY AND GENESIS OF THE DEPOSIT. DIAGRAMS AND PHOTOGRAPHS ARE INCLUDED.

S-128
SHENON, PHILIP J., AND TAYLOR, A. V., JR.
1936.
GEOLOGY AND ORE OCCURRENCE OF THE HOG HEAVEN MINING DISTRICT, FLATHEAD COUNTY, MONTANA.
BUTTE, MT.: MONTANA BUREAU MINES & GEOLOGY; MONTANA SCHOOL MINES. MEMOIR NO. 17. 26 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HOG HEAVEN MINING DISTRICT: FLATHEAD & OLE MINES). A REPORT ON THE UNIQUELY OCCURRING SILVER DEPOSIT. THE STUDY EXAMINES THE PHYSICAL FEATURES, THE GEOMORPHIC HISTORY, AND THE CLASSIFICATION AND DISTRIBUTION OF SEDIMENTARY AND IGNEOUS ROCK IN THE AREA. THE HISTORY, AND PRODUCTION, THE GENESIS, AND THE MINERALOGY OF THE DEPOSITS ARE DISCUSSED. FUTURE OUTLOOK AND SUGGESTIONS FOR PROSPECTORS INCLUDED.

S-129
SHERIDAN, RICHARD.
1988.
BIBLIOGRAPHY ON MONTANA'S WATER AND RELATED LAND RESOURCES.
BOZEMAN, MT.: MONTANA STATE UNIV., JOINT WATER RESOURCES RESEARCH CENTER. 81 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS BIBLIOGRAPHY INCLUDES ALL THE BOOKS AND PAMPHLETS RELATING TO MONTANA'S WATER RESOURCES FOUND IN THE HISTORICAL

SOCIETY LIBRARY OF HELENA, AND BOTH THE STATE UNIVERSITIES. THE BOOKS AND ARTICLES HAVE BEEN ARRANGED BY THE LIMITED SUBJECT WITHIN THE WATER RESOURCES FIELD. THE BIBLIOGRAPHY CONCLUDES WITH A LIST OF ORGANIZATIONS IN THE STATE WHICH HAVE CONCERNED THEMSELVES WITH WATER RESOURCES ACTIVITIES.

S-130
SHOTWELL, L. W.
1936.
"BLUE BAY SUNSHINE CAMP."
INDIANS AT WORK, 15 OCTOBER 1936, PP. 35-37.

THIS ARTICLE DESCRIBES A 1936 SUMMER RECREATION CAMP OPERATED FOR FLATHEAD CHILDREN BY THE BUREAU OF INDIAN AFFAIRS. SKCC.

S-131
SHOTWELL, L. W.
1936.
"END OF AN ERA—BEGINNING OF A NEW?"
INDIANS AT WORK, REORGANIZATION NUMBER, 1936, PP. 29-30.

EVALUATION OF THE IMPACT AND POSSIBILITIES OF TRIBAL REORGANIZATION.

S-132
SHRODER, JOHN F.; GIARDINO, J. R.; AND BUTTER, D. R.
1976.
"DENDROCHRONOLOGIC ANALYSIS OF ROCK GLACIERS AND SNOW AVALANCHES." (ABSTRACT). PAPER PRESENTED TO THE 4TH BIENNIAL MEETING OF AMERICAN QUATERNARY ASSOC., OCTOBER 9-10, ARIZONA STATE UNIV., TEMPE, ARIZONA.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(UTAH, COLORADO, & MONTANA). FIELD WORK ON A VARIETY OF MASS-MOVEMENT-PRONE SLOPES DEMONSTRATED THE UTILITY OF ANNUAL TREE RINGS IN STUDIES OF ROCK GLACIERS AND SNOW AVALANCHES. A MODIFIED SKELETON PLOT OF YEARLY EVENT RESPONSES IS CONSTRUCTED FOR EACH SAMPLE (CORE, NOTCH-CUT, OR CROSS-CUT SECTION), AND REPLICATING DATES FROM WITHIN TREES ARE SUMMED. SUCH ANALYSIS APPEARS TO HAVE POTENTIAL FOR DETERMINING PERIODIC OR APERIODIC MOVEMENTS OF ROCK GLACIERS AND SNOW AVALANCHES.

S-133
SIEBEL, ROBERTA.
1973.
LOGAN PASS WOODEN WALKWAY PROGRESS REPORT. GLACIER NATIONAL PARK.
WEST GLACIER, MT.: GLACIER NATIONAL PARK. 7 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). A THREE-YEAR STUDY WAS INITIATED IN THE 1972 SEASON TO DETERMINE THE EFFECTIVENESS OF THE WOODEN WALKWAY ON LOGAN PASS FOR CHANNELING USE WHILE PERMITTING NATURAL ECOLOGICAL PROCESSES TO PREVAIL. VISITOR USE PATTERNS AND BEHAVIOR, VISITOR REACTIONS, ENGINEERING EFFECTS, AND ECOLOGICAL EFFECTS WERE STUDIED.

S-134
SIEBEL, ROBERTA.
1974.
LOGAN PASS WOODEN WALKWAY STUDY: NATIONAL PARK SERVICE PROGRESS REPORT.
WEST GLACIER, MT.: GLACIER NATIONAL PARK. 32 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). THE PURPOSE OF THIS STUDY IS TO EVALUATE THE EFFECTIVENESS OF THE WOODEN WALKWAY ON LOGAN PASS. EVALUATION WILL BE MADE IN TERMS OF FIVE HYPOTHESES. REJECTION OF ONE OR MORE HYPOTHESES DURING THE THREE-YEAR STUDY PERIOD WILL BE SUFFICIENT CAUSE TO REEVALUATE THE MANAGEMENT PROGRAM.

S-135
SIEJA, DONALD.
1959.
"CLAY MINERALOGY OF GLACIAL LAKE MISSOULA VARVES, MISSOULA COUNTY, MONTANA."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 50 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSOULA COUNTY). THE OBJECTIVES OF THIS STUDY WERE: 1) IDENTIFICATION OF THE CLAY MINERALS IN THE DARK AND LIGHT LAYERS OF THE VARVED LAKE SEDIMENTS, 2) STUDY OF POSSIBLE STRATIGRAPHIC CHANGES IN THE CLAY MINERAL SUITE, AND 3) INVESTIGATION OF THE HORIZONTAL DISTRIBUTION OF THE CLAY MINERALS WITHIN THE MISSOULA VALLEY AND SURROUNDING AREAS.

S-136
SIEMINSKA, JADWIGA.
1965.
"ALGAE FROM MISSION WELLS POND, MONTANA."
TRANS. AMERICAN MICROSCOPICAL SOCIETY 84:98-126.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY: MISSION WELLS POND). A LIST OF ALGAE SPECIES FOUND IN THIS PARTICULAR LAKE IS PRESENTED, FOLLOWING A BRIEF DESCRIPTION OF THE LAKE'S SETTING. IN THIS SINGLE COLLECTION, 118 SPECIES AND VARIETIES OF ALGAE OCCURRED, INCLUDING SOME NEW SPECIES AND VARIETIES. THE LIST EXCLUDES DIATOMS.

S-137
SILLOWAY, PERLEY MILTON.
1901.
"FLATHEAD LAKE FINDINGS."
THE CONDOR 3(JANUARY-FEBRUARY 1901):4-7.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS ARTICLE REPORTS ON OBSERVATIONS OF THE BIRD SPECIES, DENDROICA AUDUBONI AND EMPIDONAX WRIGHTII, AND COLLECTION OF THEIR EGGS AND NESTS. THE SIZE OF THE NESTS, THE MATERIAL USED TO CONSTRUCT THEM, AND EGG COLOR AND MARKINGS ARE DESCRIBED ALONG WITH LOCATIONS OF BIRD OBSERVATIONS AND NESTS.

S-138
SILLOWAY, PERLEY MILTON.
1902.
"THE HOLBOELL GREBE IN MONTANA."
THE CONDOR 4(NOVEMBER-DECEMBER 1902):128-131.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN LAKE). OBSERVATIONS AND COLLECTIONS REGARDING THE HOLBOELL GREBE, COLYMBUS HOLBOELLI, ARE REPORTED. INCLUDED ARE DESCRIPTIONS OF THE BIRD'S CALL, SWIMMING BEHAVIOR, HABITAT, NESTS, NEST MATERIALS, AND EGGS. THE LOCATIONS OF ALL NESTS IN THE VICINITY AND EGG COLLECTIONS ARE DISCUSSED.

S-139
SILLOWAY, PERLEY MILTON.
1903.
ADDITIONAL NOTES TO SUMMER BIRDS OF FLATHEAD LAKE WITH REFERENCE TO SWAN LAKE. BIOLOGICAL SERIES, NO. 8.

MISSOULA, MT.: UNIV. MONTANA. BULL. NO. 18. 21 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(SWAN LAKE, FLATHEAD LAKE). THIS IS NOT A COMPLETE LIST OF BIRDS IN THE REGION, BUT RATHER PERSONAL OBSERVATIONS MADE DURING THE COLLECTING SEASON. BIRDS ARE LISTED BY THE SCIENTIFIC NAME AND LOCATION DISCOVERED.

S-140
SILLOWAY, PERLEY MILTON.
1903.
BIRD MUSIC IN THE FLATHEAD REGION. BIOLOGICAL SERIES, NO. 5.
MISSOULA, MT.: UNIV. MONTANA. BULL. NO. 18.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: FROM A SERIES OF LECTURES AT THE UNIVERSITY OF MONTANA BIOLOGICAL STATION AT FLATHEAD LAKE, SESSION 1902.

(UNIV. MONTANA BIOL. STAT.). BIRD SONG, AN INDEX OF A CHANGING PHASE OF THE BIRD'S ACTIVITIES, IS EXAMINED. THE SINGING BEHAVIOR OF MORE THAN 15 BIRD SPECIES (SPARROWS, VIREOS, TOWHEES, WARBLERS, CATBIRDS, BLUEBIRDS, ROBINS, CEDAR WAXWINGS, TANAGERS, LAZULI BUNTINGS, BLACK-HEADED GROSBEAKS, THRUSHES, AND SWALLOWS) IS DESCRIBED.

S-141
SILLOWAY, PERLEY MILTON.
1903.
HOW TO STUDY A BIRD; NATURE STUDY LESSON. BIOLOGICAL SERIES, NO. 5.
MISSOULA, MT.: UNIV. MONTANA. BULL. NO. 18.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: FROM A SERIES OF LECTURES AT THE UNIVERSITY OF MONTANA BIOLOGICAL STATION AT FLATHEAD LAKE, SESSION 1902.

(UNIV. MONTANA BIOL. STAT.). IMPORTANT ASPECTS IN THE STUDY OF BIRDS ARE DISCUSSED. THE PRIMARY OBJECT IN ANY NATURE STUDY IS THE TRAINING OF THE POWERS OF OBSERVATION; THE PRIMARY STEP IN THE STUDY OF A BIRD IS IDENTIFICATION. IDEA OF THE BIRD'S SIZE, FORM, COLOR, AND MARKING IS REQUIRED, ALONG WITH THE BIRD'S ACTIONS AND ITS SINGING AND FLYING BEHAVIOR. ALSO DISCUSSED IS THE STUDY OF BIRD HABITATS, MIGRATIONS, RELATIONSHIPS OF ENVIRONMENT, FOOD HABITS, RELATIONSHIPS TO MAN, REPRODUCTIVE BEHAVIOR, AND NESTING.

S-142
SILLOWAY, PERLEY MILTON.
1904.
"AFIELD AT FLATHEAD."
THE CONDOR 8(JANUARY-FEBRUARY 1904):12-14.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & SWAN LAKE). THIS ARTICLE REPORTS ON A FOLLOW-UP EXPEDITION TO SWAN LAKE. THE PURPOSE OF THE TRIP WAS TO INVESTIGATE THE EFFECTS OF A 1902 VISIT IN WHICH ALL THE EGGS IN A SMALL COLONY OF HOLBOELL GREBES, COLYMBUS HOLBOELLI, WERE COLLECTED. THE NUMBER OF NESTS, AND EGGS WERE COUNTED. THE ARTICLE ALSO REPORTS ON THE ABUNDANCE OF THE TOWNSEND WARBLER, DENDROICA TOWNSENDI, AND OBSERVATIONS OF CEDAR WAXWING, AMPHISP. CEDRORUM, LOUISIANA TANAGER, PIRANGA LUDOVICIANA, AND RUBY-CROWNED KINGLET, REGULUS CALENDULA. THE LOCATION OF NESTS, PHYSICAL DIMENSIONS OF THE NESTS, AND MATERIALS USED IN THEIR CONSTRUCTION ARE DESCRIBED.

S-143
SILLOWAY, PERLEY MILTON.
1905.
"NOTES FROM FLATHEAD, 1904."
THE CONDOR 7(JANUARY-FEBRUARY 1905):19-22.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & SWAN LAKE). SITINGS OF THE VARIED THRUSH (IXOREUS NAEVIUS) AND THE TENNESSEE WARBLER (HELMINTHOPHILA PEREGRINA) ARE REPORTED. NEST SITES, DIMENSIONS, AND MATERIALS USED IN NEST CONSTRUCTION ARE DESCRIBED. ALSO DISCUSSED IS THE SINGING BEHAVIOR OF THE MALE WARBLER AND THE NEST BUILDING OF THE FEMALE.

S-144
SILLOWAY, PERLEY MILTON.
1906.
"AMONG THE FLATHEAD BIRDS."
THE CONDOR 3(SEPTMBER-OCTOBER 1906):109-110.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS ARTICLE REPORTS ON OBSERVATIONS OF AUDUBON WARBLER, DENDROICA AUDUBONI, AND TOWNSEND WARBLER, D. TOWNSENDI. NEST SITES, MATERIALS, AND DIMENSIONS ARE DESCRIBED, AS WELL AS THEIR SINGING BEHAVIOR.

S-145
SILLOWAY, PERLEY MILTON.
TYPES OF NESTS OF BIRDS. BIOLOGICAL SERIES, NO. 5.
MISSOULA, MT.: UNIV. MONTANA. BULL. NO. 18.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

PART OF A SERIES OF LECTURES AT THE UNIVERSITY OF MONTANA BIOLOGICAL STATION AT FLATHEAD LAKE, SESSION OF 1902.

(UNIV. MONTANA BIOL. STAT.). NEST BUILDING ACTIVITIES, FROM THE SELECTION OF NEST MATERIALS AND NESTING SITES TO LINING AND WEAVING TECHNIQUES, ARE DESCRIBED FOR A VARIETY OF BIRD SPECIES.

S-146
SILVERMAN, ARNOLD.
1972.
A GEOLOGIC, GEOCHEMICAL, AND SEDIMENTOLOGIC STUDY OF FLATHEAD LAKE, MONTANA.
BOZEMAN, MT.:MONTANA UNIV. JOINT WATER RESOURCES RESEARCH CENTER. REPT. NO. 21. 48 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & SOUTHERN FLATHEAD VALLEY). THIS REPORT INCLUDES THE RESULTS OF A GRAVITY SURVEY FOR THE LAKE AND AN AREA EXTENDING FROM THE MISSION MOUNTAINS ON THE EAST TO THE SALISH MOUNTAINS ON THE WEST, AND A MAPPING PROJECT OF GENERALIZED GEOLOGIC INFORMATION COVERING 300 SQUARE MILES WEST OF THE LAKE.

S-147
AUTH. SIMANGAN, JOR T.
1933.
"LICHENS OF MISSOULA AND ADJACENT COUNTIES."
M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 60 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MISSOULA COUNTY). THIS PAPER COVERS THE ORIGIN OF LICHENS, THE HISTORY OF LICHENOLOGY, THE USES OF LICHENS, AND THE MORPHOLOGY AND PHYSIOLOGY OF LICHENS. IT INCLUDES A LIST OF SPECIES COLLECTED WHICH ENCOMPASSES 18 GENERA AND 42 SPECIES.

S-148
SIMMONS, ARNOLD B.
1958.
THE EVALUATION OF HIKING TRAILS IN GLACIER NATIONAL PARK BY THOSE WHO USE THEM.
FORT COLLINS, CO.: COLORADO STATE UNIV. FR186
PROFESSIONAL INQUIRIES & REPTS., 15 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE REPORT IS CONCERNED WITH SURVEY RESULTS, INVOLVING MAILED QUESTIONNAIRES TO A SAMPLE OF GUESTS AT THE SWIFTCURRENT LOOKOUT. PRESENTS DATA ON: HIKING CLASSES, MILES HIKE PER DAY, TOTAL MILES HIKE, DAY HIKERS, CAMPERS, NIGHTS SPENT OUT, HIKERS' ASSESSMENT OF CAMPSITES, TRAIL CONDITIONS, CHALET ADEQUACY, SIGN DIRECTIONS, AND THE NECESSITY OF TRAILS.

S-149
SIMMONS, CLAIRE A.
1974.
"SEASONAL MOVEMENTS AND MIGRATIONS OF THE SPOTTED BEAR ELK HERD."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 99 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER). THE OBJECTIVES OF THIS STUDY, THROUGH USE OF RADIO TELEMTRY AND MARKED ANIMALS, WERE TO DOCUMENT ELK MOVEMENTS TO AND FROM THE WINTER RANGE, INCLUDING: DISTANCE AND DIRECTION OF DISPERSAL FROM WINTER RANGE; PROBABLE MIGRATION ROUTES; TIME SPAN OF MIGRATION PERIOD; WHETHER ANIMALS FROM DIFFERENT PARTS OF THE WINTER RANGE UTILIZE SEPARATE AREAS OF THE SUMMER RANGE; LOCATION, USE, AND SIZE OF SEASONAL AREAS; SEASONAL HABITAT UTILIZATION; WINTER POPULATION ESTIMATES; AND HERD COMPOSITION.

S-150
SIMONS, W. D.
1963.
IRRIGATION AND STREAM FLOW DEPLETION IN COLUMBIA RIVER BASIN ABOVE THE DALLES, OREGON.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. WATER SUPPLY PAPER 1220. 126 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN ABOVE THE DALLES, OREGON). VALUES OF NET CONSUMPTIVE USE WERE DETERMINED OR ESTIMATED FOR VARIOUS TRIBUTARY BASINS, INCLUDING THE FLATHEAD BASIN, AND COMPARED TO AVAILABLE EXPERIMENTAL DATA. THESE VALUES WERE THEN USED TO COMPUTE THE AVERAGE DEPLETION WHICH COULD BE DIRECTLY ATTRIBUTED TO IRRIGATION. THE YIELD OF A DRAINAGE BASIN WAS CONSIDERED TO BE THE SUM OF THE OBSERVED RUNOFF AND THE ESTIMATED DEPLETION. FOR PURPOSES OF COMPARISON, THE DEPLETION WAS EXPRESSED BOTH IN TERMS OF ACRE-Feet AND AS A PERCENTAGE OF THE YIELD OF THE BASIN. DATA IS PRESENTED IN TABULAR FORM, ACCOMPANIED BY A BRIEF EXPLANATION.

S-151
SIMONS, W. D.
1968.
HYDROLOGY OF HUNGRY HORSE RESERVOIR, MONTANA: BASIC DATA SUPPLEMENT.
MENLO PARK, CA: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY, AND BONNEVILLE POWER ADMINISTRATION. OPEN-FILE REPT. 154 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR). THE RESEARCH AIM WAS THE DEFINITION OF HYDROLOGIC PARAMETERS RELATED TO THE OPERATION AND

MANAGEMENT OF THE RESERVOIR (INFLOW AND OUTFLOW COMPONENTS) AND THE ANALYSIS OF COMPONENTS TO FACILITATE FORECASTING INFLOW VOLUMES, EVALUATE POTENTIAL BANK STORAGE, AND TEST TECHNIQUES RELATING GROUNDWATER STORAGE AND STREAMFLOW. A DATA COLLECTION PROGRAM WAS DESIGNED TO INCLUDE: DISCHARGE AND WATER-STAGE RECORDS, WATER TEMPERATURE, AND METEOROLOGIC DATA.

S-152

SIMONS, W. D., AND RORABAUGH, M. I.
1971.

HYDROLOGY OF HUNGRY HORSE RESERVOIR, NORTHWESTERN MONTANA.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. PROF. PAPER 682. 66 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR). THE OBJECTIVES OF THIS INVESTIGATION WERE TO DETERMINE MORE ACCURATELY THE VOLUME OF WATER AVAILABLE AT THE RESERVOIR, INCLUDING BANK STORAGE, AND TO IMPROVE THE FORECASTING PROCEDURE FOR LOW WATER PERIODS. THIS STUDY INCLUDED THE COLLECTION OF DATA REQUIRED TO DEFINE ACCURATELY THE INFLOW AND OUTFLOW COMPONENTS OF THE RESERVOIR'S HYDROLOGY AND THE ANALYSES OF THE COMPONENTS OF THE WATER BUDGET. EQUATIONS AND DATA ARE INCLUDED.

S-153

SIMS, JAMES R., AND HASY, VINCENT A.
1979.

AVAILABILITY OF MICRONUTRIENT CATIONS IN MONTANA SOILS.

BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT. BULL. 706. 20 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: LAKE & SANDERS COUNTIES). THIS STUDY ANALYZED SAMPLES FROM 15 BENCHMARK MONTANA SOILS, 55 SMALL GRAIN-NITROGEN TOPDRESSING RESEARCH SITE SOILS, AND 243 PRODUCER SOILS TO DETERMINE THE AVAILABILITY OF THE MICRONUTRIENT CATIONS: COPPER, IRON, MANGANESE, AND ZINC. CONCENTRATIONS OF THE CATIONS FLUCTUATE BY DEPTH FROM THE SURFACE THROUGH THE SUBSOIL HORIZONS. CORRELATION COEFFICIENTS FOR EACH CATION WITH SOIL PH, ORGANIC MATTER, AND PHOSPHORUS WERE DETERMINED.

S-154

SINGER, FRANCIS J.
1973.

NATURAL RESOURCES INVENTORY AND INFORMATION SYSTEM MODEL, GLACIER NATIONAL PARK.

MOSCOW, ID.: UNIV. IDAHO, COLLEGE OF FORESTRY. 11 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER REPORTS ON THE DEVELOPMENT OF A PRELIMINARY COMPUTER BASED NATURAL RESOURCES INFORMATION SYSTEM MODEL IN GLACIER NATIONAL PARK. THIS MODEL WAS DEVELOPED FOR USE IN CONJUNCTION WITH A COMPUTER BASED FIRE MODEL.

S-155

SINGER, FRANCIS J.
1973.

NOTES ON WINTER ECOLOGY OF THE POLE BRIDGE GRASSLAND AREA, GLACIER NATIONAL PARK, MONTANA.

MOSCOW, ID.: UNIV. IDAHO, COLLEGE FORESTRY. 11 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER IS A RECORD OF WINTER OBSERVATIONS IN A GRASSLAND AREA OF THE PARK. OMNIVOROUS BIRDS, RODENTS, UNGULATES, MOOSE, WHITE TAILED DEER, ELK, MOUNTAIN LION, LYNX, COYOTE, MINK, PINE MARTEN, RAPTORS, AND CERVIDS ARE NOTED.

S-156

SINGER, FRANCIS J.
1975.

BEHAVIOR OF MOUNTAIN GOATS, ELK AND OTHER WILDLIFE IN RELATION TO U.S. HIGHWAY 2, GLACIER NATIONAL PARK.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK; AND FEDERAL HIGHWAY ADMINISTRATION. 96 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: U.S. HIGHWAY 2). THE STUDY INVOLVED OBTAINING QUANTITATIVE DATA RELATING TO THE USE OF THE WALTON GOAT LICK BY MOUNTAIN GOATS AND SURROUNDING ENVIRONMENT TO FORM A BASIS FOR THE EVALUATION OF HIGHWAY CONSTRUCTION OPTIONS. STUDY DESIGN INCLUDED: SCIENTIFIC LITERATURE REVIEW, BASIC INVENTORY OF THE AREA, OBSERVATIONS OF MOUNTAIN GOATS (*Oreamnos americanus*) ON RUNNING RABBIT MOUNTAIN, COLLECTION OF SUPPLEMENTAL DATA IN PERIPHERAL AREAS, AND RECORDING DATA ON HUMAN-MOUNTAIN GOAT RELATIONSHIPS. POPULATION DYNAMICS, HABITAT RELATIONSHIPS, FLIGHT BEHAVIOR, AND EFFECTS OF HIGHWAYS PERTAINING TO ELK (*Cervus canadensis*) AND MULE DEER (*Odocoileus hemionus*) ARE DISCUSSED. THE IMPACT ON ENDANGERED SPECIES IS ALSO CONSIDERED.

S-157

SINGER, FRANCIS J.
1975.

ECOLOGY OF MOUNTAIN GOATS IN THE VICINITY OF WALTON GOAT LICK, GLACIER NATIONAL PARK. INTERIM PROGRESS REPORT.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK, WALTON GOAT LICK). THE PURPOSE OF THIS STUDY IS TO OBTAIN QUANTITATIVE DATA RELATING TO THE NATURAL LICK USED BY MOUNTAIN GOATS (*Oreamnos americanus*) AS A BASIS FOR ENVIRONMENTAL EVALUATION OF HIGHWAY CONSTRUCTION OPTIONS. HIGHWAY SAFETY AND WILDLIFE MORTALITY STATISTICS IN CANADIAN PARKS ARE EXAMINED IN RELATIONSHIP TO WILDLIFE USE AND VISITOR VIEWING SITES LOCATED NEAR HIGHWAYS IN THE U.S.

S-158

SINGER, FRANCIS J.
1975.

OBSERVATIONS ON THE WILDLIFE OF THE NORTH FORK OF THE FLATHEAD RIVER.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, GLACIER NATIONAL PARK. RESEARCH NO. 1. 9 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: CAMAS CREEK TO HOWELL CREEK). GENERAL OBSERVATIONS GATHERED OVER A TWO YEAR PERIOD OF: BALD EAGLES, OSPREYS, GOLDEN EAGLES, DEER, ELK, MOOSE, AND MOUNTAIN GOATS ARE RECORDED. A TABLE OF ACTIVITY AT KNOWN GOLDEN EAGLE NESTS IS INCLUDED.

S-159

SINGER, FRANCIS J.
1975.

"STATUS AND HISTORY OF TIMBER WOLVES IN GLACIER NATIONAL PARK, MONTANA." IN THE BEHAVIOR AND ECOLOGY OF WOLVES: SYMPOSIUM ON THE BEHAVIOR AND ECOLOGY OF WOLVES, MAY 1975.

ANIMAL BEHAVIOR SOCIETY. 24 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE HISTORY OF CANIS LUPUS IN THE AREA WAS RECONSTRUCTED FROM HISTORICAL RECORDS AND FROM A CHECK ON REPORTS OF WOLF SIGHTINGS, TRACK OBSERVATIONS, AND WOLVES KILLED. THE UNGULATE POPULATION, MAJOR WOLF POPULATION TRENDS, STATUS OF THE POPULATION, AND FUTURE OF WOLVES IN GLACIER NATIONAL PARK ARE TOPICS DISCUSSED.

S-160

SINGER, FRANCIS J.
1975.

"WILDFIRE AND UNGULATES IN THE GLACIER NATIONAL PARK AREA, NORTHWESTERN MONTANA."

M.S. THESIS, UNIV. IDAHO, MOSCOW. 53 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK). THE PURPOSE OF THIS STUDY WAS TO DOCUMENT PRISTINE FIRE CONDITIONS AND TO RELATE HABITAT AND FORAGE USE BY THE UNGULATE COMPONENT OF THIS ECOSYSTEM TO FIRE. HABITAT AND FORAGE INTERRELATIONSHIPS OF ALL UNGULATE SPECIES WERE EVALUATED. THE THESIS DESCRIBES THE FIRE HISTORY OF THE AREA AND SUCCESSIONAL CHANGES IN VEGETATION. HABITAT SELECTION BY ELK, WHITE-TAILED DEER, AND MOOSE ARE DETAILED.

S-161

SINGER, FRANCIS J.
1976.

SEASONAL CONCENTRATIONS OF GRIZZLY BEARS AND NOTES ON OTHER PREDATORS IN THE NORTH FORK OF THE FLATHEAD RIVER.

WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. RESEARCH NOTE NO. 2. 19 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). OBSERVATIONS WERE GATHERED ON GRIZZLY BEARS, *Ursus arctos*; MOUNTAIN LIONS, *Felis concolor*; AND COYOTES, *Canis latrans*. THIS REPORT PRESENTS INFORMATION ON PREDATION BY BOTH LIONS AND COYOTES AS WELL AS SEVERAL INSTANCES OF NATURAL MORTALITY OF LIONS. REGULAR SYSTEMATIC CENSUS OF THE STUDY AREA PROVIDED MORE VALIDITY IN ESTIMATING DENSITIES, SEASONAL ASPECTS AND HABITAT/FORAGE RELATIONS OF GRIZZLIES THAN SIGHTINGS BY VISITORS.

S-162

SINGER, FRANCIS J.
1978.

"SEASONAL CONCENTRATIONS OF GRIZZLY BEARS, NORTH FORK OF THE FLATHEAD RIVER, MONTANA." THE CANADIAN FIELD NATURALIST 92:4-8.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER, GLACIER NATL. PARK). THIS REPORT EXAMINES CONCENTRATIONS AND FEEDING HABITATS OF *Ursus arctos*. DESCRIPTIONS OF FEEDING SITES AND SPECIES FED UPON ARE INCLUDED.

- S-163**
SINGER, FRANCIS J.
1979.
"HABITAT PARTIONING AND WILDFIRE RELATIONSHIPS OF CERVIDS IN GLACIER NATIONAL PARK." *J. WILDLIFE MANAGEMENT* 43:6-16.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THE PURPOSE OF THIS INVESTIGATION WAS TO DOCUMENT WILDFIRE AND FLOODPLAIN CONDITIONS IN A PORTION OF THE PARK AND TO RELATE THEM TO HABITAT USE BY CERVIDS. HABITAT AND FORAGE PARTIONING BY ALCES ALCES, CERVUS CANADENSIS, AND ODOCOILEUS VIRGINIANUS WAS EXAMINED WITHIN THE VEGETATION AND FIRE HISTORY COMPLEX ON THE STUDY AREA.
- S-164**
SINNING, JAMES.
1978.
POLLUTION STUDIES ON LAKE MCDONALD, GLACIER NATIONAL PARK, MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV. 67 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK: LAKE MCDONALD). THIS IS A REPORT ON A STUDY TO DETERMINE THE LEVEL OF POLLUTION OF LAKE MCDONALD; PARTICULARLY THE LEVEL OF POLLUTION CONTRIBUTED BY THE SEWAGE EFFLUENT FROM THE LAKE MCDONALD LODGE TREATMENT FACILITY. THE STUDY ATTEMPTS TO DETERMINE THE AMOUNT OF NUTRIENTS THAT CAN BE DISCHARGED INTO THE LAKE WITHOUT DEGRADING NATURAL CONDITIONS TO ANY NOTICEABLE EXTENT. METHODS AND SAMPLING SITES ARE DESCRIBED. PARAMETERS INCLUDED: PH, DO, CL3, SO3, NA, K, NO3, NO2, NH3, P, CHLOROPHYLL, AND COLIFORMS.
- S-165**
SIRUCEK, DEAN.
1978.
STILLWATER STATE FOREST LANDTYPE SURVEY REPORT.
HELENA: MONTANA DEPT. NATURAL RESOURCES & CONSERVATION, DIV. FORESTRY. 108 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.
- (STILLWATER STATE FOREST). A LANDSYSTEM INVENTORY DONE AT A LANDTYPE LEVEL, CLASSIFYING SOILS TO A FAMILY LEVEL AND VEGETATION TO A HABITAT LEVEL. THE REPORT DESCRIBES INDIVIDUAL LANDTYPES, EXPLAINING HOW THEY CAN BE IDENTIFIED IN THE FIELD AND THE MANAGEMENT IMPLICATIONS ASSOCIATED WITH THEM. HAZARD RATINGS AND SOIL DESCRIPTIONS ARE INCLUDED FOR EACH LAND TYPE.
- S-166**
SLAGSVOLD, P. L., AND MATHEWS, J. D.
1938.
AGRICULTURE ON THE FLATHEAD PROJECT.
BOZEMAN, MT.: AGRIC. EXPER. STAT., MONTANA STATE COLL.
- (FLATHEAD INDIAN RESERVATION). THIS REPORT SUMMARIZES THE CONDITION OF THE FLATHEAD IRRIGATION PROJECT AT THE TIME. SKCC.
- S-167**
SLOAN, ALVIN.
1970.
"POSSIBILITIES FOR TRIBAL GOVERNMENT: A TRIBAL COUNCILMAN'S VIEWPOINT."
MONTANA BUSINESS QUARTERLY 8(AUTUMN 1970):29-33.
- SLOAN WAS A TRIBAL COUNCILMAN FROM ST. IGNATIUS AT THE TIME OF THIS INTERVIEW. SKCC.
- S-168**
SLUSHER, EDWARD C., AND BURNELL, F. F.
1965.
CONTINENTAL DIVIDE TRAIL STUDY.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. 22+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (CONTINENTAL DIVIDE: GLACIER NATL. PARK & BOB MARSHALL WILDERNESS AREA). A DESCRIPTION OF THE CONTINENTAL DIVIDE TRAIL, ITS FEEDER AND ACCESS TRAILS, AND AN ALTERNATE ROUTE. PHOTOGRAPHS AND MAPS TRACE THE ENTIRE LENGTH OF THE TRAIL.
- S-169**
SMALLEY, E. V.
1894.
"IN THE FLATHEAD VALLEY."
THE NORTHWEST, MARCH 1894, PP. 5-7.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD VALLEY). THE ARTICLE DESCRIBES THE TOWNS OF KALISPELL AND COLUMBIA FALLS, AGRICULTURE, NORTH FORK COAL AND OIL, FLATHEAD LAKE, AND SURROUNDING VALLEYS OF THE SOUTH FORK AND SWAN. IT DISCUSSES HUMAN SETTLEMENT OF THE AREA.
- S-170**
SMEAD, W. H.
1905.
LAND OF THE FLATHEADS: A SKETCH OF THE FLATHEAD RESERVATION, MONTANA.
ST. PAUL, MN.: PIONEER PRESS MFG. 142 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). A TURN OF THE CENTURY DESCRIPTION OF NORTH WESTERN MONTANA ORIENTED TOWARD INFORMING PROSPECTIVE HOMESTEADERS OF THE SPLENDORS OF MONTANA. INCLUDED ARE CHAPTERS COVERING THE EARLY HISTORY OF THE AREA, FARMING, LIVESTOCK, IRRIGATION, LUMBER, HUNTING AND FISHING, MINES AND MINING. TEXTS OF THE SETTLEMENT ACT, LAND AND MINING LAWS AND MANY EARLY PHOTOGRAPHS ARE ALSO INCLUDED.
- S-171**
SMEAD, W. H.
1908.
"THE FLATHEAD INDIAN RESERVATION."
THE COAST, NOVEMBER 1908, 235-238.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). THE ARTICLE PRESENTS A BRIEF HISTORY OF THE RESERVATION: THE 1865 STEVENS TREATY, AND THE GOVERNMENT ADMINISTRATION OF TRIBAL LANDS. IT DESCRIBES THE LANDS TO BE OPENED FOR SETTLEMENT AND THE CLIMATE AND WATER RESOURCES OF THE AREA. THE AGRICULTURAL, INDUSTRIAL, MINING, AND WATER POWER POTENTIAL OF THE AREA IS GIVEN.
- S-172**
SMITH, ALAN GILBERT.
1963.
"STRUCTURE AND STRATIGRAPHY OF THE NORTHWEST WHITEFISH RANGE, LINCOLN COUNTY MONTANA."
PH.D. DISSERTATION, PRINCETON UNIV. 151 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (WHITEFISH RANGE). THIS THESIS IS A REPORT AND INTERPRETATION OF THE BEDROCK GEOLOGY OF THE NORTHWEST PART OF THE WHITEFISH RANGE, AND A REVIEW OF CORRELATION PROBLEMS IN THE
- BELT ROCKS OF NORTHWEST MONTANA AND THEIR EQUIVALENTS IN CANADA AND NORTHERN IDAHO. TO AVOID DUPLICATION OF EFFORT THE STUDY CONCENTRATES ON THE SIYEH AND SHEPARD FORMATIONS.
- S-173**
SMITH, ALLAN H.
1961.
"DAVID THOMPSON IN THE PEND D'OREILLE RIVER VALLEY, 1808."
THE RECORD 1961.
- THIS ARTICLE DISCUSSES DETAILS OF THOMPSON'S 1808 TRIP INTO THE COUNTRY OF THE LOWER PEND D'OREILLE INDIANS. SKCC.
- S-174**
SMITH, BURTON M.
1979.
"THE POLITICS OF ALLOTMENT: THE FLATHEAD INDIAN RESERVATION AS A TEST CASE."
PACIFIC NORTHWEST QUARTERLY 70(JULY 1979):131-140.
(FLATHEAD INDIAN RESERVATION). THIS WELL-WRITTEN EXAMINATION OF THE POLITICS BEHIND THE OPENING OF THE FLATHEAD INDIAN RESERVATION IN 1910 INCLUDES A DISCUSSION OF THE ROLE OF JOSEPH DIXON. SKCC.
- S-175**
SMITH, DERALD G.
1977.
"GLACIAL GEOLOGY OF THE BIG ARM REGION OF FLATHEAD LAKE." IN GLACIAL GEOLOGY OF THE FLATHEAD VALLEY AND CATASTROPHIC DRAINAGE OF GLACIAL LAKE MISSOULA. FIELD GUIDE NO. 4, MISSOULA, MT.: GEOLOGIC SOCIETY AMERICA, ROCKY MOUNTAIN SECTION. 13 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.
- (FLATHEAD LAKE: BIG ARM BAY). THIS STUDY FOCUSES ON THE LAST GLACIAL ADVANCE TO EXPLAIN THE EVOLVEMENT OF LAND FORMS IN THE BIG ARM EMBAYMENT. TWO EPISODES OF THE GLACIAL ACTIVITY CALLED THE TERMINAL STAGE AND THE RECESSIONAL STAGE ARE DISCUSSED. A ROAD LOG IS INCLUDED.
- S-176**
SMITH, GLEN A.
"THE ELK HERDS OF MONTANA."
MONTANA WILDLIFE 1(JANUARY):31-32.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.
- (MONTANA: FLATHEAD NATIONAL FOREST). LOCATIONS AND NUMBERS OF ELK IN THE STATE ARE DISCUSSED. THE TWO MAIN HERDS, THE NORTHERN YELLOWSTONE AND THE SUN RIVER HERDS, ARE THE FOCUS OF THE ARTICLE.
- S-177**
SMITH, GLENN R.
1967.
"MEMORANDUM: TOUR OF STILLWATER PROPOSED IRRIGATION PROJECT."
MONTANA WATER RESOURCES BOARD. HELENA, MT. (MEMO). 3 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (WHITEFISH-STILLWATER IRRIGATION PROJECT, TALLY LAKE). THIS PAPER REPORTS ON OBSERVATIONS MADE OF THE GEOLOGY AND ARABLE LAND OF THE PROPOSED STILLWATER IRRIGATION PROJECT. THE PROPOSED DAM DIVERSION SITE ON LOST CREEK, THE PROPOSED REGULATING DAM SITE ON TALLY LAKE, THE PROPOSED STORAGE DAM SITE ON STAIR MEADOWS AND THE SLIDE AREA AT THE SOUTH END OF TALLY LAKE WERE EXAMINED.

S-178
SMITH, KATHERINE L.
1914.
"GLACIER NATIONAL PARK."
THE OUTLOOK (OCTOBER 28, 1914): 479-483.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES
THE PARK: ITS ENTRANCE, WAYS OF TRAVELING,
SCENERY, SPORTING ACTIVITIES, WILDLIFE, INDIAN
LORE, AND PARK POLICY.

S-179
SMITH, LARRY & CO.
1971.
LAND UTILIZATION AND MARKETABILITY
NEIGHBORHOOD PROJECT AREAS, KALISPELL, MON-
TANA.
KALISPELL, MT.: KALISPELL NEIGHBORHOOD
DEVELOPMENT AUTHORITY. 78 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(KALISPELL). THIS LAND UTILIZATION AND
MARKETABILITY STUDY COVERS THE HISTORY, PRE-
SENT CONDITION AND PROJECTED FUTURE OF ALL
MAJOR LAND USE CATEGORIES. THE PRIMARY OB-
JECTIVES WERE TO 1) DETERMINE THE REDEVELOP-
MENT USES BY TYPE FOR WHICH PROJECT AREA
LANDS WERE BEST SUITED THROUGH AN EVALUA-
TION OF FACTORS THAT WOULD PRODUCE THE
HIGHEST REAL ESTATE RETURNS, AND 2) DETER-
MINE MARKET DEMAND FOR EACH OF THE USES
FOUND TO BE SUITABLE.

S-180
SMITH, ROBERT B., AND SBAR, MARC L.
1974.
CONTEMPORARY TECTONICS AND SEISMICITY OF
THE WESTERN UNITED STATES WITH EMPHASIS ON
THE INTERMOUNTAIN SEISMIC BELT.
GEOLOGICAL SOCIETY AMERICA BULL. 85:1205-1218.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(UNITED STATES: FLATHEAD LAKE AREA). THIS
PAPER DISCUSSES THE RELATION BETWEEN THE
CONTEMPORARY TECTONICS AND SEISMICITY OF
THE INTERMOUNTAIN WEST WITHIN THE
FRAMEWORK OF PLATE TECTONICS. SEISMIC DATA
FROM MICROEARTHQUAKE MONITORING AND IMP-
ROVED DETECTION OF REGIONAL SEISMICITY
FROM FIXED STATIONS WITH OTHER GEOPHYSICAL
AND GEOLOGIC INFORMATION ARE USED TO
CHARACTERIZE THE SEISMICITY OF THE INTER-
MOUNTAIN SEISMIC BELT AND TO INTERPRET THE
RELATED TECTONICS.

S-181
SMITH, STEPHEN L.
1968.
"THE YEARS AND THE WIND AND THE RAIN: THE
BIOGRAPHY OF DOROTHY M. JOHNSON."
M.A. THESIS, UN, MISSOULA. 412 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA,
STATEWIDE.

(MONTANA). DOROTHY M. JOHNSON SPENT PART OF
HER YOUTH IN THE WHITEFISH AREA AND A POR-
TION OF THIS BIOGRAPHY DEALS WITH THOSE
YEARS (THE EARLY 1900'S) AND COMMUNITY LIFE IN
WHITEFISH.

S-182
SMITH, SUSAN, AND CAUSEY, R.
1972.
"A STUDY OF THE WATER QUALITY AND DRAINAGE
AREA OF LAKE MARY RONAN."
UNIV. MONTANA BIOLOGICAL STATION, YELLOW
BAY. (TYPEWRITTEN). 20 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(LAKE MARY RONAN). THIS REPORT PRESENTS THE
FINDINGS OF A PRELIMINARY STUDY OF THE WATER
QUALITY AND COLIFORM CONTENT OF LAKE MARY
RONAN. INCLUDED ARE: FECAL STREPTOCOCCI AND
COLIFORM COUNTS, TYPES OF ORGANISMS FOUND
IN PLANKTON COUNTS, THE IMPORTANCE OF THE
TYPES OF ALGAE PRESENT, CHEMICAL ANALYSIS OF
THE WATER, A DISCUSSION OF THE CAUSE OF LOW
OXYGEN CONTENT IN THE BOTTOM OF LAKE MARY
RONAN, AND GRAPHS WHICH ILLUSTRATE THE
AVAILABILITY OF VERTICAL KOKANEE HABITAT.

S-183
SMITH, WILLARD J.
1953.
"A SURVEY OF THE ATTITUDES OF THE HOT SPRINGS
COMMUNITY TOWARDS ITS SCHOOLS."
M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 179
PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(HOT SPRINGS). DURING THE SCHOOL YEAR OF
1951-52 THE COMMUNITY FACED A GENERAL UNREST
CAUSED BY A LOCAL POLITICAL SITUATION WHICH
WAS BROUGHT INTO THE OPEN THROUGH THE
SCHOOL ELECTIONS. IN ORDER TO RESTORE THE
CONFIDENCE OF THE COMMUNITY IN ITS SCHOOL
THE REAL ATTITUDES OF THE PEOPLE IN THE COM-
MUNITY HAD TO BE KNOWN AND RUMORS DISCARD-
ED. A POLL WAS TAKEN - THE RESULTS ARE CON-
TAINED WITHIN THIS THESIS.

S-184
SMURR, J. W., AND TOOLE, K. R., EDS.
1957.
HISTORICAL ESSAYS ON MONTANA AND THE NOR-
THWEST.
HELENA, MT.: THE WESTERN PRESS. HISTORICAL
SOCIETY OF MONTANA. 304 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
REGIONAL.

NOTE: LITTLE DISCUSSION OF THE FLATHEAD AREA
SPECIFICALLY.

(PACIFIC NORTHWEST: MONTANA). THE COLLECTION
OF HISTORICAL ESSAYS DETAILS THE LIFE STORIES
OF PAUL C. PHILLIPS, HUGH GLASS, JOHN W. SILVER-
THORNE, LOUIS PIERRE, AND JOSEPH M. DIXON. THE
ORIGIN OF BRITISH COLUMBIA, A HISTORY OF MON-
TANA CURRENCY, 1863-1873, JIM CROW LAWS IN THE
WEST, EARLY RECLAMATIONISTS, AND CREATIVE
WRITING IN THE NORTHWEST ARE TOPICS ADDRESS-
ED.

S-185
SNECK, KATHLEEN M.
1977.
"THE FIRE HISTORY OF CORAM EXPERIMENTAL
FOREST."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 134 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THE OBJECTIVES OF THIS
STUDY WERE: 1) TO DETERMINE AND DESCRIBE THE
FIRE HISTORY OF CORAM THROUGH FIRE SCAR
ANALYSIS AND STAND AGE-CLASS STRUCTURE; 2) TO
INTERPRET THE ROLE OF FIRE, USING THE STUDY
RESULTS AND HISTORICAL FIRE INFORMATION FOR
SURROUNDING FORESTED AREAS; AND 3) TO FIELD
TEST THE FIRE HISTORY METHODOLOGY BEING
DEVELOPED BY ARNO AND SNECK (1977), AND 4)
MODIFY THE TECHNIQUES TO INVESTIGATE HEAVILY
LOGGED AREAS AND A MESIC FOREST TYPE.

S-186
SNIFFEN, M. K.
1917.
"FLATHEAD, MONTANA." IN REPORT ON
FIELDWORK: THIRTY-FIFTH ANNUAL REPORT OF THE
BOARD OF DIRECTORS OF THE INDIAN RIGHTS
ASSOCIATION (INCORPORATED) FOR THE YEAR EN-
DING DECEMBER 14, 1917.
PHILADELPHIA: INDIAN RIGHTS ASSOC.

SNIFFEN MAKES SOME MENTION OF A VISIT TO THE
FLATHEAD RESERVATION WITH SOME COMMENTS
ABOUT THE MORAL AND ECONOMIC
DEVELOPMENTS ON THE RESERVATION. SKCC.

S-187
SNYDER, GORDON.
1977.
CHEMICAL ANALYSIS AND THE WATER QUALITY BEN-
CHMARK SYSTEM. FLATHEAD DRAINAGE 208 PRO-
JECT.
MOSCOW, ID.: U.S. DEPT. AGRICULTURE, FOREST
SERVICE, INTERMTN. FOREST & RANGE EXPR.
STAT., FORESTRY SCIENCES LAB. 120 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN DRAINAGE). THE OBJEC-
TIVE OF THIS STUDY WAS TO ORGANIZE WATER
QUALITY DATA IN A SYSTEM THAT CAN BE IN-
TEGRATED INTO MANAGEMENT PLANNING AND PRO-
JECT MONITORING. TO MEET THOSE OBJECTIVES
THESE ACTIONS WERE PROPOSED: LABORATORY
ANALYSIS OF WATER QUALITY STATIONS; INCOR-
PORATION OF EXISTING AND NEWLY GATHERED
WATER CHEMISTRY DATA INTO THE WATER QUALITY
BENCHMARK SYSTEM; PROVISIONS OF 1) A
GRAPHICAL ANALYSIS OF WATER QUALITY DATA AC-
CORDING TO GEOLOGIC TYPES, AND 2) A
STATISTICAL ANALYSIS AND EQUATIONS OF PREDIC-
TIVE RELATIONSHIPS AS DETERMINED BY THE
WATER QUALITY BENCHMARK SYSTEM. THE BEN-
CHMARK SYSTEM CAN PROVIDE: A GRAPHIC
DISPLAY OF IONIC RELATIONSHIPS, GEOLOGY VS.
WATER QUALITY RATING CURVES, AND SIMPLE AND
DETAILED PREDICTIVE RELATIONSHIPS BASED ON
STREAM DISCHARGE, GEOLOGY, SPECIFIC CONDUCT-
TANCE, AND FLOW REGIME.

S-188
SOCIETY OF JESUS MISSIONARIES.
1877-1879.
A DICTIONARY OF THE KALISPEL OR FLATHEAD IN-
DIAN LANGUAGE. 2 VOL. EDITED BY REV. J. GIORDA,
S. J.
ST. IGNATIUS, MT.: ST. IGNATIUS PRINT. 1136 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

NOTE: VERY FEW COPIES REMAIN IN EXISTENCE. A
FEW LOCAL, PRIVATE COLLECTIONS MAY HAVE
COPIES.

(FLATHEAD INDIAN RESERVATION). THE DICTIONARY
CONSISTS OF TWO VOLUMES: 1) KALISPEL, OR FTD,
TO ENGLISH, AND 2) ENGLISH TO KALISPEL. THE
METHOD OF CLASSIFYING THE INDIAN WORDS AC-
CORDING TO THEIR ETYMOLOGY, OR UNDER THE
ROOTS FROM WHICH THEY ORIGINATE, WAS
EMPLOYED. A KEY TO THE PRONUNCIATION OF THE
FLATHEAD ALPHABET IS PROVIDED.

S-189
SOCIETY OF JESUS MISSIONARIES, COMP.
1879.
"LUTEL KAIMINTIS KOLINZUTEN KUITLT SMIMH,"
SOME NARRATIVES FROM THE HOLY BIBLE, IN
KALISPEL.
ST. IGNATIUS, MT.: ST. IGNATIUS PRINT. . 154 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

NOTE: VERY FEW COPIES REMAIN IN EXISTENCE. A
FEW LOCAL, PRIVATE COLLECTIONS MAY HAVE
COPIES.

(FLATHEAD INDIAN RESERVATION). NUMEROUS
STORIES FROM THE CHRISTIAN BIBLE ARE
PRESENTED IN THE KALISPEL, OR FLATHEAD
LANGUAGE. NARRATIVES FROM OLD AND NEW
TESTAMENTS ARE INCLUDED.

S-190

SOLIDAY, GEORGE W.
1960.

A DESCRIPTIVE CHECK LIST, DESCRIBING ALMOST 7500 ITEMS OF WESTERN AMERICANA, COMPRISING BOOKS, MAPS AND PAMPHLETS OF THE IMPORTANT LIBRARY (IN FOUR PARTS), COMP. BY PETER DECICER.

NEW YORK: ANTIQUARIAN PRESS, L.D. 582 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(WESTERN NORTH AMERICA). THE BOOK CATALOG LISTS MATERIALS IN FOUR PARTS AND CONTAINS AN OVERALL ALPHABETICAL AND SUBJECT INDEX. THE PARTS THEMSELVES ARE EACH ALPHABETIZED BY AUTHOR. MANY OF THE ENTRIES ARE ANNOTATED; SUBJECTS NOTED. SINCE THE CATALOG WAS PUBLISHED FOR USE BY BOOKSELLERS, PRICES ARE LISTED AS WELL.

S-191

SONSTELIE, LAWRENCE C.
1967.

"A STUDY OF THE WATER QUALITY OF THE FLATHEAD RIVER."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 72 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MAINSTEM OF THE FLATHEAD RIVER). THIS STUDY INVOLVED THE COLLECTION OF WATER QUALITY DATA OVER A ONE-YEAR PERIOD, AND THE REVIEW OF WATER QUALITY DATA COLLECTED BY THE MONTANA DEPARTMENT OF FISH AND GAME. PARAMETERS INCLUDED D.O., FREE CARBON DIOXIDE, BICARBONATE AND CARBONATE ION CONCENTRATIONS, PH, AND SULFIDES. QUANTITATIVE AND QUALITATIVE PLANKTON SURVEYS AND COLIFORM TESTS WERE CONDUCTED MONTHLY.

S-192

SONSTELIE, LAWRENCE C.
1974.

A STUDY OF THE WATER QUALITY OF TWELVE LAKES IN THE FLATHEAD DRAINAGE BASIN, JULY 1, 1973 - JUNE 30, 1974.
KALISPELL, MT.: FLATHEAD VALLEY COMMUNITY COLL., DEPT. BIOLOGY. 58 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS STUDY WAS DESIGNED TO DETERMINE THE NUTRIENT STATUS OF 12 REPRESENTATIVE LAKES IN THE KALISPELL AREA AND THE NUTRIENT INPUTS THEY CAN TOLERATE WITHOUT DAMAGE. ECHO, FOY, LOWER STILLWATER, MARY RONAN, SWAN, ASHLEY, BLAINE, BLANCHARD, FIVE, LITTLE BITTERROOT, ROGERS, AND WHITEFISH WERE THE LAKES SAMPLED.

S-193

SOUTHARD, A. R.
1969.

SOILS IN MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRICULTURAL EXPR. STAT. BULL. 621. 42 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, LINCOLN, SANDERS, LEWIS & CLARK, & POWELL COUNTIES). STATEWIDE SOIL ASSOCIATIONS ARE IDENTIFIED, SELECTED SOIL SERIES PROPERTIES ARE DESCRIBED AND THE FACTORS WHICH CAUSE THE MOST SIGNIFICANT DIFFERENCES IN SOILS ARE DISCUSSED. THE CRESTON-MIRES-BLANCHARD, GARLET-TRAPPER, POST-PROSPECT-HEADING, AND HIGHLAND ASSOCIATIONS WHICH OCCUR WITHIN THE BASIN ARE DESCRIBED.

S-194

SOUTHARD, A. R.
1973.

SOILS OF MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT. BULL. 621. 42 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). IN THIS BULLETIN, THE FACTORS CAUSING THE MOST STRIKING DIFFERENCES IN SOILS ARE DISCUSSED, SELECTED PROPERTIES OF SEVERAL SOILS ARE TABULATED, AND SOIL ASSOCIATIONS ARE DELINEATED ON A GENERALIZED SOIL MAP.

S-195

SOWARD, KENNETH S.
1965.

GEOLOGY OF DAMSITES ON FLATHEAD RIVER, MOUTH TO FLATHEAD LAKE, LAKE AND SANDERS COUNTIES, MONTANA.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. WATER-SUPPLY PAPER 1550. 91 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(SANDERS & LAKE COUNTIES: LOWER FLATHEAD RIVER). THE TOPOGRAPHY, GEOLOGY, GROUND-WATER CONDITIONS, ENGINEERING CONSIDERATIONS, AND EXPLORATION ACTIVITIES AT EIGHT POTENTIAL HYDROPOWER SITES ARE DESCRIBED. THE POWERSITES ARE KNOWLES, PERMA, DAMSITE 4, OXBOW, MILE 42.9, SLOAN BRIDGE, AND BUFFALO ONE AND TWO.

S-196

SPANO, SCOTT D.
1979.

"THE ACTIVITY OF NITROGEN-FIXING BACTERIA IN DOUGLAS-FIR (PSEUDOTSUGA MENZIESII) RESIDUE INFECTED WITH FOMITOPSIS PINICOLA."
M.S. THESIS, MICHIGAN TECHNOLOGICAL UNIV., HOUGHTON. 45 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THE OBJECTIVES OF THIS INVESTIGATION WERE: 1) TO DETERMINE THE RATES OF NITROGEN FIXATION WITHIN THE VARIOUS STAGES OF WOOD DECAY AND WITHIN LIVING, UNDECAYED WOOD; 2) TO EVALUATE THE SIGNIFICANCE OF DIFFERENT SITES ON FIXATION RATES; 3) TO ISOLATE AND IDENTIFY THE NITROGEN-FIXING ORGANISMS ACTIVE IN THE DECAYING WOOD AND IN THE LIVING UNDECAYED WOOD; AND 4) TO DETERMINE THE SIGNIFICANCE OF THIS NITROGEN GAIN FROM RESIDUE DECAY AND ITS IMPACT ON RESIDUE MANAGEMENT PRACTICES.

S-197

SPANO, S. D.; JURGENSEN, M. F.; LARSEN, M. J.; AND HARVEY, A. E.
1978.

"NITROGEN FIXATION IN DECAYING DOUGLAS-FIR RESIDUE."
PAPER PRESENTED TO THE 70TH ANNUAL MEETING OF THE AMERICAN SOCIETY OF AGRONOMY, DECEMBER 1978. 11 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THE OBJECTIVES OF THIS STUDY WERE TO: DETERMINE THE RATES OF DECAY OF NITROGEN FIXATION DURING WOODY RESIDUE DECAY BY THE FUNGUS FOMITOPSIS PINICOLA; ESTIMATE POPULATION SIZE AND IDENTITY OF THE NITROGEN FIXING ORGANISMS ACTIVE IN DECAYING WOOD, AND TO EVALUATE THE SIGNIFICANCE OF THIS NITROGEN GAIN FROM WOOD DECAY AND ITS IMPACT ON RESIDUE MANAGEMENT PRACTICES IN NORTHERN ROCKY MOUNTAIN FORESTS. TABLES QUANTIFY THE RESULTS. A DISCUSSION AND CONCLUSION ARE INCLUDED.

S-198

SPEARMAN, ARTHUR D.
1974.

"BLING BARNABY'S PICTURES."
INDIAN SENTINEL 4(JULY 1924):138-139.
(ST. IGNATIUS). THIS ARTICLE TELLS THE STORY OF BLING BARNABY, A FAITHFUL OLDER INDIAN AT ST. IGNATIUS. SKCC.

S-199

SPECK, BRENDA.
1977.

"AN EDITION OF FATHER POST'S KALISPELL GRAMMAR."
M.A. THESIS, UNIV. MONTANA, MISSOULA. 177 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: APPENDICES INCLUDE: KINSHIP TERMS, NAMES OF INDIAN TRIBES, GEOGRAPHICAL NAMES, KALISPELL BORROWING OF FRENCH PROPER NAMES, AND GLOSSARY OF ROOTS.

(FLATHEAD INDIAN RESERVATION). AN EDITION OF A KALISPELL GRAMMAR WRITTEN IN 1902 BY FATHER JOHN POST, S. J. IN ST. IGNATIUS IS PRESENTED. HIS WORK OF OVER 100 TYPED PAGES HAS BEEN RETRANSCRIBED IN STANDARD SALISHAN ORTHOGRAPHY AND THE FORMAT RECAST INTO A MORE SUITABLE DESCRIPTIVE FRAME. THE PRINCIPAL AIM WAS TO PRESENT THE DATA OF POST'S GRAMMAR IN A MANNER THAT WOULD ELUCIDATE THE MORPHOLOGICAL PATTERNS OF THE LANGUAGE.

S-200

SPEER, CLARENCE A.; POND, DANIEL B.; AND ERNST, J. V.
1980.

"DEVELOPMENT OF SARCOCYSTIS HEMIONILATRANTIS IN THE SMALL INTESTINE OF COYOTES."
PROC. HELMINTHOLOGICAL SOCIETY OF WASHINGTON 47:106-113.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE PREPATENT AND PATENT PERIODS AND THE ENDOGENOUS DEVELOPMENT OF SARCOCYSTIS HEMIONILATRANTIS WERE STUDIED IN COYOTES (CANIS LATRANS) WHICH HAD INGESTED INFECTED MULE DEER (ODOCOILEUS HEMIONUS) MUSCULATURE.

S-201

SPEERS, DOUGLAS D., ET. AL.
1978.

CROHMS - AN EXAMPLE OF SUCCESSFUL INTERAGENCY COORDINATION IN DATA COLLECTION.
VANCOUVER, WA.: COLUMBIA RIVER WATER MANAGEMENT GROUP, HYDROMET DATA COMMITTEE. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(COLUMBIA RIVER BASIN). THE PURPOSE OF THE COLUMBIA RIVER OPERATIONAL HYDROMET MANAGEMENT SYSTEM (CROHMS) IS TO SERVE WATER MANAGEMENT AGENCIES BY PROVIDING A "REAL-TIME" DATA COLLECTION PROCESSING AND DISPLAY SYSTEM WHICH WILL SUPPORT THE OPERATION OF THE EXTENSIVE RESERVOIR SYSTEM IN THE COLUMBIA RIVER AND ADJACENT BASINS IN THE NORTHWEST. INTERAGENCY COORDINATION IS OUTLINED.

S-202

SPENCER, D.
1978.

WINTERING OF MIGRANT BALD EAGLES IN THE LOWER 48 STATES.
WASHINGTON, D.C.: NATIONAL AGRICULTURAL CHEMICALS ASSOC.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES: FLATHEAD LAKE & GLACIER NATL. PARK AREA). THIS BOOK CONTAINS REPORTS FROM THE MANAGERS OF WILDLIFE REFUGES OR BIRD WATCHERS ON THE NUMBER OF BALD EAGLES IN THEIR AREA. REPORTS ARE INCLUDED FROM COLUMBIA FALLS, NATIONAL BISON RANGE, NINEPIPE, PABLO, SWAN LAKE, AND RAVALLI NATIONAL WILDLIFE REFUGES; THE FLATHEAD AND SMITH LAKE WILDLIFE PROTECTIVE AREAS; AND GLACIER NATIONAL PARK.

S-203

SPELLEN, O. B.
1930.

"TWO KOOTENAY WOMEN MASQUERADING AS MEN? OR WERE THEY ONE?"

WASHINGTON HISTORICAL QUARTERLY 21(APRIL 1930):120-130.

THIS KOOTENAI WOMAN PLAYED AN INTERESTING ROLE IN THE FUR TRADE OF THE NINETEENTH CENTURY. SEE CLAUDE SCHAEFFER'S ARTICLE FOR A MUCH MORE COMPLETE TREATMENT OF HER LIFE. SKCC.

S-204

SPERRY, ALBERT H.
1938.

AVALANCHE.

BOSTON: THE CHRISTOPHER PUBLISHING HOUSE. 166 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: SOUTHWESTERN). A NARRATIVE OF TRAVELS IN THE 1890'S. THE STORY IS TOLD WITH EXPLANATIONS OF THE NUMEROUS PHOTOGRAPHS OF AVALANCHE BASIN, AVALANCHE GORGE, LAKE MACDONALD, FLORAL AND GRANITE PARKS, SUMMIT (ICEBERG) LAKE, SPERRY AND CHANEY GLACIERS. INCLUDES COMMENTS ABOUT DR. LYMAN B. SPERRY, IN CHARGE OF THE EXPEDITIONS.

S-205

SPERRY, G. L.
1940.

IRRIGATION DEVELOPMENT ON THE FLATHEAD PROJECT.

DIXON, MT.: FLATHEAD INDIAN AGENCY. 11 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORDS CENTER, GSA, SEATTLE, WA.

(FLATHEAD INDIAN RESERVATION). THIS REPORT DESCRIBES: EARLY IRRIGATION, THE BEGINNING OF THE IRRIGATION PROJECT; EARLY PROJECT ACTIVITIES; PROJECT AREA AND DIVISIONS; PRECIPITATION, STORAGE SYSTEM; PUMPING PLANTS; REVAIS, CROW CREEK, AND FLATHEAD RIVER; POWER DEVELOPMENT; PROJECT PROGRESS; FUTURE CONSTRUCTION; AND IRRIGATION DISTRICTS.

S-206

SPERRY, LYMAN B.
1886.

"IN THE MONTANA ROCKIES: AVALANCHE BASIN."

APPALACHIA 8:57-68.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: AVALANCHE BASIN). AN ACCOUNT OF THE FIRST RECORDED VISITS TO AVALANCHE BASIN, IN 1886. MEMBERS OF THE PARTY ARE LISTED, A DESCRIPTION OF THE IMPRESSIVE FEATURES AND RARE BEAUTIES OF THE BASIN, AND PHOTOGRAPHS ARE INCLUDED.

S-207

SPIER, LESLIE.
1935.

THE PROPHET DANCE OF THE NORTHWEST AND ITS DERIVATIVES: THE SOURCE OF THE GHOST DANCE. GENERAL SERIES IN ANTHROPOLOGY, NO. 1.

MENASHA, WISC.: GEORGE BANTA PUBLISHING. 74 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: THE TRIBES OF THE INTERIOR PLATEAU: THE FLATHEAD INDIANS). THE PAPER ARGUES THAT THE ORIGIN OF THE GHOST DANCE MOVEMENTS WAS AMONG THE TRIBES OF THE INTERIOR PLATEAU AREA. IT DRAWS A PARALLEL BETWEEN THE GHOST DANCE AND THE BELIEF AMONG THE PLATEAU PEOPLE IN THE DESTRUCTION AND RENEWAL OF THE WORLD WHICH WAS THE FOUNDATION OF THEIR "PROPHET DANCE." INCLUDED IN THE DISCUSSION ARE THE FOLLOWING: THE ROOTS OF THE PROPHET DANCE IN NORTHWESTERN CULTURE, ITS TRANSMISSION TO THE MACKENZIE AREA, THE CHRISTIANIZED FORM OF THE PROPHET DANCE (1820-36) AS SHOWN BY SUCH TRIBES AS THE FLATHEAD INDIANS, THE CURRENT EXISTENCE OF THE PROPHET CULT MODIFIED AS THE SMOHALLA CULT AND THE POMPOM RELIGION, AND THE EXISTENCE OF THE SHAKER RELIGION.

S-208

SPINDLER, JOHN C.; BRINCK, C. W., EDS.
1957.

AN EXTENSIVE CHEMICAL, PHYSICAL, BACTERIOLOGICAL, AND BIOLOGICAL SURVEY: COLUMBIA RIVER DRAINAGE IN MONTANA.

HELENA: MONTANA STATE BOARD HEALTH. DIV. ENVIRONMENTAL SANITATION; MONTANA WATER POLLUTION COUNCIL; & MONTANA FISH & GAME DEPT. PROGRESS REPT. NO. 1. 111 PP.

IN PROGRESS, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(COLUMBIA RIVER BASIN: MONTANA: FLATHEAD RIVER BASIN). SAMPLING STATIONS WERE ESTABLISHED ABOVE AND BELOW KNOWN SOURCES OF POLLUTION AND IN STREAMS FREE OF POLLUTION. PARAMETERS INCLUDED D.O., PH, TOTAL ALKALINITY, HARDNESS, CHLORIDES, SULFATES, PHOSPHATES, TEMPERATURE, TURBIDITY, MPN COLIFORM ORGANISMS, AND BOTTOM FAUNA.

S-209

SPOKANE AREA DEVELOPMENT COUNCIL; ECONOMICS RESEARCH ASSOCIATES; AND ECONOMIC DEVELOPMENT ADMINISTRATION.

1978.

INLAND EMPIRE ECONOMIC BASE STUDY: INDUSTRY IDENTIFICATION AND STRATEGY PLAN. VOL. 3.

SPOKANE, WA.: SPOKANE AREA DEVELOPMENT COUNCIL; LOS ANGELES, CA.: ECONOMIC RESEARCH ASSOC.; & WASHINGTON, D.C.: ECONOMIC DEVELOPMENT ADMINISTRATION. 139 PP.

PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(WASHINGTON, IDAHO, MONTANA, & BRITISH COLUMBIA). THIS IS VOLUME THREE OF A COMPREHENSIVE NATURAL RESOURCE AND ECONOMIC BASE ANALYSIS. IT IDENTIFIES MANUFACTURING AND NON-MANUFACTURING INDUSTRIES WITH THE GREATEST POTENTIAL AND PRESENTS A PLAN TO ATTRACT THOSE INDUSTRIES.

S-210

SPOKANE AREA DEVELOPMENT COUNCIL; ECONOMICS RESEARCH ASSOCIATES; AND ECONOMIC DEVELOPMENT ADMINISTRATION.

1978.

INLAND EMPIRE ECONOMIC STUDY: SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS.

SPOKANE, WA.: SPOKANE AREA DEVELOPMENT COUNCIL; LOS ANGELES, CA.: ECONOMIC RESEARCH ASSOCIATES; AND WASHINGTON, D.C.: ECONOMIC DEVELOPMENT ADMINISTRATION. 98 PP.

PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(WASHINGTON, IDAHO, MONTANA, & BRITISH COLUMBIA). THE CONCLUSIONS AND RECOMMENDATIONS OF A COMPREHENSIVE NATURAL RESOURCE AND ECONOMIC BASE ANALYSIS ARE PRESENTED. PROGRAM OBJECTIVES WERE: INVENTORY AND ANALYSIS; A REVIEW OF EXISTING ECONOMIC BASE; EVALUATION OF EXISTING FACTORS; DETERMINE THE OUTLOOK OF THE REGIONAL ECONOMY; PROJECT EMPLOYMENT, POPULATION AND INCOME TO 2020; IDENTIFY MANUFACTURING TRENDS; RECOMMEND A PROGRAM FOR ACTION; AND PREPARE A MODEL FEASIBILITY STUDY.

S-211

SPRAGUE, RODERICK.
1967.

"ABORIGINAL BURIAL PRACTICES IN THE PLATEAU REGION OF NORTH AMERICA."

PH.D. DISSERTATION, UNIV. ARIZONA, TUCSON. UNIV. MICROFILMS # 67-11,959.

THIS DISSERTATION INCLUDES SUMMARIES OF THE LITTLE THAT WAS KNOWN IN 1967 ABOUT FLATHEAD, KALISPEL, AND KUTENAI BURIAL PRACTICES AS WELL AS A SURVEY OF BURIAL PRACTICES IN THE PLATEAU REGION IN GENERAL. SKCC.

S-212

SPRATT, MARC.
1980.

"URBAN IMPACTS ON A GRAVEL UNCONFINED AQUIFER IN THE EVERGREEN AREA NEAR KALISPEL, MONTANA."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 104 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPEL: EVERGREEN AREA). THE EMPHASIS OF THIS STUDY OF GROUNDWATER QUALITY IN A SURFICIAL UNCONFINED GRAVEL AQUIFER WAS PLACED ON DEMONSTRATING THE CONNECTION, IF ANY, BETWEEN LOCAL AQUIFER WATER QUALITY AND URBAN DEVELOPMENT. THE STUDY TESTED THE HYPOTHESIS THAT CHANGES IN THE SURFICIAL AQUIFER WATER QUALITY, AS QUANTIFIED BY CHANGES IN BIOLOGICAL AND CHEMICAL PARAMETERS, ARE ASSOCIATED WITH CHANGES IN GROWTH PATTERNS, AS QUANTIFIED BY THE DISTRIBUTION OF PEOPLE IN THE EVERGREEN AREA. THE GEOLOGY AND POPULATION OF THE AREA ARE EXAMINED; THE VARYING AQUIFERS DISCUSSED; AND THE RESULTS OF WATER QUALITY STUDIES ARE INCLUDED. MANAGEMENT RECOMMENDATIONS ARE PRESENTED.

S-213

SPRINGER, VERA.
1978.

POWER AND THE PACIFIC NORTHWEST: A HISTORY OF THE BONNEVILLE POWER ADMINISTRATION, 1937-1978.

PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION. 180 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

HISTORICAL INFORMATION ON POWER DEVELOPMENT IN THE FLATHEAD BASIN IS INCLUDED.

(PACIFIC NORTHWEST). THE EVOLUTION OF ELECTRIC POWER SYSTEMS IN THE PACIFIC NORTHWEST, THE CONSTRUCTION OF HYDROELECTRIC DAMS, ACTIVITIES OF THE 1940'S AND 50'S, THE COLUMBIA RIVER TREATY WITH CANADA, AND FORMATION OF THE HYDRO-THERMAL POWER PROGRAM ARE THE TOPICS ADDRESSED IN THIS HISTORY OF THE BONNEVILLE POWER ADMINISTRATION.

S-214

STANLEY ENGINEERING AND ASSOCIATES.
1975.

PRELIMINARY PLAN FOR WATER SYSTEM EXPANSION FOR COLUMBIA FALLS, MONTANA.

COLUMBIA FALLS, MT. 72 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THE REPORT REVIEWS THE STUDY PREPARED BY RIEKE CARROLL MULLER ASSOCIATES, INC., IN 1973, ON COLUMBIA FALLS MUNICIPAL WATER SUPPLY FACILITIES. IT SUMMARIZES THE RESULTS OF THE AUTHORS' STUDY AND PROVIDES A RECOMMENDED PROGRAM FOR EXPANSION OF THE CITY'S WATER SYSTEM. CURRENT CONDITIONS ARE OUTLINED; THE DISTRIBUTION SYSTEM AND SUPPLY PROBLEMS ARE DISCUSSED. COST ESTIMATES OF PROPOSED IMPROVEMENTS ARE PROVIDED TO DEVELOP A CAPITAL EXPENDITURE PROGRAM.

S-215
STAHLY ENGINEERING AND ASSOCIATES.
 DATE 1975.
PRELIMINARY PLAN FOR WATER SYSTEM IMPROVEMENTS FOR COLUMBIA FALLS, MONTANA.
 HELENA, MT.: STAHLY ENGINEERING AND ASSOCIATES. 65 PP.
 PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THE PURPOSE OF THIS STUDY WAS TO EXAMINE THE OVERALL COLUMBIA FALLS WATER SYSTEM AND TO DETERMINE THE IMPROVEMENTS THAT WOULD BE NECESSARY IN EACH PORTION OF THE SYSTEM TO ENABLE THE CITY TO PROVIDE ADEQUATE WATER SERVICE OVER THE NEXT 20 YEARS. PORTIONS OF THE WATER SYSTEM WERE CONSIDERED INDIVIDUALLY AS WELL AS COLLECTIVELY SO THAT ALL PORTIONS OF THE SYSTEM COULD BE EXPANDED IN AN ORDERLY AND ECONOMICAL MANNER. THE FINAL OBJECTIVE OF THIS STUDY WAS TO PROVIDE COST ESTIMATES FOR THE PROPOSED IMPROVEMENTS TO BE USED BY THE CITY IN DEVELOPING A CAPITAL EXPENDITURE PROGRAM.

S-216
STAHLY ENGINEERING AND ASSOCIATES.
 1979.
201 FACILITIES PLAN FOR COLUMBIA FALLS, MONTANA. 3 VOLS.
 CITY OF COLUMBIA FALLS, MT. 431 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

NOTE: INFORMATION IN VOLUME 1 CONTAINS BASIC INFORMATION AND ANALYSIS, VOLUME 2 CONTAINS ALTERNATIVE ANALYSIS AND VOLUME 3 CONTAINS PLAN SELECTION AND IMPLEMENTATION.

(COLUMBIA FALLS). THE STUDY DOCUMENTS AND PRESENTS BASIC INFORMATION AND ANALYSES FOR WASTEWATER COLLECTION AND TREATMENT FACILITIES PLANNING. IT DISCUSSES WATER QUALITY OBJECTIVES AND CRITERIA, THE CURRENT SITUATION (WATER RESOURCES, PHYSICAL AND ENVIRONMENTAL CONDITIONS), EXISTING WASTEWATER COLLECTION AND TREATMENT FACILITIES, AND ASSESSMENTS OF FUTURE LAND USE, ECONOMIC AND POPULATION PROJECTIONS, AND WASTEWATER FLOWS AND LOADS. THE REPORT ALSO PRESENTS WASTEWATER AND SLUDGE MANAGEMENT ALTERNATIVES; DESCRIBES THE MOST APPROPRIATE CANDIDATE ALTERNATIVES ALONG WITH ENVIRONMENTAL, PHYSICAL AND IMPLEMENTATION CONSTRAINTS. A COST-EFFECTIVENESS ANALYSIS OF THE ALTERNATIVES IS INCLUDED. FINALLY, A DISCUSSION OF THE PROCESS WHICH LED TO THE SELECTION OF THE PLAN IS INCLUDED AS WELL AS A DETAILED DESCRIPTION OF THE CHOSEN PLAN ITSELF. PRELIMINARY DESIGN CONSIDERATIONS, COST ANALYSIS, IMPLEMENTATION ARRANGEMENTS, AND THE ENVIRONMENTAL IMPACT OF THE PLAN IS CONSIDERED. ALSO INCLUDED ARE RECORDS OF PUBLIC PARTICIPATION.

S-217
STAHLY ENGINEERING AND ASSOCIATES, AND WRIGHT-MCLAUGHLIN ENGINEERS.
 1978-1979.
201 FACILITIES PLAN FOR KALISPELL, MT. 2 VOLS.
 CITY OF KALISPELL, MT. 400 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

NOTE: INFORMATION IN VOLUME 1 CONTAINS: BASIC INFORMATION AND ANALYSES; IN VOLUME 2 ALTERNATIVE EVALUATION AND A RECOMMENDED PLAN; IN VOLUME 3 (TO BE COMPLETED) ENVIRONMENTAL ASSESSMENT.

(KALISPELL). THE REPORT PROVIDES BASIC DATA FOR THE STUDY AND SELECTION OF ALTERNATIVES FOR A WASTEWATER FACILITY PLAN. THE CONSTRAINTS OF ASHLEY CREEK AND FLATHEAD LAKE WITH RESPECT TO POLLUTION DISCHARGE ARE EXPLAINED. ADDITIONAL WASTEWATER PROBLEMS, WATER QUALITY, PHYSICAL AND ENVIRONMENTAL CONDITIONS, EXISTING FACILITIES, AND FUTURE POLLUTANT LOADS ARE DISCUSSED. THE DISCUSSION OF THE DEVELOPMENT AND SELECTION OF THE 5 ALTERNATIVE PLANS INCLUDES A COST-EFFECTIVENESS ANALYSIS FOR EACH. THE ALTERNATIVES HAVE BEEN BROKEN INTO PHASED CONSTRUCTION INCREMENTS WHICH ARE THEN USED FOR PHASING OF THE COSTS. A VARIETY OF OPTIONS AS TO LOCATION, TECHNOLOGY, INVESTMENT SIZE, TREATMENT LEVEL, AND WATER QUALITY ENHANCEMENT ARE PROVIDED BY THE ALTERNATIVES. A FUTURE VOLUME WILL MAKE AN ENVIRONMENTAL ASSESSMENT.

S-218
AUTH STANDLEY, PAUL C.
 1920.
"BOTANICAL EXPLORATION IN GLACIER NATIONAL PARK." IN EXPLORATIONS AND FIELD-WORK OF SMITHSONIAN INSTITUTION. SMITHSONIAN MISC. COLLECTIONS, VOL. 72.
 WASHINGTON, D.C.: SMITHSONIAN INSTITUTION.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PAPER REPORTS ON A STUDY OF PARK VEGETATION WHERE 4,000 SPECIMENS OF FLOWERS AND FERNS, REPRESENTING OVER 900 SPECIES, WERE OBTAINED. INFLUENCES UPON PLANT DISTRIBUTION AND THE FOUR LIFE ZONES REPRESENTED IN THE PARK ARE DISCUSSED.

S-219
STANDLEY, PAUL C.
 1920.
"RUSTS FROM GLACIER NATIONAL PARK, MONTANA."
MYCOLOGIA 12(MAY 1920):143-149.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS LISTING OF RUSTS DISCOVERED IN GLACIER NATIONAL PARK INCLUDES SCIENTIFIC NAMES AND HOST PLANTS.

S-220
STANDLEY, PAUL C.
 1920.
"SPHAGNUM IN GLACIER NATIONAL PARK."
THE BRYOLOGIST 23(JANUARY 1920):5-6.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OCCURRENCE OF SPHAGNUM BOGS IN THE PARK IS DISCUSSED. THE LOCATIONS OF BOGS AND THE SPECIES MOST ABUNDANT IN THE BOGS ARE REPORTED.

S-221
STANDLEY, PAUL C.
 1921.
"FLORA OF GLACIER NATIONAL PARK." IN CONTRIBUTIONS FROM THE UNITED STATES NATIONAL HERBARIUM. VOL. 22, PART 5, PP. 234-263.
 WASHINGTON, D.C.: SMITHSONIAN INSTITUTION.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PUBLICATION WAS DESIGNED AS A GUIDE TO FAMILIARIZE PARK VISITORS WITH WILD PLANTS. GENERAL FEATURES OF THE FLORA, LIFE ZONES, AND EARLY BOTANICAL EXPLORATIONS ARE DISCUSSED. A KEY TO THE FAMILIES AND AN ANNOTATED CATALOG OF SPECIES IS INCLUDED. 955 SPECIES OF FLOWERING PLANTS, FERNS, AND FERN ALLIES ARE LISTED.

S-222
STANDLEY, PAUL C.
 1926.
PLANTS OF GLACIER NATIONAL PARK.
 WASHINGTON, D.C.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE. 80 PP.
 FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PUBLICATION DESCRIBES THE BOTANICAL FEATURES OF THE PARK'S FOUR ECOLOGICAL ZONES: PLAINS, TIMBER, TIMBER-LINE AND ALPINE. IT LISTS THE MORE CONSPICUOUS AND INTERESTING PLANTS, DEPENDING ON ILLUSTRATIONS FOR IDENTIFICATION, GIVING ONLY BRIEF DESCRIPTIVE NOTES. PLANTS ARE ARRANGED BY FAMILIES, BEGINNING WITH THE LESS SPECIALIZED GROUPS. THE LOWEST PLANTS (MOSESSES, LIVERWORTS, LICHENS, MUSHROOMS, ETC.) ARE EXCLUDED.

S-223
STANFORD RESEARCH INSTITUTE.
 1971.
ESTIMATION OF PRECIPITATION OVER FLATHEAD DRAINAGE BASIN USING METEOROLOGICAL SATELLITE PHOTOGRAPHS.
 DENVER, CO.: U.S. DEPT. INTERIOR, BUREAU RECLAMATION, ENGINEERING & RESEARCH CENTER. 54 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). A SERIES OF ONCE PER DAY SATELLITE PHOTOGRAPHS OF CLOUDINESS DURING A FALL AND EARLY WINTER PERIOD OF 1968 AND A SPRING AND EARLY SUMMER PERIOD OF 1969 WERE USED TO ESTIMATE TOTAL PRECIPITATION (RAIN AND SNOW) OVER THE FLATHEAD RIVER DRAINAGE BASIN. SUMMATIONS OF THE PROBABLE PRECIPITATION AMOUNTS ASSOCIATED WITH THE CLOUD CATEGORIZATIONS PROVIDED AN ESTIMATE OF THE TOTAL BASIN PRECIPITATION FOR ALL THE DAYS EXAMINED.

S-224
STANFORD, HARRY P.
 1914.
"WILLOW PTARMIGAN IN MONTANA."
THE AUK 31(JULY 1914):399.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE FIRST REPORTED OCCURRENCE OF WILLOW PTARMIGAN (LAGOPUS LAGOPUS) IS THE SUBJECT OF THIS SHORT, ONE PARAGRAPH NOTE.

S-225
STANFORD, JACK A.
 1975.
"ECOLOGICAL STUDIES OF PLECOPTERA IN THE UPPER FLATHEAD AND TOBACCO RIVERS, MONTANA."
PH.D. DISSERTATION, SALT LAKE CITY: UNIV. UTAH.
 241 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(UPPER FLATHEAD & TOBACCO RIVERS). THIS STUDY INVESTIGATED PLECOPTERA ECOLOGY AND LIFE HISTORY. DISCUSSES THE DISTRIBUTION OF ORGANISMS ACROSS AND WITHIN STREAM BED STRATA, SPECIFIC MICROHABITATS, THE EFFECTS OF TEMPERATURE AND PHOTOPERIOD ON THE

ORGANISMS' GROWTH AND EMERGENCE IN THEMATICALLY ALTERED AND UNALTERED PARTS OF THE RIVERS. THE COEXISTENCE AND SYNCHRONOUS EMERGENCE OF THE SPECIES, TROPHIC HABITS, AND PREDATOR-PREY INTERACTIONS ARE CONSIDERED. THE EFFECT OF THE HETEROGENEOUS RIVER SYSTEM UPON SPECIES DIVERSITY IS EXPLAINED.

S-226

STANFORD, JACK A.

1979.

"PROLIFERATION OF RIVER DELTAS IN RESERVOIRS: A 'NATURAL' MITIGATIVE PROCESS?" IN PROCEEDINGS OF MITIGATION SYMPOSIUM.

FT. COLLINS, CO.: U.S. DEPT. AGRICULTURE. 6 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE TEXOMA & FLATHEAD LAKE). SEDIMENTARY AND ECOLOGICAL DYNAMICS OF RIVERINE FORMED DELTAS IN FLATHEAD LAKE ILLUSTRATE THE IMPORTANCE OF ALLUVIAL WET LANDS TO RIVER-RESERVOIR ECOSYSTEMS. THE NATURAL CREATION OF DELTAS MAY BE CONSIDERED MITIGATION OF HABITAT LOST BY RESERVOIR CONSTRUCTION. CONVERSELY, DISTRIBUTION OF EXISTING DELTA HABITAT BY MISMANAGEMENT OF LAKE LEVEL REGIMA MAY PRESENT MITIGATION PROBLEMS.

S-227

STANFORD, JACK A., AND GAUFIN, A. R.

1974.

"HYPORHEIC COMMUNITIES OF TWO MONTANA RIVERS."

SCIENCE 185(AUGUST 23, 1974):3-6.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH, SOUTH, & MIDDLE FORKS, & MAINSTEM OF THE FLATHEAD RIVER). THIS PAPER EXAMINES THE HYPORHEIC HABITATS OF TWO RUBBLE-BOTTOM RIVERS, ONE OF WHICH IS THE FLATHEAD RIVER AND ITS THREE FORKS ABOVE FLATHEAD LAKE. INFORMATION ABOUT STONE FLY (PLECOPTERA) ECOLOGY IS INCLUDED.

S-228

STANFORD, JACK A., AND POTTER, D. S.

1978.

"LIMNOLOGY OF THE FLATHEAD LAKE-RIVER ECOSYSTEM, MONTANA: A PERSPECTIVE." IN PROCEEDINGS OF THE SYMPOSIUM ON TERRESTRIAL AND AQUATIC ECOLOGICAL STUDIES OF THE NORTHWEST.

CHENEY, WA.: EASTERN WASHINGTON STATE COLL. PRESS.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MAINSTEM, NORTH, SOUTH, & MIDDLE FORKS OF THE FLATHEAD RIVER, & FLATHEAD LAKE). THE INTENT OF THIS REPORT IS TO DELINEATE ECOSYSTEM PROCESSES, ADD VARIOUS UNPUBLISHED FINDINGS, AND POINT OUT PROBLEM AREAS CRITICALLY IN NEED OF CLARIFICATION. THE REPORT DESCRIBES: MORPHOMETRY, LIMNOLOGY OF FLATHEAD RIVERS, LIMNOLOGY OF FLATHEAD LAKE, INFLUENCE OF CLAY SEDIMENTS, AND THE ECOSYSTEM PERSPECTIVE. MICROGRAPHS OF CLAY AND CLAY-DETRITUS PARTICLES ARE INCLUDED.

S-229

STANFORD, JACK A., AND REED, E. B.

1974.

"A BASKET SAMPLING TECHNIQUE FOR QUANTIFYING RIVERINE MACROBENTHOS."

WATER RESOURCES BULL. 10:470-477.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER). A COLONIZATION BASKET SAMPLING TECHNIQUE FOR QUANTIFYING MACROINVERTEBRATES IN RUBBLE BOTTOM RIVERS

IS DESCRIBED. BASKET SAMPLES WERE COMPARED TO COLLECTIONS MADE USING THE SURBER SQUARE FOOT SAMPLER. THE PROCEDURE FOR PROCESSING SAMPLES IS DESCRIBED.

S-230

STANFORD, JACK A., AND WARD, J. V., EDS.

1979.

"STREAM REGULATION IN NORTH AMERICA." IN THE ECOLOGY OF REGULATED STREAMS, PP. 215-236. NEW YORK: PLENUM PUBL. CO.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTH AMERICA: MONTANA). THIS REVIEW ATTEMPTS TO SUMMARIZE THE EXTENT OF STREAM REGULATION IN NORTH AMERICA AND TO MAKE GEOGRAPHIC COMPARISONS OF THE WAYS IN WHICH RIPARIAN COMMUNITIES HAVE BEEN INFLUENCED BY DIVERSIONS AND ON-CHANNEL IMPOUNDMENTS. MUCH OF THE NORTH AMERICAN LITERATURE CONCERNING THE EFFECTS OF STREAM REGULATION ON RIPARIAN HYDROLOGY, CHEMISTRY, AND BIOLOGY IS SUMMARIZED IN THE VARIOUS SUBJECT REVIEWS INCLUDED IN THIS VOLUME.

S-231

STANFORD, JACK A.; HAUER, F. R.; AND STUART, T. J.

1979.

ANNUAL REPORT OF WORK COMPLETED DURING 1978-1979 ON LIMNOLOGY OF FLATHEAD LAKE-RIVER ECOSYSTEM.

BIGFORK, MT.: FRQ. UMBS. 155 PP.

PART OF A SERIES, PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MAINSTEM, NORTH, SOUTH & MIDDLE FORKS OF THE FLATHEAD RIVER, & FLATHEAD LAKE). DURING THE 1978-79 BUDGET PERIOD, THE RESEARCH GROUP BEGAN DOCUMENTATION OF BASELINE LIMNOLOGICAL CONDITIONS IN THE ECOSYSTEM. MAJOR RESEARCH OBJECTIVES INCLUDED: 1) QUANTIFICATION OF TEMPORAL DYNAMICS OF IMPORTANT PHYSIO-CHEMICAL PARAMETERS (I.E. THOSE COMPOUNDS PRESENT IN DISSOLVED FORM THAT ARE OFTEN ASSOCIATED WITH POLLUTION PROBLEMS AND CULTURAL EUTROPHICATION) IN THE RIVERS AND THE LAKE, AND 2) ASSOCIATION OF FISH FOOD ORGANISMS AND THEIR PRODUCTIVITY WITH THESE MEASURED SEASONAL TRENDS. DATA DERIVED FROM MEASUREMENT OF CHEMICAL AND INFLOW PARAMETERS PERMITTED CALCULATION OF THE FIRST ACCURATE PHOSPHORUS BUDGET FOR THE LAKE. A STUDY OF PHYSIO-CHEMICAL CONDITIONS IN SPECIFIED TRIBUTARY STREAMS IN THE DRAINAGE WAS INITIATED.

S-232

STANKEY, GEORGE.

1973.

VISITOR PERCEPTION OF WILDERNESS RECREATION CARRYING CAPACITY.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH PAPER INT-142. 61 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WYOMING, UTAH, MINNESOTA & MONTANA: BOB MARSHALL WILDERNESS AREA). THIS PAPER REPORTS ON THE ATTITUDES OF VISITORS TO FOUR WILDERNESS AREAS, INCLUDING THE BOB MARSHALL. A QUESTIONNAIRE WAS USED TO OBTAIN DATA ON FOUR PARAMETERS OF USE THAT COULD POTENTIALLY AFFECT CAPACITY STANDARDS: 1) LEVEL OF USE ENCOUNTERED, 2) TYPE OF USE ENCOUNTERED, 3) LOCATION OF ENCOUNTERS AND 4) EFFECTS OF LITTERING. A PROTOTYPE MODEL TO SIMULATE WILDERNESS TRAVEL AND PROVIDE PROBABILISTIC MEASURES OF ENCOUNTERS IS INTRODUCED. THE MODEL WILL PROVIDE ADMINISTRATORS WITH ESTIMATES OF THE CONSEQUENCES OF ALTERNATIVE COURSES OF ACTION REGARDING USE CONTROL.

S-233

STARK, NELLIE M.

1979.

"LIGHT BURNING AND THE NUTRIENT VALUE OF FORAGE."

UNIV. MONTANA, SCHOOL FORESTRY, MISSOULA. (TYPEWRITTEN). 9 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). THIS REPORT COVERS FOLIAR NUTRIENT CONTENTS THE FIRST TWO YEARS AFTER BURNING DOUGLAS-FIR HABITAT SITES.

S-234

STARK, NELLIE M.

1979.

NUTRIENT LOSSES FROM TIMBER HARVESTING IN A LARCH/DOUGLAS-FIR FOREST.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH PAPER, INT-231. 41 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPR. FOREST). STUDIES OF THE TOTAL AMOUNT OF BIOLOGICALLY ESSENTIAL NUTRIENTS REMOVED IN LOGS AND WATER THROUGH CLEAR-CUTTING, SHELTERWOOD CUTTING, AND GROUP-SELECTION CUTTING WERE CONDUCTED IN A WESTERN LARCH/DOUGLAS-FIR FOREST AT CORAM EXPERIMENTAL FOREST. NUTRIENT REMOVAL BY SPECIES WAS INVESTIGATED UNDER THREE INTENSITIES OF HARVEST. SOIL CHARACTERISTICS AND PLANT SPECIES ARE LISTED IN THE APPENDIX.

S-235

STARK, NELLIE M., AND BODMER, STEVE.

1980.

FINAL REPORT ON STUDIES OF NON-POINT POLLUTION IN THE UPPER FLATHEAD RIVER.

KALISPELL, MT.: FLATHEAD 208 PROJECT. 172 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN: WHITEFISH & STILLWATER RIVERS). THE PURPOSE OF THIS STUDY WAS TO QUANTIFY THE IMPACT THAT EACH LAND USE IN THE RIVER BASIN HAS UPON THE NUTRIENT QUALITY OF THE STUDY STREAMS AND WHAT POSSIBLE IMPACT THEY MIGHT HAVE UPON THE IMMEDIATE AND DOWNSTREAM AQUATIC ENVIRONMENT.

S-236

STEBLER, A. M.

1970.

"MAN AND THE GRIZZLY-COEXISTENCE?"

BIOSCIENCE 20:1141.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN UNITED STATES: GLACIER NATL. PARK). THIS PAPER IS AN INTRODUCTION TO A SYMPOSIUM ON MAN-GRIZZLY RELATIONSHIPS AND BRIEFLY DISCUSSES THIS SOMEWHAT CONTROVERSIAL TOPIC.

S-237

STEELE, ROBERT W.

1957.

MAN-CAUSED FOREST FIRES IN MONTANA (1946-1956).

MISSOULA, MT.: UNIV. MONTANA, MONTANA FOREST & CONSERVATION EXPR. STAT., SCHOOL FORESTRY. BULL. NO. 6. 11 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: NO SPECIFIC MENTION OF THE FLATHEAD AREA.

(MONTANA). THE STUDY DEFINES THE GREATEST CONCENTRATION OF MAN-CAUSED FIRES AND

WHAT HUMAN ACTIVITY CAUSED THEM. A CLASSIFICATION OF MAN-CAUSED FIRES IS OUTLINED: RAILROAD, LUMBERING, CAMPER, SMOKER, DEBRIS BURNING, AND INCENDIARY. THE EFFECTIVENESS OF FIRE PREVENTION CAMPAIGNS IS EXAMINED.

S-238

STEELE, ROBERT.
1960.

FUEL HAZARD RATING OF SLASH ON STATE AND PRIVATE LANDS IN MONTANA.

MISSOULA, MT.: MONTANA STATE UNIV., SCHOOL FORESTRY, MONTANA FOREST & CONSERVATION EXPR. STAT. 17 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS PAPER DESCRIBES SLASH DISPOSAL PROBLEMS AND CONDITIONS THAT EXIST ON STATE AND PRIVATELY-OWNED FORESTED LANDS IN MONTANA. THE DEGREE OF FIRE HAZARD REDUCTION RESULTING FROM CURRENT METHODS OF SLASH DISPOSAL IS DISCUSSED. A PROPOSAL FOR A MORE FLEXIBLE SLASH APPRAISAL SYSTEM IS ALSO PRESENTED.

S-239

STEELE, ROBERT W.
1960.

OCCURRENCE OF MAN-CAUSED FIRES TO BURNING INDEX.

MISSOULA, MT.: MONTANA STATE UNIV., SCHOOL FORESTRY, BULL. NO. 11. 4 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA). AN ANALYSIS WAS MADE OF 238 MAN-CAUSED FIRES THAT OCCURRED IN NORTHWESTERN MONTANA AND NORTHERN IDAHO. THE STUDY DEVELOPS A FIRE OCCURRENCE FACTOR WHICH GIVES A POSITIVE INDICATION OF THE CHANCE OF FIRE OCCURRING FOR A GIVEN DISTRICT UNDER VARIOUS VALUES OF THE BURNING INDEX.

S-240

STEELE, ROBERT W.
1960.

THE ROLE OF FOREST FIRE IN THE BOB MARSHALL WILDERNESS AREA.

MISSOULA, MT.: UNIV. MONTANA, MONTANA FOREST & CONSERVATION EXPR. STAT., SCHOOL FORESTRY. 33 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THIS REPORT OUTLINES THE PREVENTION, PRESUPPRESSION AND SUPPRESSION ASPECTS OF FIRE PROTECTION, DESCRIBES GENERAL FIRE CONDITIONS WITHIN THE WILDERNESS, AND TRACES THE TREND TOWARD DIMINISHING OPEN AREAS DUE TO FIRE PROTECTION. THE DEGREE OF FIRE PROTECTION NEEDED IS DISCUSSED WITH REGARD TO THE USE OF NATURAL FIRE BREAKS.

S-241

STEGNER, WALLACE, AND STEGNER, PAGE.
1978.

"ROCKY MOUNTAIN COUNTRY."

ATLANTIC MONTHLY, APRIL 1978, PP. 44-91.

(ROCKY MTNS.). A PORTION OF THIS SPECIAL FEATURE DISCUSSES THE ATTITUDE AND FEELINGS OF THE INDIANS OF THE ROCKY MOUNTAINS, INCLUDING THE FLATHEAD, CROW, AND CHEYENNE. IT MENTIONS AND QUOTES A NUMBER OF FLATHEAD LEADERS. SKCC.

S-242

STENBERG, PHILLIP, AND VIDEON, F. F.
1978.

RECOMMENDED SNOW LOADS FOR MONTANA BUILDINGS.

BOZEMAN, MT.: MONTANA STATE UNIV., DEPT. CIVIL ENGINEERING/ENGINEERING MECHANICS. 20 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). IT IS THE PURPOSE OF THIS PUBLICATION TO BRING TOGETHER THE MOST UP TO DATE INFORMATION AVAILABLE REGARDING THE EFFECTS OF SNOW ON STRUCTURES AND TO PROVIDE ADEQUATE DATA FOR DETERMINING GROUND SNOW LOADS FOR ALL AREAS WITHIN MONTANA. THE FIRST PART OF THE REPORT PROVIDES SNOW LOAD DATA FOR MONTANA AND INCLUDES DETAILED MAPS FROM WHICH SNOW LOADS CAN BE PREDICTED. THE SECOND PART SUMMARIZES THE METHODS FOR PLACING SNOW LOADS ON STRUCTURES AND GIVES RECOMMENDATIONS FOR PREDICTING THE EFFECTS OF VARIOUS CONDITIONS SUCH AS EXPOSURE TO WIND AND STRUCTURAL SHAPE.

S-243

STERLING, GRACE.
1971.

TALL TALES OF BIG ARM. 1910-1924.

28 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BIG ARM, POLSON). PERSONAL RECOLLECTIONS OF AN EARLY SETTLER IN BIG ARM AND LATER POLSON. THE AUTHOR DESCRIBES DAILY LIFE, ENTERTAINMENT, THE IMPACT OF THE AUTOMOBILE AND INTERACTIONS WITH OTHER SETTLERS. A LIST OF BIG ARM RESIDENTS IS INCLUDED.

S-244

STEVENS, HAZARD.
1901.

THE LIFE OF ISAAC INGALLS STEVENS. 2 VOLS.

BOSTON: HOUGHTON, MIFFLIN & CO.

THIS BIOGRAPHY OF STEVENS, BY HIS SON HAZARD, COVERS HIS EXPLORATIONS IN THE AREA OF THE CONFEDERATED TRIBES AND THE NEGOTIATION OF THE 1855 TREATY. SKCC.

S-245

STEVENS, ISAAC I.
1855.

"REPORT OF EXPLORATION FOR A ROUTE FOR THE PACIFIC RAILROAD FROM ST. PAUL TO PUGET SOUND." IN REPORTS OF EXPLORATIONS AND SURVEYS FOR A RAILROAD ROUTE FROM THE MISSISSIPPI RIVER TO THE PACIFIC OCEAN. VOL. 1. HOUSE EXECUTIVE DOC. NO. 91, 33RD CONGRESS, 2ND SESSION (1855), SERIAL 791.

SCATTERED MATERIALS RELATING TO THE CONFEDERATED TRIBES ARE REPRODUCED HERE. IT INCLUDES A NUMBER OF ORIGINAL LETTERS AND REPORTS DESCRIBING THE ACTIVITIES OF THE 1853 RAILROAD EXPLORATION DIRECTED BY STEVENS, WHICH HAD MANY DEALINGS WITH THE FLATHEADS AND PEND D'OREILLES AND WORKED THROUGH THEIR TERRITORY. SKCC.

S-246

STEVENS, ISAAC I.
1860.

"NARRATIVE AND FINAL REPORTS OF EXPLORATIONS FOR A ROUTE FOR A PACIFIC RAILROAD." IN REPORTS OF EXPLORATIONS AND SURVEYS FOR A RAILROAD ROUTE FROM THE MISSISSIPPI RIVER TO THE PACIFIC OCEAN. VOL. 12, BOOK 1. HOUSE EXECUTIVE DOC. NO. 50, 38TH CONGRESS, 1ST SESSION (1860) SERIAL 1054.

THIS REPORT INCLUDES SCATTERED REFERENCES TO THE CONFEDERATED TRIBES BUT MORE LIMITED REFERENCES THAN THE 1855 REPORT. SKCC.

S-247

STEVENS, ISSAC I.
1869.

NARRATIVE AND FINAL REPORT OF EXPLORATIONS FOR A ROUTE FOR A PACIFIC RAILROAD, NEAR THE FORTY-SEVENTH AND FORTY-NINTH PARALLELS OF NORTH LATITUDE, FROM ST. PAUL TO PUGET SOUND: GENERAL REPORT. VOL. 12.

WASHINGTON, D.C.: U.S. WAR DEPT. 358 PP.

PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD RIVER BASIN). THIS REPORT CONTAINS A NARRATIVE OF STEVENS' EXPLORATIONS IN 1853 AND 1855, A MEMOIR DESCRIBING CHARACTERISTICS OF THE COUNTRY, METEOROLOGICAL DATA, AND ALTITUDINAL DATA. LIEUTENANT MULLAN'S EXPLORATIONS IN 1853 OF THE FLATHEAD RIVER, CAMAS PRAIRIE, HOT SPRING CREEK, AND FLATHEAD LAKE ARE DESCRIBED.

S-248

STEVENS, JOHN F.
1935.

"AN ENGINEER'S RECOLLECTIONS."

ENGINEERING NEWS-RECORD 114(JANUARY-JULY 1935):672-675.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MARIAS PASS). THE AUTHOR DESCRIBES HIS SEARCH FOR MARIAS PASS DURING 1889. HE DISCUSSES RAILROAD ROUTES THAT WERE CONSIDERED IN NORTHERN MONTANA, PREVIOUS EXPLORATIONS IN THE AREA, HIS HIKE TO THE PASS, AND THE POSSIBILITY THAT OTHER WHITE MEN HAD USED THE PASS.

S-249

STEVENSON, PETER R.
1973.

"MICROEARTHQUAKES AT FLATHEAD LAKE, MONTANA."

EARTHQUAKE NOTES 44:88.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). A NINE-STATION SEISMIC NET WAS OPERATED FOR 50 DAYS NEAR THE LAKE, AT THE JUNCTURE OF THE SOUTHERN EXTENSION OF THE ROCKY MOUNTAIN TRENCH AND THE NORTHERN SECTION OF THE INTERMOUNTAIN SEISMIC ZONE. OVER 250 LOCATABLE EARTHQUAKES FALLING IN TWO SOURCE REGIONS WERE NOTED.

S-250

STEVENSON, PETER R.
1976.

"MICROEARTHQUAKES AT FLATHEAD LAKE, MONTANA: A STUDY USING AUTOMATIC EARTHQUAKE PROCESSING."

BULL. SEISMOLOGICAL SOCIETY AMERICA 66(FEBRUARY 1976):61-80.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & VICINITY). A NEWLY DEVELOPED PORTABLE SEISMIC NETWORK WAS TESTED NEAR FLATHEAD LAKE, MT, IN THE FALL OF 1971. ARRIVAL TIMES AT THIS NINE-STATION ARRAY WERE READ AUTOMATICALLY, USING A NEWLY DEVELOPED DIGITAL PROCESSING SCHEME. LOCATIONS OF OVER 250 EARTHQUAKES WERE OBTAINED. THE FIRST-MOTION DATA FROM THESE EVENTS SUGGEST REGIONAL NORTH-SOUTH COMPRESSION.

S-251

STEWART, LINNEA.
1972.

"A STUDY OF THE GENUS MELANOLEUCA IN NORTH AMERICA, WITH EMPHASIS ON THE BOREAL, ALPINE, AND ARCTIC SPECIES."

M.S. THESIS, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIV., BLACKSBURG. 69 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTH AMERICA: FLATHEAD RIVER BASIN: YELLOW). MELANOLEUCA, A WHITE-SPORED BASIDIOMYCETE IN THE FAMILY TRICHOLOMATACEAE, WAS STUDIED IN NORTH AMERICA. FOUR NEW SPECIES WERE DESCRIBED. THEIR HABITATS AND DISTRIBUTIONS, AS WELL AS THOSE OF SIX OTHER SPECIES, SEVERAL PREVIOUSLY UNREPORTED FROM NORTH AMERICA, WERE REPORTED. A KEY TO THE SPECIES IS INCLUDED.

S-252
STEWART, ROBERT C.

1957.
"A COOPERATIVE APPROACH TO THE DEVELOPMENT OF WRITTEN SCHOOL BOARD POLICIES FOR THE SOMERS, MONTANA SCHOOL DISTRICT NO. 28. M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 75 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOMERS). THE PURPOSE OF THIS STUDY WAS TO SELECT PRINCIPLES AND THEORIES FROM THE PROFESSIONAL LITERATURE, AND TO USE THOSE THEORIES AND PRINCIPLES IN ANALYZING THE PROCEDURE EMPLOYED IN STRUCTURING THE DEVELOPMENT OF SCHOOL BOARD POLICIES.

S-253
STEWART, VERN R.

1967.
"WINTER WHEAT WEED CONTROL IS LOOKING UP." MONTANA FARMER-STOCKMAN, APRIL 6, 1967. P. 51.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). EFFORTS TO CONTROL FIELD GROMWELL BY HERBICIDES ARE REPORTED. THE EFFECTS OF VARIOUS CHEMICALS ON THE WEED ARE DESCRIBED.

S-254
STEWART, VERN R.

1968.
"WEED CONTROL IN WINTER WHEAT." MONTANA FARMER-STOCKMAN, OCTOBER 17, 1968.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THIS ARTICLE REPORTS ON WEED CONTROL STUDIES; NOTING YIELDS ON NONWEEDED, WEEDED, AND SPRAYED WHEATFIELDS. THE IMPORTANCE OF EARLY WEED CONTROL IS ADDRESSED. THE RESULTS OF APPLICATIONS OF BROMOXNYL AND 2-4D TO CONTROL FIELD GROMWELL AND TUMBLING MUSTARD ARE EXAMINED.

S-255
STEWART, VERN R.

1972.
"COST OF WEEDS." MONTANA FARMER-STOCKMAN, MARCH 2, 1972.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THE ARTICLE DESCRIBES THE EFFECT OF WEEDS ON YIELD AND INCOME OF WINTER WHEAT, ALFALFA AND POTATOES. HAND-WEEDING OF WHEAT PLOTS, CLIPPING AND HAND-WEEDING OF ALFALFA PLOTS, AND HAND-WEEDING OF POTATOES WAS UNDERTAKEN TO COMPARE YIELDS WITH UNWEEDED PLOTS.

S-256
STEWART, VERN R., AND HEHN, E. R.

1967.
"EFFECT OF STRIPE RUST ON YIELD AND ITS COMPONENTS OF SIX WINTER WHEAT VARIETIES." PLANT DISEASE REPORTER 51(AUGUST 1967):702-705.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: BOZEMAN AND CRESTON). THE ARTICLE DISCUSSES A STUDY WHICH MEASURED THE EFFECT OF STRIPE RUST ON THE YIELD OF SIX COMMERCIAL VARIETIES OF WINTER WHEAT. YIELD LOSSES ARE CALCULATED; MAJOR CAUSES OF YIELD LOSS (KERNAL WEIGHT AND NUMBER OF FERTILE SECONDARY FLORETS) ARE NOTED.

S-257
STEWART, VERN R.; WESENBERG, D. M.; HAYES; AND PETR, F. C.

1978.
"REGISTRATION OF OTANA OATS (REG. NO. 289)." CROP SCIENCE 18(JULY-AUGUST 1978):693.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(CRESTON). THE ARTICLE REPORTS ON THE DEVELOPMENT OF 'OTANA' SPRING OATS (AVENA SATIVA L.). ITS ORIGIN, PHYSICAL APPEARANCE, KERNAL CHARACTERISTICS, TEST WEIGHT, DISEASE SUSCEPTIBILITY AND RESISTANCE, AND YIELD IS NOTED.

S-258
STICKNEY, MICHAEL.

1980.
"AN INVESTIGATION OF THE KALISPELL FAULT ZONE IN NORTHWESTERN MONTANA." M.S. THESIS, UNIV. MONTANA, MSLA.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL: NORTH END OF FLATHEAD LAKE KALISPELL). THE PURPOSE OF THE THESIS IS TO DETERMINE THE ORIENTATION AND EXTENT OF THE KALISPELL FAULT ZONE AND ATTEMPT TO ESTIMATE THE AMOUNT OF VERTICAL DISPLACEMENT ALONG THE FAULT DURING HISTORIC TIME. THE METHODS OF STUDY INCLUDED: 1) A DETAILED GRAVITY SURVEY ACROSS THE FLATHEAD VALLEY ALONG THE SUSPECTED FAULT; AND 2) OPERATION OF A NETWORK KALISPELL OF SEISMOGRAPH STATIONS TO RECORD ANY EARTHQUAKE KALISPELLES WHICH MIGHT OCCUR ALONG THE FAULT.

S-259
STICKNEY, PETER F.

1980.
DATA BASE FOR POST FIRE SUCCESSION, FIRST 6 TO 9 YEARS, IN MONTANA LARCH-FIR FORESTS. OGDEN UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPER. STAT. GEN. TECH. REPT. INT-62. 133 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MILLER CREEK DRAINAGE NEAR OLN). BASELINE DATA ON PLANT SPECIES COVER (M20.01 HA) AND VOLUME OF SPACE OCCUPIED (M30.01 HA) FOR THE INITIAL 6 TO 9 YEARS OF SECONDARY FOREST SUCCESSION FOLLOWING WILDFIRE OR CLEARCUTTING AND BROADCAST SLASH BURNING ARE PRESENTED IN TABULAR FORM FOR 20 LARCH/DOUGLAS-FIR SITES. LOCATION, PHYSICAL DESCRIPTION, PREDISTURBANCE STAND, AND DETAILS OF DISTURBANCE ARE GIVEN FOR EACH SITE. THESE DATA, PRESENTED WITHOUT INTERPRETATION, ARE AVAILABLE FOR ANALYTICAL USE BY OTHERS IN FOREST DEVELOPMENT MODELING AND FOREST MANAGEMENT APPLICATION.

S-260
STIMSON, CLAUDE W.

1945.
THE ECONOMIC BASE FOR POWER MARKETS IN LAKE COUNTY, MONTANA. PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION, DIV. INDUSTRIAL & RESOURCES DEVELOPMENT, MARKET ANALYSIS SECTION. 50 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: THE APPENDIX INCLUDES TABLES OF CLIMATOLOGICAL DATA, MONTHLY ELECTRIC POWER BILLS, POPULATION AND EMPLOYMENT FIGURES, WOOD AND FARM PRODUCTION, RETAIL TRADE SALES, PROPERTY VALUES, AND TAXES.

(LAKE COUNTY). THE EMPHASIS OF THIS REPORT IS ON JOBS AND INCOME FOR LAKE COUNTY. 1940 STATISTICS, AND PROJECTIONS TO 1955, FOR LOCAL SOCIO-ECONOMIC CONDITIONS ARE PRESENTED. THE MAJOR INDUSTRIES (FOREST PRODUCTS, AGRICULTURE, MINING, MANUFACTURING AND RECREATION) ARE EXAMINED.

S-261
STIMSON, CLAUDE W.

1947.
THE ECONOMIC BASE FOR POWER MARKETS IN SANDERS COUNTY, MONTANA. PORTLAND, ORE.: U.S. DEPT. INTERIOR, BPA. 62 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: THE APPENDIX INCLUDES TABLES OF CLIMATOLOGICAL DATA, MONTHLY ELECTRIC POWER BILLS, POPULATION AND EMPLOYMENT FIGURES, WOOD AND FARM PRODUCTION RETAIL TRADE SALES, PROPERTY VALUES, AND TAXES.

(SANDERS COUNTY). THE EMPHASIS OF THIS REPORT IS ON JOBS AND INCOME FOR SANDERS COUNTY. 1940 STATISTICS, AND PROJECTIONS TO 1955, FOR LOCAL SOCIO-ECONOMIC CONDITIONS ARE PRESENTED. THE MAJOR INDUSTRIES (FOREST PRODUCTS, AGRICULTURE, MINING, MANUFACTURING AND RECREATION) ARE EXAMINED.

S-262
STOCKSTAD, DWIGHT S.

1953.
"THE CHEMICAL CHARACTERISTICS OF NATURAL LICKS USED BY BIG GAME ANIMALS IN WESTERN MONTANA." M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 44 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: SOUTH FORK OF THE FLATHEAD RIVER, SWAN RIVER VALLEY, & NATL. BISON RANGE). RESEARCH OBJECTIVES WERE TO DETERMINE THE MINERAL OR MINERALS PREFERRED BY BIG GAME ANIMALS IN VARIOUS AREAS AND THE CHEMICAL COMPOSITION AND PROPERTIES OF VARIOUS NATURAL LICKS. MINERAL CATEGORIES WERE CONSTRUCTED TO TEST MINERAL PREFERENCES. THE USE OF MINERALS AS A MANAGEMENT TOOL TO COUNTER THE ATTRACTION OF NATURAL LICKS IS SUGGESTED.

S-263
STOCKSTAD, DWIGHT S.; MORRIS, MELVIN S.; AND LORY, EARL C.

1953.
"CHEMICAL CHARACTERISTICS OF NATURAL LICKS USED BY BIG GAME ANIMALS IN WESTERN MONTANA." IN TRANSACTIONS OF THE EIGHTEENTH NORTH AMERICAN WILDLIFE CONFERENCE. WASHINGTON, D.C.: WILDLIFE MANAGEMENT INSTITUTE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: SOUTH FORK OF THE FLATHEAD RIVER, SWAN RIVER VALLEY, & NATL. BISON RANGE). THIS RESEARCH WAS DESIGNED TO DETERMINE THE FOLLOWING: 1) THE MINERAL OR MINERALS PREFERRED BY BIG GAME ANIMALS IN VARIOUS AREAS OF WESTERN MONTANA AND 2) THE CHEMICAL COMPOSITION AND PROPERTIES OF VARIOUS NATURAL LICKS. MINERAL "CAFETERIAS" AND SOIL IMPREGNATION TESTS WERE ESTABLISHED AT 18 NATURAL LICKS IN WESTERN MONTANA.

S-264
STOKES, ALLEN W.
1970.
"AN ETHNOLOGIST'S VIEWS TO MANAGING GRIZZLY BEARS."
BIOSCIENCE 20:1154-1157.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN U.S.: GLACIER NATL. PARK). THIS ARTICLE ARGUES THAT BEAR MANAGEMENT IS A PROBLEM INVOLVING HUMAN HABITS AND ATTITUDES. IN MANAGING ANY WILD ANIMAL IT IS NECESSARY TO KNOW: 1) HOW MANY ANIMALS A GIVEN AREA WILL SUPPORT, AND 2) WHAT FACTORS LIMIT THE NUMBERS IN THAT AREA. LONG-TERM STUDIES TO DISCOVER THIS INFORMATION AND TO DETERMINE THE SEPARATE EFFECTS OF FOOD AND HUMAN EXPLOITATION ARE REQUIRED. SOCIAL INTOLERANCE AMONG ANIMALS, THE USE OF LEARNING THEORY DURING THE TRANSITION PERIOD WHEN PARK GARBAGE DUMPS ARE BEING CLOSED, AND BACKCOUNTRY BEAR AND HIKER MANAGEMENT IS DISCUSSED. THE VALUE OF NATIONAL PARKS FOR WILDLIFE RESEARCH IS SUPPORTED.

S-265
STONE, ALBERT W., ED.
1957.
"HIGH DAMS AND UPSTREAM STORAGE." IN PROCEEDINGS OF THE SECOND ANNUAL WATER RESOURCES CONFERENCE.
MISSOULA, MT.: MONTANA STATE UNIV. 11 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(NORTH, MIDDLE, & SOUTH FORKS OF THE FLATHEAD RIVER). THIS ARTICLE ARGUES THE IMPORTANCE OF OUTDOOR RECREATION WHEN WATER RESOURCE DEVELOPMENT IS CONSIDERED. THE WILD STATUS OF THE MIDDLE FORK AND THE EFFECTS UPON IT OF A DAM, THE HUNGRY HORSE DAM OF THE SOUTH FORK, AND PROPOSALS TO DAM THE NORTH FORK ARE TOPICS DISCUSSED.

S-266
STONE, R. W.
1914.
"GLACIAL LAKE MISSOULA." (ABSTRACT).
BULL. GEOLOGICAL SOCIETY AMERICA 25:871.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(FLATHEAD INDIAN RESERVATION). THIS PAPER GIVES EVIDENCE OF THE EXTENT OF GLACIAL LAKE MISSOULA ON THE FLATHEAD INDIAN RESERVATION, WITH A DESCRIPTION OF AN ABANDONED COURSE OF THE FLATHEAD RIVER. LAKE CUT BENCHES ARE NOTED; THE DEPTH OF SEDIMENTS ARE ESTIMATED AND PREVIOUS GLACIATION IS DISCUSSED.

S-267
STONE, SHERIDAN, ET. AL.
1974.
"GROSS ENERGY VALUES CONTAINED IN SELECTED PLANTS FROM THE NATIONAL BISON RANGE."
UNIV. MONTANA, MISSOULA. (TYPEWRITTEN). 25 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: COPIES NOT AVAILABLE FOR DISTRIBUTION BUT ONE COPY IS DEPOSITED AND MAY BE REVIEWED AT THE NATIONAL BISON RANGE.

AVAILABLE FROM: NATIONAL BISON RANGE.

(NATL. BISON RANGE). THIS PAPER PRESENTS THE RESULT OF A STUDY OF THE NUTRITIVE VALUE OF BROWSE AND FORAGE PLANTS DURING WINTER. PLANTS WERE COLLECTED FROM LIGHT TO MODERATELY USED PASTURE AND BOTTOM LANDS. PLANTS WERE DRIED AND TESTED FOR ENERGY VALUE, PROTEIN CONTENT AND CALCIUM CONTENT.

S-268
STONEBERG, RONALD P.
1967.
"A PRELIMINARY STUDY OF THE BREEDING BIOLOGY OF THE SPRUCE GROUSE IN NORTHWESTERN MONTANA."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 82 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA). THE PURPOSE OF THIS INVESTIGATION WAS TO STUDY THE BREEDING BIOLOGY OF A SPRUCE GROUSE POPULATION IN MT. SINCE INFORMATION ON THE SPECIES WAS SCARCE, IT WAS NECESSARY TO CONDUCT A GENERAL, PRELIMINARY STUDY. TOPICS COVERED INCLUDED: LOCATING, CATCHING, HANDLING, OBSERVING GROUSE; POPULATION DYNAMICS (RESIDENT AND TRANSIENT POPULATIONS); MOVEMENTS; HABITAT SELECTION; INDIVIDUAL GROWTH; FOOD HABITS; FLIGHT DISPLAY; COURTSHIP DISPLAY; AGGRESSIVE DISPLAYS; DISPLAYS TO THE INVESTIGATOR; AND MAINTENANCE BEHAVIOR.

S-269
STONEBERG, RONALD P., AND JONKEL, CHARLES J.
1966.
"AGE DETERMINATION OF BLACK BEARS BY CEMENTUM LAYERS."
J. WILDLIFE MANAGEMENT 30(APRIL 1966):411-414.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA). THIS STUDY IS CONCERNED PRIMARILY WITH TESTING THE MERITS OF USING THE CEMENTUM AS AN AGE INDICATOR FOR BLACK BEAR BY USING TEETH FROM THREE KNOWN AGE WILD ANIMALS.

S-270
STONER, MARY ALICE.
1977.
GREAT BEAR WILDERNESS STUDY: ANALYSIS OF PUBLIC RESPONSE.
KALISPELL, MT.: U.S. FOREST SERVICE, FLATHEAD NATIONAL FOREST. 43 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GREAT BEAR WILDERNESS AREA). THIS REPORT REPRESENTS THE PARTIAL ANALYSIS OF INPUT RECEIVED IN RESPONSE TO THE GREAT BEAR WILDERNESS STUDY AND DRAFT PROPOSAL. COMMENTS MADE AT THE TWO PUBLIC HEARINGS, AS WELL AS WRITTEN COMMENTS RECEIVED BEFORE OCTOBER 11, 1977 WERE INCLUDED IN THIS ANALYSES. THE CODINVOLVE SYSTEM WAS USED TO SUMMARIZE THE EXTENT OF RESPONSE OBJECTIVELY. THE TABLES INCLUDED IN THIS REPORT COVER: WHO RESPONDED AND TYPE OF INPUT, RECOMMENDED ALTERNATIVE, POWER, WILDLIFE, ENERGY, TIMBER, ECONOMIC ISSUES, SCHAFER AIRSTRIP AND AREA, ACCESS, AND WATER.

S-271
STORM, GERALD L.
1962.
"PORCUPINE DAMAGE IN PONDEROSA PINE STANDS OF WESTERN MONTANA."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 149 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). STUDY OBJECTIVES WERE TO: 1) DETERMINE THE RELATIVE SIZE AND DISTRIBUTION OF PORCUPINE CONCENTRATION AREAS IN PONDEROSA PINE STANDS IN WESTERN MT.; 2) CORRELATE DAMAGE INTENSITY WITH VARIATIONS IN VARIOUS SITE FACTORS IN CONCENTRATION AREAS; AND 3) INVESTIGATE THE EFFECT OF PORCUPINE DAMAGE ON RADIAL GROWTH IN PINE. A SECONDARY OBJECTIVE WAS TO EVALUATE HUNTING AS AN EFFECTIVE METHOD IN REDUCING PORCUPINE DAMAGE.

S-272
STOUT, KOEHLER S.
1967.
MINING METHODS AND EQUIPMENT ILLUSTRATED.
BUTTE, MT.: MONTANA COLL. MINERAL SCIENCE & TECHNOLOGY. BULL. 63. 97 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE STUDY DESCRIBES THE MINING METHODS IN USE. DEPICTS THE SHAPES AND TYPES OF ORE BODIES WHICH INFLUENCE THE METHODS USED. BREAKING MATERIAL, SUPPORTING AND EXCAVATION, LOADING AND TRANSPORT AND THE DEVELOPMENT WORK THAT PREPARES ORE FOR MINING IS DISCUSSED. SURFACE AND UNDERGROUND MINING IS PRESENTED: THE SURFACE METHODS OF PLACER, DREDGING, OPEN PIT, OPEN-CUT STRIPPING AND COAL STRIPPING, AND THE UNDERGROUND METHODS OF ROOM-AND-PILLAR, LONG WALL CAVING SYSTEM.

S-273
STOUT, TOM, ED.
1921.
MONTANA: ITS STORY AND BIOGRAPHY. 3 VOL.
CHICAGO: THE AMERICAN HISTORICAL SOCIETY.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD, LEWIS & CLARK, LINCOLN, MISSOULA, SANDERS, & POWELL COUNTIES). THIS EARLY HISTORY OF MONTANA COVERS ABORIGINAL AND TERRITORIAL HISTORY AND THE FIRST THREE DECADES OF STATEHOOD.

S-274
STUART, THOMAS W.
1973.
EXPLANATORY MODELS OF WILDERNESS USE: GLACIER NATIONAL PARK.
WEST GLACIER, MT.: GLACIER NATIONAL PARK. 11 + PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). BY ANALYZING PERMIT DATA, QUANTITATIVE ESTIMATES OF THE IMPACT OF VARIOUS FACTORS ON USE LEVELS AND PATTERNS CAN BE DEVELOPED. THIS CAN PROVIDE ASSISTANCE TO MANAGEMENT EFFORTS TO ACHIEVE MORE DESIRABLE PATTERNS OF USE. IT IS INTENDED THAT THIS PROJECT BE AN INITIAL STEP IN DEVELOPING RESEARCH RESULTS THAT CAN SERVE AS INPUTS TO BACKCOUNTRY MANAGEMENT PLANNING.

S-275
STUART, THOMAS W.
1977.
"MULTIOBJECTIVE ANALYSIS OF WILDERNESS TRAVEL IN GRIZZLY BEAR HABITAT USING PARAMETRIC LINEAR PROGRAMMING."
PH.D. DISSERTATION, UNIV. CALIFORNIA, BERKELEY. 241 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). VARIATIONS IN THE VOLUME, DISTRIBUTION AND TIMING OF BACKCOUNTRY OVERNIGHT USE IN URSUS ARCTOS HABITAT ARE EXPLORED USING PARAMETRIC LINEAR PROGRAMMING. CONTACT INDICES ARE GENERATED FOR TRAVEL ALONG TRAILS IN THE STUDY AREA, MANAGEMENT MODELS CONSIDER ALTERNATIVE PATTERNS OF USE, AND OPTIMIZATION TECHNIQUES ARE DEVELOPED ALLOWING MINIMIZATION OF UNDESIRABLE ASPECTS OF CONTACTS WITH GRIZZLIES.

S-276
STUART, THOMAS W.
1978.

"MANAGEMENT MODELS FOR HUMAN USE OF GRIZZLY BEAR HABITAT." IN *TRANSACTIONS OF THE 43RD NORTH AMERICAN WILDLIFE AND NATURAL RESOURCES CONFERENCE*. WASHINGTON, D.C.: WILDLIFE MANAGEMENT INSTITUTE. 8 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE MANAGEMENT MODELS ARE LINEAR PROGRAMS IN WHICH THE VARIABLES ARE BACKCOUNTRY OVERNIGHT TRIPS TAKEN DURING PARTICULAR TIME PERIODS. SOLUTIONS TO THE MODELS IDENTIFY PATTERNS OF BACKCOUNTRY USE THAT ARE OPTIMAL FOR VARIOUS COMBINATIONS OF MANAGEMENT OBJECTIVES.

S-277
STUART, THOMAS W.
1979.

"EXPLORATION OF OPTIMAL BACKCOUNTRY TRAVEL PATTERNS IN GRIZZLY BEAR HABITAT." IN *BEARS: THEIR BIOLOGY AND MANAGEMENT*, EDITED BY C. J. MARTINKA AND K. L. MCARTHUR. WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 32 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). TRADE-OFFS AMONG BACKCOUNTRY MANAGEMENT OBJECTIVES WERE EXPLORED FOR THE NORTHERN HALF OF GLACIER NATL. PARK, MT. PARAMETRIC LINEAR PROGRAMMING WAS EMPLOYED TO QUANTIFY THE TRADE-OFFS AMONG 5 OBJECTIVES, CONSISTING OF 3 MEASURES OF TRAIL RELATED CONTACT BETWEEN GRIZZLY BEARS AND HUMANS, A MEASURE OF SOLITUDE AT THE BACKCOUNTRY CAMPSITES, AND THE VOLUME OF BACKCOUNTRY OVERNIGHT USE.

S-278
STUBBS, RON D.
1966.

"AN INVESTIGATION OF THE EDIBLE AND MEDICINAL PLANTS USED BY THE FLATHEAD INDIANS." M.A. THESIS, UNIV. MONTANA, MISSOULA. 143 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: A SUMMARY OF PLANTS AND THEIR USES IS INCLUDED.

(FLATHEAD INDIAN RESERVATION). THE STUDY IS DEVOTED TO THE MAIN CATEGORIES OF PLANT UTILIZATION WITHIN THE PREVIOUS CULTURE OF THE FLATHEAD INDIANS. IDENTIFIES PLANTS USED FOR FOOD AND MEDICINE, DESCRIBES THEIR COLLECTION AND USE, AND RECORDS RITUALS AND BELIEFS ASSOCIATED WITH THEM. SOURCE OF INFORMATION IS INDIAN INFORMANTS.

S-279
STURDIVANT, JEANE.
1973.

BIBLIOGRAPHY - THE HISTORY OF NAVIGATION ON FLATHEAD LAKE AND THE FLATHEAD RIVER. KALISPELL, MT: FLATHEAD COUNTY LIBRARY. 3 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE & FLATHEAD RIVER). A LISTING OF MATERIALS AVAILABLE IN THE FLATHEAD COUNTY LIBRARY PERTINENT TO THE HISTORY OF NAVIGATION IN THE AREA. BOOKS, NEWSPAPER CLIPPINGS, AND PAMPHLETS ARE LISTED.

S-280
SUDAN, MARGARET.
1953.

"SPECIMENS FOUND ON THE SUDAN FARM." IN *ARCHAEOLOGICAL SITES IN THE FLATHEAD LAKE REGION: A SYMPOSIUM*. MISSOULA MT.: UNIV. MONTANA, ANTHROPOLOGY & SOCIOLOGY PAPERS NO. 15. 4 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SUDAN FARM, 5 MILES NORTH OF BIGFORK ON THE SWAN RIVER). DESCRIPTIONS AND DRAWINGS OF STONE BARS, SCRAPERS, AND MAULS FOUND ON THE SWAN RIVER. EDITOR'S COMMENTS FOLLOW.

S-281
SULLIVAN, AMBROSE, S. J.
1923.

"CHIEF BAPTIST KAKAESHE, FLATHEAD." *INDIAN SENTINEL* 3(APRIL 1923):86-87.

THIS IS THE OBITUARY OF AN IMPORTANT FLATHEAD LEADER IN THE ST. IGNATIUS AREA OF THE RESERVATION. SKCC.

S-282
SUMMARY OF VEGETATION TYPES OF GLACIER NATIONAL PARK.
1936.

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, CITIZENS CONSERVATION CORP. 6 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS SURVEY WAS MADE TO GATHER THE NECESSARY DATA FOR A MAP AND A DESCRIPTION OF THE COMPOSITION, EXTENT AND CHARACTER OF THE VEGETATION IN THE PARK. THIS REPORT IS PRIMARILY A DESCRIPTION OF HOW THE VEGETATION COVER MAP WAS MADE. THE MAP ITSELF IS NOT INCLUDED.

S-283
SUMNER, E. LOWELL, JR.
1939.

"SPECIAL REPORT ON DEER CONTROL GLACIER NATIONAL PARK." U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 10 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE MCDONALD & NORTH FORK OF THE FLATHEAD RIVER). A REPORT WITH PHOTOGRAPHS, WHICH DOCUMENTS DAMAGE INFLECTED TO PARK VEGETATION BY WINTERING DEER. LAKE MCDONALD AND THE NORTH FORK WERE EXAMINED, THE DAMAGE EVALUATED, AND RECOMMENDATIONS WERE MADE.

S-284
SUMNER, E. LOWELL, JR.
1939.

"SPECIAL REPORT ON THE ELK FORAGE PROBLEM ADJACENT TO THE MIDDLE FORK OF THE FLATHEAD RIVER, GLACIER NATIONAL PARK." U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: MIDDLE FORK OF THE FLATHEAD RIVER). THIS STUDY EXAMINES THE IMPACT OF ELK FORAGING ON THE VEGETATION OF DOUBLE MOUNTAIN AND RIVERVIEW MOUNTAIN ON THE NORTH SIDE OF THE MIDDLE FORK OF THE FLATHEAD RIVER. A BRIEF HISTORY OF THE AREA'S ELK POPULATION AND PHOTOGRAPHS ARE INCLUDED.

S-285
SUMNER, E. LOWELL, JR.
1941.

"SPECIAL REPORT ON RANGE MANAGEMENT AND WILDLIFE PROTECTION IN GLACIER NATIONAL PARK." UNPUB. REPT. IN THE FILES OF U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK, WEST GLACIER, MT. (TYPEWRITTEN). 96 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT STUDIES HORSE GRAZING AND ITS RELATION TO WILDLIFE IN GLACIER NATIONAL PARK. IT EXAMINES FORAGE TYPES AND FORAGE CONDITIONS AT: MANY GLACIER, GRANITE PARK, FIFTY MOUNTAIN; GOATHAUNT, CROSBY LAKE, SUN CAMP, SPERRY CHALET, AND LAKE MCDONALD. PROPOSED NEW AREAS OF HORSE USE (BOWMAN LAKE, KINTLA AND UPPER KINTLA LAKE, BOULDER LAKE, AND LOWER END OF LAKE MCDONALD); CARE OF STOCK (PRESENT CONDITION, USE OF GRAIN, USE OF HAY, AND SHOEING); AND A SUMMARY OF RECOMMENDATIONS ARE INCLUDED.

S-286
SUMNER, JAY, AND CRAIGHEAD, J. J.
1973.

GRIZZLY BEAR HABITAT SURVEY IN THE SCAPEGOAT WILDERNESS, MONTANA. MISSOULA, MT.: UNIV. MONTANA, MONTANA COOP. WILDLIFE RESEARCH UNIT. 70 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(LINCOLN-SCAPEGOAT WILDERNESS AREA). THE MAJOR OBJECTIVES OF THIS RESEARCH WERE TO DEFINE HABITAT CRITERIA NECESSARY TO SUSTAIN GRIZZLY BEAR POPULATIONS IN WESTERN MONTANA AND TO DEVELOP RELATIVELY PRECISE, BUT RAPID TECHNIQUES FOR MEASURING HABITAT FACTORS OVER EXTENSIVE LAND AREAS. THE FIRST SECTION OF THIS REPORT DEALS WITH HABITAT CRITERIA AND SUMMARIZES THE TYPES OF HABITAT AND PLANT SPECIES FOUND IN THE AREA; THE SECOND SECTION PRESENTS THE RESULTS OF THE POPULATION SURVEY AND DESCRIBES THE PROBLEMS OF CENSUSING GRIZZLY BEARS. THE LAST SECTION DESCRIBES A TENTATIVE HABITAT RATING SYSTEM.

S-287
SUNDBORG, GEORGE.
1945.

THE ECONOMIC BASE FOR POWER MARKETS IN FLATHEAD COUNTY, MONTANA. PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION, DIV. INDUSTRIAL & RESOURCES DEVELOPMENT. MARKET ANALYSIS SECTION. 120 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: THE APPENDIX INCLUDES TABLES OF CLIMATOLOGICAL DATA, MONTHLY ELECTRIC POWER BILLS, POPULATION AND EMPLOYMENT FIGURES, WOOD AND FARM PRODUCTION, RETAIL TRADE SALES, PROPERTY VALUES, AND TAXES.

(FLATHEAD COUNTY). THE EMPHASIS OF THIS REPORT IS ON JOBS AND INCOME FOR FLATHEAD COUNTY. 1940 STATISTICS, AND PROJECTIONS TO 1955, FOR LOCAL SOCIO-ECONOMIC CONDITIONS AND OUTLOOKS ARE PRESENTED. THE MAJOR INDUSTRIES (FOREST PRODUCTS, AGRICULTURE, MINING, MANUFACTURING AND RECREATION) ARE EXAMINED.

S-288
SUNDBORG, GEORGE.
1946.

"THE SPECIFIC FORESTRY CASE FOR FLATHEAD COUNTY, MONTANA." *NORTHWEST SCIENCE* 20:14-19.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE FOREST INDUSTRIES SECTION OF A SURVEY CONDUCTED BY THE BONNEVILLE POWER ADMINISTRATION TO DETERMINE PRESENT AND FUTURE MARKETS FOR ELECTRIC POWER IS DISCUSSED. THE ARTICLE ARGUES THAT AN INCREASE IN CUTTING IS PERMISSIBLE WITHIN THE LIMITS OF ALLOWABLE ANNUAL FOREST DRAIN ON A SUSTAINED YIELD BASIS. INCLUDED IN THE DISCUSSION IS THE FOLLOWING: EMPLOYMENT; FOREST GROWTH; QUANTITY OF TIMBER; CUTTING PRACTICES; FOREST LAND OWNERSHIP; USE OF VARIOUS TREE SPECIES; CHRISTMAS TREE INDUSTRY; AND FOREST PRODUCTS MANUFACTURING.

S-289

SWADESH, MORRIS.

1949.

"THE LINGUISTIC APPROACH TO SALISH PREHISTORY." IN *INDIANS OF THE URBAN NORTHWEST*. EDITED BY MARIAN W. SMITH. COLUMBIA UNIVERSITY CONTRIBUTIONS TO ANTHROPOLOGY NO. 36.

NEW YORK: COLUMBIA UNIV. PRESS.

(PACIFIC NORTHWEST). THIS BOOK EXAMINES PRE-WHITE TRIBAL MOVEMENTS IN THE PACIFIC NORTHWEST THROUGH LANGUAGE COMPARISON. SKCC.

S-290

SWAIN, FREDERICK M.

1961.

"LIMNOLOGY AND AMINO-ACID CONTENT OF SOME LAKE DEPOSITS IN MINNESOTA, MONTANA, NEVADA, AND LOUISIANA."

GEOLOGICAL SOCIETY AMERICA BULL. 72(APRIL 1961):519-546.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL, NATIONAL.

(MINNESOTA, NEVADA, LOUISIANA AND MONTANA: FLATHEAD LAKE). SEDIMENTS AND THE AMINO-ACID CONTENT OF SEDIMENTS FOR SEVERAL LAKES, INCLUDING FLATHEAD LAKE WERE EXAMINED. FLATHEAD LAKE SEDIMENTS CONSISTING OF PALE-GRAY AND LIGHT-REDDISH-GRAY SILTY CLAY CONTAINING FRAGILAROID DIATOMS, PINE POLLEN, AND WORMS AND ARTHROPODS ARE CHARACTERIZED. THE RELATIONSHIP OF THE FACIES OF LAKE DEPOSITS TO THE SOURCE MATERIAL AND MORPHOMETRY OF THE BASIN IS DISCUSSED.

S-291

SWANEY, ANDREW W.

1923.

"A PERSONAL NARRATIVE."

12 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(FLATHEAD VALLEY: ASHLEY CREEK & HISTORIC DEMERSVILLE). THIS ACCOUNT OF THE SETTLEMENT OF THE FLATHEAD VALLEY TELLS OF TWELVE SETTLERS IN THE 1870'S AND THE ESTABLISHMENT OF A TRADING POST BY JOHN DOOLEY. IT ENUMERATES THE ARRIVAL OF SETTLERS BEFORE 1883, THE FOUNDING OF DEMERSVILLE, AND THE ESTABLISHMENT OF THE FIRST SCHOOL DISTRICT. FREIGHTING FROM MISSOULA, EARLY AGRICULTURE, AND INCIDENTS WITH KOOTENAI INDIANS AND THEIR CHIEF AENEAS ARE DESCRIBED.

S-292

SWANEY, THOMAS.

1970.

"THE BUREAU OF INDIAN AFFAIRS EMPLOYMENT ASSISTANCE PROGRAM: A CRITIQUE."

MONTANA BUSINESS QUARTERLY 8(AUTUMN 1970):53-59.

(FLATHEAD INDIAN RESERVATION). SWANEY, BETTER KNOWN AS BEARHEAD, WAS SUPERVISOR OF THE FLATHEAD RANGER PROGRAM WHEN THIS WAS PUBLISHED. THE ARTICLE CONTAINS SWANEY'S CRITIQUE OF THE BUREAU OF INDIAN AFFAIRS' EMPLOYMENT ASSISTANCE PROGRAM FOR WHICH HE WORKED FOR FIVE AND A HALF YEARS. SKCC.

S-293

SWANGER, JEAN L.

1977.

"ASPECTS OF DOE PRONGHORN SOCIAL STRUCTURE ON THE NATIONAL BISON RANGE."

M.S. THESIS, UNIV. MONTANA, MISSOULA. 95 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE STUDY FOCUSES ON THE FEMALE SOCIAL STRUCTURE OF PRONGHORNS, ANTILOCAPRA AMERICANA. OBSERVATIONS OF SINGLE AND GROUPED ANIMALS PROVIDED DATA ON PATTERN OF DOE USE, DOE GROUP SIZE, AND INTERACTIONS BETWEEN DOES AND TERRITORIAL BUCKS. COMPARISONS ARE DRAWN BETWEEN PRONGHORN AND AFRICAN UNGULATE SOCIAL SYSTEMS.

S-294

SWEENEY, GEORGE L.

1955.

"A GEOLOGIC RECONNAISSANCE OF THE WHITEFISH RANGE, FLATHEAD AND LINCOLN COUNTIES, MONTANA."

M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 43 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH RANGE). THIS STUDY WAS UNDERTAKEN IN ORDER TO INCREASE KNOWLEDGE AND POSSIBLY FACILITATE ECONOMIC DEVELOPMENT OF THE REGION. THE RECONNAISSANCE WAS FOCUSED PRIMARILY ON KNOWN EXPOSURES OF PALEOZOIC STRATA AND ON EXPOSURES OF ANY OTHER STRATA OF SIMILAR OR YOUNGER AGE. SECONDARY ATTENTION WAS GIVEN TO THE PRECAMBRIAN ROCKS OF THE AREA.

S-295

SWISHER, OTIS D.

1975.

"ANNUAL REPORT OF WESTERN BIRD BANDING ASSOCIATION."

WESTERN BIRD BANDER 50.

DRAFT, TECHNICAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN UNITED STATES: MONTANA). AN ANALYSIS OF BIRD-BANDING REPORTS FOR THE YEAR 1974 WITHIN THE AREA OF THE WESTERN BIRD BANDING ASSOCIATION. SOME OF THE BANDERS WERE FROM THE FLATHEAD RIVER BASIN AREA.



T-1
TACKLE, DAVID.
1962.

**INFILTRATION IN A WESTERN LARCH/DOUGLAS-FIR
STAND FOLLOWING CUTTING AND SLASH TREAT-
MENT.**

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST
SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT.
NO. 89. 77 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(CORAM EXPR. FOREST). THIS FIVE YEAR STUDY IN-
VESTIGATED HOW THE WATER ABSORBING CAPACI-
TY OF SOILS WAS MODIFIED BY VARIOUS LOGGING
ACTIVITIES. AFTER THE STUDY AREA WAS LOGGED
FOUR DIFFERENT SURFACE CONDITIONS (UN-
DISTURBED, BURNED, SCARIFIED, AND SKID TRAILS)
WERE MONITORED TO DETERMINE THE EFFECTS OF
FIVE DIFFERENT SLASH TREATMENTS (NO TREAT-
MENT, LOP AND SCATTER, HAND PILE AND BURN,
BROADCAST BURN, AND DOZER PILE AND BURN) ON
INFILTRATION RATES.

T-2
Taelman, Louis, S. J.
1926.

"BISHOP CARROLL: FRIEND OF INDIANS."
INDIAN SENTINEL 6(WINTER 1926):36-37.

IN THIS OBITUARY NOTICE FOR BISHOP CARROLL,
Taelman describes Carroll's 1925 visit to the
Flathead Reservation. SKCC.

T-3
Taelman, Louis, S. J.
1929.

"FLATHEAD TROUT FISHERS (MONTANA)."
INDIAN SENTINEL 9(SUMMER 1929):106.

THIS ARTICLE DESCRIBES A FISHING TRIP WITH
THREE FLATHEAD INDIANS TO DOG LAKE. SKCC.

T-4
Taelman, Louis, S. J.
1932.

"BLESSING NEW INDIAN HOUSE."
INDIAN SENTINEL 12(SUMMER 1932):112.

THIS ARTICLE DESCRIBES A VISIT TO CAMAS PRAIRIE
AND THE BLESSING OF THE HOME OF CHIEF ALEX-
ANDER OF THE KALISPELL BAND THERE. SKCC.

T-5
T.A.P., INC.
1968.

**SURVEY AND ANALYSIS OF SCHEDULED AIR
TRANSPORTATION IN MONTANA, 1960-1980. 3 VOL.**
HELENA, MT.: MONTANA AERONAUTICS COMMIS-
SION. 411 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MT). THIS SURVEY AND EVALUATION OF AIR
TRANSPORTATION SERVICE PRESENTS A GENERAL
ECONOMIC PROFILE OF THE STATE, PAST AND CUR-
RENT AIR SERVICE, TRAFFIC PROJECTIONS, AIR-
PORT FACILITY NEEDS, AND RECOMMENDATIONS
FOR THE DEVELOPMENT OF AN AIR TRANSPORTA-
TION SYSTEM.

T-6
T.A.P., INC.
1972.

**GLACIER PARK INTERNATIONAL AIRPORT AIR SER-
VICE STUDY.**
KALISPELL, MT.: FLATHEAD COUNTY AIRPORT
BOARD, GLACIER PARK INTERNATL. AIRPORT. 141 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.



(KALISPELL: GLACIER PARK INTERNATIONAL AIR-
PORT). THIS INVESTIGATION WAS DESIGNED TO EX-
AMINE AND EXPLORE CURRENT AND PROJECTED
NEEDS FOR IMPROVED SCHEDULED AIR SERVICE.
TOPICS EXAMINED INCLUDE: CHARACTERISTICS OF
FLATHEAD COUNTY AND THE FLATHEAD VALLEY
TRADE AREA; GROUND TRANSPORTATION SYSTEMS;
AIRPORT FACILITIES; COMMUNITY OF INTEREST PAT-
TERNS; AIR TRAFFIC DEVELOPMENT: 1961-1970;
AIRLINE SURVEY; AIR TRAFFIC GROWTH FROM
RECREATION AND TOURISM DEVELOPMENT; PRO-
JECTION OF POTENTIAL AIR PASSENGER O AND D
TRAFFIC; COMMERCIAL AIR SERVICE NEEDS; AND
FUTURE FACILITY REQUIREMENTS.

T-7
Tassinari, Calvin.
1978.

**MISSION MOUNTAINS: WILDERNESS MANAGEMENT
PLAN.**
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST
SERVICE, REGION ONE, FLATHEAD NATIONAL
FOREST. 57 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MISSION MTN. WILDERNESS). THE PURPOSE OF THIS
RESOURCE PLAN IS TO PROVIDE MANAGEMENT
DIRECTION THAT WILL PROTECT AND PRESERVE THE
MISSION MOUNTAIN WILDERNESS. INCLUDED ARE
MANAGEMENT OBJECTIVES, CURRENT SITUATIONS,
BASIC ASSUMPTIONS AND MANAGEMENT DIREC-
TION, AND A SUMMARY OF PUBLIC INVOLVEMENT.
THE APPENDIX COVERS EXISTING ACCESS, INTERIM
TRAIL MAINTENANCE STANDARDS, A LIST OF
WILDLIFE, BIRDS, AND FISHES IN THE AREA,
FISHERIES INVENTORY, AND VISITOR USE
STATISTICS.

T-8
Taylor, Norman E.; Embley, D. J.; and Barth, G.
R.
1965.

HOT SPRINGS CORPORATE ENTERPRISE STUDY.
MISSOULA, MT.: MONTANA STATE UNIV., SCHOOL
BUSINESS ADMINISTRATION, BUREAU BUSINESS &
ECONOMIC RESEARCH. 93 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(HOT SPRINGS). THE HOT SPRINGS CORPORATE
ENTERPRISE IS A COMERCIAALLY DEVELOPED HOT

MINERAL SPRING OWNED BY THE CONFEDERATED
SALISH AND KOOTENAI TRIBES OF THE FLATHEAD
RESERVATION. IN THE 1962 FISCAL YEAR THE SPR-
INGS SUFFERED A SEVERE DECLINE IN REVENUE
AND EARNINGS WHICH THREATENED TRIBAL IN-
COME AND EMPLOYMENT OPPORTUNITIES. THIS
STUDY IS AN ATTEMPT TO IDENTIFY THE CAUSES OF
THE PRECIPITOUS DECLINE IN REVENUE AND PRO-
FITS, TO DETERMINE WHETHER RECOVERY IS POSSI-
BLE, AND, IF IT IS, TO PROPOSE STEPS TO REMEDY
THE SITUATION. THE REMEDIAL STEPS ARE
PRESENTED IN TWO PARTS: UNDER THE ASSUMP-
TION THAT LITTLE OR NO ADDITIONAL CAPITAL IN-
VESTMENT WOULD BE EXPENDED, AND UNDER THE
ASSUMPTION THAT CONSIDERABLE ADDITIONAL
CAPITOL INVESTMENT MAY BE JUSTIFIED.

T-9
Taylor, Norman E.; Kempner, J. J.; and Adair, K.
T.
1966.

**FEASIBILITY STUDY FOR DUPUIS BROTHERS LUMBER
COMPANY, INC. AND BUREAU OF INDIAN AFFAIRS.**
MISSOULA, MT.: UNIV. MONTANA, BUREAU BUSINESS
& ECONOMIC RESEARCH. 24 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: POLSON). THIS
STUDY EXAMINES THE FINANCIAL FEASIBILITY OF
EXPANDING THE DUPUIS SAWMILL FOR THREE
HIGHER LEVELS OF PRODUCTION. THE REPORT
DISCUSSES STUMPAGE: SUPPLY AND PRICE, MARKET
PRICE OF END PRODUCT, COST AND REVENUE PRO-
JECTIONS AND THE CAPABILITY OF THE COMPANY
TO ABSORB COST INCREASES AND OR PRICE
DECREASES.

T-10
Taylor, Robert A., Jr.
1962.
**"CHARACTERISTICS OF HORN GROWTH IN BIG HORN
SHEEP RAMS."**
M.S. THESIS, MONTANA STATE UNIV., MSLA. 128 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NBR & WILDHORSE ISLAND). THE SKELETONS OF 12
BIGHORN RAMS COLLECTED FROM THE BISON
RANGE AND 21 PARTIAL AND COMPLETE SKELETONS
COLLECTED FROM WILDHORSE ISLAND WERE USED
IN THIS STUDY. OBJECTIVES WERE: 1) TO DESCRIBE

THE GROWTH OF HORNS; 2) TO DISTINGUISH BETWEEN THE ANNUAL AND SECONDARY OR FALSE ANNUAL; 3) TO MEASURE HORNS TO DETERMINE IF THE RINGS ARE LOCATED IN PREDICTABLE POSITIONS; 4) TO INVESTIGATE THE POSSIBILITY THAT THE RINGS DEVELOP IN HORNS AT TIMES OTHER THAN DURING THE WINTER MONTHS; 5) TO COMPARE TOOTH SUCCESSION WITH HORN DEVELOPMENT; 6) TO TAKE VARIOUS MEASUREMENTS OF SELECTED SKELETAL BONES TO SEE THE RANGE OF VARIATIONS THAT MIGHT BE RELATED TO AGE; 7) TO COMPARE THE WEIGHTS OF THE ENDOCRINE GLANDS TO SEASON AND AGE; 8) TO SHOW DIFFERENCES IN THE HORN GROWTH OF THE TWO SAMPLES; AND 9) TO INVESTIGATE ANY CORRELATION IN THE APPEARANCE OF SECONDARY RINGS IN THE TWO SAMPLES.

T-11
TAYLOR, ROBERT L.; EDIE, M. J.; AND GRITZNER, C. F.
1974.
MONTANA IN MAPS.
BOZEMAN, MT.: BIG SKY BOOKS. 76 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE PUBLICATION IS A COLLECTION OF MAPS OF: GEOLOGY, CLIMATE, SOILS, VEGETATION, WATER RESOURCES, POPULATION, EMPLOYMENT, AGRICULTURE, LUMBER PRODUCTION, MINERAL RESOURCES, TRANSPORTATION, LAND ADMINISTRATION. COUNTIES ARE OUTLINED IN NEARLY EVERY MAP. A DISCUSSION OF THE SUBJECT REPRESENTED IS INCLUDED WITH EACH MAP.

T-12
TEIT, JAMES A.
1917.
"PEND D'OREILLE TALES." IN FOLK-TALES OF SALISHAN AND SAHAPIN TRIBES. EDITED BY FRANZ BOAS. VOL. 11, PP. 114-118.
LANCASTER, PA. AND NEW YORK: AMERICAN FOLKLORE SOCIETY.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE PEND). THIS CHAPTER REPRESENTS 8 TALES: 1) COYOTE, WREN, AND GROUSE, 2) COYOTE AND THE SNAKE-MONSTER, 3) COYOTE AND MOUNTAIN-SHEEP, 4) COYOTE AND THE SKUKULA'NA WOMEN, 5) COYOTE AND ELK, AND 6) THE WREN.

T-13
TEIT, JAMES A.
1930.
"THE SALISHAN TRIBES OF THE WESTERN PLATEAUS." BUREAU OF AMERICAN ETHNOLOGY, 45TH ANNUAL REPORT.
WASHINGTON, D.C.: U.S. GOVERNMENT PRINTING OFFICE. 396 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS). THE BULLETIN PRESENTS A HISTORICAL AND GEOGRAPHICAL SKETCH OF THE FLATHEAD GROUP OF INDIANS: THE FLATHEAD, KALISPEL, PEND D'OREILLES AND SPOKAN. ORIGIN OF TRIBAL NAMES, DIALECTS, HABITAT BOUNDARIES, BAND DIVISIONS, POPULATION, MIGRATIONS AND MOVEMENT IS DISCUSSED. THE MATERIAL CULTURE, HOUSE AND HOUSEHOLD, CLOTHING, SUBSISTENCE (HUNTING OF MEAT, GATHERING OF BERRIES AND ROOTS), TRANSPORTATION, TRADE, WARFARE, SOCIAL ORGANIZATION, AN INDIVIDUAL'S LIFE CYCLE, RELIGION AND CEREMONIES OF THE INDIANS ARE DESCRIBED.

T-14
TEIT, JAMES A.
1930.
"TRADITIONS AND INFORMATION REGARDING THE TONA'XA."
AMERICAN ANTHROPOLOGIST 32(OCTOBER DECEMBER 1930):625-632.

THE TONA'XA WERE A LITTLE KNOWN BAND OF EITHER KUTENAI OR SALISH WHO LIVED IN WESTERN MONTANA, BUT DISAPPEARED DURING THE 19TH CENTURY. SKCC.

T-15
TEIT, JAMES A., AND BOAS, FRANZ.
1927-28.
THE SALISHAN TRIBES OF THE WESTERN PLATEAUS: THE FLATHEAD GROUP. ANNUAL REPORT NO. 45.
WASHINGTON, D.C.: BUREAU AMERICAN ETHNOLOGY.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS ETHNOLOGICAL STUDY INCLUDED THE FLATHEAD, PEND OREILLES, AND SPOKAN TRIBES. THE ORIGINS OF TRIBAL NAMES, DIALECTS, AND TRIBAL DIVISIONS AND BANDS ARE DISCUSSED, ALONG WITH POPULATION FIGURES, MIGRATIONS, AND MOVEMENTS OF THE TRIBES. THE MATERIAL CULTURE WHICH INCLUDED SKIN DRESSING AND COILED BASKETRY IS DESCRIBED, AS IS HOUSING; CLOTHING AND ORNAMENTS; SUBSISTENCE; TRAVEL, TRANSPORTATION, AND TRADE; WARFARE; SOCIAL ORGANIZATION; THE LIFE HISTORY OF AN INDIVIDUAL FROM BIRTH THROUGH CHILDHOOD, PUBERTY, MARRIAGE AND DEATH; AND RELIGION AND CEREMONIES.

T-16
TENNELLY, J. B., S. S.
1954.
"VENERABLE ST. IGNATIUS MISSION."
INDIAN SENTINEL 34(OCTOBER 1954):114-116, 128.

THIS ARTICLE DESCRIBES THE CELEBRATION OF THE ST. IGNATIUS MISSION CENTENNIAL. SKCC.

T-17
THEODORE J. WIRTH AND ASSOCIATES.
1971.
A LAND USE STUDY-APGAR AREA-GLACIER NATIONAL PARK, MONTANA.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATL. PARK SERVICE, GLACIER NATL. PARK. 34 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: APGAR). THIS LAND USE STUDY BRIEFLY DESCRIBES THE NATURAL ENVIRONMENT OF THE APGAR AREA AND PRESENTS INFORMATION ON HUMAN VISITATION, PRIVATE, RESIDENTIAL, AND COMMERCIAL DEVELOPMENTS, AND NATIONAL PARK SERVICE DEVELOPMENTS. RECOMMENDATIONS TO MINIMIZE FURTHER DESTRUCTION AND TO MAXIMIZE RESTORATION AND PRESERVATION OF THE SCENIC AND NATURAL QUALITIES OF THE AREA ARE MADE.

T-18
THEODOSIS, STEVEN D.
1955.
"BELT SERIES OF NORTHWESTERN MONTANA." IN BILLINGS GEOLOGICAL SOCIETY GUIDEBOOK, SIXTH ANNUAL FIELD CONFERENCE. PP. 58-63.
BILLINGS, MT.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(NORTHWESTERN MONTANA). KNOWLEDGE OF BELTIAN STRATA IS BRIEFLY SUMMARIZED; THE CONTRIBUTIONS OF DAWSON, WILLIS, WALCOTT, CALKINS, DALY, SCHOFIELD, CLAPP, DEISS, AND ROSS ARE REVIEWED. BELTIAN FORMATIONS (APPEKUNNY, GRINNELL, SIYEH, SPOKANE, AND KINTLA) ARE DESCRIBED, ALONG WITH THE GEOGRAPHY OF THE AREA DURING BELTIAN TIME. A CORRELATION CHART IS INCLUDED.

T-19
THEODOSIS, STEVEN D.
BELT SERIES OF NORTHWESTERN MONTANA.
BILLINGS, MT.: BILLINGS GEOLOGICAL SOCIETY. 8TH ANNUAL FIELD CONFERENCE. 5 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

THE FLATHEAD BASIN IS INCLUDED IN THE BELT SERIES, WHICH COVER AN EXTENSIVE AREA IN NORTHWESTERN MONTANA AND PARTS OF CANADA.

(NORTHWESTERN MONTANA). A GENERAL STATEMENT ON THE SERIES PRESENTS SUMMARIES OF THE WORK OF SEVERAL GEOLOGISTS. THE APPEARANCE OF THE BELT SERIES AS IT APPEARS IN GLACIER NATIONAL PARK AND THE GEOGRAPHY OF WESTERN MONTANA DURING BELTIAN TIME IS DESCRIBED.

T-20
"A THIRTY MILLION DOLLAR HORSEPOWER SAVED."
1927.
AMERICAN INDIAN LIFE, BULL. NO. 8(MAY 1927):4-5.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE TELLS OF THE DEFEAT OF AN INDIAN BUREAU EFFORT TO ALLOW THE SECRETARY OF THE INTERIOR RATHER THAN THE FEDERAL POWER COMMISSION TO LEASE THE FLATHEAD DAM SITE AND GIVE HALF OF THE RENTAL MONEY TO THE WHITE SETTLERS ON THE FLATHEAD RESERVATION. SKCC.

T-21
THOMAS, DEAN, AND HOSKINS, INC.
1968.
ENGINEERING REPORT ON WATER SYSTEMS IMPROVEMENTS FOR COLUMBIA HEIGHTS, MONTANA.
GREAT FALLS, MT. 25 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA HEIGHTS). THE PURPOSE OF THIS REPORT WAS TO PRESENT THE RESULTS OF A PRELIMINARY ENGINEERING ANALYSIS AND TO MAKE RECOMMENDATIONS FOR INSTALLATION OF A WATER SYSTEM TO SERVE COLUMBIA HEIGHTS. RECOMMENDATIONS WERE PREMISED ON SUPPLYING SUFFICIENT POTABLE WATER AT ADEQUATE PRESSURE TO MEET ANTICIPATED DEMANDS. TOPICS COVERED WERE: WATER CONSUMPTION (GENERAL, DAILY WATER DEMAND); FIRE FLOW REQUIREMENTS; WATER SUPPLY (EXISTING AND PROPOSED); STORAGE AND DISTRIBUTION SYSTEM; COST ESTIMATES; AND A FINANCIAL PLAN.

T-22
THOMAS, DEAN, AND HOSKINS, INC.
1972.
AREAWIDE WATER/SEWER PLAN FOR KALISPELL, MT.
CITY OF KALISPELL, MT. 79 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: MAPS INCLUDE: POPULATION PROJECTIONS, WATER, SEWER, AND STORM DRAIN MAPS.

(KALISPELL). THE SEWER FUNCTIONAL PLAN INCLUDES AN EVALUATION OF WATER, SANITARY SEWER, AND STORM DRAIN FACILITIES. IT DESCRIBES EXISTING FACILITIES AND DISCUSSES DESIGN CRITERIA, A PLAN FOR IMMEDIATE NEEDS, A FIVE TO TEN YEAR PLAN, AND A LONG RANGE PLAN FOR EACH FACILITY. A DETAILED ANALYSIS AND EVALUATION OF THE WATER AND SANITARY SEWER SYSTEMS IS INCLUDED.

T-23
THOMAS, DEAN, AND HOSKINS, INC.
1972.
COMPREHENSIVE COUNTY WATER AND SEWER PLAN
FLATHEAD COUNTY MONTANA.
FLATHEAD COUNTY COMMISSIONERS AND WHITEFISH CITY-COUNTY PLANNING BOARD. 85 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE BASIC OBJECTIVES OF THIS PLAN WERE: 1) TO FACILITATE THE PREPARATION OF WATER-SEWER PLANS BY LOCAL PUBLIC BODIES AND SIMILAR AGENCIES WHICH DO NOT HAVE FUNDS AVAILABLE FOR THE IMMEDIATE UNDERTAKING OF SUCH A PLAN; 2) TO PROMOTE EFFICIENT AND ORDERLY DEVELOPMENT OF RURAL COMMUNITIES; AND 3) TO PROVIDE THE INFORMATION NECESSARY TO AVOID OVERLAPPING, DUPLICATION, UNDERDESIGN OR OVERDESIGN OF COMMUNITY WATER AND SEWER FACILITIES THAT MAY BE CONSTRUCTED IN THE AREA COVERED BY THE PLAN.

T-24
THOMAS, DEAN, AND HOSKINS, INC.
1973.

WHITEFISH PRELIMINARY SANITARY SEWER STUDY.
KALISPELL, MT.: FLATHEAD AREA-WIDE PLANNING ORGANIZATION. 22 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

NOTE: INCLUDES A MAP, NOTING DRAINAGE AREAS, STEEP SLOPES, SEWER LINES, ETC.

(WHITEFISH AREA). THE STUDY PRESENTS A PRELIMINARY SEWER PLAN FOR THE DRAINAGE AREAS DISCHARGING INTO WHITEFISH LAKE. THE STATE'S DESIGN CRITERIA FOR SEWAGE SYSTEMS, KNOWN AS THE "TEN STATE STANDARDS," SEWAGE COLLECTION PLANS, SEWAGE TREATMENT AND STREAM CLASSIFICATIONS, AND WATERSHED POLICIES FOR WHITEFISH CITY WATER SUPPLY ARE DISCUSSED.

T-25
THOMAS, DEAN, AND HOSKINS, INC.
1974.

COMPREHENSIVE UTILITY DEVELOPMENT PLAN: FLATHEAD LUTHERAN BIBLE CAMP.
KALISPELL, MT.: FLATHEAD LUTHERAN BIBLE CAMP. 40 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: 3 MILES SOUTH OF LAKESIDE). THE PUBLICATION PRESENTS A PLAN FOR THE UPDATING OF EXISTING CAMP UTILITY SYSTEMS TO PROVIDE FOR ALL-SEASON OPERATION OF THE BIBLE CAMP AND ELIMINATION OF EXISTING POTENTIAL HEALTH HAZARDS. THE PLAN DESCRIBES: WATER AND SEWER FACILITIES FOR PRESENT AND PLANNED FUTURE BUILDINGS, ELECTRICAL SERVICE WIRES RELOCATED UNDERGROUND AND UPDATED FOR YEAR-ROUND USE, LIMITED TELEPHONE SYSTEM BETWEEN BUILDINGS, AND WATER SUPPLY TO AN OVERNIGHT CAMPING AREA DURING THE SUMMER. CONSTRUCTION SCHEDULE AND COST ESTIMATES ARE INCLUDED.

T-26
THOMAS, DEAN, AND HOSKINS, INC.
1974.
ENGINEERING REPORT ON STORM DRAIN SYSTEM FOR KALISPELL, MT.
CITY OF KALISPELL, MT. 48 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL). THE STUDY CONSIDERS NECESSARY IMPROVEMENTS TO SEPARATE THE STORM WATER FROM EXISTING SANITARY SEWER SYSTEM AND PROVIDE STREET DRAINAGE TO ALLEVIATE POTENTIAL FLOODING. STORM DRAINAGE DESIGNS AND DESIGN CRITERIA (TRIBUTARY AREA, RAINFALL INTENSITY, RUNOFF COEFFICIENT) ARE DISCUSSED. MAJOR AND MINOR STORM DRAINAGE SYSTEMS ARE OUTLINED; CONSTRUCTION COST ESTIMATES AND A FINANCIAL PLAN PRESENTED.

T-27
THOMAS, DEAN, AND HOSKINS, INC.
1977.

FACILITIES PLAN FOR CHARLO, MONTANA.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT. 100 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CHARLO). THE PURPOSE OF THIS FACILITIES PLAN IS TO EVALUATE THE PERFORMANCE OF THE EXISTING TREATMENT SYSTEM, EVALUATE ALTERNATE METHODS OF SEWAGE TREATMENT AND EFFLUENT DISPOSAL, AND TO SELECT A PLAN BASED ON ITS PROJECTED PERFORMANCE, PUBLIC ACCEPTANCE OF THAT PROCESS AND THE ENVIRONMENTAL EFFECTS OF THE PROJECT AND ITS ECONOMIC FEASIBILITY. THE FOLLOWING TREATMENT ALTERNATIVES WERE CONSIDERED: A) OPTIMUM OPERATION OF THE EXISTING FACILITY; B) MODIFICATION OF THE EXISTING TREATMENT FACILITY INCLUDING: 1) TOTAL RETENTION, 2) LAGOON TREATMENT WITH EFFLUENT DISPOSAL BY RAPID PERCOLATION INTO THE GROUND, 3) LAGOON TREATMENT WITH EFFLUENT DISPOSAL BY SPRAY IRRIGATION, 4) LAGOON TREATMENT WITH INTERMITTENT SAND FILTRATION; C) AN AERATED LAGOON; D) AN OXIDATION DITCH; E) A MECHANICAL EXTENDED AERATION PLANT; AND F) A PHYSICAL-CHEMICAL OR BIOTOWER TREATMENT FACILITY.

T-28
THOMAS, DEAN, AND HOSKINS, INC.
1977.

FACILITY PLAN FOR ARLEE, MONTANA.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(LAKE COUNTY: ARLEE). THE PURPOSE OF THIS PLAN WAS TO EVALUATE THE TOWN'S NEED FOR A COMMUNITY WASTEWATER COLLECTION AND TREATMENT SYSTEM. ALTERNATIVE METHODS OF SEWAGE TREATMENT WERE EVALUATED. A PLAN OF ACTION WAS SELECTED ON THE BASIS OF PROJECTED PERFORMANCE, PUBLIC ACCEPTANCE OF THE PLAN, THE ENVIRONMENTAL EFFECTS OF THE PROJECT, AND ITS ECONOMIC FEASIBILITY.

T-29
THOMAS, DEAN, AND HOSKINS, INC.
1977.

FACILITY PLAN FOR HOT SPRINGS, MT.
KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT. NO PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(HOT SPRINGS). SEVERAL ALTERNATIVE METHODS OF WASTE WATER TREATMENT ARE CONSIDERED IN THIS REPORT IN ADDITION TO AN INVESTIGATION OF THE COLLECTION SYSTEM DESIGNED TO ISOLATE INFILTRATION PROBLEM AREAS AND PRESENT METHODS OF INFLOW/INFILTRATION CONTROL. THE FOLLOWING ALTERNATIVES WERE CONSIDERED: OPTIMUM OPERATION OR MODIFICATION OF THE EXISTING FACILITY, AERATED LAGOON SYSTEM, OXIDATION DITCH, EXTENDED AERATION, PHYSICAL-CHEMICAL OR BIO-TOWER TREATMENT, AND IRRIGATION WITH TREATED EFFLUENT.

T-30
THOMAS, JAMES J.
1972.

A STUDY OF PERTINENT CONSIDERATIONS FOR USE BY FLATHEAD TRIBAL ENTITIES INTERESTED IN OPERATING CULTURED CHRISTMAS TREE FARMS IN THE FLATHEAD INDIAN RESERVATION.
PABLO, MT.: CSKT. 21 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT EXPLORES THE FEASIBILITY OF FLATHEAD TRIBAL

MEMBERS OPERATING SMALL SCALE CULTURED CHRISTMAS TREE PROGRAMS. TOPICS COVERED INCLUDE: LAND, TECHNICAL ASSISTANCE, SPECIES, CULTIVATION, PLANTING, GROWING AND HARVESTING TECHNIQUES, MARKET DATA, AND A SAMPLE BUDGET FOR AN EIGHT YEAR PROGRAM.

T-31
THOMAS, NANCY, AND THOMAS, CONNIE.
1953.

LITHIC SPECIMENS FROM THE SHORELINE AT DAYTON, IN: ARCHEOLOGICAL SITES IN THE FLATHEAD REGION: A SYMPOSIUM.
MISSOULA, MT.: MONTANA STATE UNIV. ANTHROPOLOGY & SOCIOLOGY PAPERS NO. 15. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(DAYTON). DRAWINGS OF JASPER PROJECTILE POINTS, KNIVES, DRILLS OR PUNCHES AND SCRAPERS FOUND ON THE BEACH OF FLATHEAD LAKE. EDITOR'S COMMENTS FOLLOW.

T-32
THOMAS, NATHAN O., AND HARBECK, G. EARL, JR.
1956.

RESERVOIRS IN THE UNITED STATES.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. WATER SUPPLY PAPER 1360-A. 99 PP.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, NATIONAL.

(UNITED STATES: FLATHEAD RIVER BASIN). THIS WATER SUPPLY PAPER REPORTS ON THE STATUS OF RESERVOIR STORAGE FACILITIES AND NATURAL LAKES THAT HAVE A CAPACITY OF 5000 ACRE FEET OR MORE. IT INCLUDES RESERVOIR NAME, LOCATION, DRAINAGE AREA, DEAD STORAGE, TOTAL STORAGE, USABLE STORAGE, SURFACE AREA, STORAGE RATIO, DATE COMPLETED, USE, OWNER OR OPERATOR, AND STORAGE RECORDS PUBLISHED.

T-33
THOMAS PRINTING, INC.
1975.

OFFICIAL FLATHEAD COUNTY ROAD ATLAS.
KALISPELL, MT.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: KALISPELL, BIGFORK, WHITEFISH, COLUMBIA FALLS, SOMERS, & LAKESIDE). THIS ATLAS CONTAINS INDEXED ROAD MAPS OF FLATHEAD CO WITH NEW ROAD AND STREET NAMES FOR: CRESTON, WEST VALLEY, BIGFORK, WHITEFISH, COLUMBIA FALLS, WEST VALLEY NORTH, SOMERS, LAKESIDE, HUNGRY HORSE, CORAM, MARTEN CITY, AND WEST GLACIER.

T-34
THOMPSON, DAVID.
1925.

"NARRATIVE OF THE EXPEDITION TO THE KOOTENAI AND FLAT BOW INDIAN COUNTRIES ON THE SOURCES OF THE COLUMBIA RIVER."
OREGON HISTORICAL QUARTERLY 26(MARCH 1925):23-49.

(KOOTENAI RIVER BASIN). IN THIS ARTICLE, THOMPSON DESCRIBES AN 1807 VISIT TO THE UPPER KOOTENAI. HE MENTIONS CONSIDERABLE NEWS ABOUT THE FLATHEADS, THE LOWER KOOTENAI, AND THE PEND D'OREILLES. SKCC.

T-35
THOMPSON, DAVID.
1932.

"DAVID THOMPSON'S JOURNEYS IN THE PEND D'OREILLE COUNTRY." EDITED BY T. C. ELLIOTT.
WASHINGTON HISTORICAL QUARTERLY 23(JANUARY 1932):18-24.

THIS PORTION OF THOMPSON'S JOURNAL COVERS HIS SEPTEMBER 26 - OCTOBER 6, 1809, TRIP TO THE COUNTRY OF THE LOWER PEND D'OREILLE. SKCC.

T-36
THOMPSON, DAVID.
 1934.
"DAVID THOMPSON AND THE ROCKY MOUNTAINS."
 EDITED BY J. B. TYRELL.
 CANADIAN HISTORICAL REVIEW 15(MARCH 1934):39-45.

(ROCKY MTNS.). THOMPSON'S JOURNEYS TO THE ROCKY MOUNTAINS ATTEMPTED TO OPEN UP TRADE RELATIONS WITH THE KOOTENAI AND THE SALISH. THE BLACKFEET BITTERLY OPPOSED THE ARMING OF THEIR ENEMIES. SKCC.

T-37
THOMPSON, DAVID.
 1950.
DAVID THOMPSON'S JOURNALS RELATING TO MONTANA AND ADJACENT REGIONS, 1808-1812. EDITED BY MARY CATHERINE WHITE.
 MISSOULA, MT.: MONTANA STATE UNIV. PRESS.

THIS IS AN EDITED VERSION OF THOMPSON'S ORIGINAL JOURNALS KEPT AT THE TIME OF HIS TRAVELS. THOMPSON'S NARRATIVE WAS AN EXPANDED AND REWRITTEN VERSION OF THESE JOURNALS, LEAVING OUT SOME DETAILS. SKCC.

T-38
THOMPSON, DAVID.
 1962.
DAVID THOMPSON'S NARRATIVE OF HIS EXPLORATIONS IN WESTERN NORTH AMERICA, 1784-1812. 2ND ED. EDITED BY RICHARD GLOVER.
 TORONTO, ONTARIO: THE CHAMPLAIN SOCIETY.

(WESTERN NORTH AMERICA). THIS BOOK DESCRIBES THOMPSON'S JOURNEYS AND DEALINGS WITH THE KOOTENAI AND SALISH INDIANS BETWEEN 1800 AND 1812. SKCC.

T-39
THOMPSON, LARRY.
 1976.
AN INDEX TO MONTANA WILDLIFE LITERATURE, 1950-1976.
 HELENA, MT.: MDNR, ENERGY PLANNING DIV. & RESEARCH REPT. NO. 1. 32 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MT). THE WILDLIFE STUDIES INCLUDED IN THIS BIBLIOGRAPHY HAVE BEEN INDEXED ACCORDING TO SPECIES OR GROUP OF SPECIES STUDIED AND LOCATION OF STUDY AREA. OVER 500 REFERENCES ARE CITED IN THIS INDEX; THEY WERE LIMITED TO: UNPUBLISHED MASTER'S AND DOCTORAL THESES, PUBLISHED MONOGRAPHS OR TECHNICAL REPORTS, AND ARTICLES PUBLISHED IN SCIENTIFIC JOURNALS WHICH INVOLVE RESEARCH ON NON-DOMESTIC TERRESTRIAL VERTEBRATES CONDUCTED MOSTLY OR ENTIRELY WITHIN THE STATE OF MT.

T-40
THOMPSON, LAYTON.
 1978.
THE TAXATION AND REVENUE SYSTEMS OF STATE AND LOCAL GOVERNMENT IN MONTANA.
 BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPER. STAT. BULL. 701. 29 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE REPORT DESCRIBES STATE AND LOCAL TAX AND REVENUE SYSTEM AS OF 1977: INTERGOVERNMENTAL TRANSFERS, TAXES, CHARGES,

AND MISCELLANEOUS REVENUE. TAX LAWS DISCUSSED PERTAIN TO: PROPERTY, PERSONAL INCOME, CORPORATE, HIGHWAY USERS, ALCOHOLIC BEVERAGES, TOBACCO, MINERAL RESOURCES, INSURANCE, AND INHERITANCE TAXES. TAX SOURCES FOR SCHOOLS AND HIGHWAYS ARE CONSIDERED.

T-41
THOMPSON, MARGARET.
 1938.
HIGH TRAILS OF GLACIER NATIONAL PARK.
 CALDWELL, ID.: THE CAXTON PRINTERS, LTD. 167 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS BOOK DESCRIBES HIKING AND HORSEBACK TRIPS THAT THE AUTHOR TOOK IN GNP. IT BRIEFLY DESCRIBES THE HISTORY OF THE LAKE MCDONALD-FTD AREA AND THE EXPLORATION, SETTLEMENT, AND DEVELOPMENT OF DEMERSVILLE, KALISPELL AND OTHER TOWNS.

T-42
THOMPSON, NED O.
 1964.
FOREST INVENTORY FLATHEAD INDIAN RESERVATION, MONTANA.
 BILLINGS, MT.: U.S. DEPT. INTERIOR, BIA. 29 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT IS THE RESULT OF A TIMBER INVENTORY, AND SERVES AS AN AID IN PRELIMINARY PLANNING OF TIMBER SALES. RECOMMENDATIONS ARE INCLUDED.

T-43
THOMSON, JOHN W.
 1954.
"LICHENS OF THE 1951 FORAY TO THE NORTH SHORE OF LAKE SUPERIOR.
THE BRYOLOGIST 57(DECEMBER 1954):278-291.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(LAKE SUPERIOR & GLACIER NATL. PARK). ALTHOUGH THE ARTICLE DEALS PRIMARILY WITH THE DISTRIBUTION OF LICHENS ALONG THE NORTH SHORE OF LAKE SUPERIOR, MENTION IS MADE OF TWO LICHEN SPECIES (CETRARIA HEPATIZON AND PHYSCIA DUBIA) COLLECTED IN THE PARK.

T-44
THORNBURY, WILLIAM D.
 1965.
REGIONAL GEOMORPHOLOGY OF THE UNITED STATES.
 NEW YORK: JOHN WILEY & SONS, INC. 609 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, NATIONAL.

(UNITED STATES). THE BOOK WAS WRITTEN FOR USE AS A TEXT IN COURSE STUDY AND A REFERENCE FOR PERSONS WHO ARE NOT SPECIALISTS. IT CONTAINS DISCUSSIONS OF 28 GEOGRAPHIC AREAS, INCLUDING THE NORTHERN ROCKY MOUNTAIN PROVINCE. THE DISCUSSION OF THIS PROVINCE IS A GENERAL TREATMENT OF THE FOLLOWING SUBJECTS: LINEAR MOUNTAIN RANGES AND TRENCHES, THE "DISTURBED BELT," THE LEWIS OVERTHRUST, GLACIER NATIONAL PARK TOPOGRAPHY, THE PARK'S PREGLACIAL EROSION HISTORY, AND GLACIAL LAKE MISSOULA.

T-45
"THOSE ASTONISHING FLATHEADS."
 1925.
 INDIAN DEFENSE ASSOC. BULL. NO. 2 (JULY-AUGUST 1925):3.

(FLATHEAD INDIAN RESERVATION). THIS ARTICLE RELATES A BUREAU OF INDIAN AFFAIRS' ATTEMPT TO SELL THE FLATHEAD TIMBERLANDS. SKCC.

T-46
TIBBS, JOHN F.
 1973.
DESCRIPTION, DISTRIBUTION, AND ECOLOGY OF THE ROTIFER AND CRUSTACEAN PLANKTON COMMUNITIES, FLATHEAD LAKE, MONTANA.
 BOZEMAN, MT.: MONTANA STATE UNIV. WATER RESOURCES RESEARCH CENTER. REPT. NO. 39. 12 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE STUDY DETERMINES THE ROTIFER, COPEPOD, AND CLADOCERAN FAUNA AND DESCRIBES THE DIURNAL AND TEMPORAL VARIATIONS OF DENSITY AND SPATIAL DISTRIBUTION AS INFLUENCED BY PHYSICAL AND CHEMICAL FEATURES OF THE LAKE. ANOTHER OBJECTIVE OF THE STUDY WAS THE RECOVERY OF RECORDS, NOTES AND COLLECTIONS OF PREVIOUS INVESTIGATIONS.

T-47
TIBBS, JOHN F.
 1974.
TESTACEA (PROTOZOA: SARCODINA) AS INDICATORS OF WATER QUALITY IN WESTERN MONTANA.
 BOZEMAN, MT.: MONTANA STATE UNIV., JOINT WATER RESOURCES RESEARCH CENTER. COMPLETION REPT. NO. 49. 7 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: MISSION MTNS., & SOUTH COLD CREEK DRAINAGE). WATER, SEDIMENT, AND PERIPHYTON SAMPLES WERE COLLECTED IN A VARIETY OF WATER HABITATS. PERTINENT CHEMICAL AND PHYSICAL DATA WERE COLLECTED, AS WELL AS DOMINANT FAUNAL AND FLORAL ELEMENTS. 40 SPECIES OF TESTACEA WERE IDENTIFIED. THE WORK IS CONSIDERED EXPLORATORY; THE DATA ITSELF IS NOT PRESENTED IN THIS REPORT.

T-48
TIBBS, JOHN F.; GAUFIN, A. R.; AND STANFORD, J. A.
 1975.
DISTRIBUTION AND BIOTIC EFFECTS OF NUTRIENTS IN FLATHEAD LAKE, MONTANA.
 HELENA, MT.: U.S. ENVIRONMENTAL PROTECTION AGENCY AND MONTANA DEPT. HEALTH & ENVIRONMENTAL SCIENCES. 46+ PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS STUDY WAS UNDERTAKEN TO DESCRIBE SEASONAL DYNAMICS OF VARIOUS PHYSICAL AND CHEMICAL PARAMETERS INVOLVED IN PLANKTON COMMUNITY METABOLISM AND TO RELATE THEIR FINDINGS TO NUTRIENT LOADING TRENDS PREVIOUSLY REPORTED. PARAMETERS INCLUDE PH, CA, MG, CaCO₃, CO₂, NO₃, TOTAL PHOSPHORUS, AND HEAVY METALS.

T-49
TILDEN, FREEMAN.
 1964.
FOLLOWING THE FRONTIER WITH F. JAY HAYNES: PIONEER PHOTOGRAPHER OF THE OLD WEST.
 NEW YORK: ALFRED A. KNOPF.

(FLATHEAD INDIAN RESERVATION). THIS VOLUME INCLUDES A NUMBER OF PHOTOGRAPHS OF SCENES ON THE FLATHEAD RESERVATION IN THE MID-1880'S AND A SHORT DISCUSSION OF HAYNES' 1885 TRIP TO THE FLATHEAD RESERVATION. SKCC.

T-50
TISCH, EDWARD.
 1961.
"SEASONAL FOOD HABITS OF THE BLACK BEAR IN THE WHITEFISH RANGE OF NORTHWESTERN MONTANA."

M.S. THESIS, MONTANA STATE UNIV., MISSOULA, MT. 108 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH RANGE). THE MAJOR OBJECTIVES OF THIS STUDY WERE: TO DETERMINE THE SEASONAL FOODS OF THE BLACK BEAR BY FREQUENCY OF OCCURRENCE OF FOOD ITEMS IN FECAL MATERIAL; TO DETERMINE THE RELATIONSHIP BETWEEN AVAILABILITY OF FOOD ITEMS AND SELECTION BY THE FEEDING ANIMAL; AND TO DETERMINE THE RELATIONSHIP OF SEASONAL FEEDING ACTIVITY TO VEGETATION TYPES PRESENT ON THE STUDY AREA.

T-51

TODD, KENNETH S., JR.; HAMMOND, D. M.; AND O'GARA, B. W.

1967.

"REDESCRIPTION AND INCIDENCE OF EIMERIA ANTELOCAPRAE HUIZINGA, 1942 IN THE PRONGHORN ANTELOPE, ANTELOCAPRA AMERICANA (ORD, 1815)."

BULL. WILDLIFE DISEASE ASSOC. 3(APRIL 1967):71-73. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(YNP & NBR). FECAL SAMPLES FROM 63 ANTELOPE (ANTELOCAPRA AMERICANA), 48 COLLECTED IN YELLOWSTONE AND 15 FROM THE NATIONAL BISON RANGE, WERE EXAMINED FOR SIGNS OF INFECTION OF EIMERIA ANTELOCAPRAE. DATA ON THE INCIDENCE OF INFECTION IN DIFFERENT AGE GROUPS ARE PRESENTED, ALONG WITH DESCRIPTIONS OF STAGES OF THE ORGANISM.

T-52

TODD, KENNETH S., JR.; HAMMOND, D. M.; AND O'GARA, B. W.

1967.

"REDESCRIPTION AND INCIDENCE OF EIMERIA ANTELOCAPRAE HUIZINGA, 1942 IN THE PRONGHORN ANTELOPE, ANTELOCAPRA AMERICANA (ORD, 1815)."

BULL. WILDLIFE DISEASE ASSOC. 3(APRIL 1967):71-73. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(YNP & NATIONAL BISON RANGE). FECAL SAMPLES FROM 63 ANTELOPE (ANTELOCAPRA AMERICANA), 48 COLLECTED IN YELLOWSTONE AND 15 FROM THE NATIONAL BISON RANGE, WERE EXAMINED FOR SIGNS OF INFECTION OF EIMERIA ANTELOCAPRAE. DATA ON THE INCIDENCE OF INFECTION IN DIFFERENT AGE GROUPS ARE PRESENTED, ALONG WITH DESCRIPTIONS OF STAGES OF THE ORGANISM.

T-53

TOOLE, K. ROSS.

1960.

MONTANA: AN UNCOMMON LAND.

NORMAN, OK.: UNIV. OKLAHOMA PRESS. 278 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(STATEWIDE, INCLUDES FLATHEAD INDIAN RESERVATION). AN INTERPRETIVE STUDY OF ROUGHLY CHRONOLOGICAL ESSAYS WHICH REVIEW MAJOR THEMES IN THE STATE'S HISTORY. REFERENCE IS MADE TO MISSIONARIES' WORK AMONG THE FLATHEAD TRIBE AND THE FLATHEAD RESERVATION.

T-54

TOOLE, K. ROSS.

TWENTIETH CENTURY MONTANA - A STATE OF EXTREMES.

NORMAN, OK.: UNIV. OKLAHOMA PRESS. 307 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). A PORTRAIT OF CYCLICAL 20TH CENTURY PATTERNS WITHIN THE STATE. REFERENCE IS

MADE TO THE 1917 LUMBER STRIKE, WHICH SAW FEDERAL TROOPS CALLED INTO WHITEFISH AND COLUMBIA FALLS AS STRIKE BREAKERS.

T-55

TORRANIN, PADOONG.

1972.

APPLICABILITY OF CANONICAL CORRELATION IN HYDROLOGY.

FORT COLLINS, CO.: COLORADO STATE UNIV., HYDROLOGY PAPERS. 30 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

(MAIN STEM OF THE FLATHEAD RIVER). THE MAIN OBJECTIVE OF THIS STUDY WAS TO EXPLORE THE FEASIBILITY OF USING CANONICAL CORRELATION ANALYSIS TO ESTABLISH RELATIONSHIPS BETWEEN TWO SETS OF RANDOM VARIABLES WHICH ARE NOT ONLY CORRELATED AMONG THE SETS, BUT ALSO DEPENDENT WITHIN EACH SET. THE POTENTIAL FOR APPLICATION WAS DEMONSTRATED BY TWO PROBLEMS IN LONG RANGE HYDROLOGIC PREDICTION: FORECAST OF SEASONAL SNOWMELT RUNOFF FOR THREE GAGING STATIONS ON THE FLATHEAD RIVER AND FORECAST OF MONTHLY PRECIPITATION ON THE WEST COAST OF THE UNITED STATES.

T-56

TOURANGEAU, PHILLIP.

1969.

"FLATHEAD LAKE PESTICIDE STUDY."

UNIV. OF MONTANA, UMBS, YELLOW BAY, MT. (TYPEWRITTEN). 4 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS IS A GENERAL SUMMARY OF THE STUDY OF DDT COMPOUNDS IN FLATHEAD LAKE. THE PURPOSE OF THIS STUDY WAS THE DETERMINATION OF THE DYNAMICS OF THE DDT COMPOUNDS IN THE LAKE ECOSYSTEM INCLUDING SOURCE(S); WHETHER OR NOT THE OBSERVED LEVELS OF CONTAMINATION IN THE LAKE ECOSYSTEM WERE INCREASING OR REMAINING STABLE; AND THE CRITICAL ASSESSMENT OF THE LAKE'S ECOSYSTEM BURDEN OF DDT COMPOUNDS REGARDING THEIR CONTRIBUTION TO THE DECLINING REPRODUCTIVE SUCCESS OF THE FLATHEAD LAKE OSPREY POPULATION.

T-57

TOURANGEAU, PHILLIP C., AND GAUFIN, ARDEN R.

1968.

"REPORT OF PESTICIDE ANALYSES."

U.S. DEPT. INTERIOR, NATL. PARK SERVICE, GLACIER NATL. PARK, WEST GLACIER, MT. (TYPEWRITTEN). 4 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). FOURTEEN KOKANEE SALMON (ONCORHYNCHUS NERKA) AND ONE PYGMY WHITEFISH (PROSOPOM COULTERI) FROM GLACIER NATIONAL PARK WERE ANALYZED FOR RESIDUES OF DDE, DDD AND DDT. THE ANALYSIS EMPLOYED GAS CHROMATOGRAPHY. RESULTS AND CONCLUSIONS ARE INCLUDED.

T-58

TOUZEAU, ROY F.

1977.

"SCALING PERCEPTIONS AND PREFERENCES OF FOREST SCENES FROM THE CORAM EXPERIMENTAL FOREST: AN APPLICATION OF MULTIDIMENSIONAL SCALING."

PH.D. DISSERTATION, UNIV. MONTANA, MSLA. 325 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CORAM EXPER. FOREST). THIS STUDY ATTEMPTED TO DETERMINE QUANTITATIVELY THOSE ATTRIBUTES THAT INFLUENCE THE PUBLIC'S PREFERENCE FOR VARIOUS FOREST SCENES AND TO IDENTIFY INDIVIDUAL DIFFERENCES IN THE SELECTION OF ATTRIBUTES. FOUR EXPERIMENTS, USING DIFFERENT DATA COLLECTING TECHNIQUES AND SLIGHTLY DIFFERENT STIMULI, WERE CONDUCTED. INDIVIDUALS WERE ASKED TO RANK SCENES DEPICTED IN SLIDES AND PRINTS AND GIVE JUDGEMENTS OF SIMILARITY. THE TWO KINDS OF DATA, DISSIMILARITY AND PREFERENCE DATA, WERE ANALYZED WITH COMPUTER PROGRAMS. RESULTS NOTE THE FACTORS IN DISSIMILARITY JUDGEMENTS AND FACTORS IN PREFERENCES AS WELL AS DIFFERENCES BETWEEN OBSERVERS' PREFERENCES.

T-59

TRAINER, CHARLES.

1955.

REPORT OF THE 1954 STUDY OF ELK REPRODUCTION. MISSOULA, MT.: MONTANA STATE UNIV., MT. COOP. WILDLIFE RESEARCH UNIT.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE OBJECTIVES OF THIS STUDY WERE: 1) TO LEARN THE LENGTH OF THE HEAT PERIOD IN ELK; 2) TO LEARN THE INTERVAL BETWEEN HEAT PERIODS; 3) TO LEARN THE EXTENT OF RECURRENCE OF HEAT; 4) TO OBTAIN A SERIES OF KNOWN AGE EMBRYOS IN ORDER TO PRODUCE A GRAPH OF FETAL GROWTH; AND 5) TO STUDY THE HISTOLOGY OF OVARIES FROM ELK OF KNOWN BREEDING HISTORY, AND THUS BE BETTER ABLE TO INTERPRET HISTORY, AND THUS BE BETTER ABLE TO INTERPRET THE OCCURRENCE OF CORPORA LUTEN, ACCESSORY CORPORA SCARS, ETC. IN ELK OF KNOWN BREEDING HISTORY.

T-60

TRAMMELL, JOHN WILLIAM.

1970.

"STRATA-BOUND BASE METAL SULFIDES IN THE BELT SUPERGROUP OF MONTANA."

GEOLOGICAL SOCIETY AMERICA. ABSTRACTS WITH PROGRAMS 2:352.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THIS ABSTRACT REPORTS ON AN INVESTIGATION OF BASE METAL SULFIDE CONCENTRATIONS WITHIN THE STRATA OF THE BELT SUPERGROUP. THE MINERALOGY OF OCCURRENCES, THE RELATIONSHIP OF THE DEPOSITS TO STRUCTURAL FEATURES, AND COMMON TEXTURES ARE TOPICS ADDRESSED.

T-61

TRAMMELL, JOHN WILLIAM.

1975.

"STRATA-BOUND COPPER MINERALIZATION IN THE EMPIRE FORMATION AND RAVALLI GROUP, BELT SUPERGROUP, MONTANA."

PH.D. DISSERTATION, UNIV. WASHINGTON, SEATTLE. 70 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FLATHEAD AND LAKE COUNTIES). THE MAJOR EMPHASIS OF THIS STUDY WAS ON THE MINERALIZATION IN THE DOMINANTLY GREEN STRATA BETWEEN THE RAVALLI GROUP AND THE WALLACE/HELENA FORMATIONS, HEREIN DEFINED AS THE EMPIRE FORMATION. THIS IS THE FIRST COMPREHENSIVE STUDY OF THE CHARACTERISTICS, EXTENT AND ORIGIN OF THE STRATA BOUND COPPER DEPOSITS OF THE BELT SUPERGROUP. MICROSCOPIC AND ELECTRON MICROPROBE TECHNIQUES WERE USED TO STUDY THE SULFIDE MINERALOGY AND TEXTURES OF THE MINERALIZED SILTSTONES.

T-62

TREE, WAYNE E.

1971.

"SPRUCE-FIR FORESTS IN THE VICINITY OF MISSOULA, MONTANA."

M.A. THESIS, UNIV. MONTANA, MSLA. 84 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(NORTHWESTERN MONTANA: MISSOULA VALLEY AREA). PHYTOSOCIOLOGICAL DATA WERE OBTAINED FROM 27 SPRUCE-FIR FORESTS. THE OBJECTIVE OF THE STUDY WAS TO DEVELOP A QUANTITATIVE VEGETATIONAL ORDINATION WHICH WOULD GIVE SOME UNDERSTANDING OF PICEA-ABIES DISTRIBUTION AND COMPOSITIONAL VARIABILITY AT DIFFERENT ELEVATIONS AND EXPOSURES. STANDS PRESENTLY BEING INVADED BY SPRUCE AND FIR AND STANDS CONSIDERED CLIMAX FORESTS WERE FAVORED DURING THE SAMPLING PERIOD. TWO ORDINATIONS WERE DEVELOPED: ONE BY EXTRACTING ALL THE OLD COMMUNITIES FROM THE YOUNG COMMUNITIES; ANOTHER WITH JUST THE YOUNG COMMUNITIES. BOTH ORDINATIONS WERE USED TO SHOW PLANT BEHAVIOR PATTERNS IN THE DIFFERENT AGE COMMUNITIES.

T-63

TREPP, JOHN M.

1966.

"MUSIC AT ST. IGNATIUS MISSION, 1854-1900."

M.E. THESIS, UNIV. MONTANA, MSLA. 72 PP.

FINAL, GENERAL, NON-TECHNICAL, D, WITHIN THE BASIN.

(ST. IGNATIUS). THE HISTORY OF MUSIC AT THE CATHOLIC MISSION IS THE SUBJECT OF THIS THESIS. THE MUSICAL ACTIVITIES AND EVENTS WITHIN THE MISSION COMMUNITY ARE DESCRIBED, ALONG WITH THE IMPORTANCE AND SIGNIFICANCE OF THESE MUSICAL ENDEAVORS. TOPICS COVERED INCLUDE: THE EARLY HISTORY OF THE MISSION; THE PLACE OF EDUCATION AT ST. IGNATIUS MISSION; AND PROGRAMS OF MUSICAL EVENTS AT THE MISSION, 1885-1899.

T-64

TRETHEWAY, GRACE B.

1985.

"FLATHEAD LAKE: HOW COME?"

MONTANA INSTITUTE OF THE ARTS QUARTERLY 17(SPRING 1985):16-17.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS PAPER GIVES A NONTECHNICAL DESCRIPTIVE ACCOUNT OF THE LAKE'S GEOLOGICAL HISTORY.

T-65

"TRIPLE JEOPARDY AT GLACIER NATIONAL PARK."

1975.

NATL. PARKS & CONSERVATION MAGAZINE, SEPTEMBER 1975, PP. 3-6.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST, GLACIER NATL. PARK). A REVIEW OF THREE SITUATIONS WHICH POSE THREATS TO GLACIER NATIONAL PARK'S ENVIRONMENTAL INTEGRITY: A PETITION BY THE BLACKFEET INDIAN TRIBE SEEKING A CONSERVATION AGREEMENT PROVIDING FOR THE REGULATION OF RESERVED RIGHTS ALONG THE EASTERN PORTION OF THE PARK PERMITTING HUNTING, LOGGING AND THE LIKE; THE CABIN CREEK COAL MINE IN CANADA, AND OIL AND GAS LEASING ON THE FLATHEAD NATIONAL FOREST.

T-66

TRIPP, N. R.

1968.

SOIL SURVEYS FOR PROPOSED KRAUSE CREEK SALE AREA.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. 2 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). A DESCRIPTION OF THE AREA WHERE A PROPOSED LOGGING ROAD WOULD BE LOCATED IS INCLUDED ALONG WITH RECOMMENDATIONS AND ALTERNATIVES FOR CONSTRUCTION.

T-67

TRIPPET, E., ED.

1971.

HISTORICAL INFORMATION CONCERNING THE UPPER FLATHEAD COUNTY.

KALISPELL, MT.: TRIPPETS PRINTING. 96 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(UPPER FLATHEAD COUNTRY). INCLUDED ARE HISTORIES OF GLACIER PARK, WHITEFISH, COLUMBIA FALLS, BIGFORK AND KALISPELL. CONTAINS OLD PHOTOGRAPHS OF THE AREA.

T-68

TRIPPET, FRANK H., AND BAIN, L. L.

1956.

HISTORY OF KALISPELL.

KALISPELL, MT.: TRIPPETS PUBLISHERS. 84 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL). EXCERPTS OF INFORMATION ABOUT THE EARLY DAYS OF THE CITY. INCLUDED ARE HISTORIES OF: THE KALISPELL GENERAL HOSPITAL, FIRE DEPARTMENT SCHOOL DISTRICT, CITY STREETS, AND ARCHITECTURE. MANY PHOTOGRAPHS ARE INCLUDED.

T-69

TRIPPET, FRANK H., AND BAIN, L. L.

1956.

HISTORY OF WHITEFISH.

KALISPELL, MT.: TRIPPETS PUBLISHERS. 80 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(WHITEFISH AND SURROUNDING AREA). HISTORIC ACCOUNTS OF GLACIER NATIONAL PARK, COLUMBIA FALLS, THE LUMBER INDUSTRY, AND HANGING INCIDENTS ARE PRESENTED. A PIONEER'S NARRATIVE OF EARLY SETTLEMENT IN THE WHITEFISH AREA AND DISCUSSIONS OF CHURCHES, SCHOOLS, THE RAILROAD, AND COMMUNITY ORGANIZATIONS ARE INCLUDED.

T-70

TRIPPET, FRANK H., AND BAIN, L. L., COMP.

1956.

HISTORY OF BIGFORK.

KALISPELL, MT.: TRIPPETS PUBLISHERS. 64 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: BIGFORK, GLACIER NATIONAL PARK, FLATHEAD LAKE, COLUMBIA FALLS). THIS BRIEF BOOK PRESENTS HISTORIC ACCOUNTS OF TRADING POSTS, WAGON ROADS, STEAMBOATS, THE COUNTY'S FIRST HANGING, AND SO ON. DESCRIPTIONS OF BIGFORK'S PAST DESCRIBE SETTLEMENT OF THE EAST SHORE, THE FIRST ORCHARDS AT WOODS BAY, FIRST STORES, SCHOOLS, AND INDUSTRIES.

T-71

TRO, ROGER P.

1968.

"THE PROVENIENCE OF THE KUTENAI INDIANS: A PRELIMINARY DELINEATION OF CROSS-CULTURALLY COMPARATIVE TRAITS."

M.A. THESIS, UNIV. MONTANA, MISSOULA.

(WESTERN UNITED STATES). THIS STUDY OF COMPARATIVE TRAITS OR ITEMS IN THE CULTURE OF THE KUTENAI AND OTHER TRIBES IN THE WESTERN UNITED STATES ATTEMPTS TO LEARN WHERE THE KUTENAI HAD LIVED BEFORE THE COMING OF THE WHITES. IT INCLUDES A DETAILED DESCRIPTION OF THE RESULTS OF THE EXCAVATION OF THE ARCHAEOLOGICAL SITES IN THE KOOTENAI RIVER AREA. SKCC.

T-72

TROSPER, RONALD L.

1962.

"THE ECONOMIC IMPACT OF THE ALLOTMENT POLICY ON THE FLATHEAD INDIAN RESERVATION."

PH.D. DISSERTATION, HARVARD UNIV., CAMBRIDGE, MASS.

(FLATHEAD INDIAN RESERVATION). THE AUTHOR EXAMINES THE INCOME LOST TO THE TRIBE BECAUSE OF THE FORCED SALE OF LAND IN THE OPENING OF THE FLATHEAD RESERVATION IN 1910. MUCH OF THIS DISSERTATION IS TECHNICAL, BUT THE HISTORICAL PORTIONS ARE EASIER TO READ. SKCC.

T-73

TROSPER, RONALD L.

1976.

"CASE STUDY: NATIVE AMERICAN BOUNDARY MAINTENANCE: THE FLATHEAD INDIAN RESERVATION, MONTANA, 1860-1970."

ETHNICITY 3(SEPTMBER 1976):256-274.

(FLATHEAD INDIAN RESERVATION). THIS STUDY BY A FLATHEAD SOCIAL ECONOMIST EXAMINES THE CHANGING REQUIREMENTS FOR MEMBERSHIP IN THE TRIBAL COMMUNITY. SKCC.

T-74

THE TRUTH ABOUT THE FRUIT INDUSTRY IN THE FLATHEAD VALLEY MONTANA. 1908.

KALISPELL, MT.: KALISPELL CHAMBER OF COMMERCE. 12 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD COUNTY LIBRARY, MONTANA FILES.

(FLATHEAD VALLEY). SHORT ARTICLES ABOUT THE FRUIT GROWING SITUATION IN THE VALLEY CIRCA 1908. CHERRY, APPLE AND BERRY PRODUCTION, CURRENT MARKET PRICES, AND LAND COSTS ARE OUTLINED.

T-75

TUNNOCK, ARCHIBALD, JR.

1960.

BIOLOGICAL EVALUATION OF A MOUNTAIN PINE BEETLE INFESTATION IN GLACIER NATIONAL PARK.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. 4 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK NEAR KINTLA LAKE). ONE HUNDRED PINUS CONTORTA TREES ATTACKED BY THE DENDROCTONUS MONTICOLAE BEETLE WERE USED TO SAMPLE THE ABUNDANCE AND NATURE OF DEVELOPING BEETLE BROODS. A RECORD WAS MADE OF THE NUMBER OF EGGS, EARLY, MID, AND LATE-INSTAR LARVAE PUPAE, AND CALLOW ADULTS. THE NUMBER OF EMERGENCE HOLES PER SQUARE FOOT OF SURFACE MADE BY NEW ADULT BEETLES WAS ALSO DETERMINED.

T-76

TUNNOCK, ARCHIBALD, JR.

1960.

BIOLOGICAL EVALUATION OF A MOUNTAIN PINE BEETLE INFESTATION IN GLACIER NATIONAL PARK.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. 4 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK NEAR KINTLA LAKE). ONE HUNDRED PINUS CONTORTA TREES ATTACKED BY THE DENDROCTONUS MONTICOLAE BEETLE WERE USED TO SAMPLE THE ABUNDANCE AND NATURE OF DEVELOPING BEETLE BROODS. A RECORD WAS MADE OF THE NUMBER OF EGGS, EARLY-, MID-, AND LATE-INSTAR LARVAE PUPAE, AND CALLOW ADULTS. THE NUMBER OF EMERGENCE HOLES PER SQUARE FOOT OF SURFACE MADE BY NEW ADULT BEETLES WAS ALSO DETERMINED.

T-77

TUNNOCK, SCOTT.
1981.

FOREST INSECT ACTIVITY IN 1959 AND 1960 IN THE COAL CREEK BURN OF 1958 IN GLACIER NATIONAL PARK.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., FOREST INSECT LAB. 9 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: COAL CREEK DRAINAGE). INSPECTIONS OF THE AREA WERE MADE TO 1) RECORD THE SPECIES AND ABUNDANCE OF TREE-KILLING INSECTS THAT MIGHT INFEST SCORCHED TREES, 2) DETERMINE THE SUCCESSION OF INSECT SPECIES IN SCORCHED TREES THAT BECAME INFESTED, AND 3) RECORD THE AMOUNT OF DAMAGE TO NEARBY UNBURNED TREES CAUSED BY INSECTS BRED IN SCORCHED TREES OR ATTRACTED TO THE BURNED AREA.

T-78

TUNNOCK, SCOTT.
1971.

LARCH CASE BEARER INFESTATIONS IN THE NORTHERN REGION - 1970.

U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY, INSECT & DISEASE REPT. REPT. NO. 71-1. 2 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTH & MIDDLE FORKS OF THE FLATHEAD). A MAP DELINEATING THE EXTENT OF THE COLEOPHORA LARICELLA INFESTATION IN THE NORTHERN REGION IS INCLUDED WITH A BRIEF DESCRIPTION OF THE INFESTATION.

T-79

TUNNOCK, SCOTT.
1971.

LARCH CASE BEARER INFESTATIONS IN THE NORTHERN REGION - 1970.

U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY, INSECT & DISEASE REPT. REPT. NO. 71-1. 2 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTH & MIDDLE FORKS OF THE FTD). A MAP DELINEATING THE EXTENT OF THE COLEOPHORA LARICELLA INFESTATION IN THE NORTHERN REGION IS INCLUDED WITH A BRIEF DESCRIPTION OF THE INFESTATION.

T-80

TUNNOCK, SCOTT.
1975.

IMPACT OF EGG VIABILITY, EGG PARASITISM, AND VIRUS ON 1978 DOUGLAS-FIR TUSSOCK MOTH DEFOLIATION POTENTIAL IN THE LOWER FLATHEAD VALLEY, MONTANA.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY, REPT. NO. 75-9. 7 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD VALLEY). A PARTIAL LIFE TABLE WAS PREPARED TO DETERMINE ESTIMATED LARVAE PER 1000 SQUARE INCHES OF FOLIAGE ON TEST PLOTS. THE VIRUS LEVEL AND ESTIMATED LARVAL DENSITY PER 1000 SQUARE INCHES OF FOLIAGE WERE USED IN A KEY WHICH ESTABLISHED IF AN AREA WAS CONSIDERED HIGH RISK.

T-81

TUNNOCK, SCOTT.
1977.

POTENTIAL FOR DEFOLIATION BY WESTERN SPRUCE BUD WORM IN NORTHERN IDAHO AND MONTANA - 1977.

U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, STATE & PRIVATE FORESTRY REPT. NO. 77-2. 44 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(FLATHEAD NATL. FOREST). PREDICTIONS ABOUT THE 1977 INFESTATION ARE MADE ON THE BASIS OF AERIAL AND EGG MASS SURVEYS. CHARTS LISTING POTENTIAL DEFOLIATION ON SAMPLE PLOTS BY PERCENTAGES ARE INCLUDED, ALONG WITH MAPS INDICATING INFESTED AREAS.

T-82

TUNNOCK, SCOTT, AND MEYER, H.
1977.

EVALUATION OF PINE BUTTERFLY INFESTATIONS ON THE FLATHEAD INDIAN RESERVATION, MONTANA.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, STATE & PRIVATE FORESTRY REPT. NO. 77-7. 5 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT DETERMINES THE POTENTIAL DAMAGE TO BE EXPECTED FROM THE NEOPHASIA MENAPIA IN 1977. THE LIFE HISTORY AND HABITS OF THE BUG ARE OUTLINED. RECOMMENDATIONS AND A MAP OF THE INFESTED AREA ARE INCLUDED.

T-83

TUNNOCK, SCOTT, AND MEYER, H.
1978.

A PONDEROSA PINE NEEDLE MINER OUTBREAK IN THE FLATHEAD INDIAN RESERVATION AND MISSOULA VALLEY AND POTENTIAL DEFOLIATION FOR 1978.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, STATE & PRIVATE FORESTRY REPT. NO. 78-10. 5 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE OBJECTIVE OF THIS REPORT IS TO RECORD WHAT IS KNOWN ABOUT THE NEEDLE MINER COLEOTECHNITES IN MONTANA AND TO REPORT THE RESULTS OF A SURVEY TO DETERMINE POTENTIAL DEFOLIATION IN 1978. A DESCRIPTION OF THE DAMAGE, LIFE HISTORY OF THE INSECT, METHODS, RESULTS AND A DISCUSSION ARE INCLUDED.

T-84

TUNNOCK, SCOTT, AND MEYER, H.
1978.

POTENTIAL PINE BUTTERFLY DEFOLIATION IN 1978 IN WESTERN MONTANA.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, STATE & PRIVATE FORESTRY, REPT. NO. 78-11. 8 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: NATL. BISON RANGE: FLATHEAD INDIAN RESERVATION). THIS REPORT

DETAILS A SURVEY OF OVERWINTERING PINE BUTTERFLY EGGS. THE SURVEY WAS MADE TO DETERMINE POTENTIAL DEFOLIATION IN 1978. THE METHODS, RESULTS AND A DISCUSSION ARE INCLUDED.

T-85

TUNNOCK, SCOTT; CIESLA, W. M.; AND HAGLUND, S.
1975.

SUPPLEMENTAL EGG MASS DATA FROM A DOUGLAS-FIR TUSSOCK MOTH INFESTATION NORTH OF POLSON, MONTANA - APRIL 1975.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, STATE & PRIVATE FORESTRY, REPT. NO. 75-18. 5 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(POLSON). AREAS UNDER CONSIDERATION FOR A PILOT CONTROL. PROJECT OF NUCLEOPOLYHEDROSIS VIRUS SPRAY. A SUPPLEMENTAL DOUGLAS-FIR TUSSOCK MOTH EGG MASS EVALUATION WAS UNDERTAKEN TO ESTABLISH IF THEY QUALIFIED FOR PILOT CONTROL.

T-86

TUNNOCK, SCOTT; FLAVELL, T.; AND MEYER, H.
1976.

POTENTIAL FOR DEFOLIATION BY WESTERN SPRUCE BUDWORM IN DOUGLAS-FIR STANDS IN MONTANA. 1976.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, DIV. STATE & PRIVATE FORESTRY, REPT. NO. 76-4. 19 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(FLATHEAD NATL. FOREST). EGG MASS SURVEYS WERE MADE IN INFESTED AREAS TO PREDICT THE DEGREE OF DEFOLIATION IN 1976. INCLUDED IN THIS REPORT ARE MAPS OUTLINING AREAS OF INFESTATION BY NATIONAL FOREST AND DATA FROM PLOTS WITHIN EACH FOREST.

T-87

TUNNOCK, SCOTT, ET. AL.
1969.

THE LARCH CASEBEARER AND OTHER FACTORS INVOLVED WITH DETERIORATION OF WESTERN LARCH STANDS IN THE NORTHERN REGION.

OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT., AND MISSOULA, MT.: DIV. SOILS & WATERSHED MANAGEMENT. 17 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE: REGION ONE). THE OBJECTIVE OF THIS STUDY WAS TO DETERMINE IF REPEATED HEAVY LARCH CASEBEARER DEFOLIATION COULD CAUSE LARCH (LARIX OCCIDENTALIS) STANDS TO DETERIORATE, AND TO WHAT EXTENT OTHER FACTORS IN ASSOCIATION WITH CASEBEARER CONTRIBUTE TO DETERIORATION. THE SAMPLING METHODS DESCRIBE AVERAGE RADIAL INCREMENT PER PLOT, TREES SAMPLED THAT WERE HEAVILY INFESTED WITH CASEBEARER LARVAE, THE RELATIONSHIP OF THE PARASITIC DISEASE AMILLARIA MELLEAE TO CASEBEARER INFESTED TREES, THE RELATIONSHIP OF SOIL TYPES TO DAMAGE AND CHEMICAL AND PHYSICAL PROPERTIES OF THE SOILS.

T-88

TUNNOCK, SCOTT, ET. AL.
1974.

EVALUATION OF A DOUGLAS-FIR TUSSOCK MOTH OUTBREAK IN THE LOWER FLATHEAD VALLEY, MONTANA.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE, STATE & PRIVATE FORESTRY REPT. 74-24. 10 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE & SANDERS COUNTIES & FLATHEAD INDIAN RESERVATION). AN AERIAL SURVEY DURING 1974 REVEALED APPROXIMATELY 5,000 ACRES OF VARIOUS DEGREES OF DOUGLAS-FIR TUSSOCK MOTH, *ORGYPHA PSEUDOTSUGATA*, DEFOLIATION IN THE LOWER FLATHEAD VALLEY. AN EGG MASS SURVEY WAS MADE IN SEPTEMBER TO DETERMINE THE POTENTIAL FOR DAMAGE IN 1975.

T-89

TURNBULL AND PLUMMER, INC.
1970.

PRELIMINARY REPORT ON WATER SUPPLY SYSTEM FOR WHITEFISH, MONTANA.

KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT.
45 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH). THIS REPORT WAS PREPARED TO PRESENT RESULTS OF INVESTIGATIONS, TESTS AND STUDIES OF THE PRESENT CITY WATER SUPPLY SYSTEM RELATIVE TO NEW OR EXPANDED SUPPLY FACILITIES. THE PRINCIPLE OBJECTIVE WAS TO CONSIDER ALL SOURCES OF SUPPLY, AND TO RECOMMEND THE MOST EFFECTIVE AND ECONOMIC MEANS OF IMPROVING THE PRESENT SYSTEM TO MEET CURRENT AND PROJECTED WATER DEMANDS FOR THE DESIGN PERIOD. VARIOUS ELEMENTS OF DISTRIBUTION AND TRANSMISSION SYSTEMS ARE DISCUSSED THROUGHOUT THE REPORT.

T-90

TURNBULL AND PLUMMER, INC.
1972 & 1974.

PRELIMINARY (1972) AND SUPPLEMENTAL (1974) REPORT ON SANITARY SEWER IMPROVEMENTS FOR BIG MOUNTAIN SEWER DISTRICT AT WHITEFISH, MONTANA.

WHITEFISH, MT.: WINTER SPORTS, INC.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH). THE PRELIMINARY REPORT (1972) WAS PREPARED TO PRESENT THE RESULTS OF TESTS, INVESTIGATIONS, AND STUDIES OF THE SEWAGE COLLECTION AND TREATMENT PROBLEMS ASSOCIATED WITH CONTINUED RECREATION DEVELOPMENT ON THE BIG MOUNTAIN AND EAST SHORE OF WHITEFISH LAKE. THE PURPOSE OF THE REPORT WAS TO DETERMINE METHODS BY WHICH EXISTING ISOLATED SEWAGE TREATMENT PLANTS AND INDIVIDUAL SEPTIC TANK SYSTEMS PRESENTLY LOCATED ON THE SLOPES OF BIG MOUNTAIN CAN BE UNITED IN A COMMON SEWAGE SYSTEM WITH TREATMENT FACILITIES AND DISPOSAL LOCATED TO HOLD DEGRADATION OF WATER TO A MINIMUM. THE SUPPLEMENTAL ENGINEERING REPORT (1974) DESCRIBES A PROPOSED INTERIM SOLUTION TO THE INADEQUATE SEWAGE TREATMENT FACILITIES.

T-91

TURNBULL & PLUMMER, INC.
1975.

FACILITIES PLANNING REPORT FOR SEWAGE TREATMENT FACILITIES AT BIGFORK, FLATHEAD COUNTY, MONTANA.

KALISPELL, MT.: FLATHEAD COUNTY. BOARD OF COUNTY COMMISSIONERS. 62 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BIGFORK). THE PLAN PRESENTS A TWO STAGE PROGRAM OF CONSTRUCTIONS 1) TO RELIEVE EXISTING DEFICIENCIES AND MEET SECONDARY TREATMENT REQUIREMENTS, 2) TO MEET ANTICIPATED NEEDS THROUGH THE YEAR 1995. POPULATION PROJECTIONS, IMPROVEMENTS TO EXISTING PLANT, AND SEWER MAINS ARE DISCUSSED.

T-92

TURNER-HIGH, HARRY HOLBERT.

1933.

"THE BLUE JAY DANCE."

AMERICAN ANTHROPOLOGIST 35:103-107.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE DANCE OF THE BLUEJAY IS DESCRIBED AS A CEREMONY EXPRESSING THE HOPES AND WOES OF THE FLATHEAD PEOPLE. THIS PAPER DESCRIBES THE CEREMONY.

T-93

TURNER-HIGH, HARRY HOLBERT.

1933.

"COOKING CAMAS AND BITTERROOT."

SCIENTIFIC MONTHLY 36:262-263.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THE SALISH METHOD OF COOKING CAMAS AND BITTERROOT ROOTS IS DESCRIBED IN DETAIL. THE LOCATIONS OF WHERE THE PLANTS GROW AND THE USE OF THE ROOTS IN TRADING WITH OTHER TRIBES IS MENTIONED.

T-94

TURNER-HIGH, HARRY HOLBERT.

1935.

"THE DIFFUSION OF THE HORSE TO THE FLATHEAD."

MAN 35(DECEMBER 1935):183-185.

FINAL, SPECIFIC, TECHNICAL, O.

(ABORIGINAL LANDS OF THE SALISH & FLATHEAD INDIANS). THIS BRIEF ARTICLE DESCRIBES, THROUGH THE WORDS OF AN INFORMANT, THE DIFFUSION OF THE HORSE TO THE FLATHEAD. IT DESCRIBES HOW THE FLATHEAD STOLE THEIR FIRST HORSES FROM A BAND OF SHOSHONE WARRIORS.

T-95

TURNER-HIGH, HARRY HOLBERT.

1937.

THE FLATHEAD INDIANS OF MONTANA.

MENASHA, WISC.: AMERICAN ANTHROPOLOGICAL ASSOCIATION. MEMOIRS. NO. 48. 161 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE SALISH INDIANS THE FLATHEAD INDIAN RESERVATION). THIS PUBLICATION DESCRIBES THE CULTURE OF THE SALISH INDIANS, WHICH LOST THEIR NORTHWEST COASTAL CHARACTERISTICS AND ASSUMED A PLAINS ASPECT UNDER THE IMPACT OF THE HORSE. THE RELATIVELY RECENT WESTERN ORIGIN OF THE INDIANS, THEIR MIGRATION STORY, THE ARCHAEOLOGY OF THE AREA THEY MOVED TO, AND THEIR LEGENDS OF THE PREDECESSORS THEY REPLACED ARE DISCUSSED. THE WAYS THE SALISH CLASSIFIED THE NATURAL ENVIRONMENT (QUALITY IN NATURE, ASTRONOMICAL, CALENDRIC AND WEATHER LORE) ARE PRESENTED. INCLUDED IN THE DESCRIPTION OF MAGIC AND RELIGION ARE: THE GUARDIAN, OR HELPER, WHO ACCOMPANIES AN INDIVIDUAL THROUGH LIFE; SHAMANS; INDIVIDUAL CEREMONIES HELD AT FIXED INTERVALS FOR EVERY SEASON; AND THE PROPHECIES OF SHINING SHIRT WHO FORECASTED THE COMING OF CHRISTIANITY. FORMAL AND INFORMAL SOCIAL CONTROLS, KINSHIP TERMINOLOGY AND KINSHIP AVOIDANCE, AND WAR IS DISCUSSED AS WELL AS THE ECONOMIC LIFE OF THE INDIANS (HABITATIONS, DOMESTICATED ANIMALS, THE SEARCH FOR FOOD, FOOD PREPARATION, LABOR, SLAVERY, AND GIFT EXCHANGE). VARIOUS SECTIONS IN THE BULLETIN ARE CONCERNED WITH THE SALISH LIFE CYCLE: PREGNANCY AND BIRTH, CHILDHOOD, PUBERTY, MARRIAGE AND FAMILY, SICKNESS, AND DEATH.

T-96

TURNER-HIGH, HARRY HOLBERT.

1941.

ETHNOGRAPHY OF THE KUTENAI. AMERICAN ANTHROPOLOGICAL SOCIETY MEMOIRS, NO. 56.

202 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE KOOTENAI INDIANS). THE SOCIO-ECONOMIC SYSTEMS AND CULTURAL HERITAGE OF THE KUTENAI IS DESCRIBED. THE PAPER ADDRESSES: THE ORIGIN AND MEANING OF THE TRIBAL NAME; VARIOUS BANDS AND THEIR HISTORIES; SUBSISTENCE PATTERNS; HOUSING; TRANSPORTATION; TECHNOLOGY; DRESS, ORNAMENTS AND COSMETIC; KNOWLEDGE AND THE ARTS; SOCIAL LIFE; RELIGION; LANGUAGE; THE PRINCIPAL OF INHERITANCE; AND THE LIFE CYCLE OF THE INDIVIDUAL FROM BIRTH TO DEATH.

T-97

TURNER-HIGH, HARRY HOLBERT.

1941.

"TWO KUTENAI STORIES."

J. AMERICAN FOLKLORE 54(JULY-DECEMBER 1941):191-196.

THE FIRST STORY, "WHY WHITE CULTURE SURPASSES THAT OF THE KUTENAI," GIVES A MAGICAL EXPLANATION FOR WESTERN TECHNOLOGY. "THE FATE OF EDWARD OF POLSON" TELLS THE STORY OF A KUTENAI SOLDIER IN WORLD WAR I WHO DID NOT OBEY HIS GUARDIAN SPIRIT. SKCC.

T-98

TURNER-HIGH, HARRY HOLBERT.

1971.

PRIMITIVE WAR: ITS PRACTICE AND CONCEPTS. 2ND ED.

COLUMBIA, S.C.: UNIV. SOUTH CAROLINA PRESS.

TURNER-HIGH IS AN EX-MILITARY OFFICER AND INCLUDES SOME REFERENCES TO THE MILITARY TACTICS OF THE SALISH AND KOOTENAI INDIANS IN THIS STUDY OF TRIBAL WAR STRATEGIES. SCHOLARLY BUT WELL WRITTEN. SKCC.

T-99

TUTTLE, A. H., AND NEWELL, T. R.

1943.

SUMMARY OF RECORDS OF SURFACE WATERS OF UPPER COLUMBIA RIVER BASIN IN MONTANA AND IDAHO, 1898-1938.

U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. WATER SUPPLY PAPER 916. 216 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(MONTANA & IDAHO: COLUMBIA RIVER BASIN). THIS REPORT BRINGS TOGETHER FIGURES OF MONTHLY AND YEARLY DISCHARGE FOR ALL GAUGING STATIONS AT WHICH RECORDS HAVE BEEN COLLECTED PRIOR TO OCTOBER 1, 1938. A BIBLIOGRAPHY IS PROVIDED TO FACILITATE REFERENCE TO MORE DETAILED INFORMATION. DATA IS PRESENTED IN TABULAR FORM AND INCLUDES: STATION LOCATION; DRAINAGE AREA; RECORDS AVAILABLE; DISCHARGE IN SECOND-FEET: MAXIMUM, MINIMUM, MEAN, PER SQUARE MILE; AND RUNOFF IN INCHES AND ACRES- FEET.

T-100

TYSER, ROBIN WARREN.

1978.

"FORAGING AND SUBSTRATE USE PATTERNS IN TALUS SLOPE MAMMALS."

PH.D. DISSERTATION, UNIV. WISCONSIN, MADISON.
142 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE STUDY FOCUSES ON THE FEEDING AND SUBSTRATE USE BEHAVIORS OF THE PIKA (*OCHOTONA PRINCEPS*), THE COLUMBIA GROUND SQUIRREL (*SPERMOPHILUS COLUMBIANUS*), AND THE HOARY MARMOT (*MARMOTA CALIGATA*). INTERSPECIFIC DIFFERENCES IN FOOD GATHERING, FORAGING, FEEDING AREAS, BURROWING, AND BURROW LOCATION AND USE ARE DISCUSSED. THE ROLE OF MORPHOLOGICAL, PHYSIOLOGICAL AND BEHAVIORAL TRAITS IN THE COEXISTENCE OF THE SPECIES IS EXPLAINED. IN ADDITION, THE EFFECTS OF HUMAN USE OF THE PARK ON THE RESOURCE USE PATTERNS OF THE SPECIES ARE CONSIDERED.

U-1
UNEMPLOYMENT COMPENSATION COMMISSION OF MONTANA, RESEARCH AND STATISTICS SECTION.
 1964.
MONTANA COUNTIES MANPOWER GUIDEBOOK SUPPLEMENT.
 HELENA, MT. 20 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE, LINCOLN, MISSOULA, LEWIS & CLARK, SANDERS, & POWELL COUNTIES). THE SUPPLEMENT PRESENTS CENSUS DATA FOR FIVE GEOGRAPHIC AREAS BY COUNTY TO EVALUATE COUNTY CHANGES FOR 1940, 1950, AND 1960. SHORT NARRATIVES REFER TO ECONOMIC CHARACTERISTICS AND CHANGES IN POPULATION AND EMPLOYMENT.

U-2
UNEMPLOYMENT COMPENSATION COMMISSION OF MONTANA.
 ANNUAL.
ANNUAL REPORT: EMPLOYMENT SECURITY IN MONTANA.
 HELENA, MT.
 PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). ANNUAL REPORT SUMMARIZING, THROUGH THE USE OF CHARTS AND TABLES, THE UNEMPLOYMENT COMPENSATION SITUATION IN THE STATE.

U-3
UNEMPLOYMENT COMPENSATION COMMISSION OF MONTANA.
 ANNUAL.
DIRECTORY OF LABOR ORGANIZATIONS IN MONTANA.
 HELENA, MT.
 PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: KALISPELL, COLUMBIA FALLS, WHITEFISH, LIBBY, POLSON, HOT SPRINGS, PLAINS, & THOMPSON FALLS). CONTAINS STATE AND DISTRICT ORGANIZATIONS AS WELL AS ORGANIZATIONS WITHIN CITIES. INCLUDES OFFICERS, ADDRESSES, AND PHONES.

U-4
U.S. CENSUS OFFICE.
 1894.
"FLATHEAD AGENCY." IN REPORT ON INDIANS TAXED AND INDIANS NOT TAXED.
 WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 365 PP.

(FLATHEAD INDIAN RESERVATION). THIS SHORT SURVEY DESCRIBES CONDITIONS ON THE FLATHEAD RESERVATION DURING THE EARLY 1890'S. SKCC.

U-5
U.S. COMMUNITY SERVICES ADMINISTRATION.
 ANNUAL.
GEOGRAPHIC DISTRIBUTION OF FEDERAL FUNDS IN MONTANA.
 WASHINGTON, D.C. 72 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS ANNUAL DOCUMENT REPORTS THE DISTRIBUTION OF FEDERAL FUNDS BY AGENCY, PROGRAM, AND INDIRECT FEDERAL SUPPORT FOR EVERY COUNTY OF THE UNITED STATES, AND FOR EACH CITY EXCEEDING 25,000.



U-6
U.S. CONGRESS. NATIONAL RESOURCES COMMITTEE.
 1936.
REGIONAL PLANNING - PART 1. PACIFIC NORTHWEST.
 WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 186 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA.

(PACIFIC NORTHWEST). THIS REPORT DEALS WITH IMMEDIATE AND URGENT PROBLEMS IN THE COLUMBIA RIVER BASIN AND PARTICULARLY WITH THE POLICIES AND ORGANIZATION WHICH SHOULD BE PROVIDED FOR PLANNING, CONSTRUCTION, AND OPERATION OF CERTAIN PUBLIC WORKS IN THAT AREA.

U-7
U.S. CONGRESS. SENATE.
 1908.
TO ESTABLISH A PERMANENT NATIONAL BISON RANGE. 60TH. CONG., 1ST SESS. SENATE CALENDAR NO. 498.
 WASHINGTON, D.C. REPT. NO. 467. 34 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS REPORT CONTAINS THE CORRESPONDENCE RECEIVED CONCERNING THE ESTABLISHMENT OF THE NATIONAL BISON RANGE ON THE FLATHEAD INDIAN RESERVATION. REPORTS FROM THE ANNUAL MEETINGS OF THE AMERICAN BISON SOCIETY ARE INCLUDED.

U-8
U.S. CONGRESS. SENATE.
 1910.
GLACIER NATIONAL PARK. 61ST CONG., 2ND SESS.
 WASHINGTON, D.C. REPT. NO. 106. 10 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS BILL TO ESTABLISH THE GLACIER NATIONAL PARK CONTAINS A DESCRIPTION OF THE AREA WHICH INCLUDES PHOTOGRAPHS AND MAPS.

U-9
U.S. CONGRESS. SENATE. COMMITTEE ON INTERIOR AND INSULAR AFFAIRS.
 1963.
MINERAL AND WATER RESOURCES OF MONTANA. REPORT OF THE UNITED STATES GEOLOGICAL SURVEY IN COLLABORATION WITH MONTANA BUREAU OF MINES AND GEOLOGY PREPARED AT THE REQUEST OF SENATOR LEE METCALF. 88TH CONG., 1ST SESS., 1963.
 WASHINGTON, D.C. U.S. GOVT. PRINTING OFFICE. 166 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE DOCUMENT COVERS ALL MINERAL COMMODITIES KNOWN TO EXIST IN SIGNIFICANT AMOUNTS AND BRIEFLY DISCUSSES EACH COMMODITY. INCLUDED ARE THE MINERAL'S USE, FORMATION, DEPOSIT CHARACTERISTICS, ESTIMATED AND KNOWN RESERVES, AND LOCATION. MINERAL FUEL RESOURCES AND METALLIC/INDUSTRIAL MINERALS RESOURCES ARE INCLUDED. SURFACE AND GROUNDWATER SUPPLIES OF THE MAJOR RIVER BASINS ARE DESCRIBED. FOR EACH BASIN THE DRAINAGE AREA; RUNOFF AND DISCHARGE; PRINCIPAL USES (IRRIGATION, HYDROPOWER, RECREATION); GROUNDWATER POTENTIAL; AND GENERAL WATER QUALITY ARE OUTLINED.

U-10
U.S. DEPARTMENT OF AGRICULTURE.
 1972.
LAKE COUNTY: MONTANA SITUATION STATEMENT. LAKE COUNTY COMMITTEE FOR RURAL DEVELOPMENT. 34 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY & FLATHEAD INDIAN RESERVATION). THE PURPOSE OF THIS REPORT IS TO LIST CONDITIONS WHICH EXIST IN LAKE COUNTY WHICH ARE RELATED TO THE DEVELOPMENT AND GROWTH OF RURAL AREAS. INCOME AND UNEMPLOYMENT, HOUSING, FINANCE, SEWER, WATER, PLANNING AND ZONING, LAND OWNERSHIP AND USE, LIVESTOCK, FARMING, FORESTRY, WILDERNESS, AND RECREATION ARE EXAMINED.

U-11
U.S. DEPARTMENT OF AGRICULTURE.
1972.

SITUATION STATEMENT: SANDERS COUNTY.
SANDERS COUNTY COMMITTEE FOR RURAL
DEVELOPMENT. 23 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(SANDERS COUNTY). THE CURRENT SITUATION IN
THE COUNTY REGARDING BASIC NATURAL
RESOURCES AND PEOPLE IS DESCRIBED. INCLUDED
ARE FACILITIES, PROBLEMS, AND SOME INSIGHT IN-
TO CURRENT OPPORTUNITIES. LAND OWNERSHIP,
LAND USES, WILDLIFE SPECIES AND ABUNDANCE,
WATER AND SOIL CONSERVATION, PLANNING AND
ZONING, HEALTH NEEDS, TRANSPORTATION,
SEWAGE SYSTEM, COMMERCIAL MINING, SAWMILLS,
SCHOOLS, INCOME, AND EMPLOYMENT ARE TOPICS
ADDRESSED.

U-12
U.S. DEPARTMENT OF AGRICULTURE.
AGRICULTURAL STABILIZATION CONSERVATION
SERVICE.

1974.
AERIAL PHOTO COLLECTION.
KALISPELL, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD COUNTY). COMPLETE BLACK AND WHITE
COVERAGE OF AGRICULTURAL LANDS OF FLATHEAD
COUNTY AT 8 INCHES TO THE MILE. THE PHOTOS ARE
ON FILE AT THE ASCS OFFICE IN KALISPELL.

U-13
U.S. DEPARTMENT OF AGRICULTURE. FLATHEAD
COUNTY COMMITTEE FOR RURAL DEVELOPMENT.
1971.

SITUATION STATEMENT.
KALISPELL, MT. 29 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(FLATHEAD COUNTY). THE PURPOSE OF THIS
REPORT IS TO PROVIDE A READY SOURCE OF INFOR-
MATION ON THE BASIC RESOURCES AND DEVELOP-
MENT NEEDS OF THE COUNTY. IT ALSO PROVIDES AN
INDEX OF SURVEYS, STUDIES, AND REPORTS THAT
HAVE BEEN MADE IN THE PAST.

U-14
U.S. DEPARTMENT OF AGRICULTURE. FOREST SER-
VICE.
1910.
REPORT ON SWAN VALLEY CLASSIFICATION.
KALISPELL, MT. 35 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(SWAN VALLEY). THIS EXAMINATION OF THE LANDS
IN THE SWAN VALLEY WAS UNDERTAKEN FOR THE
PURPOSE OF LOCATING AND MAPPING THE
AGRICULTURAL LANDS AND "THROWING THEM
OPEN" TO SETTLEMENT, IN HOMESTEAD UNITS OF
160 ACRES. IT WAS ALSO NECESSARY TO MAKE A
CLOSE ESTIMATE OF THE TIMBER, IN ORDER THAT
THE DOUBLE CLASSIFICATION OF SOIL VALUE AND
TIMBER VALUE SHOULD BE ACCURATE.

U-15
U.S. DEPARTMENT OF AGRICULTURE. FOREST SER-
VICE.
1920.
POSSIBILITIES FOR THE ESTABLISHMENT OF THE
PULP AND PAPER INDUSTRY IN THE FLATHEAD
REGION OF MONTANA.
MISSOULA, MT. 26 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). FOREST SERVICE
SURVEYS INDICATED THE TIMBER VOLUMES AND

SPECIES COMPOSITION IN THE STANDS FOUND IM-
MEDIATELY WEST OF GLACIER NATIONAL PARK
WOULD SUPPORT THE ESTABLISHMENT OF A PULP
AND PAPER INDUSTRY. THE FOLLOWING SECTIONS
ARE INCLUDED IN THE REPORT: OWNERSHIP OF THE
PULPWOOD; PHYSICAL DESCRIPTION OF THE LOCA-
TION; TOPOGRAPHY-CLIMATE; POWER; TRANSPOR-
TATION FACILITIES; RAILROADS; TRANSPORTATION
BETWEEN THE WOODS AND MILL AND FROM THE
MILL TO THE MARKETS; VOLUME ESTIMATES, AND
CHARACTER OF TIMBER AND LOGGING COSTS.

U-16
U.S. DEPARTMENT OF AGRICULTURE. FOREST SER-
VICE.

1941.
FOREST STATISTICS FOR SANDERS COUNTY.
MISSOULA, MT.: NORTHERN ROCKY MTN. FOREST &
RANGE EXPER. STAT. 13 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(SANDERS COUNTY). THIS SURVEY CONTAINS DATA,
PRIMARILY IN TABULAR FORM, ON THE FOLLOWING
ASPECTS OF THE FOREST RESOURCE: LAND AREA
BY OWNERSHIP AND BROAD COMMERCIAL
CLASSES; COMMERCIAL FOREST LAND BY FOREST
TYPE, STAND CLASS, AND OWNERSHIP; STOCKED
COMMERCIAL FOREST LAND FOR CERTAIN FOREST
TYPES BY OWNERSHIP, AND CUTTING CONDITION;
COMMERCIAL CONIFEROUS FOREST LAND BY AGE,
FOREST TYPE AND OWNERSHIP; SAW TIMBER
VOLUME ON COMMERCIAL FOREST LAND BY
SPECIES AND OWNERSHIP; CUBIC VOLUME BY
SPECIES, TREE SIZE, AND STAND CLASS; CURRENT
ANNUAL INCREMENT BY SPECIES, STAND CLASS
AND OWNERSHIP, AND AVERAGE ANNUAL CUTTING
AND FIRE DRAIN FROM THE GREEN TIMBER
RESOURCE BY SPECIES.

U-17
U.S. DEPARTMENT OF AGRICULTURE. FOREST SER-
VICE.

1944, 1955, 1962.
EARLY DAYS IN THE FOREST SERVICE. VOLS. I, II, III.
MISSOULA, MT.
PART OF A SERIES, SPECIFIC, NON-TECHNICAL,
ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD NATL. FOREST). THESE
THREE VOLUMES PUBLISHED IN 1944, 1955, AND 1962,
RECORD THE NARRATIVES OF EARLY EMPLOYEES
OF THE FOREST SERVICE. PERSONAL STORIES AND
RECOLLECTIONS OF OFFICIAL BUSINESS ARE IN-
CLUDED.

U-18
U.S. DEPARTMENT OF AGRICULTURE. FOREST SER-
VICE.
1958.
GUIDE TO THE BOB MARSHALL WILDERNESS.
MISSOULA, MT. 36 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THE BOOKLET
CONTAINS THE FOLLOWING TWO ARTICLES: 1)
"GEOLOGY OF THE BOB MARSHALL WILDERNESS"
BY CHARLES DEISS AND 2) "FAUNA AND FLORA OF
THE AREA" BY K. D. SWAN. PROTEROZOIC AND
PALEOZOIC GEOLOGIC EVENTS, ROCKS BELONGING
TO THE CAMBRIAN, DEVONIAN, AND MISSISSIPPIAN
SYSTEMS, AND GLACIATION DURING THE
PLEISTOCENE PERIOD IS DISCUSSED IN THE ARTICLE
BY DEISS. SWAN'S ARTICLE LISTS THE ANIMALS AND
PLANTS FOUND IN THE WILDERNESS AREA AND
NOTES THEIR ABUNDANCE, HABITAT, SCIENTIFIC
AND COMMON NAMES. THE GUIDE CONCLUDES
WITH A LIST OF REGULATIONS REGARDING
WILDERNESS USE.

U-19
U.S. DEPARTMENT OF AGRICULTURE. FOREST SER-
VICE.
1970.

QUALITY IN TIMBER MANAGEMENT - A CURRENT
EVALUATION.
MISSOULA, MT. 218 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD
NATL. FOREST). IN THE EARLY 70'S A STUDY TEAM
WAS APPOINTED BY THE REGIONAL FORESTER TO
ANALYZE CURRENT TIMBER MANAGEMENT AC-
TIVITIES, PARTICULARLY AS RELATED TO THE ON
THE GROUND TIMBER SALE JOB. THE OBJECTIVE OF
THIS STUDY WAS TO DETERMINE WHAT ACTION IS
NECESSARY TO INCREASE THE QUALITY OF TIMBER
MANAGEMENT ACTIVITIES THROUGHOUT THE
REGION TO AN ACCEPTABLE STANDARD. FINDINGS,
CONCLUSIONS, AND RECOMMENDATIONS ARE
DISCUSSED; THE STUDY PROCEDURE IS EXPLAINED.

U-20
U.S. DEPARTMENT OF AGRICULTURE. FOREST SER-
VICE.

1972.
ENVIRONMENTAL STATEMENT DRAFT: PROPOSED
WESTERN SPRUCE BUDWORM PILOT CONTROL
STUDY WITH ZECTRAN.
MISSOULA, MT. 50 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE STATEMENT
DEALS WITH THE PROPOSAL TO CONDUCT A PILOT
CONTROL STUDY ON WESTERN SPRUCE BUDWORM
INFESTED TIMBER. THE PROJECT OBJECTIVES IN-
CLUDE: THE EVALUATION OF THE IMPACT OF ZEC-
TRAN FS-15 APPLIED AERIALY, THE DETERMINA-
TION OF SPRAY BLOCK SIZE, THE COMPARISON OF
TIMBER IN SPRAYED/UNSPRAYED BLOCKS, AND THE
MEASUREMENT OF BUDWORM POPULATION LEVELS.
THE ENVIRONMENTAL IMPACT ASSESSMENT NOTES
THE EFFECT OF THE INSECTICIDE ON OTHER IN-
SECTS AND WILDLIFE AS WELL AS THE EFFECTS OF
THE SPRUCE BUDWORM INFESTATION ON TREES.

U-21
U.S. DEPARTMENT OF AGRICULTURE. FOREST SER-
VICE.
1975.
MINERALS OVERVIEW FOR WESTERN MONTANA.
MISSOULA, MT. 8 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(WESTERN MONTANA). THIS REPORT GIVES
GENERALIZED PICTURE OF THE MINERAL POTENTIAL
IN WESTERN MONTANA. THE FIRST CRITERIA USED
IN DETERMINING MINERAL POTENTIAL WAS
REGIONAL GEOLOGY, THE OTHER CRITERIA WAS
THE OCCURRENCE OF PROMINENT GEOLOGIC
STRUCTURES SUCH AS FOLDS AND FAULTS. THE
CRITERIA WERE EVALUATED NUMERICALLY AND THE
MINERAL POTENTIAL WAS ESTABLISHED. MAPS ACCO-
MPANY THIS REPORT.

U-22
U.S. DEPARTMENT OF AGRICULTURE. FOREST SER-
VICE.
1976.
GRIZZLY BEAR RANGE - OCCUPIED RANGE - PROPOS-
ED CRITICAL HABITAT - MAP.
MISSOULA, MT. 1 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(U.S. FOREST SERVICE REGION 1: FLATHEAD NATL
FOREST). THIS IS A TOPOGRAPHIC MAP 1:100,000
WHICH DELINEATES FOR URSUS ARCTOS PROPOSED
CRITICAL HABITAT AND OCCUPIED RANGE.

U-23

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1976.

LAND SYSTEM INVENTORY.

MISSOULA, MT. 69 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST). THIS HANDBOOK IS INTENDED TO DEFINE AND ASSIGN CLASS DIFFERENTIATING CRITERIA TO THE LANDTYPE LEVEL IN THE LAND SYSTEM INVENTORY AS IT IS PRESENTLY USED IN USFS REGION ONE. THE SYSTEM IS DESIGNED TO MEET SEVERAL SPECIFIC FOREST SERVICE LAND INVENTORY OBJECTIVES: 1) PROVIDE A SYSTEM OF DIFFERENT LEVELS OF INVENTORY WHEREBY LARGE TRACTS OF LAND CAN BE RAPIDLY INVENTORIED FOR BROAD OVERVIEW PURPOSES OR IN SETTING UP DETAILED INVENTORIES THAT WILL MEET THE NEEDS OF LAND MANAGERS; AND 2) COLLECT RELIABLE, REUSABLE DATA AND PRESENT THE DATA IN AN UNDERSTANDABLE MANNER. THIS GUIDE INCORPORATES ASPECTS OF: GEOLOGIC INVENTORY, WHICH IS GENERALLY TIED TO THE DELINEATION OF RELATIVE POSITION AND CHARACTER OF BEDROCK AND GEOMORPHOLOGY; SOIL INVENTORY, WHICH IS TIED TO THE SOIL TAXONOMIC SYSTEM; AND HABITAT TYPE CLASSIFICATION.

U-24

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1976.

SPOTTED BEAR MOUNTAIN: WILDLIFE MANAGEMENT PLAN AND ENVIRONMENTAL ANALYSIS REPORT. KALISPELL, MT. 42-PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SPOTTED BEAR MTN. & SOUTH FORK OF THE FLATHEAD RIVER). IT IS THE OBJECTIVE OF THIS WILDLIFE MANAGEMENT PLAN TO IMPROVE AND MAINTAIN THE CARRYING CAPACITY OF THE HEAVILY TIMBERED SOUTHERN SECTION OF ELK WINTER RANGE, EXTENDING FROM SPOTTED BEAR RIVER TO MEADOW CREEK. CRITICAL, PRIMARY AND EARLY WINTER RANGE ARE IDENTIFIED AND A MANAGEMENT PRESCRIPTION IS DEVELOPED. CONSTRAINTS ARE OUTLINED AND ANTICIPATED RESULTS ARE DISCUSSED. THE ENVIRONMENTAL ANALYSIS REPORT OF THE SPOTTED BEAR TIMBER SALE EXAMINES THE VARIOUS METHODS OF TIMBER HARVESTING THAT ARE AVAILABLE AND SELECTS THE MOST DESIREABLE OPTION. HABITAT SIMULATION PRINTOUTS, TIMBER PRESCRIPTIONS AND ESTIMATED PRODUCTION, AND SPECIALIST REPORTS FROM LANDSCAPE ARCHITECTS AND SOIL SCIENTISTS ARE INCLUDED IN THE APPENDIX.

U-25

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1976.

THE WESTERN SPRUCE BUDWORM PROBLEM IN IDAHO AND MONTANA, 1976.

MISSOULA, MT.: NORTHERN REGION, STATE & PRIVATE FORESTRY, FOREST ENVIRONMENTAL PROTECTION. 12 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE). THIS REPORT REVIEWS THE LIFE HISTORY OF THE WESTERN SPRUCE BUDWORM. IT DISCUSSES THE MAGNITUDE OF BUDWORM-CAUSED TREE DEFOLIATION AND MORTALITY AND THE OUTLOOK FOR THE FUTURE IN TERMS OF ACCEPTABLE MANAGEMENT ALTERNATIVES.

U-26

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1977.

GRIZZLY BEAR ESSENTIAL HABITAT MAP. BORDER AREA.

MISSOULA, MT. 1 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(MONTANA & IDAHO: NORTH, SOUTH, & MIDDLE FORKS OF THE FLATHEAD RIVER, BOB MARSHALL WILDERNESS, & THE MISSION MTNS.). THIS IS A TOPOGRAPHIC MAP, (SCALE APPROXIMATELY 1:42940, ONE INCH EQUALS EIGHT MILES) DELINEATING URSUS ARCTOS ESSENTIAL HABITAT. THE PRIMARY AREAS WITHIN THE FNF ARE LOCATED IN THE MISSION MOUNTAINS AND BOB MARSHALL WILDERNESS AREAS AND ON THE CANADIAN-U.S. BORDER NORTHWEST AND SOUTH OF POLEBRIDGE.

U-27

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1977.

INTERMOUNTAIN RANGE PLANT NAMES AND SYMBOLS.

OGDEN, UTAH: INTERMTN. FOREST & RANGE EXPER. STAT. GEN. TECH. REPT. INT-38. 82 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(MONTANA, IDAHO, UTAH, & WYOMING). THIS REVISED ALPHABETICAL LIST OF BOTANICAL AND COMMON NAMES OF VASCULAR PLANTS THAT GROW ON WILDLANDS OF THE INTERMOUNTAIN REGION HAS BEEN ASSEMBLED FOR USE IN QUICKLY RECORDING OCCURRENCE OF PLANTS IN THE FIELD AND FOR RAPID MACHINE PROCESSING OF FIELD DATA. THE LIST IS BASED ON PHYLOGENETIC PRESENTATIONS IN RECOGNIZED WESTERN FLORAS AND OTHER PUBLICATIONS RELATING TO WILDLAND SPECIES.

U-28

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1977.

WESTERN MONTANA PLANNING AREA GUIDE GEOLOGY AND MINERALS SECTION.

MISSOULA, MT. 8+ PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THIS REPORT INCLUDES THE CENTRAL ZONE MINERALS SITUATION STATEMENT, WHICH COVERS MINERAL-RELATED ACTIVITY, MINERAL AND ENERGY RELATED ACTIVITIES, SURFACE IMPACTS ANTICIPATED IN THE FUTURE, AND CENTRAL ZONE MINERALS ASSUMPTIONS.

U-29

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1977.

WESTERN SPRUCE BUDWORM MANAGEMENT PLAN. MARCH 1977. DRAFT ENVIRONMENTAL STATEMENT.

MISSOULA, MT. 324+ PP.

DRAFT, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE NORTHERN REGION). THIS STATEMENT COVERS ALL AFFECTED LAND WITH AERIALY VISIBLE DEFOLIATION IN 1976, REGARDLESS OF OWNERSHIP. ENVIRONMENTAL IMPACTS OF THE PREFERRED METHODS OF MANAGEMENT ARE CONSIDERED AND EVALUATED. ALTERNATIVES TO THE PROPOSED ACTION ARE EXAMINED.

U-30

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1978.

GRAY WOLF ESSENTIAL HABITAT MAP. NORTHERN REGION.

MISSOULA, MT. 1 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST). A TOPOGRAPHIC MAP (SCALE: ONE INCH EQUALS APPROXIMATELY EIGHT MILES) WHICH DELINEATES CANIS LUPUS IRRMOTUS ESSENTIAL HABITAT.

U-31

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1978.

PEREGRINE FALCON. ESSENTIAL HABITAT. NORTHERN REGION.

MISSOULA, MT. NO PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST). THIS REPORT IDENTIFIES ESSENTIAL HABITAT FOR THE AMERICAN PEREGRINE FALCON (FALCO PEREGRINUS ANATUM) FOR ALL NATIONAL FORESTS WITHIN MONTANA, INCLUDING THE FLATHEAD NATIONAL FOREST. SUITABLE OCCUPIED HABITAT WAS DETERMINED BY SIGHTINGS OF FALCONS DURING THE NESTING PERIOD OR FROM SIGHTINGS NEAR OR ADJACENT TO HISTORIC EYRIES. SUITABLE UNOCCUPIED HABITAT WAS IDENTIFIED USING DESCRIPTIONS OF EYRIES OBTAINED IN THE LITERATURE FROM WESTERN UNITED STATES, CANADA AND ALASKA. IT IS GENERALLY ACCEPTED BY PEREGRINE EXPERTS THAT CONTAMINATION OF THE FOOD BASE BY PERSISTENT RESIDUE ORGANIC COMPOUNDS, ESPECIALLY DDT, AND NOT HABITAT ALTERATION WAS RESPONSIBLE FOR THE DECLINE OF THE NORTHERN ROCKY MOUNTAIN POPULATION OF THE FALCON. FIFTEEN AREAS IN THE FLATHEAD NATIONAL FOREST ARE INCLUDED IN THE PEREGRINE FALCON ESSENTIAL HABITAT DELINEATION. MAPS ARE INCLUDED.

U-32

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1978.

A PROGRAM FOR FISH AND WILDLIFE HABITAT ON THE NATIONAL FORESTS IN MONTANA.

MISSOULA, MT. 36 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD NATL. FOREST). THIS REPORT SERVES AS A BASIC PLAN FOR MANAGING FISH AND WILDLIFE ON THE NATIONAL FORESTS. A SECTION ON SUPPLY AND DEMAND EXAMINES: THE NATIONAL SCENE, THE MONTANA SCENE, ENDANGERED AND THREATENED SPECIES, BIG GAME, COLD WATER FISH, NON GAME ANIMALS, UPLAND GAME, FUR BEARERS, WATERFOWL, WARM WATER FISH, AND SPECIES OF UNIQUE AND SPECIAL INTEREST. A SUMMARY OF THE PROPOSED FIVE YEAR PLAN IS INCLUDED.

U-33

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.

1978.

RARE II: MONTANA - SUPPLEMENT TO DRAFT ENVIRONMENTAL STATEMENT ROADLESS AREA REVIEW AND EVALUATION.

MISSOULA, MT. 73 PP.

DRAFT, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD, LAKE & LINCOLN COUNTIES). THIS SUPPLEMENT IS TO BE USED IN CONJUNCTION WITH ROADLESS AREA REVIEW AND EVALUATION II DRAFT EIS. THE REPORT DETAILS INFORMATION ABOUT MONTANA'S ROADLESS AREAS. INCLUDED ARE SECTIONS COVERING: AFFECTED ENVIRONMENT, ALTERNATIVES CONSIDERED, EFFECTS OF IMPLEMENTATION, AND CONSULTATION WITH OTHERS.

U-34
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.
1978.
WILDERNESS FIRE MANAGEMENT - PLANNING GUIDELINES AND INVENTORY PROCEDURES.
MISSOULA, MT. 35 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST AND THE BOB MARSHALL WILDERNESS). THIS REPORT RECOMMENDS INVENTORIES AND PLANNING PROCEDURES FOR PREPARATION OF WILDERNESS FIRE MANAGEMENT PLANS. INVENTORIES AND PROCEDURES DESCRIBED ARE QUITE DEFINITE AND OBJECTIVE. INCLUDED ARE DESCRIPTIONS OF: FUEL APPRAISAL INVENTORIES, FIRE HISTORY STUDIES, AND LANDFORM ANALYSIS.

U-35
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.
1979.
FINAL ENVIRONMENTAL STATEMENT - ROADLESS AREA REVIEW AND EVALUATION II.
WASHINGTON, D.C.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES: MONTANA: FLATHEAD NATL. FOREST). THIS ENVIRONMENTAL STATEMENT DESCRIBES A SERIES OF ALTERNATIVE APPROACHES FOR ALLOCATING 82 MILLION ACRES OF ROADLESS NATIONAL FOREST SYSTEM LAND INVENTORIED BY THE SECOND ROADLESS AREA REVIEW AND EVALUATION. STATEMENT DISCUSSES EFFECTS OF IMPLEMENTING VARIOUS ALTERNATIVES AND DESCRIBES THE PROCESS AND RATIONAL EMPLOYED IN SELECTING THE PROPOSED COURSE OF ACTION.

U-36
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.
1979.
GREAT BEAR WILDERNESS PROPOSAL. FLATHEAD AND LEWIS AND CLARK NATIONAL FORESTS MONTANA.
MISSOULA, MT. 185 + PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: GREAT BEAR WILDERNESS & BOB MARSHALL WILDERNESS AREA). THIS FINAL PROPOSAL RECOMMENDS THAT 359,871 ACRES OF NATIONAL FOREST LAND WITHIN THE FLATHEAD AND LEWIS AND CLARK NATIONAL FORESTS, STATE OF MONTANA, BE CLASSIFIED AS WILDERNESS BY CONGRESS AND ADDED TO THE NATIONAL WILDERNESS PRESERVATION SYSTEM. AN ADDITIONAL 28,000 ACRES OF PRIVATE LAND WOULD BE INCLUDED WITHIN THE BOUNDARIES. IT IS RECOMMENDED THAT THE 68,300 ACRES ON THE LEWIS AND CLARK NATIONAL FOREST BE ADDED TO THE BOB MARSHALL WILDERNESS AND THAT 293,571 ACRES ON THE FNF BE RETAINED AS A SEPARATE COMPONENT OF THE NATIONAL WILDERNESS PRESERVATION SYSTEM AND BE CALLED THE GREAT BEAR WILDERNESS.

U-37
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.
ANNUAL.
FOREST DISEASE CONDITIONS IN THE NORTHERN REGION.
MISSOULA, MT.: DIV. STATE & PRIVATE FORESTRY. 6 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST). THESE REPORTS SUMMARIZE THE

STATUS OF DISEASE CONDITIONS (NURSERY DISEASES, DWARF MISTLETOE, CANKER DISEASES, NEEDLE CAST DISEASES, BLISTER RUST, ETC.). AIR POLLUTION DAMAGE AT COLUMBIA FALLS IS MENTIONED.

U-38
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.
ANNUAL.
FOREST INSECT CONDITIONS, NORTHERN REGION.
MISSOULA, MT.: NORTHERN REGION. DIV. STATE & PRIVATE FORESTRY.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST). THE STATUS OF INSECT CONDITIONS FOR THE REGION IS SUMMARIZED ON A YEARLY BASIS ON EACH OF THESE ANNUAL REPORTS.

U-39
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.
FOREST HYDROLOGY: HYDROLOGIC EFFECTS OF VEGETATION MANIPULATION PART II.
MISSOULA, MT. 204 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MTS.). THIS PART OF FOREST HYDROLOGY IS CONCERNED WITH THE MANIPULATION OF VEGETATION AND THE SUBSEQUENT EFFECTS ON WATER YIELD. THE TECHNIQUES, PROCEDURES AND GUIDELINES ARE DESIGNED FOR USE BY THE FIELD FORESTER TO ASSESS THE EFFECTS OF PAST, PRESENT AND FUTURE VEGETATION MANIPULATION PRACTICES ON THE WATER AND WATERSHED RESOURCE. IT PROVIDES FOR CONSIDERATION OF THE OBJECTIVES OF WATERSHED, STREAM CHANNEL, AND WATER QUALITY PROTECTION. THE WATER YIELD INCREASE ANALYSIS PROCEDURE IS BROKEN DOWN INTO: THE FUNDAMENTAL PROCEDURE; PROCEDURE APPLIED TO UNDEVELOPED AREAS; PROCEDURE RELATED TO SOIL AND HABITAT TYPES; AND BASIC GUIDELINES.

U-40
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.
INFORMATION ON THE SOUTH FORK OF THE FLATHEAD, SUN RIVER AND PENTAGON PRIMITIVE AREA.
MISSOULA, MT. 53 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER, SUN RIVER & PENTAGON PRIMITIVE AREAS). THE BOOKLET PRESENTS BRIEF DESCRIPTIONS OF THE THREE AREAS' GEOLOGY, WILDLIFE, BIRDS, FLOWERS AND SHRUBS. INCLUDED ARE DISCUSSIONS OF GEOLOGIC HISTORY AND ROCK FORMATIONS, THE ABUNDANCE OF VARIOUS MAMMALS AND THEIR HABITATS, BIRD LISTS WHICH GIVE DESCRIPTIONS FOR MALES IN MATURE PLUMAGE, AND LISTS OF FLOWERS AND SHRUBS.

U-41
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.
OPPORTUNITY FOR PULP AND PAPER PLANT IN THE FLATHEAD REGION OF MONTANA.
MISSOULA, MT. 86 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: MAINSTEM AND NORTH FORK OF THE FLATHEAD RIVER, AND SWAN LAKE). THE FOLLOWING TOPICS ARE DISCUSSED IN THIS REPORT: WOOD-VOLUME ESTIMATES, GROWTH AND ANNUAL CUT, SUITABILITY OF SPECIES FOR PULP; WATER POWER-SWAN LAKE POWER SITE, MAIN

FLATHEAD RIVER POWER SITE, AND NORTH FORK POWER SITE; COAL; MINERALS; MILL SITES; MARKETS FOR PULP AND PAPER; ESTIMATE OF COST OF PLANT; ESTIMATED COST OF MANUFACTURE; PERMANENCE OF INDUSTRY, AND DESCRIPTION OF THE TIMBER OFFERED FOR SALE.

U-42
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE.
PEREGRINE FALCON AND ITS HABITAT.
MISSOULA, MT.: UNIV. MONTANA, SCHOOL FORESTRY, MONTANA FOREST & CONSERVATION EXPER. STAT. 23 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(WESTERN U.S.: WESTERN MONTANA). THIS PUBLICATION WAS DEVELOPED AS AN ATTEMPT TO SUMMARIZE THE EXISTING INFORMATION ON THE PEREGRINE FALCON (FALCO PEREGRINUS) IN NORTH AMERICA, WITH EMPHASIS ON THE WESTERN UNITED STATES. IT IS PARTICULARLY DIRECTED TOWARD EXAMINING THE HISTORICAL DISTRIBUTION, PRESENT STATUS, AND HABITAT RELATIONSHIPS OF THE SPECIES. AN EXTENSIVE BIBLIOGRAPHY IS INCLUDED.

U-43
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE AND SOIL CONSERVATION SERVICE; AND MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1976.
WATER USE AND RESOURCE MANAGEMENT PLANNING - A REVIEW OF THE CLARK FORK OF THE COLUMBIA COOPERATIVE RIVER BASIN STUDY.
PORTLAND, ORE. 10 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(CLARK FORK OF THE COLUMBIA RIVER BASIN & FLATHEAD RIVER BASIN). THE OBJECTIVE OF THIS STUDY IS TO PROVIDE A PLAN FOR RATIONAL USE, DEVELOPMENT, MANAGEMENT AND CONSERVATION OF WATER AND RELATED LAND RESOURCES OF THE CLARK FORK RIVER BASIN IN WESTERN MONTANA. THIS BROCHURE IS INTENDED TO PROVIDE AN OVERVIEW OF THE COMPLETE DRAFT REPORT. SECTIONS COVER: PROBLEMS IN THE RECREATION, AND ENVIRONMENTAL SCENES; SUGGESTED PREFERRED PLAN FOR THE BASIN, RECOMMENDATIONS FOR IMPROVING ENVIRONMENTAL QUALITY OR ECONOMIC DEVELOPMENT; AND SPECIFIC PLAN ELEMENTS.

U-44
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. AREAS MANAGEMENT CENTRAL ZONE.
1978.
GEOLOGIC REFERENCES OF WESTERN MONTANA AND ADJACENT AREAS.
MISSOULA, MT. 88 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

NOTE: UPDATED 1978.

(WESTERN MONTANA). THIS COMPILATION IS COMPOSED OF INDEX MAPS AND REFERENCE LISTINGS FOR WESTERN MONTANA AND ADJACENT AREAS BOUNDED APPROXIMATELY BY LATITUDES 45 DEGREES TO 49 DEGREES N AND LONGITUDES 112 DEGREES 30' TO 116 DEGREES 30' W. INDEXED ARE ALMOST ALL OF THE GEOLOGIC REFERENCES AS WELL AS THOSE REFERENCES WHICH PERTAIN TO THE MINERAL DEPOSITS AND OCCURRENCES. THE REFERENCES ARE DIVIDED INTO FOUR SECTIONS: UNDERGRADUATE AND GRADUATE THESES; U.S. GEOLOGICAL SURVEY AND U.S. BUREAU OF MINES REPORTS; MONTANA AND IDAHO BUREAU OF MINES AND GEOLOGY REPORTS; AND MISCELLANEOUS REPORTS. ALSO INCLUDED IS AN ALPHABETICAL AUTHOR LISTING.

U-45

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. BLACKFEET NATIONAL FOREST.

1926.

FLATHEAD PULP CHANCE. NORTH FORK OF FLATHEAD RIVER.

KALISPELL, MT. 8 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BLACKFEET NATL. FOREST). THE PRESENCE OF A PERMANENT TIMBER SUPPLY, ABUNDANT WATER POWER AND OTHER MANUFACTURING ADVANTAGES INDICATED THE POSSIBILITY OF ESTABLISHMENT OF A PULP AND PAPER INDUSTRY IN THE REGION, AND IN ORDER TO PRESENT A CONCRETE PROPOSITION TO PAPER MANUFACTURING CONCERNS, THE FOREST SERVICE OFFERED FOR SALE AN INITIAL CHANCE OF 600 MILLION FEET OF GOVERNMENT TIMBER ON A 30 YEAR CONTRACT.

U-46

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE, BUREAU OF LAND MANAGEMENT, & BONNEVILLE POWER ADMINISTRATION.

1979.

FEDERAL CORRIDOR OPTION SUMMARY.

MISSOULA, MT. 37 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(COLSTRIP TRANSMISSION CORRIDOR: SANDERS COUNTY, FLATHEAD INDIAN RESERVATION, HOT SPRINGS & PLAINS). THIS DOCUMENT IS AN INTERAGENCY SUMMARY OF THE MAJOR ADVANTAGES AND DISADVANTAGES OF COLSTRIP TRANSMISSION CORRIDOR OPTIONS. MOST OF THE INFORMATION IS CONDENSED FROM THE COLSTRIP TRANSMISSION ENVIRONMENTAL REPORT. INITIALLY THE SUMMARY PROCESS USED A SET OF FACTORS CONSIDERED IMPORTANT BY THE AGENCY MANAGERS TO IDENTIFY, ORGANIZE AND EVALUATE KEY ADVANTAGES AND DISADVANTAGES CONNECTED WITH EACH OF THE MAJOR COLSTRIP CORRIDOR OPTIONS. TWO SUMMARY CHARTS COMPARE THAT INFORMATION TO THOSE CATEGORIES THOUGHT TO BE MOST IMPORTANT AFTER THE ANALYSIS WAS COMPLETED. NO RECOMMENDATION FOR THE SELECTION OF ANY ONE OPTION IS CONTAINED IN THIS REPORT.

U-47

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.

1927.

MAP: FLATHEAD NATIONAL FOREST, 1927.

KALISPELL, MT.: FLATHEAD NATIONAL FOREST. 1 PP. FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS MAP SHOWS FOREST BOUNDARIES CIRCA 1927. A DESCRIPTION OF THE FOREST IS INCLUDED. THE SCALE IS 1" TO 5 MILES.

U-48

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.

1936.

REPORT ON THE SOUTH FORK GAME STUDIES.

KALISPELL, MT. 47 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SOUTH FORK OF THE FLATHEAD RIVER). THE PURPOSE OF THIS STUDY WAS TO: 1) DETERMINE THE AMOUNT OF BIG GAME WINTERING IN THE DRAINAGE OF THE SOUTH FORK OF THE FLATHEAD RIVER, 2) DETERMINE THE DRIFT OR MIGRATION OF THAT GAME INTO AND OUT OF THE AREA, 3) DETERMINE THE KIND AND AMOUNT OF FORAGE USED AND LEFT UNUSED, AND THE INFLUENCE OF SNOW DEPTH AND TEMPERATURES UPON THIS USE OR NON-AVAILABILITY, 4) DETER-

MINE THE APPROXIMATE CARRYING CAPACITY OF THE WINTER RANGE, 5) DETERMINE THE GAME LOSSES AND THE CAUSES OF THOSE LOSSES ON THE WINTER RANGE, AND 6) DEVELOP PLANS FOR THE BEST MANAGEMENT OF THE RESOURCE. MANY PHOTOGRAPHS ARE INCLUDED.

U-49

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.

1938.

MAP. FLATHEAD NATIONAL FOREST - BLACKFEET DIVISION.

MISSOULA, MT.: FLATHEAD NATIONAL FOREST. 1 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). A MAP OF THE NORTHERN PORTION OF THE FLATHEAD FOREST CIRCA 1938. PARTS OF THE FOREST ARE IN TOPOGRAPHIC DETAIL. SCALE IS 1" TO 2 MILES.

U-50

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.

1939.

INFORMATIONAL REPORT - FLATHEAD NATIONAL FOREST.

KALISPELL, MT. 10 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORD CENTER, GENERAL SERVICES ADMINISTRATION, SEATTLE, WA.

(FLATHEAD NATL. FOREST). THIS REPORT DISCUSSES: THE EARLY HISTORY, THE NATIONAL FOREST ORGANIZATION, PURPOSES OF THE NATIONAL FOREST, RECREATIONAL FACILITIES, TIMBER, LAND EXCHANGE, GRAZING, WILDLIFE, IMPROVEMENTS, AND FIRE PROTECTION.

U-51

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.

1948.

STATUS OF WORKING CIRCLE MANAGEMENT PLANS AS OF 12-15-48.

KALISPELL, MT.

PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). A SERIES OF REPORTS ON THE KALISPELL, SOUTH FORK, SWAN VALLEY AND GLACIER VIEW WORKING CIRCLES OF THE FLATHEAD NATIONAL FOREST. THE INFORMATION COVERS: 1) PHYSICAL FACTS SUCH AS NET COMMERCIAL FOREST LAND SUITABLE AND AVAILABLE FOR MANAGEMENT, PRINCIPLE SPECIES AND PRINCIPLE LAND OWNERS; 2) SOCIAL AND ECONOMIC FACTS SUCH AS THE COMMUNITIES WITHIN THE WORKING CIRCLE, MILLS DEPENDENT ON THE WORKING CIRCLE, VOLUME CUT FROM U.S.F.S. LANDS IN THE WORKING CIRCLE FOR PAST TEN YEARS, AVERAGE ANNUAL CUT; 3) LOCATION OF INTENSIVE CRUISES AND THE AMOUNT OF AREA COVERED; 4) FUTURE POSSIBILITIES, SUCH AS ESTIMATED ALLOWABLE ANNUAL CUT, ESTIMATED DEMAND, ADDITIONAL ROADS NEEDED, AREAS IN NEED OF CUTTING AND, 5) POLICY RECOMMENDATIONS.

U-52

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.

1949-1957.

TIMBER MANAGEMENT PLANS-GLACIER VIEW WORKING CIRCLE (1949), CORAM WORKING CIRCLE (1951) AND (1955), KALISPELL WORKING CIRCLE (1952), AND SWAN WORKING CIRCLE (1957).

KALISPELL, MT.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THESE TIMBER MANAGEMENT PLANS INCLUDE THE FOLLOWING INFORMATION: LAND DESCRIPTION, SUMMARY OF RESULTS UNDER PREVIOUS PLANS, FOREST DESCRIPTIONS, MANAGEMENT OBJECTIVES, REGULATION, SALES POLICY, FOREST DEVELOPMENT, AND COOPERATION WITH FEDERAL, STATE, AND PRIVATE OWNERS. THE APPENDIX CONTAINS TABLES WHICH PRESENT DATA ON: AREA VOLUMES, STOCK AND STAND, INCREMENT, LOSSES, CALCULATION OF ALLOWABLE ANNUAL CUT, AND FOREST DEVELOPMENT.

U-53

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.

1959, 1960, 1961.

TIMBER MANAGEMENT PLAN-GLACIER VIEW WORKING CIRCLE (1959) KALISPELL WORKING CIRCLE (1960) SWAN WORKING CIRCLE (1960) AND CORAM WORKING CIRCLE (1961).

KALISPELL, MT.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE INFORMATION INCLUDES: A LAND DESCRIPTION, SUMMARY OF RESULTS UNDER PREVIOUS PLANS, FOREST DESCRIPTION, MANAGEMENT OBJECTIVES, COORDINATION WITH OTHER USES, REGULATION, SALES POLICY, FOREST DEVELOPMENT, AND COOPERATION WITH FEDERAL, STATE AND PRIVATE ORGANIZATIONS. A SECTION ON SUPPORTING DATA DETAILS THE HISTORY, PHYSIOGRAPHY, AND ECONOMY OF THE AREA. EXTENSIVE TABLES PRESENT DATA ON ALLOWABLE ANNUAL CUT BY VARIOUS FORMULAS, CALCULATION OF PERIODIC ANNUAL INCREMENT, AND AVERAGE AND NET VOLUMES.

U-54

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.

1964.

FLOOD DAMAGE REPORT - FLATHEAD NATIONAL FOREST.

KALISPELL, MT. 31 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). ON JUNE 7TH AND 8TH, 1964, THE FLATHEAD RIVER DRAINAGE WAS SUBJECTED TO AN INTENSE RAINSTORM. THIS RAINFALL, COMBINED WITH AN ABOVE AVERAGE SNOWPACK, PRODUCED EXTREME RUNOFF AND FLOOD CONDITIONS THROUGHOUT THE WATERSHED. THE PURPOSE OF THIS REPORT IS TO DISCUSS THE CONTRIBUTING FACTORS, THE CHARACTERISTICS OF THE FLATHEAD WATERSHED, THE DAMAGES CAUSED BY THE FLOOD, AND RESTORATION ACTION NECESSARY TO REPAIR THESE DAMAGES.

U-55

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.

1964.

WILDLIFE MANAGEMENT PLAN-BIG PRAIRIE RANGER DISTRICT. FLATHEAD NATIONAL FOREST.

KALISPELL, MT. 6 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SOUTH FORK OF THE FLATHEAD RIVER: BIG PRAIRIE RANGER DISTRICT). THIS DISTRICT WAS LOCATED ENTIRELY WITHIN THE BOB MARSHALL WILDERNESS AREA, AND HAD, AT THE TIME, NO ACTIVE MANAGEMENT PROGRAMS. THIS PLAN DESCRIBES THE WILDLIFE RESOURCE, THE HISTORY OF GAME COUNTS AND HABITAT STUDIES; WILDLIFE MANAGEMENT OBJECTIVES, WILDLIFE SURVEYS, AND ACTION PLANS.

U-56
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1966.
IMPACT SURVEY REPORT - AN ANALYSIS OF THE INTERRELATIONSHIP OF THE SMOKEY RANGE DAM AND RESERVOIR ON THE RESOURCES AND MANAGEMENT OF THE FLATHEAD NATIONAL FOREST. KALISPELL, MT. 81 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE SMOKEY RANGE DAM WAS PROPOSED AS A MAJOR WATER STORAGE PROJECT ON THE FLATHEAD RIVER. THE PRINCIPLE USES WOULD BE POWER GENERATION, FLOOD CONTROL, AND REGULATION OF STREAM FLOW FOR NAVIGATION, IRRIGATION, AND OTHER WATER USES AT DOWNSTREAM SITES. THE OBJECTIVE OF THIS REPORT WAS TO REVIEW AND ANALYZE THE IMPACT THAT THE PROJECT WOULD HAVE ON THE RESOURCES, USES, FACILITIES, SERVICES, AND ADMINISTRATION OF THE FLATHEAD NATIONAL FOREST.

U-57
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1968.
MUNICIPAL WATERSHEDS, FLATHEAD NATIONAL FOREST.
KALISPELL, MT. 19 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: COLUMBIA FALLS, WHITEFISH, & HUNGRY HORSE). A COMPILATION OF MAPS AND INFORMATION ABOUT THE WHITEFISH, COLUMBIA FALLS, HUNGRY HORSE, ESSEX AND EAST FLATHEAD LAKE SHORE MUNICIPAL WATERSHEDS. THE POPULATION SERVED BY THE WATERSHED, APPROXIMATE DAILY USE OF WATER, USES PERMITTED, WATER TREATMENT PLAN STATUS, ESTIMATED ALLOWABLE CUT IN WATERSHED, AND NUMBER OF PRIVATE AND FEDERAL ACRES WITHIN THE WATERSHED ARE OUTLINED.

U-58
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1968.
TIMBER MANAGEMENT PLAN-FLATHEAD WORKING CIRCLE, FLATHEAD NATIONAL FOREST. JULY 1, 1969 TO JUNE 30, 1972.
KALISPELL, MT. 83 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE OBJECTIVE OF THIS PLAN IS TO PROVIDE THE BASIS FOR TIMBER MANAGEMENT ACTIVITIES ON THE FLATHEAD WORKING CIRCLE. THIS PLAN TRIES TO VISUALIZE FUTURE WOOD SUPPLIES IN TERMS OF THE CURRENT TIMBER MANAGEMENT ACTIVITIES. THE PLAN PROVIDES FOR ADJUSTMENT OF THE ALLOWABLE CUT AT SPECIFIC TIMES WITHIN THE PLAN PERIOD. THE PROCEDURES USED INCLUDE UPDATING THE EXISTING TIMBER TYPE MAPS, AERIAL PHOTO SAMPLING FOR VOLUME, FIELD SAMPLING, COMPARTMENT EXAMINATION ON ALL LAND THAT APPEARED NON-STOCKED IN THE AERIAL PHOTOS, DESTRUCTIVE SAMPLING OF FORTY FIELD LOCATIONS FOR NET VOLUME DETERMINATION, AND COMPILING THE DATA WITH AUTOMATIC DATA PROCESSING EQUIPMENT. A SERIES OF TABLES IS INCLUDED IN THE APPENDIX.

U-59
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1969.
POSSIBLE MANAGEMENT ALTERNATIVES: MISSION MOUNTAINS PRIMITIVE AREA.
KALISPELL, MT. 33 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTNS. WILDERNESS AREA). THE BOOKLET PRESENTS, FOR PUBLIC REVIEW, 5 MANAGEMENT ALTERNATIVES: WILDERNESS CLASSIFICATION, BACK-COUNTRY CLASSIFICATION, WILDERNESS AND BACK-COUNTRY CLASSIFICATION, WILDERNESS CLASSIFICATION WITH MAJOR BOUNDARY ADJUSTMENTS, AND MANAGEMENT FOR MAXIMUM PUBLIC ACCESS AND OPTIMUM RESOURCE MANAGEMENT. THE INFORMATION IS NOT A MANAGEMENT PROPOSAL, BUT IT IS SUBMITTED TO GENERATE COMMENTS AND IDEAS TO DEVELOP A PROPOSAL.

U-60
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1971.
ENVIRONMENTAL STATEMENT: A PROPOSAL - MISSION MOUNTAIN WILDERNESS.
KALISPELL, MT. (TYPEWRITTEN), 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTN. WILDERNESS). THE REPORT ASSESSES THE ENVIRONMENTAL IMPACT OF PROPOSED LEGISLATION TO ESTABLISH THE AREA AS A UNIT OF THE NATIONAL WILDERNESS PRESERVATION SYSTEM. INCLUDED IN THE DISCUSSION ARE IMPACTS ON THE NATURAL AND PRIMITIVE CHARACTER OF THE LAND AND THE ADVERSE EFFECTS OF: REDUCTION OF RENEWABLE RESOURCE GOODS AND SERVICES TO THE ECONOMY, NO PUBLIC MOTORIZED ACCESS, INCREASED PUBLIC ATTENTION, NO CONVENIENCE IMPROVEMENTS, AND RESTRICTED MINERAL EXPLORATION AND DEVELOPMENT. ALTERNATIVES ARE CONSIDERED.

U-61
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1971.
NORTH, MIDDLE, AND SOUTH FORKS OF THE FLATHEAD RIVER - WILD AND SCENIC RIVERS STUDY. KALISPELL, MT. (TYPEWRITTEN).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: NORTH, MIDDLE, & SOUTH FORKS OF THE FLATHEAD RIVER). AS PART OF THE WILD AND SCENIC RIVERS STUDY, A GEOLOGIC RECONNAISSANCE WAS REQUESTED TO BE MADE ALONG THE THREE FORKS OF THE FLATHEAD RIVER. THIS REPORT COVERS: PHYSIOGRAPHY AND CULTURAL FEATURES, GENERAL AND HISTORIC GEOLOGY, AND SPECIFIC POINTS OF INTEREST. PHOTOGRAPHS ARE INCLUDED.

U-62
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1971.
USDA FOREST SERVICE ENVIRONMENTAL STATEMENT. A PROPOSAL-MISSION MOUNTAIN WILDERNESS.
KALISPELL, MT. 12 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS DOCUMENT IS A REPORT ON THE SUITABILITY OF THE MISSION MOUNTAIN PRIMITIVE AREA FOR PRESERVATION AS WILDERNESS. ENVIRONMENTAL IMPACTS, ADVERSE AND FAVORABLE ENVIRONMENTAL EFFECTS, ALTERNATIVES CONSIDERED, AND WRITTEN COMMENTS RECEIVED ARE DISCUSSED.

U-63
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1972.
BOB MARSHALL WILDERNESS PLAN, 1972.
KALISPELL, MT. 52 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THIS WILDERNESS MANAGEMENT PLAN DESCRIBES THE RESOURCES AND HUMAN USES OF THE AREA AND PRESENTS MANAGEMENT OPTIONS AND DIRECTIONS FOR PRESERVATION OF ITS WILDERNESS CHARACTER.

U-64
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1972.
WILDERNESS CANDIDATE STUDY AREAS.
KALISPELL, MT. 9 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE REPORT PRESENTS INFORMATION FOR PUBLIC REVIEW ON TWO WILDERNESS CANDIDATE STUDY AREAS: THE SWAN-BUNKER UNIT AND CONTINENTAL DIVIDE UNIT. INCLUDED IN THE BRIEF DISCUSSIONS ON EACH UNIT IS ITS LOCATION, SIZE, LANDSCAPE, GEOLOGIC HISTORY, WILDLIFE, ESTIMATED VOLUMES OF COMMERCIAL TIMBER, PRESENT DEVELOPMENT, AND RECREATION DEVELOPMENT.

U-65
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1973.
ENGINEERING GUIDELINES FOR DETERMINING SMALL DRAINAGE PEAK FLOWS.
KALISPELL, MT. 13+ PP.
FINAL, PART OF A SERIES, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE PURPOSE OF THIS REPORT WAS TO PRESENT AN APPROACH TO SMALL WATERSHED HYDROLOGY AS IT APPLIES TO DESIGNING CULVERTS ON FOREST ROADS.

U-66
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1973.
ENGINEERING REPORT ON SEWAGE TREATMENT FACILITIES FOR BETTY CREEK WORK CENTER.
KALISPELL, MT. 29+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: BETTY CREEK WORK CENTER). THIS REPORT IS INTENDED AS AN ANALYSIS OF WATER POLLUTION PROBLEMS AT THE BETTY CREEK WORK CENTER, WITH RECOMMENDATIONS FOR A COURSE OF CORRECTIVE ACTION.

U-67
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1973.
LAKE HABITAT SURVEY, FLATHEAD NATIONAL FOREST, CONDON RANGER DISTRICT, HUNGRY HORSE RANGER DISTRICT, SPOTTED BEAR RANGER DISTRICT, SWAN LAKE RANGER DISTRICT, AND TALLY LAKE RANGER DISTRICT.
KALISPELL, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS LAKE HABITAT SURVEY WAS MADE FROM INTERPRETATION OF USGS 1:2400 SCALE MAPS. INTERPRETATIONS FOR WATER CLARITY, SHORE COVER, AND DEPTH WERE MADE FROM AERIAL PHOTOS.

U-68
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1973.
THREE YEAR ROAD CONSTRUCTION PROGRAM FOR FLATHEAD NATIONAL FOREST.
KALISPELL, MT. 46 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS PLAN INVOLVES THE DEVELOPMENT OF A THREE YEAR (7-73 TO 6-76) PROGRAM OF ROAD CONSTRUCTION AND RECONSTRUCTION ON THE FLATHEAD NATIONAL FOREST COORDINATED WITH RESOURCE MANAGEMENT AND PUBLIC NEEDS. THIS PROGRAM INCLUDES THE TRANSPORTATION NEEDS RESULTING FROM THE TIMBER MANAGEMENT PLAN. PROPOSED NEW CONSTRUCTION WOULD EQUAL ABOUT 185 MILES, APPROXIMATELY 1,300 ACRES WOULD BE CLEARED. 75 MILES OF RECONSTRUCTION ARE PLANNED, WITH 75 ACRES CLEARED. APPROXIMATELY 50% OF THE CLEARED ACREAGE LYING OUTSIDE THE MAINTAINED ROAD PRISM, WOULD REVEGETATE TO TREES AFTER CONSTRUCTION ACTIVITIES. COMMENTS WERE SOLICITED IN THE DRAFT E.I.S. AND ARE RESPONDED TO IN THIS FINAL E.I.S.

U-69
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1974.
FINAL ENVIRONMENTAL IMPACT STATEMENT - MULTIPLE USE PLAN - HOLLAND LAKE PLANNING UNIT.
KALISPELL, MT. 105 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: HOLLAND LAKE PLANNING UNIT). MANAGEMENT ALTERNATIVES WERE DEVELOPED FOR EACH OF THE ELEVEN MANAGEMENT UNITS IN THE PLANNING UNIT. LANDFORMS WERE DELINEATED, THE VEGETATIVE HABITAT WAS TYPED, AND PUBLIC COMMENTS WERE SOLICITED AND THEN RESPONDED TO.

U-70
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1974.
"FLATHEAD NATIONAL FOREST: BASIC LAND MANAGEMENT PLAN."
MISSOULA, MT. (TYPEWRITTEN). 46 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS DOCUMENT PRESENTS THE FOREST'S LAND MANAGEMENT PLAN THAT PROVIDES GUIDING PRINCIPLES FOR FOREST MANAGEMENT. IT REVIEWS THE FLATHEAD'S SITUATION: ITS LANDS, RESOURCES, AND USERS. CONSIDERATION OF THE FOREST'S LAND ZONING DESCRIPTIONS, SITUATION STATEMENTS, AND ASSUMPTIONS ABOUT THE FUTURE RESULTED IN STATEMENTS OF DIRECTION CALLED COORDINATING REQUIREMENTS. THESE REQUIREMENTS SERVE TO RESOLVE CONFLICTS OF USE, GUIDE FOREST ACTIVITIES, AND CONSIDER SPECIAL MANAGEMENT ZONES, SUCH AS WILD AND SCENIC RIVERS, BOB MARSHALL WILDERNESS, AND CORAM EXPERIMENTAL FOREST. PART II OF THE PLAN CONSISTS OF UNIT PLANS FOR THE MANAGEMENT OF SPECIFIC AREAS TO BE ACCOMPLISHED OVER A PERIOD OF SEVERAL YEARS.

U-71
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1974.
FINAL ENVIRONMENTAL IMPACT STATEMENT - MULTIPLE USE PLAN - SWAN LAKE PLANNING UNIT.
KALISPELL, MT. 86 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SWAN LAKE PLANNING UNIT). THIS FINAL E.I.S. OUTLINES THE MANAGEMENT PLAN SELECTED BY THE FS FOR IMPLEMENTATION IN THE SWAN LAKE PLANNING UNIT. THE OVERALL MANAGEMENT DIRECTION WOULD BE TO MAINTAIN, AND IN SOME CASES RESTORE, HIGH

QUALITY SCENERY, PARTICULARLY AS VIEWED FROM PRINCIPAL TRAVEL ROUTES AND SWAN LAKE. PRINCIPAL EMPHASIS ON BIG GAME HABITAT WOULD BE IN AREAS EAST OF SWAN LAKE. PRINCIPAL TIMBER PRODUCTION WOULD BE IN AREAS WEST OF SWAN LAKE.

U-72
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1974.
INTERIM REVISION: FLATHEAD NATIONAL FOREST - TEN YEAR TIMBER MANAGEMENT PLAN. FINAL.
KALISPELL, MT.: 68 + PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS MANAGEMENT PLAN IS DESIGNED TO PROVIDE AN ORDERLY AND SUSTAINED GUIDANCE FOR DEVELOPING THE TIMBER-GROWING CAPACITY OF APPROPRIATELY DESIGNATED AREAS. THE PLAN IS AN ATTEMPT TO VISUALIZE FUTURE WOOD SUPPLY NEEDS IN TERMS OF TODAY'S TIMBER MANAGEMENT ACTIVITIES. THE PLAN COVERS THE FOLLOWING TOPICS: ENVIRONMENTAL IMPACTS, BOTH FAVORABLE AND ADVERSE; ALTERNATIVES TO THE PROPOSED ACTION; RELATIONSHIP BETWEEN SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE OF LONG TERM PRODUCTIVITY; IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES; AND RESPONSE TO COMMENTS ON DRAFT ENVIRONMENTAL STATEMENT.

U-73
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1974.
PILOT WATERSHED REHABILITATION PROJECTS - FLATHEAD NATIONAL FOREST.
KALISPELL, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). IN THE 1950'S AND 60'S, EXTENSIVE AREAS IN THE HIGH SPRUCE BASINS ON THE FNF WERE CLEARCUT. HYDROLOGY OF THE AREA WAS ALTERED BY REMOVAL OF THE CANOPY, BY THE CONSTRUCTION OF ROAD SYSTEMS, SKID TRAILS, AND FIRE LINES. SIX AREAS WERE SELECTED FOR REHABILITATION. THIS REPORT DESCRIBES THE REHABILITATION WORK: THE ACCOMPLISHMENTS, RECOMMENDATIONS, AND COST SUMMARIES. PHOTOS AND DIAGRAMS ARE INCLUDED.

U-74
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1975.
"FOREST INVENTORY SYSTEM."
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). DATA FOR THIS COMPUTER FILE WAS GATHERED THROUGH AIR PHOTO INTERPRETATION AND A STATISTICALLY VALID FIELD SAMPLING PROGRAM. ALL COMMERCIAL FOREST LANDS WERE STRATIFIED INTO UNITS OF UNIFORM, CONSISTENT, EXISTING TIMBER. THE INVENTORY YIELDED DATA ON FOREST TYPE, STAND SIZE, HABITAT TYPE, AGE AND STAND SIZE, CLASS, FUELS, VOLUMES, AREAS, LAND USE CLASS, GROWTH, AND MORTALITY. THE FINSYS PROGRAM ENABLES EXTENSIVE DATA MANIPULATION CAPABILITIES. DATA IS ON FILE AT THE FLATHEAD NATIONAL FOREST SUPERVISOR'S OFFICE.

U-75
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1975.
SOILS OF THE ISLAND UNIT OF THE SWAN LAKE RANGER DISTRICT ON THE FLATHEAD NATIONAL FOREST.
KALISPELL, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: ISLAND UNIT). THIS SOIL SURVEY IS CATEGORIZED INTO LAND TYPES AND GIVES A BRIEF DESCRIPTION OF: THE ELEVATION, SLOPE, RANGE, TOPSOIL, SUBSOIL, SUBSTRATUM, INCLUSIONS, CLASSIFICATION PRODUCTIVITY AND HAZARDS. TOPOGRAPHIC MAPS ARE INCLUDED.

U-76
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1976.
ENVIRONMENTAL STATEMENT (FINAL): OIL AND GAS LEASE APPLICATIONS: EXPLORATION AND DEVELOPMENT.
KALISPELL, MT. R-1, 75-11.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THE STATEMENT RECOMMENDS THE GRANTING AND DENIAL OF LEASES FOR THE NORTH AND SOUTH FORKS, NOTING OCCUPATION STIPULATIONS. IT ASSESSES THE ENVIRONMENTAL EFFECTS (SOIL, WATER, AND VEGETATION DISTURBANCES, IMPACTS ON WILDLIFE, AND SOCIAL AND ECONOMIC IMPACTS) AND CONSIDERS ALTERNATIVES SUCH AS DENYING, GRANTING, OR DEFERRING LEASES. WRITTEN COMMENTS ON THE DRAFT STATEMENT ARE INCLUDED.

U-77
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1976.
FINAL ENVIRONMENTAL IMPACT STATEMENT - MULTIPLE USE PLAN - LAKE FIVE PLANNING UNIT.
KALISPELL, MT. 13
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: LAKE FIVE PLANNING UNIT). THIS PROPOSAL IS CONCERNED WITH THE IMPLEMENTATION OF A REVISED MULTIPLE-USE PLAN FOR THE LAKE FIVE PLANNING UNIT. FOUR MANAGEMENT ALTERNATIVES WERE DEVELOPED: 1) MAXIMIZE THE RETURN TO THE GROSS NATIONAL PRODUCT WITHIN THE CONSTRAINTS OF BASIC SOIL & WATER PROTECTION; 2) STRESS THOSE POSSIBILITIES WHICH WERE THOUGHT TO MOST BENEFIT THE PEOPLE OF THE FLATHEAD VALLEY; 3) PROPOSE THE MAXIMUM AMOUNT OF ROADLESS AREA ALONG WITH MORE RESTRICTIVE MANAGEMENT IN AREAS OPEN FOR DEVELOPMENT; AND 4) PROPOSE ALL INVENTORIED ROADLESS AREAS FOR WILDERNESS CLASSIFICATION.

U-78
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1976.
FOREST SERVICE ENVIRONMENTAL STATEMENT - THE BIG MOUNTAIN SKI RESORT MASTER PLAN.
KALISPELL, MT. 5 + PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: BIG MOUNTAIN SKI RESORT). THIS PLAN REQUESTS FOREST SERVICE APPROVAL OF A DEVELOPMENT PROGRAM INVOLVING THE ADDITION OF FOUR CHAIR LIFTS. INCLUDED ARE ENVIRONMENTAL IMPACTS, UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS, AND ALTERNATIVES TO PROPOSED ACTION.

U-79
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
1976.
LOGAN CREEK COUNTRY.
KALISPELL, MT. 116 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: TALLY LAKE RANGER DISTRICT). THIS REPORT IS THE COMBINATION OF THREE RESOURCE INVENTORIES (GEOLOGIC, VEGETATIVE, AND LAND TYPE) THAT WERE MADE FOR RESOURCE ALLOCATION IN THE LONG RANGE PLANNING PROCESS ON THE FLATHEAD NATIONAL FOREST.

U-80

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1977.

FLATHEAD WILD AND SCENIC RIVER PROPOSAL. FINAL ENVIRONMENTAL STATEMENT.

KALISPELL, MT. 210 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH, SOUTH, & MIDDLE FORKS OF THE FLATHEAD RIVER). THE FLATHEAD WILD AND SCENIC RIVER STUDY PROPOSED LEGISLATIVE ACTION TO INCLUDE 219.0 MILES OF THE FLATHEAD RIVER AND 57,000 ACRES OF ADJACENT LAND LOCATED IN FLATHEAD AND POWELL COUNTIES IN THE NATIONAL WILD AND SCENIC RIVERS SYSTEM. THE PROPOSAL PROVIDES THE MEANS TO PRESERVE AND ENHANCE THE RIVER IN ITS FREE-FLOWING STATUS AND TO MINIMIZE ADVERSE ENVIRONMENTAL EFFECTS TO THE RIVER AND ADJACENT LANDS.

U-81

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1977.

GEOLOGIC MAP OF FLATHEAD COUNTY, MONTANA. FLATHEAD NATIONAL FOREST.

KALISPELL, MT. 102 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: FLATHEAD NATL. FOREST). THE PURPOSE OF THIS MAP IS TO BRING THE RECONNAISSANCE GEOLOGY SURVEY TO THE SAME SCALE AS THE TOPOGRAPHIC DATA AND THE AERIAL PHOTOS. THE BEDROCK TYPES AND STRUCTURE CAN THEN BE COMPARED TO THE LANDFORM, ELEVATION, AND CLIMATIC DATA TO PREDICT THE GEOMORPHIC HISTORY AND LAND TYPES.

U-82

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1978.

FINAL ENVIRONMENTAL IMPACT STATEMENT - LAND MANAGEMENT PLAN - EAST SHORE, FLATHEAD LAKE PLANNING UNIT.

KALISPELL, MT. 213 + PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: EAST SHORE, FLATHEAD LAKE). THE MANAGEMENT PLAN SELECTED FOR IMPLEMENTATION IN THIS FINAL E.I.S. RECOMMENDS THAT 34% OF THE PLANNING UNIT BE MANAGED FOR MAXIMUM TIMBER PRODUCTION, 27% BE MANAGED FOR LOW INTENSIVE TIMBER MANAGEMENT IN ORDER TO RETAIN THE VISUAL QUALITY, 25% FOR LOW INTENSIVE TIMBER MANAGEMENT USING ROADLESS METHODS IN ORDER TO PROTECT THE WATER RESOURCES AND RETAIN THE VISUAL QUALITY, 13% FOR ELK AND DEER WINTER RANGE AND DISPERSED RECREATION, AND 1% FOR INTENSIVE RECREATION. FOUR ALTERNATIVE PLANS ARE DESCRIBED AND THE SELECTED PLAN IS DETAILED.

U-83

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1978.

GOAT CREEK WHITE-TAILED DEER HABITAT ANALYSIS.

KALISPELL, MT. 9 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SWAN LAKE DISTRICT). THIS REPORT DESCRIBES EACH STAND WITHIN THE GOAT CREEK AREA WITH REGARD TO PAST MANAGEMENT PRACTICES, AMOUNT OF THERMAL COVER, AND FUTURE MANAGEMENT RECOMMENDATIONS.

U-84

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1978.

LAND ACQUISITION PLAN. FLATHEAD WILD AND SCENIC RIVER.

KALISPELL, MT. 72 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH, MIDDLE, & SOUTH FORKS OF THE FLATHEAD RIVER). THIS PLAN OUTLINES THE POLICY AND GUIDELINES FOR ACQUISITION OF LANDS, INTEREST IN LANDS, OR LAND USE CONTROLS NEEDED TO PROTECT THE WILD AND SCENIC RIVER RESOURCES. ALSO INCLUDED ARE MAPS INDICATING THE FLOOD PLAIN, VISUALLY SENSITIVE AREAS, AND LAND OWNERSHIP, AS WELL AS A SAMPLE OF SCENIC EASEMENT PROVISIONS.

U-85

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1978.

LOGAN PLANNING UNIT: LAND MANAGEMENT PLAN. MISSOULA, MT. 197 PP.

DRAFT, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: TALLY LAKE RANGER DISTRICT: LOGAN PLANNING UNIT). THIS PLAN WILL PROVIDE MANAGEMENT DIRECTIVES TO THE DISTRICT RANGER IN CHARGE OF THE PLANNING UNIT. INCLUDED ARE: A DESCRIPTION OF THE AREA, ALTERNATIVES, ENVIRONMENTAL IMPACTS, SHORT TERM USE OF THE ENVIRONMENT VS. THE MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY, AND IRREVERSIBLE COMMITMENT OF RESOURCES.

U-86

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1978.

MISSION MOUNTAINS WILDERNESS MANAGEMENT PLAN.

KALISPELL, MT. 58 + PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTNS. WILDERNESS AREA). THE REPORT PRESENTS A RESOURCE PLAN TO PROVIDE MANAGEMENT DIRECTION THAT WILL PROTECT AND PRESERVE THE WILDERNESS. THE PLAN DESCRIBES CURRENT SITUATIONS, MAKES ASSUMPTIONS BASED ON THESE SITUATIONS, AND PROPOSES MANAGEMENT DIRECTION AS A SOLUTION TO IDENTIFIED PROBLEMS.

U-87

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1979.

"DRAFT - REVISION TO FINAL ENVIRONMENTAL IMPACT STATEMENT - FLATHEAD WILD AND SCENIC RIVER PROPOSAL."

KALISPELL, MT. (MIMEO). 20 PP.

DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: NORTH & MIDDLE FORKS OF THE FLATHEAD RIVER). IN ACCORDANCE WITH THE WILD AND SCENIC RIVERS ACT, THE FS HAS BEEN ACQUIRING SCENIC EASEMENTS ALONG THE NORTH AND MIDDLE FORKS OF THE FLATHEAD RIVER. DURING 1978-79 THE LAND ACQUISITION TEAM MET WITH LANDOWNERS AND CONDUCTED ON-THE-GROUND EXAMINATIONS OF MANY PRIVATE

LANDS. THAT EFFORT DISCLOSED THE APPARENT NEED TO MAKE FIVE MINOR REVISIONS TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT.

U-88

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.

1979.

DRAFT ENVIRONMENTAL ASSESSMENT REPORT: PROGRAMMATIC STATEMENT FOR TREATMENT OF THE MOUNTAIN PINE BEETLE EPIDEMIC.

KALISPELL, MT. 72 PP.

DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS ENVIRONMENTAL ASSESSMENT REPORT (EAR) DESCRIBES 5 ALTERNATIVES REGARDING A FOREST-WIDE PLAN TO COMBAT MOUNTAIN PINE BEETLE EPIDEMICS. A PROPOSED MANAGEMENT PLAN IS SELECTED AND A DETERMINATION MADE THAT AN ENVIRONMENTAL STATEMENT IS NOT NEEDED PRIOR TO IMPLEMENTATION.

U-89

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1979.

FINAL ENVIRONMENTAL ASSESSMENT REPORT: PROGRAMMATIC REPORT FOR TREATMENT OF THE MOUNTAIN PINE BEETLE EPIDEMIC.

KALISPELL, MT. 79 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS ENVIRONMENTAL ASSESSMENT REPORT (EAR) DOCUMENTS THE DECISION-MAKING PROCESS USED IN DERIVING AN ACTION PLAN TO COMBAT THE MOUNTAIN PINE BEETLE EPIDEMIC ON THE FOREST. SEVEN ALTERNATIVES ARE IDENTIFIED AND AN EVALUATION COMPLETED TO ASSESS THE IMPACTS AND FEASIBILITY OF EACH STRATEGY.

U-90

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1979.

FINAL ENVIRONMENTAL IMPACT STATEMENT - LAND MANAGEMENT PLAN - ISLAND PLANNING UNIT.

KALISPELL, MT. 175 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: ISLAND PLANNING UNIT). THE MANAGEMENT OBJECTIVE OF THE SELECTED ALTERNATIVE WAS TO PROVIDE FOR THE USE OF COMMODITY PRODUCTS TO THE EXTENT POSSIBLE WHILE PROTECTING THE EXISTING WATER, WILDLIFE, RECREATION, AND VISUAL VALUES. A HIGH LEVEL OF TIMBER PRODUCTION WOULD BE MAINTAINED, AND OIL AND NATURAL GAS LEASING WOULD BE CONSIDERED.

U-91

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1979.

FLATHEAD NATIONAL FOREST: SITUATION REPORT.

KALISPELL, MT.

PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THESE ANNUAL REPORTS OUTLINE THE CURRENT STATUS OF PROJECTS ON THE FOREST. FINANCIAL STATISTICS, LAND MANAGEMENT PLANNING, RARE II, GREAT BEAR WILDERNESS, FLATHEAD WILD AND SCENIC RIVER, TIMBER MANAGEMENT, MOUNTAIN PINE BEETLE, OIL AND GAS LEASE APPLICATIONS, WILDLIFE AND FISHERIES, BOB MARSHALL PRESCRIBED FIRE MANAGEMENT, TRANSPORTATION SYSTEM, HUMAN RESOURCES PROGRAM, PAYMENTS TO STATES, RECREATION, AND A SYNOPSIS OF FLUORIDE DAMAGE ARE INCLUDED IN THE 1979 REPORT.

U-92

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1979.
HUNGRY HORSE WEST - BUNKER SULLIVAN PLANNING UNIT. LANDTYPE INVENTORY.
KALISPELL, MT. 88 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: BUNKER SULLIVAN PLANNING UNIT). THIS SURVEY WAS DESIGNED TO PROVIDE THE LAND MANAGER WITH UNITS OF LAND WHOSE MEASURED AND INFERRED PROPERTIES CAN BE USED 1) TO PREDICT RESPONSES TO MANAGEMENT ACTIVITIES, 2) FOR THE ALLOCATION OF RESOURCES, AND 3) AS A GUIDE FOR PROJECT WORK.

U-93

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1979.
STILLWATER-ASHLEY CREEK COUNTRY-LAND TYPE INVENTORY DESCRIPTIVE INVENTORY LEGEND.
KALISPELL, MT. 15+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ASHLEY CREEK & STILLWATER RIVER). THIS PUBLICATION CONTAINS A LAND TYPE DESCRIPTION, A DESCRIPTION OF THE SOILS AND VEGETATION, MANAGEMENT INTERPRETATIONS AND REMARKS; INTERIM GUIDES TO MINIMIZE SOIL COMPACTION; FACTORS AFFECTING SOIL SUSCEPTIBILITY TO COMPACTION; LAND TYPE KEY; CAPABILITY CLASSES FOR LAND TYPES; SUITABILITY RATINGS FOR LAND TYPES WITH REGARD TO LOGGING SYSTEMS, REFORESTATION, AND ROAD CONSTRUCTION MAINTENANCE. MAPS ARE INCLUDED.

U-94

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST. 1982.
PRELIMINARY: SWAN VALLEY COUNTRY - LAND TYPE REPORT.
KALISPELL, MT.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SWAN VALLEY). THIS REPORT CONTAINS THE PRELIMINARY DESCRIPTIVE LEGEND AND TOPOGRAPHIC MAPS OF THE LAND TYPE INVENTORY. CAPABILITY CLASSES AND SUITABILITY RATINGS ARE LISTED FOR LAND TYPES. AN INTERIM GUIDE TO MINIMIZE SOIL COMPACTION IS INCLUDED. A CHARACTERIZATION OF THE CHEMICAL AND PHYSICAL PROPERTIES OF TYPICAL SOILS IN THE SURVEY AREA WILL BE AVAILABLE IN APRIL 1983.

U-95

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
AERIAL PHOTO COLLECTION.
KALISPELL, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS COLLECTION INCLUDES VARIOUS AERIAL PHOTO SERIES COVERING LANDS WITHIN THE FLATHEAD NATIONAL FOREST BOUNDARY.

U-96

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
FLATHEAD NATIONAL FOREST - TIMBER SALE PROGRAM.
KALISPELL, MT.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). AN ANNUAL PUBLICATION DESCRIBES THE TYPE OF CUT PLANNED, SPECIES, VOLUME, TYPE OF SKID, MONTH OF BID OPENING, ROAD REQUIREMENTS, AND THE PARTY RESPONSIBLE FOR THE SURVEY, DESIGN, AND CONSTRUCTION STAKING OF ANY ROAD ASSOCIATED WITH THE SALE.

U-97

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
FOREST WIDE 7.5 MINUTE QUAD OVERLAY MAP SYSTEM.
KALISPELL, MT.
IN PROGRESS, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST). THIS IS A COMPREHENSIVE FOREST WIDE OVERLAY MAP SYSTEM UTILIZING GEOLOGICAL SURVEY 7.5 MINUTE QUADS AS BASE MAPS. OVERLAYS INCLUDE: BOUNDARIES (POLITICAL, LEGAL, ADMINISTRATIVE); CAPABILITY AREAS; LAND TYPE AND LAND TYPE ASSOCIATIONS; MANAGEMENT UNITS; WATER (STREAMS, FISH HABITAT, FLOOD PLAIN); RANGE (GRAZING ALLOTMENTS); GEOLOGY; ESSENTIAL HABITAT; WINTER RANGE; CULTURAL AREAS; VISUAL; RECREATION SITES; OFF-ROAD VEHICLES; TRANSPORTATION; OWNERSHIP; PRECIPITATION AND RUNOFF; CORRIDORS; WITHDRAWALS; TIMBER STANDS; UNIT PLANNING; LOGGING SYSTEMS; AND HABITAT TYPES.

U-98

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD NATIONAL FOREST.
SUMMARY OF HUNGRY HORSE PROJECT'S IMPACT UPON NATIONAL FOREST ADMINISTRATION.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: SEATTLE FEDERAL ARCHIVES AND RECORDS CENTER, SEATTLE, WA.

(FLATHEAD NATL. FOREST: HUNGRY HORSE DAM). THIS REPORT DESCRIBES: AREA AFFECTED, SOIL AND WATER, TIMBER, JURISDICTIONAL MANAGEMENT POLICY, LAND AND RESOURCE PROTECTION AND MANAGEMENT ORGANIZATION, PHYSICAL IMPROVEMENTS, LAND USES AND RECREATION, RANGE AND WILDLIFE, FIRE CONTROL, AND SOCIAL AND ECONOMIC ASPECTS.

U-99

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD AND LEWIS AND CLARK NATIONAL FORESTS. 1975.
"ENVIRONMENTAL ANALYSIS REPORT: TRAIL TRANSPORTATION PLAN, BOB MARSHALL WILDERNESS, FLATHEAD AND LEWIS AND CLARK FORESTS."
KALISPELL, MT., AND GREAT FALLS, MT. (TYPEWRITTEN). 25 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THE REPORT PROPOSES A TRAIL TRANSPORTATION SYSTEM AND ANALYZES ITS ENVIRONMENTAL IMPACTS. THE PROPOSED PLAN PRESCRIBES THOSE PORTIONS OF THE EXISTING TRAIL SYSTEM TO BE RETAINED, INCREASED OR DECREASED TO PROTECT PRISTINE AREAS, PROVIDE USE DISPERSION OPPORTUNITIES, AND INSURE ADDITIONAL ISOLATION FOR THE GRIZZLY BEAR. THE IMPACT ON WILDERNESS QUALITIES, THE ALLEVIATION OF IMPACTS ON HEAVIER USE AREAS, AND THE DISCOURAGEMENT OF USES ON FRAGILE AREAS ARE EXAMINED.

U-100

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD AND LEWIS AND CLARK NATIONAL FORESTS. 1978.
TRAIL TRANSPORTATION PLAN: BOB MARSHALL WILDERNESS.
GREAT FALLS, MT. 45 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THE REPORT IS CONCERNED WITH AN ENVIRONMENTAL ANALYSIS OF A PROPOSED TRAIL TRANSPORTATION SYSTEM. FIVE OBJECTIVES ARE CONSIDERED: 1) THE ESTABLISHMENT OF A TRAIL SYSTEM TO PROVIDE ACCESS; 2) THE PREVENTION OF RESOURCE DAMAGE ON SEGMENTS OF TRAILS WHICH TRAVERSE VULNERABLE AREAS; 3) THE PROVISION OF A SYSTEM TO ENHANCE VISITOR EXPERIENCE; 4) THE ENLARGEMENT OF THE SYSTEM TO DISPERSE USE; AND 5) THE PROVISION OF ADDITIONAL ISOLATION FOR THREATENED/ENDANGERED ANIMALS. FAVORABLE ENVIRONMENTAL EFFECTS ON SOIL, WATER AND VEGETATION AND IMPROVED WILDERNESS USE PATTERNS, LIFE SYSTEMS, AND SOCIAL AND ECONOMIC CONDITIONS ARE DISCUSSED AS WELL AS THE ADVERSE EFFECTS ON SOIL, WATER, VEGETATION, LIFE SYSTEMS, WILDERNESS EXPERIENCE, AND SAFETY.

U-101

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. FLATHEAD AND LEWIS AND CLARK NATIONAL FORESTS. 1977.
LANDTYPE ASSOCIATION MAP AND INTERPRETATIONS - GREAT BEAR WILDERNESS PROPOSAL.
KALISPELL, MT. 40 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST & LEWIS AND CLARK NATL. FOREST: GREAT BEAR WILDERNESS AREA). THIS LAND TYPE ASSOCIATION REPORT WAS DONE IN ACCORDANCE WITH THE LAND SYSTEM INVENTORY GUIDE, REGION ONE, U.S.F.S. THIS IS A LEVEL IV INVENTORY AND IS BASED ON THE DEPENDENT COMPONENTS OF LANDFORM, SOILS, AND VEGETATION. INDEPENDENT COMPONENTS SUCH AS LITHOLOGY, CLIMATE, AND STRUCTURE ARE ACCESSORY MAPPING CHARACTERISTICS. PRE-MAPPING WAS DONE USING PHOTO INTERPRETATION TECHNIQUES OF HIGH ELEVATION (1:23,360) BLACK AND WHITE AERIAL PHOTOS. MAPPING DELINEATIONS WERE TRANSFERRED TO A TOPOGRAPHIC BASE USING A STEREO PLOTTER. THE 28 LAND TYPE MAPPING UNITS WERE THEN GROUPED INTO 11 LAND TYPE ASSOCIATIONS FOR USE IN THIS REPORT. APPROXIMATELY 20 DIFFERENT BEDROCKS WERE GROUPED INTO FOUR UNITS FOR THIS STUDY TO PRODUCE A GEOLOGIC GROUPING MAP. IN ADDITION A CLIMATE MAP AND SLOPE GROUP MAP WERE PREPARED.

U-102

U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION. 1951-1967, 1979.
ANNUAL REPORTS FOR CORAM EXPERIMENTAL FOREST.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
(CORAM EXPER. FOREST). THESE REPORTS REVIEW VARIOUS ACTIVITIES SUCH AS TIMBER SALES, ROAD BUILDING, IMPROVEMENTS, INSTALLATIONS, AND STUDIES UNDERWAY. THE 1951 REPORT REVIEWS ACTIVITIES FROM 1948. AFTER 1979 REPORTS WILL AGAIN BE ISSUED ANNUALLY.

U-103
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. REGION ONE.
 1942.
CUMULATIVE GRAZING STATISTICS NATIONAL FORESTS OF MONTANA 1909-1941 AND CUMULATIVE BIG GAME ESTIMATES NATIONAL FORESTS OF MONTANA 1909-1941.
 MISSOULA, MT.: DIV. RANGE AND WILDLIFE MANAGEMENT. 37 PP.
 FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD NATL. FOREST). INCLUDED IN THIS REPORT ARE TABLES SUMMARIZING BY NATIONAL FOREST THE NUMBER OF HORSES, CATTLE, SHEEP AND GOATS PERMITTED TO GRAZE ON EACH FOREST AND THE NUMBER OF ANIMAL MONTHS THE RANGE WAS USED. ESTIMATES FOR ANTELOPE, BLACK BEAR, GRIZZLY BEAR, DEER, ELK, MOOSE, MOUNTAIN GOAT, AND MOUNTAIN SHEEP ARE SUMMARIZED BY FOREST.

U-104
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. REGION ONE.
 1942.
A FIVE YEAR FISH DISTRIBUTION AND MANAGEMENT PLAN FOR THE POLSON HATCHERY DISTRICT, MONTANA.
 MISSOULA, MT.: DIV. WILDLIFE. 26 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY: POLSON). THIS REPORT WAS PREPARED IN AN ATTEMPT TO CORRELATE EFFORTS OF ALL THE AGENCIES INVOLVED IN FISH PLANTING IN THE DISTRICT. IT IS A COMPILATION OF AVAILABLE INFORMATION OF THE AREA. OBJECTIVES AND POLICY ARE EXPLAINED. TABLES LIST STOCKING PLANS, MANAGEMENT DATA, AND LAKES IN WHICH NO PLANTING IS RECOMMENDED.

U-105
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. REGION ONE.
 1962.
WESTERN LARCH. AMOUNTS AND GRADES OF LUMBER FROM TREES AND LOGS.
 MISSOULA, MT. 23 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). DURING 1961 A MILL STUDY WAS CONDUCTED AT THE ROCKY MOUNTAIN LUMBER COMPANY MILL, COLUMBIA FALLS, MONTANA. OBJECTIVES OF THE STUDY WERE 1) TO DETERMINE LUMBER GRADE AND VALUE RECOVERY FROM WESTERN LARCH LOGS BY DIAMETER AND LOG GRADE, 2) TO DEVELOP PERFORMANCE TABLES FOR APPRAISING WESTERN LARCH TIMBER, 3) TO DETERMINE OVERRUN, 4) TO TEST EFFECTIVENESS OF VARIANCE BETWEEN OR WITHIN TWO LOG GRADING SYSTEMS—ASSOCIATED SPECIES AND REGION ONE FOREST SURVEY, AND 5) TO ASSEMBLE INFORMATION THAT CAN BE APPLIED TO TESTING OTHER LOG GRADING SYSTEMS THAT MAY BE DEVELOPED IN THE FUTURE. METHODS AND PROCEDURES USED ARE DESCRIBED.

U-108
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. REGION ONE.
 1974.
ENDANGERED AND THREATENED PLANT SPECIES.
 MISSOULA, MT. 20 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST). THIS IS AN INITIAL LISTING OF PLANT SPECIES CONSIDERED UNCOMMON, RARE OR ENDANGERED IN REGION ONE OF THE U.S.F.S. THE

COMMON AND SCIENTIFIC NAMES ARE GIVEN, AND A DESCRIPTION OF THE TYPE OF SITE THE SPECIES WOULD MOST LIKELY BE FOUND IN IS INCLUDED.

U-107
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. REGION ONE.
 1976.
LAND SUITABILITY PATTERN FOR ELECTRICAL TRANSMISSION LINES.
 MISSOULA, MT. 75 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE). THE TOPICS COVERED IN THIS BASIC INVENTORY FOR ELECTRICAL TRANSMISSION LINE PLANNING INCLUDE: A DESCRIPTION OF THE LAND SUITABILITY PROJECT, DESCRIPTION OF ELECTRICAL TRANSMISSION ACTIVITIES SUCH AS DESIGN CRITERIA, CONSTRUCTION, OPERATION AND MAINTENANCE, THE SUITABILITY MAP AND RECOMMENDED USES COVERING LAND SYSTEM INVENTORY, MAPPING CRITERIA, SUITABILITY INTERPRETATIONS, SOIL LIMITATION, AND HAZARD INTERPRETATION, AND A CORRELATION CHART OF MAPPING UNITS. THE APPENDIX CONTAINS DIAGRAMS OF TRANSMISSION TOWERS, POLES, AND TANGENT STRUCTURES.

U-108
U.S. DEPARTMENT OF AGRICULTURE. FOREST SERVICE. REGION ONE.
 1978.
BALD EAGLE. ESSENTIAL HABITAT. NORTHERN REGION.
 MISSOULA, MT.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(U.S. FOREST SERVICE REGION ONE: FLATHEAD NATL. FOREST). THIS REPORT RECOMMENDS SUITABLE OCCUPIED ESSENTIAL HABITAT BASED ON SURVEYS AND OBSERVATIONS OF WINTER CONCENTRATIONS AND ACTIVE NESTS. WHILE FLATHEAD NATIONAL FOREST HAS ONLY TWO BALD EAGLE NESTS, 380,000 ACRES IN AREA, (80,000 ACRES OF NATIONAL FOREST OWNERSHIP) ARE DELINEATED AS ESSENTIAL HABITAT. MAPS AND WRITTEN DESCRIPTIONS OF THE AREAS ARE INCLUDED.

U-109
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
 1960.
SOIL SURVEY: UPPER FLATHEAD VALLEY AREA, MONTANA. SERIES 1948, NO. 4.
 BOZEMAN, MT.: U.S. DEPT. AGRICULTURE, AND MONTANA AGRIC. EXPER. STAT. 67 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(UPPER FLATHEAD VALLEY). THIS SURVEY COVERS THE USE AND MANAGEMENT OF SOILS, DESCRIPTIONS OF SOIL SERIES AND COMPLEXES FOUND WITHIN THE VALLEY, THE GENESIS, CLASSIFICATION, AND MORPHOLOGY OF SOILS. AERIAL PHOTOGRAPHS OF ALL MAPPED AREAS ARE INCLUDED.

U-110
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
 1971.
HYDROLOGY OF MOUNTAIN WATERSHEDS.
 BOZEMAN, MT. 14 PP.
 SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS STUDY WAS AN ATTEMPT TO DEVELOP CRITERIA THAT WOULD PROVIDE SOUND ESTIMATES OF THE AMOUNT OF RUNOFF TO BE EXPECTED FROM HIGH ELEVATION, SNOW-FED WATERSHEDS. GRAPHS ILLUSTRATE THE RELATIONSHIP BETWEEN PRECIPITATION AND RUNOFF, PEAK

DISCHARGES AND AVERAGE ANNUAL RUNOFF, AND THE PERCENTAGE OF ANNUAL PRECIPITATION WHICH OCCURS AS RUNOFF.

U-111
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
 1972.
ANALYSIS OF SNOW SAMPLES-1971 SNOW SEASON.
 BOZEMAN, MT. 6 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: BIG CREEK, CAMP MISERY, DESERT MTN. & NORTH FORK OF THE JOCKO RIVER). THE ANALYSIS OF SNOW SAMPLES WAS INITIATED TO DETERMINE IF ELEMENTS BEING DEPOSITED WITH THE WINTER SNOWFALL WOULD INDICATE TRENDS OF MAN'S ACTIVITIES. SNOW CORE SAMPLES WERE COLLECTED AND TESTED QUANTITATIVELY FOR ZN, PB, AG AND CD. TABLES SHOW RESULTS OF ANALYSIS.

U-112
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
 1972.
CONSERVATION NEED INVENTORY FOR LAND RESOURCE PLANNING, FLATHEAD COUNTY.
 BOZEMAN, MT. 19 PP.
 FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS UPDATE OF THE SOIL AND WATER CONSERVATION NEEDS INVENTORY FOR FLATHEAD COUNTY WAS DEVELOPED IN RESPONSE TO SHIFTS IN LAND USE AND CHANGES IN LAND TREATMENT. THE REPORT DEPICTS THROUGH THE USE OF CHARTS, TABLES, AND GRAPHS CHANGES IN: LAND OWNERSHIP AND USE, CROPLANDS, PASTURE AND RANGE LANDS, AND WOODLANDS.

U-113
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
 1973.
"LAKE COUNTY SOIL SURVEY AND INTERPRETATIONS."
 POLSON, MT. 106 PP.
 PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY). THIS UNPUBLISHED AND PRELIMINARY SURVEY CONSISTS OF TECHNICAL DESCRIPTIONS AND INTERPRETATIONS OF INDIVIDUAL SOIL TYPES. SOIL PROPERTIES SIGNIFICANT TO ENGINEERING AND THE MAJOR FEATURES AND LIMITATIONS OF THE INDIVIDUAL SOIL TYPES IN TERMS OF THEIR RECREATIONAL, AGRICULTURAL, WOODLAND, RANGE, AND WILDLIFE SUITABILITY ARE GIVEN. SOIL TYPES ARE MAPPED ON AERIAL PHOTOGRAPHS.

U-114
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
 1974.
COOPERATORS MANUAL FOR ASSESSING MONTANA SNOTEL DATA.
 BOZEMAN, MT.: SNOW SURVEY UNIT.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). DURING THE PAST FEW YEARS THE SOIL CONSERVATION SERVICE'S SNOW SURVEY UNITS HAVE BEEN INSTALLING FIELD SENSORS TO MEASURE SNOW WATER EQUIVALENT, PRECIPITATION, AIR TEMPERATURE, AND OTHER CLIMATIC VARIABLES. THIS MANUAL REPORTS CURRENT CONDITIONS AND PROCEDURES.

U-115
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1974.
CRESTON BENCH IRRIGATION PROJECT: WATERSHED INVESTIGATION REPORT, FLATHEAD COUNTY, MONTANA. DRAFT.
BOZEMAN, MT. 15 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: CRESTON BENCH). THIS REPORT OUTLINES THE NEED OF THE AREA FOR IRRIGATION AND THE TYPES OF PROJECTS THAT WOULD BE EFFICIENT. THE REPORT PRESENTS A PROPOSAL AND ITS COST AND ENVIRONMENTAL EFFECTS. ALTERNATIVES TO THE PROJECT ARE DISCUSSED.

U-116
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1974.
IRRIGATION GUIDE FOR MONTANA.
BOZEMAN, MT.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS GUIDE COVERS THE STATE'S FIVE CLIMATIC AREAS, EACH HAVING COMPARABLE IRRIGATION REQUIREMENTS. IT WAS DEVELOPED USING THE LATEST AVAILABLE DATA ON THE PROPERTIES OF SOILS RELATING TO IRRIGATION. THE CROPS, IRRIGATION SYSTEM TYPES, AND CULTURAL AND MANAGEMENT PRACTICES INCLUDED IN THE GUIDE ARE THOSE PRESENTLY IN USE IN THE STATE.

U-117
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1974.
WHITEFISH RIVER, STILLWATER RIVER, ASHLEY CREEK COMPLEX. WATERSHED INVESTIGATIONS REPORT, FLATHEAD COUNTY, MONTANA. DRAFT.
BOZEMAN, MT. 19 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH & STILLWATER RIVERS, & ASHLEY CREEK). THE REPORT PROPOSES AN ACCELERATED TECHNICAL AND FINANCIAL ASSISTANCE PROGRAM TO PROVIDE FOR SPRINKLER IRRIGATION SYSTEMS FOR LANDOWNERS IN THE AREA. THE SYSTEM AND COSTS ARE OUTLINED IN THE REPORT.

U-118
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1975.
SCS ASSESSMENT: MONTANA'S EMERGENCY WATERSHED PROTECTION MEASURES.
BOZEMAN, MT. 8+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: PEND OREILLE RIVER WATERSHED). THIS IS A REPORT OF THE EXTREME DAMAGES CAUSED BY THE LATE SPRING AND EARLY SUMMER FLOODING IN MONTANA. IT INCLUDES AN ASSESSMENT OF THE SITUATION IN THE THIRTEEN MOST SEVERELY DAMAGED SUB BASINS, AN APPRAISAL OF EMERGENCY WATERSHED PROTECTION MEASURES NEEDED, AND A REQUEST FOR WORK AUTHORIZATION UNDER SECTION 216 OF THE FLOOD CONTROL ACT OF MAY 17, 1950. EXTENSIVE PHOTOGRAPHS AND TABLES DOCUMENT WATERSHED DAMAGE.

U-119
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1975.
SNOW PROFILE MEASUREMENTS-PROGRESS REPORT-SOUTH FORK FLATHEAD RIVER BASIN. 1974-1976.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SOUTH FORK OF THE FLATHEAD RIVER, BOB MARSHALL WILDERNESS AREA, NOISY BASIN, TRINKUS LAKE, TWIN CREEKS, SPOTTED BEAR MTN., UPPER HOLLAND LAKE, & GUN-SIGHT LAKE). IN 1974 AN AGREEMENT WAS SIGNED BETWEEN THE SOIL CONSERVATION SERVICE AND THE BONNEVILLE POWER ADMINISTRATION TO INSTALL AN ISOTOPIC PROFILING GAUGE IN NOISY BASIN TO MEASURE SNOWPACK AND PRECIPITATION ABOVE HUNGRY HORSE RESERVOIR. THE INSTALLATION AND USE OF THE EQUIPMENT IS DETAILED; SNOW PROFILE CHARTS ARE INCLUDED.

U-120
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1976.
CLIMAX VEGETATION OF MONTANA.
BOZEMAN, MT. 64 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS PUBLICATION IS AN EFFORT TO CATEGORIZE ON A BROAD SCALE: GEOGRAPHIC AREAS, AVERAGE ANNUAL PRECIPITATION, GROUPS OF SOILS WITH SIMILAR CHARACTERISTICS, AND THE CORRESPONDING NATURAL PLANT COMMUNITIES. THE CLIMAX VEGETATION MAP CONTAINED IN THIS REPORT IS BASED ON SOILS AND CLIMATE.

U-121
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1976.
INTERIM PLANNING REPORT. WHITEFISH LAKE WATERSHED PROJECT. FLATHEAD COUNTY, MONTANA.
BOZEMAN, MT. 15 PP.
SPECIFIC, TECHNICAL, PART OF A SERIES, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH LAKE WATERSHED). THE PRIMARY CONCERNS OF THIS PROJECT WERE TO DEVELOP A MEANS OF RETARDING THE LATE SUMMER DRAWDOWN OF WHITEFISH LAKE THROUGH A MULTIPURPOSE WATER CONTROL STRUCTURE.

U-122
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1976.
SNOW PROFILE MEASUREMENTS: SOUTH FORK FLATHEAD RIVER BASIN, 1974-1975. PROGRESS REPORT.
PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION. 90 PP.
SPECIFIC, PART OF A SERIES, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER). THIS REPORT DETAILS THE INSTALLATION OF AN ISOTOPIC PROFILING GAUGE TO MEASURE SNOWPACK AND PRECIPITATION IN THE SOUTH FORK OF THE FLATHEAD RIVER ABOVE HUNGRY HORSE RESERVOIR. ALSO DISCUSSED ARE THE DETAILS CONCERNING THE OPERATION OF THE GAUGE. NOISY BASIN SNOW DENSITY PROFILES AND PORTABLE GAUGE SNOW DENSITY PROFILES ARE INCLUDED.

U-123
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1976.
STANDARDIZED PLANT NAMES FOR MONTANA WITH AUTOMATIC PROCESSING COMPUTER CODES.
BOZEMAN, MT. 120 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE PLANT LIST WAS DEVELOPED TO AID COMPUTER DATA PROCESSING AND TO MINIMIZE CONFUSION BY STANDARDIZING COMMON

AND SCIENTIFIC NAMES. PART 1 CONTAINS A LISTING OF THE PLANTS IN ALPHABETICAL ORDER BY THE COMMON GENERIC CLASS NAME. EACH PART COVERS GRASSES, GRASS-LIKE PLANTS, FORBS, FERNS AND MOSSES, TREES, SHRUBS, AND VINES.

U-124
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1977.
ASHLEY CREEK WATERSHED INVESTIGATION REPORT.
BOZEMAN, MT. 8 PP.
SPECIFIC, TECHNICAL, PART OF A SERIES, ORIGINAL DATA, WITHIN THE BASIN.

(ASHLEY CREEK). THE FOUR CHANNEL DIVERSIONS PROPOSED IN THIS REPORT ARE AN ATTEMPT TO IMPROVE THE WATER QUALITY OF ASHLEY CREEK. INCLUDED ARE TABLES WHICH LIST COSTS AND PIPELINE AND CHANNEL DATA.

U-125
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1977.
AVERAGE ANNUAL PRECIPITATION MONTANA-BASED ON 1941-1970 BASE PERIOD.
BOZEMAN, MT. 13 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THE SOIL CONSERVATION SERVICES SNOW SURVEY UNIT HAS DEVELOPED PROCEDURES FOR ESTIMATING PRECIPITATION IN MOUNTAINOUS AREAS USING SNOW COURSE DATA. THESE DATA WERE COMBINED WITH MOUNTAIN STORAGE PRECIPITATION GAUGE DATA TO OBTAIN A REALISTIC ESTIMATE OF AVERAGE ANNUAL PRECIPITATION FOR ALL AREAS IN MONTANA. THE MAPS ARE ON A SCALE OF 1:1,000,000.

U-126
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1977.
CRESTON BENCH WATERSHED INVESTIGATION REPORT, CLARK FORK OF THE COLUMBIA RIVER BASIN.
BOZEMAN, MT. 12 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: CRESTON BENCH). PRESENTED IN THIS REPORT ARE DESCRIPTIONS OF THE WATERSHED, WATERSHED PROBLEMS AND NEEDS, PHYSICAL POTENTIAL FOR MEETING NEEDS, LOCAL INTEREST, WORKS OF IMPROVEMENT FOR POTENTIAL DEVELOPMENT, COST, EFFECTS AND BENEFITS, ALTERNATIVES. ALSO INCLUDED ARE TABLES OF THE COLLECTED DATA.

U-127
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1977.
MYLAR MAPS.
KALISPELL, MT.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: SCS OFFICE, KALISPELL, MT.

(FLATHEAD COUNTY). A SERIES OF OVERLAY MAPS (1:250,000) THAT DELINEATE THE FOLLOWING DATA: WET LAND AND DRAINAGE DATA; PRIVATE RECREATIONAL FACILITIES; LAND OWNERSHIP; AVERAGE ANNUAL PRECIPITATION; AVERAGE ANNUAL SNOWFALL; POTENTIAL SKI AREAS; MAXIMUM SNOW LOAD IN LBS/SQ. FT.; STREAM FISHERY CLASSIFICATION; DRAINAGE; LAND USE; IRRIGATED LAND; EXISTING VEGETATION; GENERAL GEOLOGY; GENERAL

TOPOGRAPHY; RANGE RESOURCE; GENERAL SOILS MAP; COMMERCIAL AND NON-COMMERCIAL FORESTS; AVERAGE FROST FREE SEASON BY NUMBER OF DAYS; MOOSE, SHEEP AND GOAT RANGE; WHITE-TAILED DEER WINTER RANGE; ELK SEVERE AND NORMAL WINTER RANGE; MULE DEER WINTER RANGE, BLUE AND SPRUCE GROUSE RANGE, HUNGARIAN PARTRIDGE, RING-NECKED PHEASANT, AND WHITE TAILED PTARMIGAN RANGE.

U-128
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1977.

SNOTEL FOR MONTANA: TELEMTRY OF MOUNTAIN SNOWPACK AND RELATED DATA.

BOZEMAN, MT. 12 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD & MISSOULA COUNTIES). THE OBJECTIVE OF THE SNOTEL SYSTEM IS TO INSTALL A TELEMTRY SYSTEM IN MONTANA THAT WILL TRANSMIT MOUNTAIN CLIMATOLOGICAL DATA, INCLUDING SNOW PACK, PRECIPITATION, TEMPERATURE, AND OTHER PARAMETERS FROM THE VARIOUS MOUNTAIN RANGES. THIS PAPER DESCRIBES THE NETWORK DESIGN, THE FUTURE NETWORK, AND THE BENEFITS OF A FULLY FUNDED SNOTEL SYSTEM. A MAP AND TABLE INDICATE THE LOCATION OF PROPOSED DATA SITES.

U-129
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1977.

UPPER STILLWATER RIVER AND TALLY LAKE WATERSHED INVESTIGATION REPORT. CLARK FORK OF THE COLUMBIA RIVER BASIN, FLATHEAD AND LINCOLN COUNTIES, MONTANA.

BOZEMAN, MT. 10 PP.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(UPPER STILLWATER RIVER & TALLY LAKE). THIS REPORT INVESTIGATES THE POTENTIAL FOR DEVELOPING A DAM TO RAISE THE LEVEL OF TALLY LAKE IN ORDER TO SUPPLY IRRIGATION AND FISHING NEEDS. THE WATERSHED IS DESCRIBED AND PROBLEMS OUTLINED; COSTS, EFFECTS, AND ECONOMIC BENEFITS ARE EXAMINED. ALTERNATIVES ARE STUDIED.

U-130
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1977.

WHITEFISH LAKE, WATERSHED INVESTIGATIONS REPORT. CLARK FORK OF THE COLUMBIA RIVER BASIN, FLATHEAD COUNTY, MONTANA.

BOZEMAN, MT. 12 PP.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY: WHITEFISH LAKE). THIS REPORT INVESTIGATES THE POTENTIAL FOR DEVELOPING A MULTIPURPOSE WATER CONTROL STRUCTURE ON WHITEFISH LAKE. INCLUDES A DESCRIPTION OF THE WATERSHED'S PROBLEMS AND NEEDS.

U-131
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1978.

MONTANA GRAZING GUIDES.

BOZEMAN, MT. 73 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA). THE PURPOSE OF THIS PUBLICATION IS TO ASSEMBLE AND EXPLAIN THE USE OF THE SCS PUBLICATIONS "GUIDES TO RANGE SITE CONDITION

CLASSES AND RECOMMENDED STOCKING RATES," AND "GRAZING GUIDES FOR POTENTIAL CLIMAX FOREST SITES" IN THE VARIOUS GEOGRAPHIC AREAS OF MONTANA. IT IS USED TO DETERMINE THE RANGE CAPACITY OF DIFFERENT AREAS IN MONTANA FROM SOILS INFORMATION RANGE CONDITION CLASSES.

U-132
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1978.

MONTANA PROGRESS: WATERSHED PROJECTS, RIVER BASIN SURVEYS.

BOZEMAN, MT.

PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE SOIL CONSERVATION SERVICE HAS THE RESPONSIBILITY FOR ADMINISTERING THE WATERSHED PROTECTION AND FLOOD PREVENTION ACT, WHICH AUTHORIZES RIVER BASIN PLANS, FLOOD HAZARD ANALYSIS, AND SMALL WATERSHED PROJECTS. THIS REPORT ILLUSTRATES METHODS MONTANA COMMUNITIES HAVE USED TO CONSERVE AND DEVELOP WATER AND RELATED LAND RESOURCES. PHOTOGRAPHS, PROJECT DESCRIPTIONS, AND COSTS OF WATERSHED PROJECTS ARE INCLUDED.

U-133
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1978.

SOIL SURVEY, CONDON AREA, MISSOULA COUNTY, MONTANA.

KALISPELL, MT. 128 PP.

FINAL, SPECIFIC, TECHNICAL, REGIONAL.

NOTE: THE MAPS THAT ACCOMPANY THIS REPORT ARE AVAILABLE FOR INSPECTION AT EITHER THE SCS OFFICES OR AT THE FLATHEAD NATIONAL FOREST HEADQUARTERS IN KALISPELL.

(CONDON AREA). THIS REPORT EXAMINES THE SOIL SERIES AND ASSOCIATIONS WHICH OCCUR IN THE SURVEY AREA. SLOPE, SOIL PROFILE CHARACTERISTICS, AND PATTERNS OF OCCURRENCE, VEGETATION THE SOIL IS SUITED TO, THE AMOUNT OF BOARD FEET IN EXPECTED PRODUCTION, ADVISABLE LOGGING METHODS, AND LIMITING SOIL PROPERTIES FOR URBAN DEVELOPMENT ARE DISCUSSED.

U-134
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1978.

SUMMARY OF SOIL MOISTURE MEASUREMENTS, MONTANA: 1948-1978.

BOZEMAN, MT.: MONTANA SNOW SURVEY. 113 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD COUNTY). THIS REPORT SUMMARIZES ALL SOIL MOISTURE AND SOIL TEMPERATURE MEASUREMENTS MADE IN MONTANA BY THE SOIL CONSERVATION SERVICE AND COOPERATORS FROM 1948 UNTIL THE DISCONTINUATION OF THE PROGRAM IN 1978.

U-135
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
1979.

CLARK FORK OF THE COLUMBIA RIVER BASIN, FORESTRY PLANNING SUMMARY REPORT.

PORTLAND, ORE. 37 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(CLARK FORK RIVER BASIN: FLATHEAD RIVER BASIN). THE PURPOSES OF THIS SUMMARY WAS TO:
1) CLARIFY AND CONDENSE THE FORESTRY

ASPECTS PRESENTED IN THE OVERALL STUDY REPORT; 2) IDENTIFY THE ROLE OF THE FOREST IN MEETING NATIONAL, REGIONAL, AND LOCAL OBJECTIVES; 3) INFORM THE FEDERAL, STATE, AND LOCAL AUTHORITIES OF FORESTRY PROBLEMS, OPPORTUNITIES, AND ACTIONS RECOMMENDED IN THE STUDY; AND 4) ENCOURAGE IMPLEMENTATION OF THESE RECOMMENDATIONS.

U-136
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.
MONTHLY.

FLATHEAD RIVER BASIN, MONTANA.

BOZEMAN, MT.: SNOW SURVEY & WATER SUPPLY FORECASTING UNIT. 3 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THESE REPORTS SUMMARIZE WATER SUPPLY CONDITIONS: SNOW MEASUREMENTS, WATER SUPPLY OUTLOOK, STREAMFLOW FORECASTS, RESERVOIR STORAGE, SOIL MOISTURE, SNOW DEPTH, AND SNOW WATER CONTENT FOR THE CURRENT MONTH.

U-137
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE.

WATER CONSERVATION AND SALVAGE REPORT FOR MONTANA.

BOZEMAN, MT.: RIVER BASIN AND WATERSHED STAFF. 75 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE SOIL CONSERVATION SERVICE ESTIMATED THE POTENTIAL FOR WATER CONSERVATION AND SALVAGE ON IRRIGATED LANDS IN MONTANA AS PART OF THE WESTERN U.S. WATER PLAN. THE STUDY WAS TO DETERMINE IMPACT UPON IRRIGATED AGRICULTURE ON A COUNTY BASIS.

U-138
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE AND FOREST SERVICE IN COOPERATION WITH THE MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION.
1977.

CLARK FORK OF THE COLUMBIA RIVER BASIN: COOPERATIVE STUDY.

PORTLAND, ORE. 193 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(CLARK FORK RIVER BASIN: FLATHEAD RIVER BASIN). THIS REPORT PRESENTS THE FINDINGS OF THE USDA COOPERATIVE RIVER BASIN STUDY OF THE CLARK FORK OF THE COLUMBIA RIVER IN MONTANA. THE STUDY AREA INCLUDED ALL OF MONTANA WEST OF THE DIVIDE EXCEPT FOR THE KOOTENAI RIVER DRAINAGE BASIN. THE STUDY PROVIDES PLANS FOR USE, DEVELOPMENT, MANAGEMENT, AND CONSERVATION OF WATER AND RELATED LAND RESOURCES. DATA IS PRESENTED ON LAND USE, VEGETATION, GRAZING RESOURCES, WILDLIFE HABITAT, OUTDOOR RECREATION, CONSERVATION DISTRICT PROGRAMS, LAND TREATMENT MEASURES, POTENTIAL MANAGEMENT, LAND TREATMENT NEEDS ON FEDERAL AND NON-FEDERAL FORESTED LANDS, AND POTENTIAL RURAL ELECTRIFICATION PROJECTS.

U-139
U.S. DEPARTMENT OF AGRICULTURE. SOIL CONSERVATION SERVICE, AND INTERAGENCY RURAL DEVELOPMENT GROUPS.
1971.

OPPORTUNITIES FOR OUTDOOR RECREATION IN MONTANA.

BOZEMAN, MT. 40 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD RIVER BASIN). THE DOCUMENT APPRAISES VARIOUS RECREATION ACTIVITIES AND DISCUSSES KEY ELEMENTS ASSOCIATED WITH THE DEVELOPMENT OF EACH. TWENTY-THREE DIFFERENT ACTIVITIES ARE APPRAISED IN ALL. MAPS DELINEATING COUNTIES AND POTENTIAL FOR EACH OF THE VARIOUS ACTIVITIES ARE INCLUDED.

U-140
U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE. PLANT SCIENCES STAFF.
1976.
STANDARDIZED PLANT NAMES FOR MONTANA. WITH AUTOMATIC DATA PROCESSING COMPUTER CODES. BOZEMAN, MT. 120 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS PLANT LIST WAS DEVELOPED TO AID COMPUTER DATA PROCESSING AND TO MINIMIZE CONFUSION BY STANDARDIZING COMMON AND SCIENTIFIC NAMES. PART ONE CONTAINS A LISTING OF THE PLANTS IN ALPHABETICAL ORDER BY THE COMMON GENERIC CLASS NAME. EACH PART COVERS: GRASSES; GRASS-LIKE PLANTS; FORBS, FERNS AND MOSSES; TREES, SHRUBS AND VINES.

U-141
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1970.
COG., 1967. VOL. 7: STATE REPORTS. NO. 26: MONTANA. WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE. 59 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE PERIODIC CENSUS OF GOVERNMENTS IS TAKEN AT 5-YEAR INTERVALS. THIS VOLUME PRESENTS THE PRINCIPAL FINDINGS OF THE 1967 CENSUS OF GOVERNMENTS ON THE ORGANIZATION, EMPLOYMENT, AND FINANCES OF THE STATE AND LOCAL GOVERNMENTS OF MONTANA. IT COVERS TYPES OF LOCAL GOVERNMENTS, PUBLIC SCHOOL SYSTEMS, SPECIAL DISTRICTS, ELECTIVE OFFICES, EMPLOYMENT, AND PAYROLLS AND FINANCES.

U-142
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1973.
COUNTY AND CITY DATA BOOK. 1972. (A STATISTICAL ABSTRACT SUPPLEMENT). WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE. 1019 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES). THIS VOLUME IS THE EIGHTH IN THE COUNTY AND CITY DATA BOOK SERIES. IT PRESENTS A VARIETY OF STATISTICAL INFORMATION FOR COUNTIES, STANDARD METROPOLITAN STATISTICAL AREAS, CITIES, URBANIZED AREAS, AND UNINCORPORATED PLACES. FOR EACH COUNTY 198 STATISTICAL ITEMS ARE PRESENTED. COMPARABLE TOTALS ARE SHOWN FOR STATES, CENSUS DIVISIONS AND REGIONS, STANDARD FEDERAL ADMINISTRATIVE REGIONS, AND THE UNITED STATES. TABULAR SUBJECT CONTENT INCLUDES: AREA, POPULATION; BIRTH AND DEATH RATES, EDUCATION; LABOR FORCE; FAMILIES, INCOME; SOCIAL SECURITY, PUBLIC ASSISTANCE, HOUSING; PRESIDENTIAL VOTE, GOVERNMENT; BANKING, MANUFACTURES; RETAIL TRADE; SELECTED SERVICES, WHOLESALE TRADE; AND MINERAL INDUSTRIES, FARM POPULATION, AND AGRICULTURE.

U-143
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1976.
1972 CENSUS OF MANUFACTURERS. VOL. 3: AREA STATISTICS. PART I: ALABAMA-MONTANA. WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE. 739 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS VOLUME COMPRISES A GENERAL SUMMARY OF MANUFACTURING DATA FOR THE U.S., STATISTICS FOR THE 9 GEOGRAPHICAL DIVISIONS, AND STATE DATA.

U-144
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1977.
1974 CENSUS OF AGRICULTURE. VOL. 1: STATE AND COUNTY DATA. PART 26: MONTANA. WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE. 506 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT CONTAINS DATA FOR ALL FARMS AND FARMS WITH SALES OF \$2,500 AND OVER. CHAPTER 1 CONTAINS DETAILED DATA AT THE STATE LEVEL CLASSIFIED BY THE SIZE OF THE FARM, TENURE AND AGE OF FARM OPERATOR, TYPE OF ORGANIZATION, VALUE OF PRODUCTS SOLD, AND MAJOR TYPE OF FARM; CHAPTER 2, COUNTY DATA SUMMARIZED BY SUBJECT; CHAPTER 3, COUNTY DATA BY SUBJECT FOR MISCELLANEOUS CROP AND LIVESTOCK ITEMS FOUND IN RELATIVELY FEW COUNTIES; CHAPTER 4, COUNTY DATA BY COUNTY.

U-145
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1977.
CENSUS OF GOVERNMENTS. VOL. 4: GOVERNMENT FINANCES. NO. 4: FINANCES OF MUNICIPALITIES AND TOWNSHIP GOVERNMENTS. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES: MONTANA). THESE REPORTS SUPPLY EXTENSIVE STATISTICS ON FINANCES OF MUNICIPALITIES AND TOWNSHIPS FOR THEIR FISCAL YEARS. DETAILED NATIONWIDE AND STATE STATISTICS ARE SHOWN ON REVENUE, BY SOURCE; EXPENDITURE BY FUNCTION, CHARACTER, AND OBJECT; INDEBTEDNESS AND DEBT TRANSACTIONS; AND FINANCIAL ASSETS.

U-146
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1977.
CENSUS OF GOVERNMENTS. VOL. 2: TAXABLE PROPERTY VALUES AND ASSESSMENT/SALES PRICE RATIOS. WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE. 204 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES: MONTANA). THIS REPORT, VOLUME 2, OF THE 1977 CENSUS OF GOVERNMENTS, PROVIDES DATA ON VALUATIONS SET IN 1976 FOR LOCAL GENERAL PROPERTY TAXATION AND FINDINGS FROM A SAMPLE SURVEY OF REAL PROPERTY TRANSFERS WHICH OCCURRED DURING A SIX MONTH PERIOD OF 1976. INCLUDED ARE ESTIMATED DISTRIBUTIONS OF TAXABLE REALTY AND INDICATED ASSESSMENT RATIOS FOR VARIOUS CLASSES OF REALTY.

U-147
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1977.
CENSUS OF GOVERNMENTS. VOL. 3: PUBLIC EMPLOYMENT. NO. 1: EMPLOYMENT OF MAJOR LOCAL GOVERNMENTS. WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE. 215 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES: MONTANA). THIS REPORT PRESENTS EMPLOYMENT AND PAYROLL STATISTICS FOR SELECTED LOCAL GOVERNMENTS. DATA ARE PRESENTED INDIVIDUALLY FOR: ALL COUNTY GOVERNMENTS, MUNICIPALITIES, AND TOWNS HAVING 10,000 POPULATION OR MORE IN THE 1970 CENSUS OF ENROLLMENT. NO STATE-LEVEL OR SUMMARY DATA ARE PUBLISHED IN THIS REPORT. KALISPELL DATA IS INCLUDED.

U-148
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1977.
CENSUS OF GOVERNMENTS. VOL. 4: GOVERNMENT FINANCES. NO. 3: FINANCES OF COUNTY GOVERNMENTS. WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE. 220 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES: MONTANA). THIS REPORT PROVIDES, ON A FISCAL YEAR BASIS, STATISTICS ON THE FINANCES OF THE 3,043 COUNTY GOVERNMENTS IN THE U. S. STATISTICS FOR COUNTY GOVERNMENT ARE SHOWN NATIONALLY AND BY STATES FOR SUCH MAJOR ITEMS AS REVENUE BY SOURCE; EXPENDITURES BY CHARACTER, OBJECT, AND FUNCTION; INDEBTEDNESS AND DEBT TRANSACTIONS; CASH AND SECURITY HOLDINGS; AND FINANCES OF COUNTY OPERATED UTILITIES.

U-149
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1977.
CURRENT POPULATION REPORTS, SERIES P-26, NO. 701, "GROSS MIGRATION BY COUNTY: 1965 TO 1970." WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES). THIS REPORT PRESENTS DATA ON GROSS MIGRATION BY SELECTED CHARACTERISTICS FOR COUNTIES FOR THE 1965 TO 1970 PERIOD. THESE DATA WERE TABULATED FROM THE 15 PERCENT SAMPLE OF THE 1970 CENSUS OF POPULATION. DATA ON GROSS MIGRATION AND NET MIGRATION ARE SHOWN FOR PERSONS 5 YEARS OLD AND OVER IN 1970 FOR EACH COUNTY IN THE UNITED STATES.

U-150
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1978.
ESTIMATES OF THE POPULATION OF MONTANA COUNTIES AND METROPOLITAN AREAS: JULY 1, 1976 (REVISED) AND 1977 (PROVISIONAL). WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 7 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT PRESENTS TOTAL POPULATION ESTIMATES FOR JULY 1, 1976 AND PROVISIONAL ESTIMATES FOR JULY 1, 1977, FOR COUNTIES AND METROPOLITAN AREAS PREPARED UNDER THE AUSPICES OF THE FEDERAL-STATE COOPERATIVE PROGRAM FOR LOCAL POPULATION ESTIMATES. THE OBJECTIVE OF THIS PROGRAM IS

THE DEVELOPMENT AND PUBLICATION OF ESTIMATES OF THE POPULATION OF COUNTIES USING UNIFORM PROCEDURES STANDARDIZED FOR DATA INPUT AND METHODOLOGY.

U-151
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1979.

1976 POPULATION ESTIMATES AND 1975 REVISED 1974 PER CAPITA INCOME ESTIMATES FOR COUNTIES AND INCORPORATED PLACES IN MONTANA.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT IS ON A SERIES CONTAINING CURRENT ESTIMATES OF THE POPULATION AND PER CAPITA MONEY INCOME FOR PLACES IN MONTANA. THE POPULATION ESTIMATES INCLUDES REVISIONS MADE DURING THE REVIEW OF THE FIGURES WITH LOCAL OFFICIALS AND, TO THE EXTENT POSSIBLE, ALSO REFLECT CHANGES MADE THROUGH THE OFFICE FOR REVENUE SHARING CHALLENGE PROGRAM.

U-152
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1979.
1977 CENSUS OF GOVERNMENTS. VOL. 3: PUBLIC EMPLOYMENT. NO. 2: COMPENDIUM OF PUBLIC EMPLOYMENT.
WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE.
473 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES). THIS REPORT PRESENTS STATISTICS ON GOVERNMENT EMPLOYMENT AND PAYROLLS BY FUNCTION AND BY TYPE OF GOVERNMENT. STATE-BY-STATE STATISTICS ARE PROVIDED FOR ALL LEVELS OF GOVERNMENT. DATA ARE SHOWN FOR LOCAL GOVERNMENTS BY COUNTY AREA; BY POPULATION SIZE GROUP FOR COUNTIES, MUNICIPALITIES AND TOWNSHIPS; BY ENROLLMENT SIZE-GROUP FOR SCHOOL DISTRICTS; AND BY EMPLOYMENT SIZE-GROUP FOR SPECIAL DISTRICTS.

U-153
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1979.
1977 CENSUS OF RETAIL TRADE: MONTANA.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 25 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE REPORT CONTAINS GENERAL STATISTICS ON THE NUMBER OF ESTABLISHMENTS, SALES, PAYROLL, EMPLOYMENT, AND NUMBER OF PROPRIETORSHIPS AND PARTNERSHIPS FOR THE STATE BY DETAILED KINDS OF BUSINESS.

U-154
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1979.
1977 CENSUS OF SERVICE INDUSTRIES: MONTANA.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 27 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THE REPORT PRESENTS GENERAL STATISTICS ON THE NUMBER OF ESTABLISHMENTS, RECEIPTS, PAYROLL, EMPLOYMENT, AND NUMBER OF PROPRIETORSHIPS AND PARTNERSHIPS FOR THE STATE, COUNTIES, AND CITIES WITH 500 OR MORE SERVICE ESTABLISHMENTS BY KIND-OF-BUSINESS DETAIL APPROPRIATE FOR THE SIZE OF THE AREA.

U-155
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1979.
1977 CENSUS OF WHOLESALE TRADE: MONTANA.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 21 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT PRESENTS GENERAL STATISTICS ON THE NUMBER OF ESTABLISHMENTS, SALES, PAYROLL, EMPLOYMENT, OPERATING EXPENSES, AND END-OF-YEAR INVENTORIES, FOR ALL WHOLESALE ESTABLISHMENTS. AT THE STATE LEVEL, DATA IS PRESENTED SEPARATELY FOR THE FOLLOWING TYPES OF WHOLESALE OPERATION: MERCHANT WHOLESALERS; MANUFACTURERS' SALES BRANCHES AND OFFICES; AND AGENTS, BROKERS, AND COMMISSION MERCHANTS.

U-156
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1979.
CENSUS OF GOVERNMENTS. VOL. 4: GOVERNMENTAL FINANCES. NO. 5: COMPENDIUM OF GOVERNMENT FINANCES.
WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE.
643 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES). THIS REPORT PRESENTS STATISTICS ON TOTAL REVENUE, EXPENDITURE, AND OUTSTANDING DEBT ON ALL LEVELS OF GOVERNMENTS IN THE UNITED STATES. TABLES FALL INTO THE FOLLOWING CATEGORIES: TABLES THAT PROVIDE NATIONWIDE TOTALS BY LEVELS OR TYPE OF GOVERNMENT, WITH MOST OF THE TABLES THAT PERTAIN TO REVENUE AND EXPENDITURE SHOWING FEDERAL AS WELL AS STATE AND LOCAL GOVERNMENT AMOUNTS; TABLES THAT SHOW STATE-BY-STATE DISTRIBUTIONS AND RELATED COMPARATIVE DATA WITH MOST OF THE TABLES INCLUDING STATE AS WELL AS LOCAL GOVERNMENT AMOUNTS; AND TABLES THAT PRESENT LOCAL GOVERNMENT FINANCES IN TERMS OF COUNTY AREAS.

U-157
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1979.
CENSUS OF GOVERNMENTS. VOL. 6: TOPICAL STUDIES. NO. 3: STATE PAYMENTS TO LOCAL GOVERNMENTS.
WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE.
128 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES). THIS REPORT DEFINES AND CLASSIFIES STATE INTERGOVERNMENTAL EXPENDITURES. IT PRESENTS TABULAR DATA SHOWING STATE INTERGOVERNMENTAL EXPENDITURE, BY STATE: 1957 TO 1977; RELATION OF STATE INTERGOVERNMENTAL EXPENDITURE TO TOTAL STATE GENERAL EXPENDITURE, BY STATE: 1957-1977; PER CAPITA STATE INTERGOVERNMENTAL EXPENDITURE, BY FUNCTION, BY STATE: 1977; PERCENT DISTRIBUTION OF STATE INTERGOVERNMENTAL EXPENDITURE, BY FUNCTION, BY STATE: 1977; STATE INTERGOVERNMENTAL EXPENDITURE, BY FUNCTION, BY TYPE OF RECEIVING GOVERNMENT BY STATE: 1977; AND STATE PAYMENTS TO LOCAL GOVERNMENTS IN 1977.

U-158
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1979.
COUNTY BUSINESS PATTERNS, 1977 MONTANA.
WASHINGTON, D. C.: U.S. GOVT. PRINTING OFFICE. 40 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(FLATHEAD, LAKE, SANDERS, MISSOULA, & LINCOLN COUNTIES). THIS IS THE 24TH IN A SERIES OF PUBLICATIONS PRESENTING FIRST QUARTER EMPLOYMENT AND PAYROLL STATISTICS BY COUNTY AND INDUSTRY. THIS SERIES OF REPORTS HAS BEEN REVISED AND REPRESENTS AN EXTENSION OF THE EXISTING COUNTY BUSINESS PATTERNS PROGRAM, WHICH HAS BEEN PUBLISHED ANNUALLY SINCE 1964 AND IRREGULARLY PRIOR TO THAT YEAR. THIS REVISED SERIES OF REPORTS, STARTING WITH 1974, PROVIDE DATA COVERING MOST OF THE ECONOMIC DIVISIONS OF THE ECONOMY; I.E., AGRICULTURAL SERVICES, MINING, CONSTRUCTION, MANUFACTURING, TRANSPORTATION, PUBLIC UTILITIES, WHOLESALE TRADE, RETAIL TRADE, FINANCE, INSURANCE, AND REAL ESTATE AND SERVICES.

U-159
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
1979. (ANNUAL).
HOUSING UNITS AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
408 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES: MONTANA). THIS REPORT PRESENTS 1978 SUMMARY STATISTICS ON THE NUMBER OF NEW HOUSING UNITS AUTHORIZED BY BUILDING PERMITS AND PUBLIC CONTRACTS IN APPROXIMATELY 16,000 PLACES IN THE UNITED STATES, WHICH WERE IDENTIFIED AS HAVING LOCAL BUILDING PERMIT SYSTEMS.

U-160
U.S. DEPARTMENT OF COMMERCE. BUREAU OF THE CENSUS.
CODES FOR NAMED POPULATED PLACES AND RELATED ENTITIES OF THE STATES OF THE UNITED STATES.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES). INCLUDED ARE STANDARD CODES FOR NAMED POPULATED CITIES, TOWNS, VILLAGES, WHETHER INCORPORATED OR UNINCORPORATED, IMPORTANT MILITARY AND NAVAL INSTALLATIONS, TOWNSHIPS, INDIAN RESERVATIONS, NAMED PLACES THAT FORM PARTS OF OTHER PLACES, PLACES IMPORTANT FOR TRANSPORTATION, INDUSTRIAL, OR COMMERCIAL PURPOSES, I.E., UNPOPULATED RAILROAD POINTS, AIRPORTS, AND SHOPPING CENTERS.

U-161
U.S. DEPARTMENT OF COMMERCE. WEATHER BUREAU; AND U.S. DEPARTMENT OF DEFENSE, ARMY CORPS OF ENGINEERS.
1950.
PROGRESS REPORT, 1945-1950. COOPERATIVE SNOW INVESTIGATIONS.
OAKLAND, CA.: OAKLAND ARMY BASE. 60 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, NATIONAL.

(WESTERN UNITED STATES). PROGRAM OBJECTIVES WERE TO DETERMINE METHODS OF EVALUATING STREAM FLOW DUE TO RAIN AND/OR SNOWMELT, TO DEVELOP THREE SNOW LABORATORIES (ONE LOCATED AT MARIAS PASS), AND TO DEVELOP ANALYTICAL INVESTIGATIONS. A REVIEW OF THE PROGRAM FROM 1945 TO 1950 IS PRESENTED. INVESTIGATIONS INVOLVING SNOW PHYSICS, HYDROLOGIC, MICROMETEOROLOGICAL, AND RADIATION DATA ARE SUMMARIZED.

U-162
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1946-1952.
HYDROMETEOROLOGICAL LOG OF THE UPPER COLUMBIA SNOW LABORATORY. ANNUAL REPORTS, 1946-1952.
PORTLAND, ORE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MARIAS PASS: SKYLAND CREEK). PARAMETERS MEASURED AND RECORDED IN THESE REPORTS INCLUDE GENERAL WEATHER (RADIATION, AIR PRESSURE, WIND SPEED, TEMPERATURE, HUMIDITY, AND PRECIPITATION); SNOW (SNOWFALL COVER, DEPTH, WATER EQUIVALENT, TEMPERATURE); SOIL TEMPERATURE AND MOISTURE PROFILES; GROUND-WATER; AND STREAMFLOW (STAGE AND TEMPERATURE).

U-163
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1952.
RESERVOIR REGULATION MANUAL-HUNGRY HORSE DAM.
SEATTLE. 32 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE DAM & SOUTH FORK OF THE FLATHEAD RIVER). THE OPERATING PROCEDURE DESCRIBED IN THIS REPORT WAS DEVELOPED TO PROVIDE ADEQUATE FLOOD CONTROL STORAGE PRIOR TO MAY FIRST. THE MANUAL COVERS: A GENERAL DESCRIPTION OF THE AREA AND THE STATUS OF CONSTRUCTION; ORGANIZATION FOR RESERVOIR REGULATION (METHOD OF OPERATION, FORECASTING OF RUN-OFF, REGULATION SCHEDULES, EXAMPLES OF REGULATION, AND INSTRUCTIONS TO DAM TENDER); CORRELATION WITH OTHER PROJECTS AND AGENCIES; AND STUDIES IN PROGRESS OR PLANNED AND PERTINENT DATA (RECREATIONAL DEVELOPMENT AND SEDIMENT OBSERVATION).

U-164
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1967.
MEMORANDUM REPORT ON CLARK FORK BASIN, MONTANA, FOR THE FEDERAL POWER COMMISSION.
SEATTLE. 55 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(CLARK FORK: FLATHEAD RIVER BASIN). THE STUDY'S OBJECTIVE IS THE EXAMINATION OF THE POTENTIAL OF THE BASIN FOR MULTIPLE-PURPOSE STORAGE AND SINGLE-PURPOSE POWER DEVELOPMENTS. FIFTEEN PROJECTS ARE PRESENTED AND A COST ANALYSIS FOR EACH IS GIVEN; THE 'BEST' OVERALL DEVELOPMENT PLAN VENTURED.

U-165
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1969.
FLOOD PLAIN INFORMATION-FLATHEAD, STILLWATER AND WHITEFISH RIVERS: KALISPELL-COLUMBIA FALLS, MONTANA.
SEATTLE. 57 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: MONTANA STATE WATER RESOURCES BOARD.

(FLATHEAD, STILLWATER, & WHITEFISH RIVERS NEAR KALISPELL & COLUMBIA FALLS). THE REPORT IS BASED ON RAINFALL, RUNOFF, HISTORICAL AND CURRENT FLOOD HEIGHTS, AND OTHER TECHNICAL DATA BEARING ON THE OCCURRENCE AND SIZE OF

FLOODS. RECORDS OF THE LARGEST KNOWN FLOODS AND PREDICTIONS OF FUTURE 100 YEAR FLOODS ARE INCLUDED.

U-166
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1969.
FLOODS IN KALISPELL AND COLUMBIA FALLS, MONTANA: HOW TO AVOID DAMAGE.
SEATTLE: U.S. DEPT. DEFENSE, ARMY CORPS ENGINEERS, SEATTLE DISTRICT.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(COLUMBIA FALLS). THE BROCHURE BRIEFLY DESCRIBES PAST FLOODING AND PROJECTS FUTURE FLOODING. POSSIBLE SOLUTIONS (LIMITED FLOOD PLAIN DEVELOPMENT, FLOOD PROOFING) ARE BRIEFLY OUTLINED.

U-167
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1971.
INFORMATION BULLETIN ON FLOOD FORECASTING PROCEDURES, FLATHEAD RIVER (COLUMBIA FALLS TO FLATHEAD LAKE).
SEATTLE. 3 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN FROM FLATHEAD LAKE TO COLUMBIA FALLS). THE BULLETIN BRIEFLY OUTLINES THE FLOOD CONTROL PICTURE: PREDICTION OF FLOOD FLOWS AND WEATHER, THE OPERATION OF HUNGRY HORSE AND KERR DAMS, AND RIVER STAGE GAUGE STATIONS.

U-168
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1971.
PUBLIC BROCHURE: ALTERNATIVES AND THEIR PROS AND CONS. FLATHEAD RIVER FLOOD CONTROL STUDY, FLATHEAD LAKE TO COLUMBIA FALLS. 4TH ED.
SEATTLE. 27 PP.
IN PROGRESS, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN: FLATHEAD LAKE TO COLUMBIA FALLS). THE BROCHURE DESCRIBES A RANGE OF ALTERNATIVES TO REDUCE FLOOD DAMAGES INCLUDING THE NO ACTION ALTERNATIVE. IT PRESENTS THE SUGGESTIONS OF LOCAL PEOPLE AND AGENCY REPRESENTATIVES. A BRIEF FLOOD HISTORY AND DESCRIPTION OF STUDY ACTION IS INCLUDED. THE PROS AND CONS OF EACH ALTERNATIVE ARE ARGUED.

U-169
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1973.
DRAFT ENVIRONMENTAL STATEMENT: FLATHEAD FLOOD CONTROL, FLATHEAD RIVER NEAR KALISPELL, MONTANA.
SEATTLE.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MAINSTEM OF THE FLATHEAD RIVER NEAR KALISPELL). THIS IS THE DRAFT ENVIRONMENTAL STATEMENT FOR THE PROPOSED CONSTRUCTION OF A SET BACK LEVEE 6.25 MILES ALONG THE RIGHT BANK OF THE MAINSTEM OF THE FLATHEAD RIVER NEAR KALISPELL. ENVIRONMENTAL IMPACTS, ADVERSE ENVIRONMENTAL EFFECTS, AND ALTERNATIVES ARE EXAMINED.

U-170
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1973.
PUBLIC BROCHURE-ALTERNATIVES AND THEIR PROS AND CONS, FLATHEAD RIVER FLOOD CONTROL STUDY-FLATHEAD LAKE TO COLUMBIA FALLS. DRAFT NO. 6.
SEATTLE. 43 PP.
PRELIMINARY, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER). THE ALTERNATIVES SHOWN WERE SUGGESTED BY LOCAL PEOPLE AND AGENCY REPRESENTATIVES THROUGH PUBLIC MEETINGS, WORKSHOPS, CORRESPONDENCE, AND PERSONAL CONTACTS. THE BROCHURE WILL BE REVISED CONTINUALLY, THE SELECTION OF ALTERNATIVES FOR FINAL STUDY WILL BE BASED ON CONSIDERATION OF ALL SOCIAL, ECONOMIC AND ENVIRONMENTAL ADVANTAGES AND DISADVANTAGES OF EACH ALTERNATIVE. A FLOOD HISTORY OF THE AREA; PREVIOUS, RECENT AND FUTURE STUDY ACTION; AND FEDERAL PARTICIPATION ARE EXAMINED. THE ALTERNATIVES CONSIDERED WERE: DO NOTHING, RELOCATION, FLOOD PLAIN MANAGEMENT, MULTIPLE PURPOSE STORAGE, BYPASS CHANNEL, LEVEES, CHANNEL CLEARING, CHANNEL ENLARGEMENT, SMALL HEADWATER DAMS, PROTECTIVE WORKS FOR EVERGREEN AND DAYS ACRES, AND A COMBINED LEVEE, HIGHWAY AND BYPASS CHANNEL. MAPS ARE INCLUDED.

U-171
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1974.
FLATHEAD FLOOD CONTROL, FLATHEAD RIVER NEAR KALISPELL, MONTANA: DRAFT ENVIRONMENTAL IMPACT STATEMENT.
SEATTLE: U.S. DEPT. DEFENSE, ARMY CORPS ENGINEERS. 72 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD RIVER). CONSTRUCTION OF A SETBACK LEVEE ON THE RIGHT BANK IS PROPOSED TO REDUCE FLOOD DAMAGES. ADDITION OF FLAP GATES TO TWO EXISTING CULVERTS ARE RECOMMENDED AS WELL. ENVIRONMENTAL IMPACTS ARE DISCUSSED.

U-172
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1975.
FINAL ENVIRONMENTAL IMPACT STATEMENT: FLATHEAD FLOOD CONTROL, FLATHEAD RIVER NEAR KALISPELL, MONTANA.
SEATTLE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MAINSTEM OF THE FLATHEAD RIVER). THE RECOMMENDED FLOOD CONTROL PLAN FOR THE RIVER WOULD CONSIST OF FEDERALLY CONSTRUCTED PROTECTIVE WORKS FOR THE COMMUNITIES OF EVERGREEN AND DAYS ACRE, AND LOCALLY IMPLEMENTED FLOOD PLAIN REGULATION FOR UNPROTECTED AREAS ALONG FLATHEAD RIVER FROM COLUMBIA FALLS TO FLATHEAD LAKE. THE PURPOSE OF THE PROJECT WOULD BE FLOOD DAMAGE REDUCTION. LAND ENHANCEMENT AND AREA REDEVELOPMENT BENEFITS WOULD BE INCIDENTAL. RECREATIONAL DEVELOPMENTS AND FISH, AND WILDLIFE ENHANCEMENT STEPS ARE NOT PROPOSED AS PART OF THE PROJECT. THE PROJECT, THE AREAS ENVIRONMENTAL SETTING WITHOUT THE PROJECT, THE RELATIONSHIP OF THE PROJECT TO LAND USE PLANS, AND THE ENVIRONMENTAL IMPACT OF THE PROPOSED ACTION, ALONG WITH ALTERNATIVES TO THE PROPOSED ACTION ARE TOPICS DISCUSSED IN THE REPORT.

U-173
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1977.
FLATHEAD-CLARK FORK RIVER BASIN HYDROPOWER STUDYGRAM.
SEATTLE.
FINAL, SPECIFIC, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD RIVER). THE PURPOSE OF THIS REPORT IS TO PUBLISH A BRIEF SUMMARY OF THE PUBLIC RESPONSE TO THE FLATHEAD-CLARK FORK HYDROPOWER STUDY.

U-174
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1977.
PUMPED STORAGE EXPLAINED.
PORTLAND, ORE.: U.S. DEPT. DEFENSE, ARMY CORPS ENGINEERS, NORTHERN PACIFIC DIV. 20 PP.
PART OF A SERIES, SPECIFIC, NON-TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE BROCHURE PROVIDES INFORMATION CONCERNING PUMPED-STORAGE: WHAT IT IS, HOW IT OPERATES, ITS PURPOSE, OPERATING CYCLES, PRESENT OPERATIONS, ALTERNATIVES, ENERGY SOURCE, AND FUTURE NEEDS. IT CONTAINS A REGIONAL MAP OF INVENTORIED PUMP-STORAGE SITES.

U-175
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1977.
SEATTLE DISTRICT PUMPED STORAGE SITES UNDER CONSIDERATION IN THE FLATHEAD RIVER BASIN.
47 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD LAKE & HUNGRY HORSE RESERVOIR). THIS DOCUMENT EXAMINES THE PHYSICAL FACTORS AND GEOLOGIC AND ENVIRONMENTAL CONSIDERATIONS OF NINE POTENTIAL DAM SITES WITHIN THE BASIN. BIG HAWK LAKE, BLUE BAY CREEK, BOULDER CREEK-UPPERSOUTH FORK, HELLROARING CREEK, LOLO CREEK, PARKER CREEK, PILGRIM LAKES, STATION CREEK, AND YELLOW BAY CREEK ARE THE SITES CONSIDERED. TOPOGRAPHIC MAPS AND PHOTOGRAPHS ARE INCLUDED.

U-176
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
1979.
HYDROPOWER STUDY STATUS REPORT: CLARK FORK-FLATHEAD RIVER BASIN, MONTANA.
SEATTLE. U.S. DEPT. DEFENSE, ARMY CORPS ENGINEERS, SEATTLE DISTRICT. 52 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(CLARK FORK & FLATHEAD RIVER BASINS: LOWER FLATHEAD RIVER). THE CUTOFF OF CONGRESSIONAL FUNDING FOR FISCAL YEAR 1980 LED TO THE SUSPENSION OF THIS STUDY PRIOR TO INITIATION OF DETAILED PLANNING STUDIES. THIS REPORT PRESENTS PRELIMINARY STUDY FINDINGS, AN OVERVIEW OF EACH HYDROPOWER SITE, AND A CONCLUSION ON POTENTIAL HYDROPOWER DEVELOPMENT BASED ON PRELIMINARY INVESTIGATIONS. THE FOUR FLATHEAD RIVER RUN-OF-RIVER HYDROPOWER ALTERNATIVES WITHOUT REGULATION AT MOISE APPEARED LEAST UNFAVORABLE: BUFFALO RAPIDS 2, SLOAN BRIDGE LOW, BUFFALO RAPIDS 4 LOW, AND BUFFALO RAPIDS 2 PLUS BUFFALO RAPIDS 4 LOW. BASED ON THE FINDINGS OF THE PRELIMINARY STUDIES, NO FURTHER CONSIDERATION OF HYDROPOWER DEVELOPMENT AT THE SITES UNDER STUDY WAS WARRANTED.

U-177
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS.
SUMMARY HYDROGRAPHS FOR THE PACIFIC NORTHWEST.
PORTLAND, ORE. 131 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). SUMMARY HYDROGRAPHS FOR SELECTED STATIONS ARE PRESENTED IN THIS REPORT. SECTION I CONTAINS THE GRAPHS THEMSELVES. SECTION II CONTAINS FLOW DURATION CURVES AND MONTHLY FLOW DATA. THE GRAPHS SHOW DAILY MAXIMUM, MINIMUM AND MEAN FLOW AS WELL AS PERCENTAGE CHANCE OF EXCEEDING THE CORRESPONDING FLOWS.

U-178
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS. MISSOURI RIVER DIVISION.
ANNUAL.
WATER RESOURCES DEVELOPMENT-MONTANA.
OMAHA, NE. 56 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: CLARK FORK & KOOTENAI SUB BASINS). A GENERAL EXAMINATION OF THE CURRENT AND PROPOSED CORPS PROJECTS IN THE STATE. HUNGRY HORSE DAM AND RESERVOIR ARE BRIEFLY DISCUSSED. ONGOING CORPS STUDIES AND PROPOSALS ARE INCLUDED.

U-179
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS. NORTH PACIFIC DIVISION.
1956.
SUMMARY REPORT OF THE SNOW INVESTIGATIONS: SNOW HYDROLOGY.
PORTLAND, ORE. 437 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(WESTERN UNITED STATES). THE REPORT SUMMARIZES THE WORK OF SNOW INVESTIGATIONS, A PROGRAM ORGANIZED TO PROVIDE UNDERSTANDING OF SNOW HYDROLOGY FOR DESIGNING HYDROPROJECTS AND STREAM FLOW FORECASTING. IT MAKES AVAILABLE TO HYDROLOGISTS THE FOLLOWING INFORMATION: 1) DEPOSITION AND DISTRIBUTION OF THE SNOWPACK AND THE DEPLETION OF SNOW COVER, 2) EVALUATION OF THE HYDROLOGIC WATER BALANCE OF BASINS WHERE APPRECIABLE SNOW OCCURS, 3) THE PHYSICS OF SNOWMELT, 4) THE STORAGE AND TRANSIT OF LIQUID WATER IN THE SNOWPACK, AND 5) POSSIBLE METHODS FOR ESTIMATING RATES OF STREAM FLOW AND VOLUMES OF RUNOFF IN BASINS WHERE SNOW AFFECTS THOSE QUANTITIES. GAPS IN EXISTING KNOWLEDGE OF SNOW HYDROLOGY ARE POINTED OUT. THE RESULTS OF INVESTIGATIONS AND THEIR APPLICATION IN SOLUTION OF SNOW HYDROLOGY PROBLEMS ARE PRESENTED.

U-180
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS. NORTH PACIFIC DIVISION.
1969.
THE HISTORY OF THE NORTH PACIFIC DIVISION, U.S. ARMY CORPS OF ENGINEERS, 1898-1965.
110 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE UNIT HISTORY SPANS MORE THAN 80 YEARS FROM THE INCEPTION OF THE NORTH PACIFIC DIVISION IN 1901. DIVISION ACTIVITIES IN THE EARLY YEARS, THE 1930'S, THE WAR AND POST-WAR GROWTH YEARS ARE DESCRIBED. PHOTOGRAPHS AND PERSONAL DATA OF DIVISION ENGINEERS INCLUDED.

U-181
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS. NORTH PACIFIC DIVISION.
1976.
PUMPED-STORAGE INVENTORY OF THE PACIFIC NORTHWEST.
PORTLAND, ORE. 162 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: COLUMBIA RIVER BASIN). THE REPORT IDENTIFIES 530 WEEKLY CYCLE AND 4 SEASONAL SITES FOR PUMPED-STORAGE DEVELOPMENT. CRITERIA FOR SITE SELECTION, COST ANALYSIS, EFFECTS ON STREAM FLOW, RECREATION, FISH AND WILDLIFE, AND THE ROLE OF PUMPED-STORAGE IN HYDROPOWER DEVELOPMENT (ITS LIMITATIONS AND ADVANTAGES) ARE ALL DISCUSSED.

U-182
U.S. DEPARTMENT OF DEFENSE. ARMY CORPS OF ENGINEERS. NORTH PACIFIC DIVISION.
INVENTORY OF POTENTIAL HYDROPOWER IN THE PACIFIC NORTHWEST.
PORTLAND, ORE. 24 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE BROCHURE SUMMARIZES IDENTIFIED CONVENTIONAL POTENTIAL HYDROPOWER SITES WITH A GENERATION CAPACITY OF AT LEAST 10 MEGAWATTS. PAST STUDIES OF THE BUREAU OF RECLAMATION, PUBLIC UTILITY DISTRICTS, PRIVATE POWER COMPANIES, THE PACIFIC NORTHWEST RIVER BASINS COMMISSION, AND CORPS OF ENGINEERS ARE UTILIZED AS THE DATA BASE.

U-183
U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT. FLATHEAD INDIAN AGENCY.
1977.
FLOOD HAZARD BOUNDARY MAPS FOR FLATHEAD COUNTY.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). A SERIES OF FLOOD HAZARD MAPS FOR FLATHEAD COUNTY, AT A SCALE OF 1:24000. NATIONAL FOREST LAND IS EXCLUDED.

U-184
U.S. DEPARTMENT OF INTERIOR.
1975.
"THE MONTANA SALISH."
BROWNING, MT.: INDIAN ARTS & CRAFTS BOARD, MUSEUM OF THE PLAINS INDIAN.

THIS PAMPHLET DESCRIBES THE CRAFTS AND HISTORY OF THE MONTANA SALISH. SKCC.

U-185
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.
1967.
BONNEVILLE: THIRTY YEARS OF SERVICE.
PORTLAND, ORE. 23 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: A SHORT DISCUSSION OF THE HUNGRY HORSE PROJECT IS INCLUDED.

(PACIFIC NORTHWEST). THE ACCOUNT DESCRIBES THE BPA'S ACCOMPLISHMENTS; DISCUSSES THE USE OF DAM-PRODUCED ENERGY BY INDUSTRY, FARMERS, AND THE PUBLIC; AND CONSIDERS FUTURE POWER. A CHRONOLOGICAL OUTLINE OF BPA'S HISTORY, 1937-1967, IS PRESENTED.

U-186

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1987.

MISCELLANEOUS INLAND SITES. VOL. 5 OF THE PACIFIC NORTHWEST MAJOR INDUSTRIAL PLANT SITES.

PORTLAND, ORE. 131 PP.

PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

NOTE: SITES ARE LOCATED IN MISSOULA, FLATHEAD AND LINCOLN COUNTIES.

(PACIFIC NORTHWEST). THE INDUSTRIAL SITES DESCRIBED HERE ARE PRESENTED AS AN AID TO INDUSTRIES REQUIRING A NEW PLANT SITE OF 50 ACRES OR MORE. BASIC GEOGRAPHIC, ECONOMIC AND CLIMATOLOGIC INFORMATION IS INCORPORATED INTO THE SPECIFIC SITE AREA DISCUSSIONS. THE AVAILABILITY OF MAJOR POWER AND TRANSPORTATION SERVICES TO THESE SITES ARE OUTLINED ON REGIONAL MAPS.

U-187

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1989.

A TEN-YEAR HYDRO-THERMAL POWER PROGRAM FOR THE PACIFIC NORTHWEST.

PORTLAND, ORE. 58 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE REPORT DESCRIBES THE HYDRO-THERMAL POWER PROGRAM, A COORDINATED EFFORT TO PROVIDE FOR POWER NEEDS. PLAN ALTERNATIVES ARE DESCRIBED IN LIGHT OF LOADS, RESOURCES, TRANSMISSION COST, AND POWER REVENUES. PROGRAM IMPLEMENTATION AND FINANCIAL REQUIREMENTS ARE CONSIDERED.

U-188

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1970.

LOAD STUDY AND PLAN OF SERVICE. LINCOLN ELECTRIC COOPERATIVE.

PORTLAND, ORE. & EUREKA, MT.: LINCOLN ELECTRIC COOP., INC. 17 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: TABLES OF ESTIMATED AND HISTORICAL LOAD DATA AND SALES DATA ARE INCLUDED.

(LINCOLN AND FLATHEAD COUNTY). THESE REPORTS GIVE BACKGROUND INFORMATION ON THE HISTORY OF THE COOPERATIVE AND THE SOCIO-ECONOMIC CONDITIONS OF ITS SERVICE AREA; ESTIMATE FUTURE LOADS, ELECTRIC ENERGY SALES AND PEAK DEMANDS; AND OUTLINE A PLAN OF SERVICE.

U-189

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1970.

PACIFIC NORTHWEST ECONOMIC BASE STUDY FOR POWER MARKETS: SUMMARY.

PORTLAND, ORE. VOL. 1. 216+ PP.

PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS VOLUME SUMMARIZES THE FINDINGS OF 21 PUBLISHED REPORTS ON THE REGION'S BASIC INDUSTRIES AND RESOURCES. IT PROVIDES A GUIDE TO ELECTRIC UTILITY PLANNING BY FORECASTING THE ECONOMIC GROWTH AND INCREASE IN ELECTRIC POWER REQUIREMENTS (1985-1985) NEEDED TO SUPPORT THE EXPANDING REGIONAL ECONOMY. THE REPORTS INVOLVED THE FORECASTING OF THE NUMBER OF BASIC INDUSTRY JOBS TO PROJECT REGIONAL POPULATION AND FORECAST REGIONAL POWER REQUIREMENTS. THE

REPORTS ALSO ESTIMATED FUTURE PRODUCTION TO AID IN FORECASTING FUTURE POWER REQUIREMENTS. THE INDUSTRIES COVERED INCLUDE RESOURCE BASED INDUSTRIES, ENERGY INTENSIVE INDUSTRIES (METALS AND NON-METALS), AND SUCH NON-BASIC INDUSTRIES AS CONSTRUCTION, TRANSPORTATION, WHOLESALE/RETAIL TRADE, FINANCE, INSURANCE AND REAL ESTATE, SERVICES, AND GOVERNMENT.

U-190

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1971.

THE HYDRO-THERMAL POWER PROGRAM: A STATUS REPORT.

PORTLAND, ORE. 60 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE REPORT DISCUSSES THE PROGRAM DESIGNED TO COORDINATE AND INTEGRATE FEDERAL HYDROELECTRIC AND TRANSMISSION OPERATIONS WITH NON-FEDERAL THERMAL PLANTS TO ACHIEVE EFFICIENT OPERATIONS AND ADEQUATE POWER SUPPLIES. LOADS, THE ALTERNATIVES OF MEETING/NOT MEETING LOADS, CAPITAL INVESTMENTS REQUIRED BY THE PROGRAM, ENVIRONMENTAL CONSIDERATIONS, AND PROGRESS TO DATE OF EFFECTING THE PROGRAM ARE TOPICS EXAMINED.

U-191

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1973.

ELECTRIC POWER REQUIREMENTS AND RESOURCES FOR THE PACIFIC NORTHWEST.

PORTLAND, ORE. 22 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS PAPER CONTENDS THAT THE PRINCIPLE ELECTRIC POWER ISSUE IS THE DEVELOPMENT OF AN ADEQUATE POWER SUPPLY TO MEET THE INCREASING PER CAPITA DEMANDS FOR ELECTRICITY IN THE PACIFIC NORTHWEST. INTEGRAL WITH THE SUPPLY ISSUE IS TRANSMISSION OF THE POWER GENERATED TO THE ULTIMATE USER. ESTIMATES OF POWER REQUIREMENTS ARE BASED ON THE COLUMBIA-NORTH PACIFIC STUDY, EXISTING AND FUTURE POWER RESOURCES, POWER PLANT SITING, AND TRANSMISSION SYSTEMS ARE DISCUSSED. POWER SUPPLY AND DEMANDS BY STATE ARE EXAMINED. TWO ALTERNATIVE SOLUTIONS ARE OUTLINED, RECOMMENDATIONS ARE MADE.

U-192

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1973.

FINAL ENVIRONMENTAL STATEMENT: HUNGRY HORSE CLOUD SEEDING PROJECT.

PORTLAND, ORE. 287 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR AREA). THE STATEMENT DESCRIBES A 1973-1974 CLOUD SEEDING PROJECT DIRECTED TOWARD THE MAINTENANCE OF NORMAL SNOWPACK CONDITIONS AND ALLEVIATING A PROJECTED SHORTAGE OF FIRM ENERGY BY HELPING ASSURE NORMAL STREAMFLOWS AND HYDROELECTRIC GENERATION. THE ENVIRONMENTAL EFFECTS ASSESSED ARE: A TEN PERCENT SNOWPACK INCREASE; IMPACTS ON WILDLIFE, VEGETATION, SOIL EROSION, AND STREAMFLOW; AND INCONVENIENCES TO LOCAL RESIDENTS. NO CLOUD SEEDING; ALTERNATIVE METHODS OF SEEDING, USING OTHER AGENTS AND AIRBORNE GENERATORS; CLOUD SEEDING ALTERNATIVE AREAS; AND DELAY OF THE SEEDING OPERATION ARE THE ALTERNATIVES CONSIDERED. AGENCIES' COMMENTS ARE INCLUDED.

U-193

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1974.

AGRICULTURE AND FOOD PROCESSING: PROJECTIONS OF PRODUCTION, EMPLOYMENT AND ENERGY CONSUMPTION TO 1990.

PORTLAND, ORE. 126 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE REPORT FOCUSES ON THE DISPOSITION OF THE OUTPUT OF MILK, MEAT, POULTRY, FRUITS, BERRIES, VEGETABLES, AND POTATOES. ENERGY USE OF AGRICULTURE PRODUCTION; ENERGY REQUIREMENTS OF FREEZING, DRYING, CANNING AND OTHER FOOD PREPARATION; AND EMPLOYMENT IN FOOD AND KINDRED PRODUCTION PLANTS ARE EXAMINED.

U-194

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1976.

POPULATION, EMPLOYMENT AND HOUSING UNITS: PROJECTIONS TO 1995 FOR WESTERN MONTANA.

PORTLAND, ORE. 50 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA). THIS REPORT CONTAINS PAST, CURRENT AND FUTURE FIGURES ON POPULATION (POPULATION CHANGE, BIRTH RATES, AGE AND SEX DISTRIBUTION), EMPLOYMENT (LABOR FORCE, UNEMPLOYMENT, AND PARTICIPATION RATES), AND HOUSING (PERSONS PER HOUSEHOLDS, TOTAL UNITS AND HEADS OF HOUSEHOLDS).

U-195

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1977.

DRAFT - LONG RANGE ENERGY CORRIDOR REQUIREMENTS FOR THE PACIFIC NORTHWEST.

PORTLAND, ORE.

DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST; WESTERN MONTANA). THIS STUDY IS THE CULMINATION OF A JOINT BPA/FS EFFORT DESIGNED TO EXAMINE: THE MAGNITUDE OF LONG RANGE ENERGY REQUIREMENTS; THE MAGNITUDE OF FUTURE ENERGY TRANSPORTATION NEEDS; THE NEED FOR COOPERATIVE LONG-RANGE PLANNING; AND THE NEED FOR PUBLIC CONSIDERATIONS. THIS PAPER ADDRESSES THE QUESTION OF LONG-TERM ENERGY CORRIDOR REQUIREMENTS FOR THE PACIFIC NORTHWEST, ALTERNATE RESOURCE LOCATION, VARIOUS COAL/NUCLEAR MIXES, AND TECHNOLOGIES THAT ARE LIKELY TO BE AVAILABLE FROM 1985 TO 2020.

U-196

U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.

1977.

LOAD STUDY AND PLAN OF SERVICE. FLATHEAD PROJECT.

PORTLAND, ORE. & POLSON, MT.: FLATHEAD PROJECT POWER SYSTEM. 24 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THESE REPORTS GIVE BACKGROUND INFORMATION ON THE HISTORY OF THE SYSTEM AND THE SOCIO-ECONOMIC CONDITIONS OF ITS SERVICE AREA; ESTIMATE FUTURE LOADS, ELECTRIC ENERGY SALES AND PEAK DEMANDS; AND OUTLINE A PLAN OF SERVICE.

U-197
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1977.
**LOAD STUDY AND PLAN OF SERVICE. KALISPELL
ELECTRIC COOPERATIVE.**
PORTLAND, ORE. & KALISPELL, MT.: KALISPELL ELEC-
TRIC COOP. 27 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

NOTE: TABLES OF ESTIMATED AND HISTORICAL
LOAD DATA, SYSTEM LOAD BY POINTS OF DELIVERY,
AND SALES DATA ARE INCLUDED.

(LINCOLN & FLATHEAD COUNTIES). THESE REPORTS
GIVE BACKGROUND INFORMATION ON THE HISTORY
OF THE COOPERATIVE AND THE SOCIO-ECONOMIC
CONDITIONS OF ITS SERVICE AREA; ESTIMATE
FUTURE LOADS, ELECTRIC ENERGY SALES AND
PEAK DEMANDS; AND OUTLINE A PLAN OF SERVICE.

U-198
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1977.
**PACIFIC NORTHWEST LONG RANGE EAST-WEST
ENERGY CORRIDOR STUDY: PHASE ONE, PART A -
ROCKY MOUNTAINS.**
PORTLAND, ORE. 47 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(PACIFIC NORTHWEST: ROCKY MTNS.). THE STUDY
DISCUSSES WHICH MOUNTAIN PASSES AND
ROADLESS AREA REVIEW AND EVALUATION (RARE II)
AREAS SHOULD BE USED FOR FUTURE EAST-WEST
HIGH CAPACITY ENERGY TRANSMISSION COR-
RIDORS. FOLLOWING A SHORT DESCRIPTION OF THE
ROCKY MOUNTAIN CLIMATE AND PHYSIOGRAPHY,
THE CORRIDOR SEGMENTS ARE DISCUSSED. THEIR
LOCATION, DIMENSIONS, PHYSICAL AND EN-
VIRONMENTAL FEATURES, ACCESSIBILITY, AND
LAND USES ARE DESCRIBED.

U-199
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1977.
**THE ROLE OF THE BONNEVILLE POWER AD-
MINISTRATION IN THE PACIFIC NORTHWEST POWER
SUPPLY SYSTEM.**
PORTLAND, ORE. ABOUT 400 PP.
DRAFT, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD RIVER BASIN).
THIS DRAFT ENVIRONMENTAL IMPACT STATEMENT
WILL DESCRIBE THE ENVIRONMENTAL IMPACT OF
BPA'S PARTICIPATION IN THE REGIONAL POWER
SUPPLY SYSTEM IN THE PACIFIC NORTHWEST, IN-
CLUDING THE HYDRO-THERMAL PROGRAM, IN
ORDER TO PROVIDE A FRAMEWORK IN WHICH DECIS-
IONS FACING BPA CAN BE MADE.

U-200
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1978.
ABOUT BPA.
PORTLAND, ORE. 28 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
REGIONAL.

(PACIFIC NORTHWEST). THE PAMPHLET BRIEFLY
DESCRIBES THE BPA: ITS ORIGIN, SERVICE TO THE
PUBLIC, ORGANIZATION, TRANSMISSION NETWORK,
AGREEMENTS WITH CANADA AND THE PACIFIC
SOUTHWEST. CUSTOMERS USE OF POWER, POWER
PLANNING, FINANCES, AND CONCERN WITH THE EN-
VIRONMENT AND ENERGY CONSERVATION ARE
DESCRIBED.

U-201
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1978.
BPA 1979 WHOLESALE POWER RATE DESIGN STUDY.
PORTLAND, ORE. 58 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(PACIFIC NORTHWEST). THE STUDY DESCRIBES THE
RATE FILING PROCESS AND THE DERIVATION OF
WHOLESALE POWER RATE SCHEDULES. STUDIES
CONDUCTED TO PREPARE THE RATE PROPOSAL ARE
DISCUSSED. A RATE DESIGN STUDY IS DESCRIBED
AND RATE SCHEDULES ARE PRESENTED.

U-202
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1978.
**BPA LONG RUN INCREMENTAL COST OF SERVICE
AND RATE STUDY.**
PORTLAND, ORE. 52 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL
DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS REPORT EXPLAINS THE
BPA'S STUDY OF MARGINAL COST BASED RATES AS
ONE OF SEVERAL ALTERNATIVES CONSIDERED IN
PREPARING A PROPOSAL FOR NEW WHOLESALE
POWER RATES FOR 1979. MARGINAL COST RATE
SCHEDULES ARE DESIGNED FOR SEVERAL UTILITIES.
LONG RUN INCREMENTAL COST OF GENERATION
NOTING CAPACITY AND ENERGY COSTS, LONG RUN
INCREMENTAL COST OF TRANSMISSION NOTING
PLANT INVESTMENT COST, MAINTENANCE AND
OPERATION EXPENSES, ANNUAL CARRYING
CHARGE, AND LONG RUN INCREMENTAL COST RATE
ARE EXAMINED.

U-203
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1978.
**DRAFT E.I.S.: BONNEVILLE POWER ADMINISTRATION
PROPOSED FISCAL YEAR 1980.**
WASHINGTON, D.C.: U.S. DEPT. ENERGY, BON-
NEVILLE POWER ADMINISTRATION. 180 PP.
DRAFT, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD RIVER BASIN).
THIS DRAFT STATEMENT IS ONE OF A SERIES
PREPARED ANNUALLY BY BPA ON EACH FISCAL
YEAR'S PROPOSED CONSTRUCTION AND
MAINTENANCE PROGRAM. THE PROPOSED PRO-
GRAM FOR WHICH BPA IS REQUESTING APPROVAL
CONSISTS OF THE CONSTRUCTION OF NEW ADDI-
TIONS AND MODIFICATIONS TO ITS EXISTING
TRANSMISSION SYSTEM AS WELL AS THE CON-
TINUED MAINTENANCE OF EXISTING FACILITIES
DURING THE FISCAL YEAR. PROPOSED CONSTRU-
CTION INCLUDES: APPROXIMATELY 180-210 MILES OF
NEW TRANSMISSION LINE; FOUR POSSIBLE NEW
SUBSTATIONS AND RELATED STRUCTURES, IN-
CLUDING POWER SYSTEM CONTROL STATIONS;
POSSIBLE EQUIPMENT ADDITIONS TO SIX EXISTING
SUBSTATIONS; MAINTENANCE OF ABOUT 12,814
MILES OF EXISTING TRANSMISSION LINES IN-
CLUDING TOWER STRUCTURES, CONDUCTORS, AND
ACCESS ROADS; AND CONTROL OF VEGETATION ON
ABOUT 19,080 ACRES OF TRANSMISSION LINE
RIGHTS-OF-WAY AND 920 ACRES OF SUBSTATION
PROPERTY.

U-204
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1978.
**DRAFT E.I.S.: PROPOSED 1979 WHOLESALE RATE IN-
CREASE.**
PORTLAND, ORE. 185 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(PACIFIC NORTHWEST). BONNEVILLE POWER AD-
MINISTRATION PROPOSED AN INCREASE OF AP-
PROXIMATELY 90 PERCENT IN ITS REVENUES IN
ORDER TO MEET FISCAL PAYOUT REQUIREMENTS
AND TO RECOVER COSTS. THE PROPOSAL ALSO IN-
VOLVES A RESTRUCTURING OF EXISTING RATE
SCHEDULES. THE DRAFT ENVIRONMENTAL STATE-
MENT ADDRESSES THE ENVIRONMENTAL AND
SOCIO ECONOMIC IMPACTS OF THE PROPOSAL AND
A NUMBER OF RATE ALTERNATIVES.

U-205
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1978.
**FEDERAL COLUMBIA RIVER POWER SYSTEM COST
OF SERVICE STUDY: FISCAL YEAR 1977, ACTUAL
FISCAL YEARS 1978-83 ESTIMATED.**
PORTLAND, ORE. 238 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EX-
ISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THE STUDY ATTEMPTS TO
DETERMINE THE COST OF SERVING BPA
CUSTOMERS TO EVALUATE THE ADEQUACY OF
POWER SALES AND WHEELING RATES AND AID IN
DESIGNING PROPOSED NEW RATES. THE FEDERAL
AND NON-FEDERAL POWER UTILIZING THE
TRANSMISSION SYSTEM IS IDENTIFIED; LOADS IM-
POSED ON THE SYSTEM BY THE TWO CLASSES ARE
ASSESSED; TRANSMISSION COSTS AND REVENUES
ARE ALLOCATED. A STEP-BY-STEP DESCRIPTION OF
THE STUDY IS PROVIDED, FROM THE SELECTION OF
TEST YEARS TO THE ALLOCATION OF REVENUE RE-
QUIREMENTS TO CUSTOMERS.

U-206
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1978.
**LOAD STUDY AND PLAN OF SERVICE. MISSOULA
ELECTRIC COOPERATIVE.**
PORTLAND, ORE. AND MISSOULA, MT.: MISSOULA
ELECTRIC COOP. 31 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(MISSOULA AND POWELL COUNTIES). THESE
REPORTS GIVE BACKGROUND INFORMATION ON
THE HISTORY OF THE COOPERATIVE AND THE
SOCIO-ECONOMIC CONDITIONS OF ITS SERVICE
AREA; ESTIMATE FUTURE LOADS, ELECTRIC ENERGY
SALES AND PEAK DEMANDS; AND OUTLINE A PLAN
OF SERVICE.

U-207
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1978.
MULTIPURPOSE DAMS OF THE PACIFIC NORTHWEST.
PORTLAND, ORE. 60 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
REGIONAL.

(PACIFIC NORTHWEST). THIS PUBLICATION CON-
TAINS PHOTOGRAPHS OF 55 HYDROELECTRIC PRO-
JECTS: 30 FEDERAL DAMS, AND 25 NON-FEDERAL IN-
STALLATIONS. KERR AND HUNGRY HORSE DAMS
ARE INCLUDED: PHOTOGRAPHS AND NOTATIONS OF
DATE-SERVICE-INITIATED, KILOWATT AND DAM PUR-
POSE.

U-208
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE
POWER ADMINISTRATION.
1978.
TIME-DIFFERENTIATED PRICING ANALYSIS.
PORTLAND, ORE. 26 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL
DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS PUBLICATION EX-
PLAINS THE APPLICATION OF THE RATE CONCEPT
OF TIME DIFFERENTIATED PRICING APPLIED TO

BPA'S FEBRUARY 1980 COSTS. IT REPRESENTS PART OF THE EFFORT TO STUDY SEVERAL ALTERNATIVES CONSIDERED IN PREPARING A PROPOSAL FOR NEW WHOLESALE POWER RATES FOR 1979. THE SELECTION OF COSTING/PRICING PERIODS FOR CAPACITY AND ENERGY COSTS AND TRANSMISSION, AND THE ASSIGNMENT OF PRODUCTION FACILITIES TO COSTING/PRICING PERIODS IS DISCUSSED.

U-209
U.S. DEPARTMENT OF INTERIOR. BONNEVILLE POWER ADMINISTRATION.
1979.
COLUMBIA RIVER TREATY DOCUMENTS.
PORTLAND, ORE. 69 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS PUBLICATION CONTAINS OFFICIAL TREATY DOCUMENTS OF THE UNITED STATES AND CANADA REGARDING THE COLUMBIA RIVER. THE DOCUMENTS ARE ARRANGED IN CHRONOLOGICAL ORDER WITH NO EXPLANATORY TEXT.

U-210
U.S. DEPARTMENT OF INTERIOR. BUREAU OF FISHERIES.
1939.
STREAM AND LAKE SURVEY OF GLACIER NATIONAL PARK.
WASHINGTON, D. C. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT IS A SUMMARY OF THE DATA GATHERED BY SURVEY PARTIES OF THE U.S. BUREAU OF FISHERIES. TOPICS COVERED INCLUDE: FLUCTUATION OF VOLUME OF STREAMS, GRADIENT AND VELOCITY, COLOR AND TURBIDITY, TYPES OF BOTTOM, CHEMISTRY OF STREAMS, INCREASE IN ALKALINITY DOWNSTREAM, TEMPERATURE, EFFECT OF SEASON ON TEMPERATURE, THERMAL STRATIFICATION, TRANSPARENCY, AND CHEMICAL CONDITIONS IN SEASONAL STUDY LAKES.

U-211
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
1948.
AGRICULTURAL EXTENSION PROGRAM: FLATHEAD RESERVATION, 1948.
RONAN, MT.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORDS CENTER, GENERAL SERVICES ADMINISTRATION, SEATTLE. (RECORD GROUP NO. 75, FLATHEAD BOX 315).

(FLATHEAD INDIAN RESERVATION). THE ANNUAL REPORTS COVER THE HISTORY, GENERAL PROCEDURE, GENERAL OBJECTIVES, GOALS FOR THE UPCOMING YEAR, AND CALENDAR OF WORK FOR CREDIT CROPS, GARDENS, LIVESTOCK, AND 4-H CLUBS.

U-212
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
1982.
FLATHEAD PROJECT MONTANA - PLAN FOR COMPLETION. PARTS I, II, III.
BILLINGS, MT. 162 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). PART I - IRRIGATION DIVISION - THIS PORTION OF THE PLAN PROVIDES FOR IMPROVING SERVICE TO 110,000 ACRES OF PRESENTLY IRRIGATED LANDS, AND FOR THE EXTENSION OF SERVICE TO AN ADDITIONAL 10,000

ACRES OF LAND NOT PRESENTLY IRRIGATED. IN GENERAL THE PLAN PROVIDES FOR THE CONSTRUCTION OR REHABILITATION OF MAJOR AND MINOR STRUCTURES NEEDED TO MORE ADEQUATELY CONTROL AND REGULATE THE WATER SUPPLY TO REDUCE SEEPAGE LOSSES, AND TO MAKE FOR MORE EFFICIENT OPERATION. OF MAJOR IMPORTANCE IS THE CONSTRUCTION OF BLACK LAKE DAM TO SERVE THE JOCKO DIVISION AND A GENERAL CANAL LINING PROGRAM. PART II - POWER DIVISION - THE PURPOSE OF THIS PORTION OF THE PLAN IS TO PROVIDE POWER FOR OPERATION OF THE IRRIGATION DIVISION'S PUMPING PLANTS, TO SERVE ELECTRIC POWER USERS ON THE FLATHEAD INDIAN RESERVATION AND TO PROVIDE NET REVENUES TO ASSIST IN REPAYMENT OF IRRIGATION CONSTRUCTION COSTS. PART III TOTAL PROJECT - IN THIS PORTION OF THE PLAN A COMPOSITE FINANCIAL ANALYSIS EXAMINES THE BENEFITS OF THE PROJECT, IRRIGATION, AND POWER. CONSTRUCTION, OPERATION AND MAINTENANCE COSTS ARE DISCUSSED AND A BENEFIT COST RATIO IS DETAILED.

U-213
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
1983.
1983 REDESIGNATION REPORT OF THE IRRIGABLE LANDS OF THE FLATHEAD INDIAN IRRIGATION PROJECT, MONTANA.
BILLINGS, MT.: BRANCH OF LAND OPERATIONS, BILLINGS AREA OFFICE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY). THIS REPORT DESCRIBES THE INVESTIGATIONS AND RECOMMENDATIONS OF THE REDESIGNATION COMMITTEE COVERING THE FLATHEAD RESERVATION. IT CONSIDERS LAND CAPABILITY, ECONOMIC FEASIBILITY, AND WATER SUPPLY TO DETERMINE THE CLASSIFICATION OF IRRIGABLE AND NONIRRIGABLE LANDS.

U-214
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
1966 AND 1972.
AERIAL PHOTO COLLECTION.
RONAN, MT.: FLATHEAD INDIAN RESERVATION.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE COLLECTION INCLUDES 1966 BLACK AND WHITE COVERAGE OF THE ENTIRE RESERVATION AT 1:15,840, AND 1972 BLACK AND WHITE COVERAGE OF THE ENTIRE RESERVATION AT THE SAME SCALE.

U-215
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
1970.
INDIAN POPULATION AND HOUSING CHARACTERISTICS. MONTANA: 1970. U.S. CENSUS DATA.
BILLINGS, MT. 75 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA INDIAN RESERVATIONS: FLATHEAD INDIAN RESERVATION). THE FIRST THREE INDIAN CENSUS RELEASES FROM THE MISSOURI RIVER BASIN INVESTIGATIONS ARE COMBINED IN THIS PUBLICATION. THESE RELEASES ARE ON THE TOPICS OF: INDIAN POPULATION IN MONTANA, HOUSING UNITS OCCUPIED BY INDIANS AND NON-INDIANS IN MONTANA, AND AGE DISTRIBUTION OF MONTANA INDIANS.

U-216
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
1975.
FLATHEAD INDIAN RESERVATION, FOREST MANAGEMENT PLAN, 1972-1981.
RONAN, MT.: FLATHEAD INDIAN AGENCY. 413 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE COMPLETE FOREST MANAGEMENT PLAN IS COMPOSED OF FOUR SEPARATE DOCUMENTS: 1) THE FOREST MANAGEMENT PLAN, 2) THE ENVIRONMENTAL IMPACT ASSESSMENT, 3) LOGGING HISTORY, AND 4) FOREST INVENTORY ANALYSIS.

U-217
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
1978.
MISSION MOUNTAIN TRIBAL WILDERNESS REPORT.
RONAN, MT.: FLATHEAD INDIAN AGENCY, BRANCH OF FORESTRY. 31 + PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION: MISSION MTN. WILDERNESS). THE MAJOR PORTION OF THIS REPORT IS DEVOTED TO AN ECONOMIC ASSESSMENT AND ANALYSIS OF VARIOUS WILDERNESS BOUNDARY PROPOSALS. THE IMPACTS OF THE VARIOUS PROPOSALS WERE FIGURED FROM THE VIEWPOINT OF FOREST LAND AND PRODUCTS THAT WOULD BE EXCLUDED FROM HARVESTING AND FOREST MANAGEMENT.

U-218
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
ANNUAL.
FLATHEAD INDIAN IRRIGATION PROJECT: CROP REPORT.
RONAN, MT.: BRANCH OF LAND OPERATIONS.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). DATA IN THIS REPORT INCLUDES: NUMBER OF TONS/OR BUSHELS PRODUCED ON IRRIGATED CROP LANDS THAT WERE FARMED BY INDIANS, LEASED AND FARMED BY INDIANS OR NON INDIANS, OR FARMED BY OTHERS; THE AVERAGE MARKET VALUE PER UNIT OR PER ACRE, AND THE TOTAL MARKET VALUE. ACRE FEET OF PROJECT WATER USE IS ALSO INCLUDED.

U-219
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
IRREGULAR SINCE 1953.
THE MONTANA-WYOMING INDIAN.
BILLINGS, MT.: BILLINGS AREA OFFICE. 58 PP.
FINAL, GENERAL, N, EXISTING DATA, REGIONAL.

(WYOMING & MONTANA INDIAN RESERVATIONS: FLATHEAD INDIAN RESERVATION). THIS BOOKLET WAS PREPARED TO ANSWER FREQUENTLY ASKED QUESTIONS CONCERNING TODAY'S INDIANS. IT DESCRIBES THE REGION'S NATIVE AMERICANS IN GENERAL TERMS: GOVERNMENTS, CULTURAL DIFFERENCES AND CHANGES, SOCIO-ECONOMIC CIRCUMSTANCES, INDIAN-FEDERAL RELATIONSHIPS, THE TRUST RELATIONSHIP, THE ALLOTMENT ACT, INDIAN REORGANIZATION ACT, GOVERNMENT PROGRAMS FOR INDIANS, AND BIA ADMINISTRATION. EACH OF THE RESERVATIONS ARE DESCRIBED INDIVIDUALLY IN GENERAL TERMS.

U-220
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
AGENCY ANNUAL REPORT: BRANCH OF FORESTRY.
PABLO, MT.: FLATHEAD INDIAN RESERVATION.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THESE REPORTS CONTAIN TABLES SUMMARIZING: ALL TIMBER CUT, TIMBER CUT UNDER CONTRACT BY UNIT, TIMBER CUT UNDER CONTRACT BY SPECIES, TIMBER CUT OTHER THAN UNDER CONTRACT, ANNUAL FIRE REPORT, TIMBER RESOURCE DATA, TIMBER STAND IMPROVEMENT, REFORESTATION ACCOMPLISHMENTS, AND BACKLOG BY ACREAGE.

U-221
U.S. DEPARTMENT OF INTERIOR. BUREAU OF INDIAN AFFAIRS.
AMERICAN INDIAN TRIBES OF MONTANA AND WYOMING.
BILLINGS, MT.: U.S. DEPT. INTERIOR, BUREAU INDIAN AFFAIRS, PLANNING SUPPORT GROUP. REPT. NO. 262.

(WYOMING & MONTANA INDIAN RESERVATIONS: FLATHEAD INDIAN RESERVATION). THIS POPULARLY WRITTEN INTRODUCTION TO THE INDIAN RESERVATIONS IN WYOMING AND MONTANA INCLUDES SKETCHES OF THE HISTORY, POPULATION, AND ENVIRONMENT OF EACH RESERVATION, INCLUDING THE FLATHEAD. SKCC.

U-222
U.S. DEPARTMENT OF INTERIOR. BUREAU OF LAND MANAGEMENT.
BIENNIAL.
POTENTIAL FOR INTENSIVE TIMBER MANAGEMENT ON THE FLATHEAD INDIAN RESERVATION, MONTANA.
RONAN, MT.: FLATHEAD AGENCY. 59 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RESERVATION). THIS REPORT PRESENTS A PROPOSAL FOR PRODUCTION AND COMMERCIAL USE OF FOREST PRODUCTS UNDER A MULTIPLE-USE PROGRAM FOR INDIAN FOREST RESOURCES, AND DESCRIBES THE IMPACT OF SUCH A PLAN ON THE ECONOMY OF THE INDIAN OWNERS. THE PLAN OUTLINES THE STAFFING AND BUDGETS THAT WOULD BE REQUIRED, AND DISCUSSES TIMBER MANAGEMENT PROBLEMS THAT WOULD HAVE TO BE SOLVED TO SUSTAIN THE PRODUCTIVE CAPACITY OF THE LAND.

U-223
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1943.
TOPOGRAPHIC MAPS AND INDEX, FOR THE KALISPELL PROJECT.
KALISPELL, MT.: U.S. DEPT. INTERIOR, BUREAU OF RECLAMATION. 74 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS IS A SERIES OF 73 TOPOGRAPHIC MAPS CONSISTING OF FOUR SECTIONS TO A MAP. THE CONTOUR INTERVAL IS TWO FEET, AT A SCALE OF 1:4800.

U-224
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1948.
CLARK FORK BASIN-WIDE INVESTIGATION, MONTANA-IDAHO: INTERIM REPORT.
KALISPELL, MT.: KALISPELL PROJECT PLANNING OFFICE.
PRELIMINARY, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(MONTANA & IDAHO: CLARK FORK RIVER BASIN: FLATHEAD RIVER BASIN). THE REPORT INVENTORIES EXISTING DATA ON LAND AND WATER RESOURCES TO HELP IN THE SELECTION OF PROJECTS THAT SHOULD BE INCLUDED IN AN ULTIMATE PLAN OF DEVELOPMENT FOR THE BASIN. CURRENT AND PROPOSED ACTIVITIES REGARDING ENGINEERING

SURVEYS AND PLANS, LAND CLASSIFICATION, HYDROLOGIC, GEOLOGIC, AND ECONOMIC STUDIES ARE BRIEFLY DISCUSSED. SMALL POTENTIAL WATER USE PROJECTS ARE ALSO INCLUDED. AN ITEMIZED LIST OF CURRENT INVESTIGATIONS BY THE BUREAU OF RECLAMATION AND OTHER AGENCIES PERTAINING TO WATER RESOURCE DEVELOPMENT IS INCLUDED.

U-225
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1951.
HUNGRY HORSE PROJECT, MONTANA. DEFINITE PLAN REPORT VOL. 1. - GENERAL PLAN, VOL. 1.
BOISE, ID. 83 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR). DETAILS OF THE PLAN TO CONSTRUCT THE HUNGRY HORSE RESERVOIR. SITE SELECTION STUDIES, DETERMINATION OF MAXIMUM FEASIBLE HEIGHT OF DAM WATER SUPPLY, POWER DEVELOPMENT, PLAN OF DEVELOPMENT, PLAN OF OPERATION, FINANCIAL ANALYSIS, AND COOPERATION WITH OTHER AGENCIES IS DISCUSSED.

U-226
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1951.
KALISPELL PROJECT, MONTANA.
BOISE, ID. PROJECT PLANNING REPT. NO. 1-5.19-1.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL AREA: MAINSTEM OF THE FLATHEAD RIVER). THE PROPOSED PROJECT WOULD DEVELOP AN IRRIGATION SYSTEM FOR AN AREA OF NEARLY 60,000 ACRES, MOSTLY DRY LAND FARMS. PROJECT COSTS ARE ESTIMATED, PROJECT JUSTIFICATION IS OUTLINED, PHYSICAL CHARACTERISTICS OF THE AREA ARE DISCUSSED, AND ALTERNATIVE PLANS ARE EXAMINED.

U-227
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1951, 1955, 1957, 1960.
ALLOCATION OF COSTS, HUNGRY HORSE PROJECT, MONTANA.
BOISE, ID.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE DAM). THIS SERIES OF PROJECTED AND FINAL ALLOCATION COSTS OF THE HUNGRY HORSE DAM OUTLINES FLOOD CONTROL, POWER AND NAVIGATION BENEFITS, CAPITAL AND ANNUAL COSTS, SINGLE PURPOSE ALTERNATIVES, AND SEPARABLE COSTS.

U-228
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1952.
CLARK FORK BASIN, MONTANA: RECONNAISSANCE REPORT.
BOISE, ID. 255 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

NOTE: TABLES OF IRRIGATED LAND USE, TYPE OF FARM, AND FARM SIZE WITHIN THE COUNTIES OF THE FLATHEAD RIVER BASIN AND TABLES PROVIDING DATA ON THE KALISPELL PROJECT ARE INCLUDED. MAPS OF PROPOSED AND PRESENT DEVELOPMENT SITES IN THE COUNTIES ARE ALSO PROVIDED.

(CLARK FORK BASIN: UPPER FLATHEAD RIVER BASIN & LOWER FLATHEAD RIVER BASIN). THE REPORT PRESENTS DATA CONCERNING IRRIGATION AND

WATER DEVELOPMENT SITES, FOLLOWING A RESUME OF THE BASIN'S LAND AND WATER RESOURCES AND AGRICULTURAL ECONOMY. INDIVIDUAL BASINS WITHIN THE CLARK FORK BASIN ARE DISCUSSED. INCLUDED IN THE DISCUSSION OF INDIVIDUAL BASINS ARE GENERAL DESCRIPTIONS OF PHYSICAL FEATURES AND SETTLEMENTS, DAMS, SITES, WATER SUPPLY, IRRIGATION REQUIREMENTS, FISH AND WILDLIFE, EXISTING WATER DEVELOPMENT PROJECTS AND AGRICULTURAL ECONOMY.

U-229
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1953.
SPECIAL REPORT: MULTIPLE-PURPOSE STORAGE POSSIBILITIES-CLARK FORK RIVER BASIN.
BOISE, ID.: U.S. DEPT. INTERIOR, BUREAU RECLAMATION.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(CLARK FORK RIVER BASIN). THE REPORT IDENTIFIES THE MULTIPLE-PURPOSE STORAGE POSSIBILITIES WHICH MERIT CONSIDERATION IN MEETING NEAR-FUTURE STORAGE NEEDS. IT PRESENTS A SUMMARY ANALYSIS OF STORAGE POSSIBILITIES, NOTING THE "BEST" STORAGE OPPORTUNITIES REQUIRED FOR POWER AND FLOOD CONTROL (THE PARADISE AND GLACIER VIEW SITES). NEEDS AND PROBLEMS IN THE DEVELOPMENT OF THE BASIN'S WATER RESOURCES ARE BRIEFLY ASSESSED.

U-230
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1954.
FLOOD CONTROL OPERATION OF HUNGRY HORSE RESERVOIR, HUNGRY HORSE PROJECT, MONTANA.
BOISE, ID. 14 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR). THIS PAPER REPORTS ON THE FLOOD CONTROL PHASE OF THE OVERALL OPERATING PLAN FOR HUNGRY HORSE RESERVOIR. PROVISIONS FOR MAKING RUNOFF FORECASTS ARE ESTABLISHED. METHODS OF EVACUATION PERIOD ARE OUTLINED. PROCEDURES FOR FORECASTING INFLOW ARE DETAILED, FLOOD STORAGE PARAMETERS ARE CHARTED, AND AVERAGE JANUARY-APRIL RUNOFF IS GRAPHED.

U-231
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1956.
CLARK FORK RIVER BASIN (ABOVE IDAHO STATE BOUNDARY): SPECIAL REPORT, WATER RESOURCES DEVELOPMENT MAY 1956.
BOISE, ID. 40 PP.
PART OF A SERIES, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(CLARK FORK RIVER BASIN: UPPER & LOWER FLATHEAD RIVER). THE REPORT INVENTORIES KNOWN POSSIBILITIES FOR COMPREHENSIVE WATER RESOURCE DEVELOPMENT FOR IRRIGATION AND OTHER PURPOSES. FOR EACH OF THE ELEVEN SUBBASINS IDENTIFIED: DRAINAGE SIZE AND AREA, IRRIGATED, AND ARABLE LAND ARE NOTED. FIVE LISTINGS OF SITES ARE PRESENTED: 1) SITES EXCLUDED BY DAMS BUILT, BUILDING OR FILED ON; 2) SITES EXCLUDED BY TECHNICAL OR PRESENT ECONOMIC INFEASIBILITY; 3) SITES EXCLUDED BY PRESENT NEGATIVE SENTIMENT; 4) SITES WORTHY OF FURTHER INVESTIGATION; AND 5) SITES WORTHY OF IMMEDIATE INVESTIGATION. THE SITES ARE DESCRIBED: AVERAGE GROSS HEAD, USABLE STORAGE, MEAN AVERAGE RUNOFF, AND POSSIBLE DAM SIZE FIGURES ARE INCLUDED.

U-232

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1956.

INVENTORY REPORT: CLARK FORK RIVER BASIN (ABOVE IDAHO STATE BOUNDARY) MARCH 1956.

BOISE, ID. 52 PP.

FINAL, PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(CLARK FORK RIVER BASIN: UPPER & LOWER FLATHEAD RIVER). THE REPORT INVENTORIES KNOWN POSSIBILITIES FOR IRRIGATION AND OTHER WATER RESOURCE DEVELOPMENTS. FOR EACH OF THE ELEVEN SUBBASINS IDENTIFIED, A SUMMARY DESCRIBING DRAINAGE AREA, SETTING AND POSSIBLE STORAGE SITES IS PRESENTED. FIVE LISTINGS OF SITES ARE INCLUDED: 1) SITES EXCLUDED BY DAMS BUILT, BUILDING OR FILED ON; 2) SITES EXCLUDED BY TECHNICAL OR PRESENT ECONOMIC INFEASIBILITY; 3) SITES EXCLUDED BY PRESENT NEGATIVE SENTIMENT; 4) SITES WORTHY OF FURTHER INVESTIGATION; AND 5) SITES WORTHY OF IMMEDIATE INVESTIGATION.

U-233

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1957.

SPRUCE PARK DAM AND RESERVOIR, FLATHEAD RIVER PROJECT, MONTANA. RECONNAISSANCE.

BOISE, ID. 27 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA WITHIN THE BASIN.

(MIDDLE FORK OF THE FLATHEAD RIVER). THIS REPORT OUTLINES A POTENTIAL MULTIPURPOSE DEVELOPMENT, PROVIDING FLOOD CONTROL STORAGE AND THE GENERATION OF ADDITIONAL HYDROELECTRIC POWER ON THE MIDDLE FORK OF THE FLATHEAD. THE PROJECT CONSISTS OF AN EARTH AND ROCKFILL DAM, A TRANSMOUNTAIN DIVERSION TUNNEL INTO HUNGRY HORSE RESERVOIR, AND A POWER PLANT. AN ECONOMIC ANALYSIS IS INCLUDED.

U-234

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1958.

TECHNICAL RECORD OF DESIGN AND CONSTRUCTION HUNGRY HORSE DAM AND POWER PLANT.

DENVER, CO. 278 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE DAM). THIS TECHNICAL RECORD OF DESIGN AND CONSTRUCTION OF HUNGRY HORSE DAM AND POWER PLANT IS DIVIDED INTO FOUR MAIN PARTS. PART I CONTAINS DISCUSSIONS OF GENERAL PLANNING AND HISTORICAL DATA. IT ALSO CONTAINS SECTIONS SUMMARIZING COSTS AND THE PLAN OF OPERATION TO GIVE THE BEST RESULTS RELATIVE TO POWER PRODUCTION AND FLOOD CONTROL GEOLOGIC INVESTIGATIONS AND FOUNDATION GROUTING AND TREATMENT ARE DISCUSSED IN PART II. PART III IS DEVOTED TO DISCUSSIONS OF THE DESIGN OF THE STRUCTURES AND EQUIPMENT. THE DESIGN OF EACH MAJOR STRUCTURE IS THE SUBJECT OF A SEPARATE CHAPTER. IN PART IV THE CHAPTERS ARE RESTRICTED TO THE DISCUSSION OF ONE PARTICULAR PHASE OF THE CONSTRUCTION OPERATION.

U-235

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1961.

FLATHEAD RIVER PROJECT: SPRUCE PARK DAM RESERVOIR INFORMATION REPORT.

BOISE, ID.

PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MIDDLE FORK OF THE FLATHEAD RIVER). THIS REPORT GIVES A DESCRIPTION OF THE PROPOSED SPRUCE PARK DAM, RESERVOIR, TRANSMOUNTAIN TUNNEL, AND POWER PLANT. IT CONTAINS A DESCRIPTION OF THE PHYSICAL FEATURES, SETTLEMENT AND DEVELOPMENT, PREVIOUS INVESTIGATION, PROBLEMS AND NEEDS, WATER AND POWER, PLANS AND ESTIMATES, FINANCIAL ANALYSIS, AND PROJECT JUSTIFICATION.

U-236

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1966.

CONSTRUCTED BEHAVIOR ANALYSIS OF HUNGRY HORSE DAM FOR OCTOBER, 1949, TO AUGUST, 1967.

DENVER, CO.: DIV. DESIGN, DAMS BRANCH. REPT. DD-2. 27 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE DAM). STRAIN METER CLUSTERS, STRESS METER PAIRS, "NO STRESS" STRAIN METER PAIRS, STRESSED STRAIN METER PAIRS AND RESISTANCE THERMOMETERS WERE EMBEDDED IN THE CONCRETE OF HUNGRY HORSE DAM DURING CONSTRUCTION. AFTER COMPLETION OF THE DAM, THREE PLUMBLINES WERE SUSPENDED FROM APPROXIMATELY THE CREST TO THE DAM FOUNDATION IN WELLS FORMED IN THE CONCRETE. PERIODIC READINGS OF THE EMBEDDED INSTRUMENTS WERE CONTINUED FROM INSTALLATION THROUGH AUGUST 1967.

U-237

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1966.

WATER AND LAND RESOURCE DEVELOPMENT IN THE COLUMBIA RIVER DRAINAGE BASIN IN MONTANA.

BOISE, ID. 20 PP.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(COLUMBIA RIVER DRAINAGE BASIN: FLATHEAD RIVER BASIN). THIS REPORT DESCRIBES THE PRESENT DEVELOPMENT IN THE BASIN (HUNGRY HORSE, FLATHEAD IRRIGATION AND POWER PROJECT, ETC.); AND THE POTENTIAL DEVELOPMENT OF THE CLARK FORK RIVER BASIN (THE KALISPELL PROJECT, SPRUCE PARK DAM AND RESERVOIR, BUFFALO RAPIDS NO. 2 & 3 AND SLOAN BRIDGE).

U-238

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1972.

SPECIAL PRELIMINARY REPORT ON RISING WATER LEVELS AT ECHO LAKE, MONTANA.

BOISE, ID. 20 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(ECHO LAKE). THE WATER LEVEL OF THE LAKE HAS BEEN RISING AND CAUSING DAMAGE. THE BUREAU OF RECLAMATION WAS ASKED TO REVIEW THE SITUATION TO DETERMINE POSSIBLE CAUSES AND SOLUTIONS. THIS REPORT DESCRIBES THE PROBLEMS THAT HAVE BEEN CREATED BY THE HIGH WATER LEVELS, CONSIDERS THE PROBABLE CAUSES FOR THESE HIGH WATER LEVELS, AND EVALUATES POSSIBLE SOLUTIONS. THIS REPORT IS BASED ON THE LIMITED INFORMATION AVAILABLE FROM A FIELD TRIP AND SECONDARY SOURCES. IF SPECIFIC SOLUTIONS ARE TO BE SOUGHT, ADDITIONAL FIELD INVESTIGATIONS WILL HAVE TO BE MADE.

U-239

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1973.

FLATHEAD RIVER PROJECT, MONTANA: STILLWATER DIVISION.

BOISE, ID. (TYPEWRITTEN). 14 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(STILLWATER VALLEY). THE REPORT PRESENTS DATA EXTRACTED FROM A PLAN FORMULATION APPENDIX, A SUMMARY OF THE BUREAU OF RECLAMATION'S STUDIES OF THE STILLWATER DIVISION, FLATHEAD RIVER PROJECT, WHICH WERE SUSPENDED AT THE END OF FEBRUARY 1972. IT TRACES THE HISTORY OF THE RECLAMATION INTEREST IN THE FLATHEAD BASIN AS WELL AS REPORTING ON THE INTEREST IN PROJECT-TYPE IRRIGATION DEVELOPMENT FOR THE STILLWATER AREA. PROBLEMS AND NEEDS REGARDING IRRIGATION DEVELOPMENT FOR ASHLEY CREEK, SPRING CREEK AND LOST CREEK AND WATER-RELATED ISSUES SUCH AS FISH AND WILDLIFE, FLOOD CONTROL AND WATER QUALITY ARE DISCUSSED. THE PROJECT PLAN ITSELF, CONSTRUCTION ACTIVITIES, AND PROJECT FUNCTIONS IN TERMS OF IRRIGATION, FISH AND WILDLIFE, AND OTHER PURPOSES ARE DESCRIBED.

U-240

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1974.

DROUGHT AND RISK REDUCTION AND IRRIGATION DEVELOPMENT CONSIDERATIONS OF THE FLATHEAD RIVER BASIN.

BOISE, ID. 15 PP.

DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN). THE REPORT SUMMARIZES INFORMATION REGARDING GROUND AND SURFACE WATER RESOURCES, THEIR MANAGEMENT AND USE. 1980, 2000, AND 2020 PROJECTED FIGURES OF DROUGHT RISK AND IRRIGATION OPPORTUNITIES ARE EVALUATED TO IDENTIFY FUTURE IRRIGATION REQUIREMENTS AND USE IN THE FLATHEAD BASIN.

U-241

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1974.

REVIEW OF HUNGRY HORSE OPERATIONS AS THEY AFFECT RECREATION AND FISH HABITAT.

BOISE, ID. 10 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR). A RESEARCH TEAM WAS DESIGNATED TO REVIEW THE OPERATION CRITERIA OF THE RESERVOIR TO ASCERTAIN IF CHANGES COULD BE MADE TO IMPROVE RECREATION POTENTIAL ON THE LAKE AND REDUCE ENVIRONMENTAL IMPACT ON THE FISHERY BOTH IN THE RESERVOIR AND DOWN STREAM. RESERVOIR OPERATIONS, HISTORICAL OPERATIONS, RESERVOIR RECREATION, POWER PRODUCTION, CRITICAL PERIOD RULE CURVES, ENERGY CONTENT CURVES, PROVISIONAL POWER (OR AVAILABLE EXCESS), RECOMMENDATIONS TO IMPROVE RECREATION POTENTIAL ON THE RESERVOIR, FISH HABITAT IN THE RESERVOIR, DOWN STREAM EFFECTS OF HUNGRY HORSE (TEMPERATURE FLOW), AND RECOMMENDATIONS ARE DISCUSSED.

U-242

U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.

1975.

DISSOLVED GAS SURVEY: PACIFIC NORTHWEST REGION.

BOISE, ID. 16 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: DIAGRAMS DEPICTING THE PLAN AND SECTIONS OF HUNGRY HORSE DAM ARE INCLUDED.

(PACIFIC NORTHWEST: MONTANA: HUNGRY HORSE DAM). THIS PUBLICATION REPORTS ON THE DISSOLVED GAS SURVEY STARTED BY THE BUREAU OF RECLAMATION IN THE SPRING OF 1973, MONITORING WATERS AROUND SELECTED DAM SITES. ONSITE ANALYSES OF DISSOLVED GASES, WITH EMPHASIS ON NITROGEN LEVELS, WERE CONDUCTED. DURING THE TWO YEARS THAT THE SURVEY WAS IN PROGRESS, RIVERFLOW AND DISCHARGE VOLUMES AT THE SITES HAVE VARIED ENOUGH TO ALLOW THE GATHERING OF DATA REGARDING DISSOLVED NITROGEN LEVELS AT VARYING RATES OF FLOW AND DISCHARGE. A SUMMARIZATION OF THE FINDINGS FOR EACH STATE IS PRESENTED.

U-243
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1975-76.
CRITICAL WATER PROBLEMS FACING THE ELEVEN WESTERN STATES: 1) WESTWIDE STUDY REPORT, 2) EXECUTIVE SUMMARY, 3) STATE COMMENTS.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 640 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

NOTE: THE REPORT PRESENTS A SUMMARY OF CONFLICTS IN PROPOSED USES OF THE FLATHEAD RIVER BASIN RESOURCES, A BRIEF DISCUSSION OF PROBLEM RESOLUTION, AND A RECOMMENDATION.

(WESTERN UNITED STATES). THE REPORT IS A PUBLICATION OF THE WESTERN U.S. WATER PLAN, OR, WESTWIDE STUDY, WHICH WAS INITIATED BY A CONGRESSIONAL ACT IN 1968. IT PRESENTS THE RESULTS OF THE STUDY TO DETERMINE AND ASSESS CRITICAL WATER RELATED RESOURCE PROBLEMS AND SETS FORTH ALTERNATIVE STUDIES AND VIEWPOINTS. ALTHOUGH THE REPORT FORMULATES NO PLANS, IT RECOMMENDS LEVELS AND AREAS OF FUTURE FEDERAL INVOLVEMENT IN WATER AND RELATED LAND RESOURCES PLANNING. STUDY RESULTS ARE PRESENTED IN THREE PARTS: 1) THE REPORT, 2) THE EXECUTIVE SUMMARY, AND 3) THE OFFICIAL COMMENTS. CHAPTERS IN THE INITIAL REPORT COVER THE FOLLOWING TOPICS: STUDY PURPOSE, HISTORY AND APPROACH, THE WESTWIDE SITUATION (THE AREA'S ECONOMY, NATURAL ENVIRONMENT, LAND AND WATER RESOURCE BASE), KEY FACTORS IN THE WEST'S FUTURE, WESTWIDE AND REGIONAL PROBLEMS, AND THE WATER SUPPLY AND CRITICAL PROBLEMS OF EACH WESTERN STATE. CRITICAL MONTANA PROBLEMS DISCUSSED INCLUDE: WATER REQUIREMENTS TO MEET ENERGY DEMANDS, NEED FOR WATER AND RELATED LAND RESOURCE DEVELOPMENT STUDIES ON INDIAN RESERVATIONS, CONFLICTS IN PROPOSED USES OF THE FLATHEAD RIVER BASIN RESOURCES, IMPROVEMENT OF WATER QUALITY IN THE YELLOWSTONE AND MISSOURI RIVER BASINS, POOR WATER QUALITY DUE TO EROSION ON MUDDY CREEK AND THE SUN RIVER, AND SALINE SEEP DEVELOPMENT. THE OFFICIAL COMMENTS ARE A COMPILATION OF OFFICIAL REVIEWS.

U-244
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1976.
HUNGRY HORSE POWER PLANT ENLARGEMENT WITH REREGULATING DAM, HUNGRY HORSE PROJECT. WESTERN ENERGY EXPANSION STUDY.
BOISE, ID. 8 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR). THE INFORMATION CONTAINED IN THIS STUDY WAS DEVELOPED FOR USE IN ANALYZING A BROAD RANGE OF POWER POTENTIALS FOR THE WESTERN ENERGY EXPANSION STUDY WHICH WAS CONDUCTED TO EXPLORE

ALTERNATIVE SOURCES OF ENERGY IN THE WESTERN STATES. PHYSICAL AND OPERATIONAL FEATURES OF THE PROPOSED EXPANSION, ECONOMIC FACTORS, ENVIRONMENTAL CONSIDERATIONS, SOCIAL IMPACTS, AND LAND AND WATER USE IMPACTS ARE OUTLINED.

U-245
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
1977.
REPORT ON THE WESTERN ENERGY EXPANSION STUDY.
BOISE, ID. 162 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, NATIONAL.

(WESTERN UNITED STATES). THE REPORT IDENTIFIES AND EVALUATES OPPORTUNITIES FOR INCREASED ELECTRICAL POWER AND ENERGY GENERATION WHICH WARRANT FURTHER STUDY. THE FOCUS IS ON DEVELOPMENT OF HYDROELECTRIC POWER, INCLUDING PUMPED STORAGE AT NEW AND EXISTING SITES. OTHER OPPORTUNITIES RELATE TO DEVELOPMENT OF ELECTRICAL ENERGY USING SOLAR, WIND, AND GEOTHERMAL RESOURCES.

U-246
U.S. DEPARTMENT OF INTERIOR. BUREAU OF RECLAMATION.
ANNUAL.
MONTANA: BUREAU OF RECLAMATION PROJECTS.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 33 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS BOOKLET DESCRIBES THE BUREAU OF RECLAMATION'S HISTORIC, PRESENT, AND FUTURE INVOLVEMENT IN THE DEVELOPMENT OF THE STATE'S WATER RESOURCES. IRRIGATION PROJECTS AND MULTIPURPOSE PROJECTS SUCH AS THE HUNGRY HORSE PROJECT ARE BRIEFLY DISCUSSED.

U-247
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE
1939 TO CURRENT.
ANNUAL REPORT. CRESTON HATCHERY.
KALISPELL, MT. PAGES VARIABLE.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: INITIALLY KNOWN AS "THE GLACIER NATIONAL PARK FISH HATCHERY."

(CRESTON). THESE ANNUAL REPORTS DISCUSS THE HISTORY AND DEVELOPMENT OF THE HATCHERY, FROM ITS BEGINNINGS IN 1939 TO RAISE TROUT FOR GLACIER NATIONAL PARK TO ITS SERVICING OF THE FLATHEAD AREA, THE RESULT OF FEDERAL-STATE AND INTERAGENCY AGREEMENTS. THE HATCHERY'S SETTING, BUILDINGS, REARING FACILITIES, WATER SUPPLY, THE LEGAL STATUS OF THE LAND AND WATER AND ITS OPERATION, MAINTENANCE, AND COSTS ARE DETAILED. THE REPORTS CHRONICLE THE REARING OF BOTH YELLOWSTONE (1948 TO 1962) AND WEST SLOPE (1964 TO THE PRESENT) CUTTHROAT TROUT (*SALMO CLARKI*), BROOK TROUT (*SALVELINUS FONTINALIS*), RAINBOW TROUT (*SALMO GAIRDNERI*), AND LAKE TROUT (*SALVELINUS NAMAYCUSH*). THE REPORTS CONTAIN RECORDS OF: EGG SHIPMENTS; FISH FOOD; PRODUCTION; PLANTINGS IN GLACIER PARK, THE BLACKFOOT, FLATHEAD, ROCKY BOY, AND FORT BELKNAP RESERVATIONS; THE FLATHEAD, LOLO, AND KUTENAI NATIONAL FORESTS; MORTALITY; AND FISH CULTURAL OPERATIONS. AFTER 1955, 5-YEAR PRODUCTION RECORDS ARE GIVEN. FISH MANAGEMENT RECORDS SHOW DISEASE AND NUTRITIONAL DIFFICULTIES. INFECTIONS OF YELLOWSTONE CUTTHROAT TROUT WITH HEPATOMA IN 1961; OF WESTSLOPE CUT-

THROAT WITH FURUNCULOSIS IN 1971 ARE NOTED. THE INITIATION OF FIN CLIPPING AND MARKING IN THE 1960'S TO AID INVESTIGATIONS INTO MIGRATION PATTERNS IS REPORTED.

U-248
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1956.
BIRD LIST OF NATIONAL BISON RANGE.
(RL-167). MOISE, MT. (TYPEWRITTEN). 3 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE LIST INCLUDES A BRIEF DESCRIPTION OF THE SETTING, ELEVATIONS, VEGETATION, BIRD HABITATS, AND BISON HERD OF THE REFUGE. 116 SPECIES OF BIRDS OBSERVED SINCE THE REFUGE'S ESTABLISHMENT IN 1908 ARE LISTED. THE ABUNDANCE OF EACH OF THE SPECIES DURING EACH SEASON IS NOTED.

U-249
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1960.
A DETAILED REPORT ON FISH AND WILDLIFE RESOURCES AFFECTED BY SPRUCE PARK DAM AND RESERVOIR, FLATHEAD RIVER PROJECT, MONTANA.
PORTLAND, ORE. 22 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MIDDLE FORK OF THE FLATHEAD RIVER: SPRUCE PARK & RESERVOIR). THE SPRUCE PARK DEVELOPMENT PROPOSED BY THE BUREAU OF RECLAMATION IS A MULTIPURPOSE POWER AND FLOOD-CONTROL PROJECT. THIS DETAILED REPORT APPRAISES EFFECTS THE DAM-RESERVOIR WOULD HAVE ON FISH AND WILDLIFE. A DESCRIPTION OF THE AREA'S PHYSICAL AND ECONOMIC FEATURES IS INCLUDED AND THE PLAN OF DEVELOPMENT IS OUTLINED. THE FISHERY AND WILDLIFE WITH AND WITHOUT THE PROJECT IS COMPARED, AND A DISCUSSION SUMMARIZES THE FINDINGS. A RECOMMENDATION AGAINST CONSTRUCTION IS EXPLAINED.

U-250
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1961.
MAMMALS OF THE NATIONAL BISON RANGE.
MOISE, MT. 4 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS IS AN ANNOTATED LIST OF SPECIES AND WHAT AREAS THE MAMMALS ARE MOST LIKELY TO BE FOUND IN.

U-251
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1964.
PROGRESS REPORT: FISH MANAGEMENT PROGRAM, KINTLA LAKE, GLACIER NATIONAL PARK, MONTANA.
KALISPELL, MT.: BUREAU SPORT FISHERIES & WILDLIFE, BRANCH FISHERY MANAGEMENT SERVICES. 17 PP.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: KINTLA LAKE). THE REPORT DISCUSSES TEST NETTING RESULTS AND MANAGEMENT OF SPECIES FOUND IN THE LAKE. APPENDED MATERIAL INCLUDES: EVALUATION OF FISHING AT KINTLA, A SUMMARY OF ALL KNOWN DATA ON THE LAKE (GENERAL AND PHYSICAL DESCRIPTION, WATER QUALITY, GENERAL BIOLOGY, FISH, FISHING), AND RECORD OF NET SAMPLING.

U-252
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1965.
BIRDS OF THE NATIONAL BISON RANGE.
MOISE, MT. 4 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THIS LIST OF BIRDS CONTAINS 185 SPECIES THAT HAVE BEEN OBSERVED SINCE THE ESTABLISHMENT OF THE REFUGE IN 1908. COMMON NAMES, RELATIVE ABUNDANCE, SEASONS OBSERVED, AND SPECIES NESTING LOCALLY ARE NOTED.

U-253
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1966.
TECHNICAL PAPERS - FLATHEAD LAKE (MONTANA) FISHERY INVESTIGATIONS, 1961-1964.
WASHINGTON, D.C.: BUREAU SPORT FISHERIES AND WILDLIFE. 25+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). CREEL CENSUS INVESTIGATIONS ON FLATHEAD LAKE IN MONTANA WERE CONDUCTED FROM 1961-1964 TO DETERMINE UTILIZATION AND HARVEST, ACTIVITIES OF FISHERMEN, AND CHARACTERISTICS OF THE FISH RESOURCES. DATA ON FISHERMEN'S ACTIVITIES WERE COLLECTED BY PERSONAL INTERVIEW AND POSTAL QUESTIONNAIRE SURVEYS. INFORMATION IS PRESENTED ON LAUNCHING SITES, STARTING TIMES, STOPPING TIMES, RESIDENCE OF FISHERMEN, CATCH SUCCESS, FISHING PRESSURE DISTRIBUTION, ANNUAL UTILIZATION AND NUMBERS, LENGTHS AND WEIGHTS OF FISHES.

U-254
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1968.
BIRDS OF THE NINEPIPE AND PABLO NATIONAL WILDLIFE REFUGES.
REFUGE LEAFLET 182-R3. 3 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(NINEPIPE & PABLO NATL. WILDLIFE REFUGES). THE LIST CONTAINS 187 SPECIES OF BIRDS RECORDED SINCE THE REFUGES WERE ESTABLISHED IN 1921. SYMBOLS INDICATING THE ABUNDANCE OF EACH SPECIES ARE ARRANGED IN COLUMNS REPRESENTING THE FOUR SEASONS. THOSE SPECIES KNOWN TO HAVE NESTED ON THE REFUGES ARE INDICATED.

U-255
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1976.
THE JOCKO RIVER, FLATHEAD INDIAN RESERVATION, MONTANA. SPECIAL REPORT, FISHERY MANAGEMENT REPORT.
KALISPELL, MT. 18 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(JOCKO RIVER). THE STUDY WAS CONDUCTED TO PROVIDE AN INVENTORY OF BASIC BIOMETRICS AND PHYSICAL STREAM HABITAT TO ESTABLISH MANAGEMENT PRACTICES LEADING TO DIVERSITY IN FISH SPECIES DISTRIBUTION. INVESTIGATIONS REQUIRED MEASUREMENT OF 15 WATER QUALITY PARAMETERS, SAMPLING OF FISH POPULATIONS AND A NUMERICAL STREAM HABITAT EVALUATION AT SEVEN SAMPLING STATIONS. THE WATER QUALITY PARAMETERS INCLUDE: WATER TEMPERATURE, TOTAL SUSPENDED SOLIDS, NITRATES, TOTAL NITROGEN, TOTAL PHOSPHORUS, CHEMICAL OXYGEN DEMAND, DISSOLVED OXYGEN, PH, FECAL COLIFORM, ALKALINITY, SPECIFIC CONDUCTANCE,

CALCIUM, SODIUM, CHLORIDE, AND POTASSIUM. THE COLLECTION OF SEVEN FISH SPECIES AND THEIR DISTRIBUTION IS REPORTED. STREAM HABITAT EVALUATIONS INVOLVED TEMPERATURE, MEASUREMENTS OF STREAM DEPTH, AND CALCULATIONS OF POOL MEASURE, POOL STRUCTURE, STREAM BOTTOM AND STREAM BANK ENVIRONMENT.

U-256
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1977.
"COMPUTER TAPE OF AQUATIC INSECT DATA, NORTH FORK BASELINE."
KALISPELL, MT.: FISHERIES RESOURCE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER & ITS TRIBUTARIES). A COMPUTER TAPE IDENTIFYING OVER 150,000 AQUATIC INSECT SPECIMENS TO THE LOWEST POSSIBLE TAXON. SAMPLES WERE COLLECTED DURING 1975 AND 1976 WITH VARIOUS SEASONS REPRESENTED TO INSURE THE COLLECTION OF ALL TAXA.

U-257
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1977.
FISHERY INVESTIGATIONS: GLACIER NATIONAL PARK, 1977 PROGRESS REPORT.
KALISPELL, MT. 322 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT ATTEMPTS TO RELATE MAJOR AQUATIC BIOLOGICAL AND CHEMICAL FACTORS TO THE PHYSICAL ENVIRONMENT OF THE NORTH FORK RIVER TRIBUTARIES SYSTEM. A PHYSICAL STREAM HABITAT RATING METHOD AND AN AESTHETICS RATING ARE INCORPORATED INTO AN OVERALL EVALUATION CONTAINING FISH POPULATION DATA, AQUATIC INSECT DATA, STREAM STABILITY RATING, RIFFLE ANALYSIS, AND STREAM FLOW OR WATER YIELD INFORMATION. SECTION 1 OF THIS REPORT INCLUDES AN INVENTORY OF ALL LAKES AND STREAMS OF THE ENTIRE PARK AREA. FOUR OF THE LARGEST NORTH FORK LAKES WERE SAMPLED FOR FISH POPULATION DYNAMICS INFORMATION AND THAT DATA IS REPORTED, AS WELL AS RESULTS OF FISH TRAPPING ACTIVITIES AT AKOKALA CREEK. THE MAJOR SUBJECT HEADINGS OF THIS REPORT ARE: THE BASIC WATER INVENTORY, THE BIOLOGICAL SAMPLING STATIONS, THE AQUATIC INVENTORY INVESTIGATION, THE AQUATIC INSECT INVESTIGATION, STREAM FLOW INVESTIGATION, AND FISH POPULATION STUDIES.

U-258
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1977.
FLATHEAD INDIAN RESERVATION ANNUAL PROJECT REPORT - FISHERY MANAGEMENT PROGRAM.
KALISPELL, MT. 17+ PP.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). FISH POPULATIONS WERE MONITORED FROM THE JOCKO RIVER SYSTEM UTILIZING SAMPLING STATIONS IDENTIFIED IN PREVIOUS YEARS. TURTLE LAKE WAS REHABILITATED IN COOPERATION WITH THE CONFEDERATED SALISH AND KOOTENAI TRIBES. CRAZY FISH LAKE CUTTHROAT WERE ANALYZED GENETICALLY AND FOUND TO BE QUITE DIFFERENT THAN OTHER CUTTHROAT SPECIMENS OF THE AREA AND MT. A FISH KILL WAS INVESTIGATED AT THE DETERT RANCH WHERE RAINBOW TROUT WERE BEING REARED AS A COMMERCIAL VENTURE. SEVERAL ROAD AND BRIDGE CONSTRUCTION PROJECTS WERE REVIEWED FOR ENVIRONMENTAL IMPACT

ASSESSMENT. WESTSLOPE CUTTHROAT WERE INTRODUCED TO FIVE MISSION MOUNTAIN HIGH LAKES DURING THE YEAR. A FISHERY MANAGEMENT PLAN WAS PREPARED FOR THE STREAMS AND LAKES OF THE FLATHEAD INDIAN RESERVATION.

U-259
U.S. DEPARTMENT OF INTERIOR. FISH AND WILDLIFE SERVICE.
1979.
LOWER FLATHEAD RIVER FISHERY INVESTIGATION.
KALISPELL, MT. 138 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: THIS STUDY WAS FUNDED BY THE U.S. ARMY CORPS OF ENGINEERS AS A PART OF LOWER FLATHEAD RIVER HYDROPOWER INVESTIGATIONS.

(FLATHEAD INDIAN RESERVATION: LOWER FLATHEAD RIVER). THE OBJECTIVES OF THIS STUDY WERE: 1) TO DETERMINE SPECIES OCCURRENCE AND RELATIVE ABUNDANCE OF FISHES WITHIN THE FLATHEAD RIVER AT SEVERAL LOCATIONS BETWEEN KERR DAM AND PERMA, MONTANA, AND OBTAIN DATA ON THE SPAWNING MOVEMENTS OF FISH INTO MAJOR TRIBUTARIES OF THE FLATHEAD RIVER WITHIN THE SAME REACH, 2) TO DETERMINE QUALITATIVELY AGE STRUCTURE, GROWTH RATE AND RANGES OF MAJOR FISH SPECIES AND 3) TO INITIATE TYPE MAPPING OF THE FLATHEAD RIVER FISHERY HABITAT. THIS EFFORT WAS TO INCLUDE, BUT NOT BE LIMITED TO, POOL/RIFFLE RATIO AND BACKWATER AREA IDENTIFICATION OF THE ENTIRE RIVER REACH. APPENDIX A OF THE REPORT DETAILS THE INVESTIGATION OF THE FISH KILL WHICH OCCURRED AT FINLEY CREEK SEPTEMBER 20, 1978 RESULTING WHEN SEVERAL THOUSAND GALLONS OF CONCENTRATED SULFURIC ACID WERE DISCHARGED INTO THE STREAM FOLLOWING DERAILMENT OF A BURLINGTON NORTHERN FREIGHT TRAIN.

U-260
U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.
1911.
RESULTS OF SPIRIT LEVELING IN MONTANA, 1896-1910.
WASHINGTON, D.C. BULL. 482. 154 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD & LAKE COUNTIES). ALL RESULTS OF SPIRIT LEVELING IN MT PREVIOUSLY PUBLISHED BY THE USGS ARE INCLUDED IN THIS REPORT, PUBLISHED BY QUADRANGLES. A COMPLETE DESCRIPTION OF THE LOCATION OF EACH ESTABLISHED BENCHMARK IS INCLUDED. KALISPELL, KINTLA LAKES, MIDVALE, NYACK, FLATHEAD LAKS AND HORSE PLAINS QUADRANGLES ARE LISTED.

U-261
U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.
1937.
PLAN AND PROFILE OF SOUTH FORK OF THE FLATHEAD RIVER FROM MOUTH TO MILE 44 WITH HUNGRY HORSE DAM SITE.
WASHINGTON, D.C. 4 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SOUTH FORK OF THE FLATHEAD RIVER, HUNGRY HORSE DAM). A GROUP OF 4 MAPS DONE PRIOR TO THE CONSTRUCTION OF HUNGRY HORSE DAM. THE GROUP INCLUDES TWO TOPOGRAPHIC PLAN SHEETS, ONE PROFILE SHEET AND ONE PROFILE SHEET WITH DAM SITE CROSS SECTION.

U-262

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1949.

FLOODS OF MAY-JUNE 1948 IN THE COLUMBIA RIVER BASIN. GEOLOGICAL SURVEY WATER SUPPLY PAPER 1080.

WASHINGTON, D.C. 478 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(COLUMBIA RIVER BASIN, PEND OREILLE RIVER BASIN, MAINSTEM & MIDDLE FORK OF THE FLATHEAD RIVER, ASHLEY CREEK, SWAN RIVER & STILLWATER RIVER). THIS REPORT PRESENTS RECORDS OF STAGE AND DISCHARGE AT STREAM-GAUGING STATIONS FOR THE PERIOD INCLUDING THE 1948 FLOOD; RECORDS OF STORAGE IN NUMEROUS RESERVOIRS; A SUMMARY OF PEAK DISCHARGES WITH COMPARATIVE DATA FOR FLOODS AT 500 MEASUREMENT POINTS AND TABLES SHOWING CREST STAGES ALONG AN AGGREGATE LENGTH OF STREAM CHANNEL FOR 657 MILES. THE REPORT ALSO INCLUDES A DISCUSSION OF WEATHER ASSOCIATED WITH THE FLOOD, A DISCUSSION OF SNOW AS A FACTOR IN PRODUCING THE FLOOD, TABLES SHOWING WATER CONTENT OF SNOW PRIOR TO THE FLOOD PERIOD AND OTHER DATA PERTINENT TO THE FLOOD. A BRIEF REPORT ENTITLED "MAGNITUDE AND FREQUENCY OF FLOODS IN THE COLUMBIA RIVER BASIN," A STUDY OF REOCCURRENCE INTERVALS OF FLOODS OF VARIOUS MAGNITUDES, IS INCLUDED.

U-263

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1963.

SPERRY GLACIER, GLACIER NATIONAL PARK, MONTANA.

WASHINGTON, D.C.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: SPERRY GLACIER). THIS IS A TOPOGRAPHICAL MAP FROM 1950 AERIAL PHOTOGRAPHS, AT A SCALE OF 1:4800, AND WITH A CONTOUR INTERVAL OF 20 FEET. ONE SHEET.

U-264

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1959.

THE ROCKS AND FOSSILS OF GLACIER NATIONAL PARK: THE STORY OF THEIR ORIGIN AND HISTORY, BY CLYDE D. ROSS AND R. REZAK.

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. PROF. PAPER 294-K. 37 PP.

PART OF A SERIES, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

NOTE: THE REPORT IS COMPANION TO TWO TECHNICAL REPORTS ON THE REGION. INCLUDES A SHADED RELIEF MAP.

(GLACIER NATL. PARK). THE REPORT INFORMALLY PRESENTS THE STORY OF THE PARKS GEOLOGIC DEVELOPMENT. DISCUSSES THE BELT SERIES FORMATION AND ITS FOSSILIZED ALGAE COLONIES, THE LEWIS OVERTHRUST AND ITS DISPLACEMENT OF LARGE ROCK MASSES, AND THE SHAPING OF THE MOUNTAINS AND OTHER SCENERY BY EROSION AND GLACIATION.

U-265

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1960.

GEOLOGIC AND WATER-SUPPLY REPORTS AND MAPS, MONTANA.

WASHINGTON, D.C. 19 PP.

PART OF A SERIES, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD BASIN). THIS PUBLICATION CONTAINS A LIST OF REPORTS AND MAPS PUBLISHED BY THE U.S. GEOLOGICAL SURVEY RELATING TO THE GEOLOGY, MINERAL, AND WATER RESOURCES OF MONTANA. SOME BIBLIOGRAPHIES AND PUBLICATIONS OF GENERAL INTEREST ARE ALSO INCLUDED. A GENERAL CATALOG OF GEOLOGICAL SURVEY PUBLICATIONS (NOT INCLUDING TOPOGRAPHIC MAPS), AND STATE INDEXES TO TOPOGRAPHIC MAPPING ARE AVAILABLE UPON REQUEST.

U-266

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1962.

TOPOGRAPHIC MAP OF GLACIER NATIONAL PARK.

WASHINGTON, D.C. 1 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS MAP IS AT A SCALE OF 1:125,000 WITH 100 FOOT CONTOUR INTERVALS. HOTELS, CAMPGROUNDS, RANGER STATIONS, CHECKING STATIONS, AND ROADS ARE DELINEATED.

U-267

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1963.

MINERAL AND WATER RESOURCES OF MONTANA.

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 166 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA AND COUNTIES). THE REPORT SUMMARIZES MINERAL AND WATER RESOURCES, THEIR USES IN INDUSTRY, THE ECONOMIC FACTORS AFFECTING THEIR EXPLORATION, THEIR DISTRIBUTION, AND THE MANNER IN WHICH THEY OCCUR. PRODUCTION FIGURES ARE GIVEN WHERE AVAILABLE. MINERAL FUEL RESOURCES, METALLIC AND INDUSTRIAL MINERALS RESOURCES EXISTING IN SIGNIFICANT AMOUNTS, EXPLOITED OR NOT, ARE CONSIDERED.

U-268

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1964.

FLOODS OF JUNE 1964 IN NORTHWESTERN MONTANA: PRELIMINARY REPORT OF PEAK DISCHARGE.

HELENA, MT.: WATER RESOURCES DIV., SURFACE WATER BRANCH, MONTANA DISTRICT. HELENA MT. 8 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA: FLATHEAD RIVER BASIN, GLACIER NATL. PARK, POLSON, SOMERS, HUNGRY HORSE, COLUMBIA FALLS). THIS REPORT IS A TABULATION OF PROVISIONAL VALUES OF PEAK DISCHARGE FOR THE FLOODS OF 1964. MANY OF THE DETERMINATIONS ARE THE RESULT OF SUBSEQUENT SURVEYS OF FLOOD MARKS AND HYDRAULIC CHARACTERISTICS OF CHANNELS THAT WERE ALTERED BY THE FLOOD PERIOD. THE TABLES LIST THE FOLLOWING DATA: STREAM AND PLACE OF DETERMINATION, PERMANENT STATION NUMBER, LATITUDE AND LONGITUDE DRAINAGE AREA, MAXIMUM PREVIOUSLY KNOWN, AND PROVISIONAL MAXIMUM OF JUNE 1964.

U-269

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1966.

THE ROLE OF WATER IN SHAPING THE ECONOMY OF THE PACIFIC NORTHWEST.

PORTLAND, ORE.: U.S. DEPT. ENERGY, BONNEVILLE POWER ADMINISTRATION.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS REPORT DESCRIBES AND ANALYZES THE REGIONAL HYDROLOGIC SYSTEM TO DETERMINE AVAILABLE WATER SUPPLY AND ITS ADEQUACY TO MEET NEEDS TO THE YEAR 2010.

U-270

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1967.

FLOODS OF JUNE 1964 IN NORTHWESTERN MONTANA.

WASHINGTON, D.C. USGS WATER SUPPLY PAPER 1840-B. 242 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(NORTHWESTERN MONTANA, MAINSTEM OF THE FLATHEAD RIVER). THIS REPORT WAS PREPARED TO FURNISH HYDROLOGIC DATA FOR DETAILED PLANNING. INCLUDED ARE: DISCUSSIONS OF ANTECEDENT HYDROLOGY AND THE METEOROLOGY OF THE STORM; A DESCRIPTION OF THE FLOODS; INFORMATION ON FLOOD DAMAGE; MAPS OF PRINCIPAL URBAN INUNDATION; FLOOD PROFILES; DISCUSSIONS OF STORAGE REGULATION, PREVIOUS FLOODS, FLOOD FREQUENCY, DEPOSITION AND DEGRADATION OF STREAM CHANNELS; AND DETAILED INFORMATION OF STAGE, DISCHARGE AND RESERVOIR CONTENTS FOR THE MAY-JUNE PERIOD.

U-271

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1967.

MAGNITUDE AND FREQUENCY OF FLOODS FROM DRAINAGE AREAS LESS THAN 100 SQUARE MILES IN MONTANA.

HELENA, MT. 23 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT PRESENTS A METHOD FOR DETERMINING THE MAGNITUDE OF FLOODS WITH 10 AND 25-YEAR RECURRENCE INTERVALS FROM DRAINAGE AREAS OF LESS THAN 100 SQUARE MILES. CURVES EXPRESS THE RELATION OF THE 10-YEAR FLOOD TO BASIN CHARACTERISTICS. RATIOS BETWEEN THE 25-YEAR FLOOD AND THE 10-YEAR FLOOD ARE GIVEN FOR EACH OF 13 REGIONS SO THAT THE 25-YEAR FLOOD CAN BE OBTAINED BY MULTIPLYING THE 10-YEAR FLOOD BY THE APPROPRIATE RATIO. THE RELATIONS ARE BASED ON 5 OR MORE YEARS OF RECORDS AT GAUGING STATIONS ON STREAMS THAT ARE VIRTUALLY UNREGULATED.

U-272

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1969.

MINERAL RESOURCES OF THE MISSION MOUNTAINS PRIMITIVE AREA, MISSOULA AND LAKE COUNTER, MONTANA.

WASHINGTON, D.C. USGS BULL. 1261-D. 48 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTNS. WILDERNESS AREA). A MINERAL SURVEY AND AN AEROMAGNETIC SURVEY OF THE MISSION MOUNTAINS PRIMITIVE AREA WERE MADE DURING 1967. THIS REPORT DESCRIBES THE GEOLOGIC SETTING, METABEDIMENTARY ROCKS, INTRUSIVE ROCKS, AND SURFICIAL DEPOSITS. THE AEROMAGNETIC SURVEY IS DESCRIBED AND THE AREA EVALUATED FOR THE OCCURRENCE OF METALLIC AND NONMETALLIC MINERALS. AN ECONOMIC APPRAISAL IS MADE.

U-273

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1972.

ANNUAL SUMMARY OF WATER QUALITY DATA FOR SELECTED SITES IN THE PACIFIC NORTHWEST, OCTOBER 1971 TO SEPTEMBER 1972.

PORTLAND, ORE.: WATER RESOURCES DIV., NORTHWEST WATER RESOURCES DATA CENTER. 35 PP. DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THE REPORT CONTAINS WATER QUALITY DATA SAMPLED AT 34 SITES, INCLUDING SUCH PARAMETERS AS DISCHARGE, TEMPERATURE, PH, DISSOLVED SOLIDS, ALKALINITY, AND DISSOLVED ELEMENTS.

U-274

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1974.

CATALOG OF INFORMATION ON WATER DATA: WATER RESOURCES REGION 17.

RESTON, VA.

PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST: WESTERN MONTANA). THE CATALOG CONTAINS INFORMATION ABOUT WATER DATA ACQUISITION ACTIVITIES, NOT THE ACTUAL DATA ITSELF. THE CATALOG IS DIVIDED IN THREE PARTS: STREAMFLOW AND STAGE, QUALITY OF SURFACE WATER AND QUALITY OF GROUND WATER. INFORMATION IS PRESENTED IN A MATRIX FORM WITH STATION NAME ON ONE AXIS AND LOCATION, DATES, TYPE OF DATA, AGENCY, AND PARAMETERS ON THE OTHER AXIS.

U-275

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1974.

COMPUTER MODEL FOR DETERMINING BANK STORAGE AT HUNGRY HORSE RESERVOIR, NORTHWESTERN MONTANA.

WASHINGTON, D.C. PROF. PAPER 833. 18 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(HUNGRY HORSE RESERVOIR). A MATHEMATICAL MODEL TO COMPUTE BANK STORAGE AT HUNGRY HORSE RESERVOIR WAS PROGRAMMED FOR SOLUTION ON A COMPUTER, USING DAILY RESERVOIR ELEVATIONS AS AN INPUT PARAMETER.

U-276

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1976.

ANNUAL PEAK DISCHARGES FROM SMALL DRAINAGE AREAS IN MONTANA, THROUGH SEPTEMBER 1976.

HELENA, MT.: MONTANA DEPT. HIGHWAYS, PLANNING & RESEARCH BUREAU. 205 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: NORTH & MIDDLE FORKS OF THE FLATHEAD RIVER, SWAN RIVER, STILLWATER RIVER, & FLATHEAD LAKE). THIS REPORT IS A TABULATION, BY WATER YEAR, OF THE ANNUAL PEAK STAGE AND DISCHARGE AT EACH CREST STAGE GAUGING STATION. THE PROJECT'S GOAL WAS TO COLLECT ENOUGH DATA TO BE ABLE TO PREDICT FLOODS IN MONTANA.

U-277

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1976.

HYDROLOGIC UNIT MAP, 1974: STATE OF MONTANA.

RESTON, VA. 1 P.

FINAL, SPECIFIC, T, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS MAP AND ACCOMPANYING TABLE SHOW HYDROLOGIC UNITS THAT ARE BASICALLY HYDROGRAPHIC UNITS. THE CODE IS BROKEN INTO REGION, SUBREGION, ACCOUNTING UNIT, AND CATALOGING UNIT. THE SCALE IS 1:500,000.

U-278

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1976.

PRECAMBRIAN GEOLOGY OF THE UNITED STATES: AN EXPLANATORY TEXT TO ACCOMPANY THE GEOLOGIC MAP OF THE UNITED STATES.

WASHINGTON, D.C. PROF. PAPER 902. 85 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, NATIONAL.

(UNITED STATES: NORTHERN ROCKY MTNS.). IN THIS ACCOUNT, THE PRECAMBRIAN ROCKS OF THE DIFFERENT AREAS OF EXPOSURE ARE REVIEWED, DESCRIBED, AND CORRELATED. A FINAL DISCUSSION DEALS WITH LARGER PRECAMBRIAN PROBLEMS, INCLUDING THE ORIGIN OF THE CONTINENT.

U-279

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1978.

EVALUATION AND CORRELATION OF WATER QUALITY DATA FOR THE NORTH FORK, FLATHEAD RIVER, NORTHWESTERN MONTANA. WATER RESOURCES INVESTIGATIONS 78-111.

HELENA, MT. 95 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THE PURPOSE OF THIS REPORT IS TO SUMMARIZE AND EVALUATE THE WATER QUALITY DATA ACQUIRED TO DATE, AND TO DETERMINE FUNCTIONAL RELATIONSHIPS BETWEEN WATER QUALITY VARIABLES. WATER QUALITY PARAMETERS INCLUDE: HEAVY METALS, PH, D.O., FECAL COLIFORM, CAC03, CA, MG, NA, K, HCO3, CO3, CO2, SO4, CL, F, S, P, AND SUSPENDED SOLIDS. PHYTOPLANKTON AND PERIPHYTON WERE ALSO MEASURED.

U-280

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1978.

PACIFIC NORTHWEST REGION 17: REGIONAL PLAN FOR FEDERAL WATER-DATA ACQUISITION FOR 1978 AND 1979.

MENLO PARK, CA.: OFFICE OF WATER DATA COORDINATION, AND OFFICE OF MANAGEMENT & BUDGET. CIRC. A-67.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD RIVER BASIN). THE PLAN COVERS THE ACQUISITION OF DATA ON STAGE, DISCHARGE, AND WATER QUALITY AT SURFACE-WATER STATIONS AND GROUNDWATER STATIONS. THE PLAN WAS DEVELOPED FROM STATEMENTS OF DATA PROGRAMS AND NEEDS SUPPLIED BY A NUMBER OF FEDERAL AGENCIES.

U-281

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1979.

ANNUAL PEAK DISCHARGES FROM SMALL DRAINAGE AREAS IN MONTANA, FOR STATIONS DISCONTINUED BEFORE 1978.

HELENA, MT.: MONTANA DEPT. HIGHWAYS. 117 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA). THIS REPORT IS A LIST OF GAUGE STATIONS THAT WERE DISCONTINUED. THESE STATIONS WERE PART OF A PROGRAM TO GATHER DATA ON MONTANA SMALL DRAINAGE AREA FLOODS. EACH

STATION DESCRIPTION INCLUDES THE PERMANENT STATION NUMBER, NAME, LOCATION, HYDROLOGIC UNIT CODE, DRAINAGE AREA, PERIOD OF RECORD, TYPE OF GAUGE, AND ALTITUDE OF GAUGE. THE ANNUAL MAXIMUM GAUGE HEIGHT AND DISCHARGE ARE LISTED FOR THE WATER YEAR OF RECORD.

U-282

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1979.

DRAFT E.I.S.: COLSTRIP PROJECT. VOL. 1.

PORTLAND, ORE. 500 PP.

DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

AVAILABLE FROM: COLSTRIP EIS TEAM, BONNEVILLE POWER ADMINISTRATION, PORTLAND, ORE.

(MONTANA: SANDERS & LAKE COUNTIES, & FLATHEAD INDIAN RESERVATION). THIS STATEMENT DESCRIBES THE ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE FEDERAL DECISIONS TO BE MADE CONCERNING THE COLSTRIP PROJECT. THOSE DECISIONS ARE GENERALLY CONCERNED WITH GRANTING RIGHT-OF-WAY EASEMENTS ACROSS FEDERAL LANDS OR THE TRANSMISSION SYSTEM AND LOAN GUARANTEES FOR THE REA COOPERATIVES. THE CONSTRUCTION OF TWO PROPOSED 500 KV TRANSMISSION LINES FROM COLSTRIP TO HOT SPRINGS WOULD INVOLVE THE DEGRADATION OF SCENIC QUALITY IN AREAS SUCH AS THE NATIONAL BISON RANGE.

U-283

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1979.

DRAFT E.I.S.: COLSTRIP PROJECT. TECHNICAL APPENDIX. VOL. 2.

PORTLAND, ORE. 200 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

AVAILABLE FROM: COLSTRIP EIS TEAM, BONNEVILLE POWER ADMINISTRATION, PORTLAND, ORE.

(MONTANA: SANDERS & LAKE COUNTIES, & FLATHEAD INDIAN RESERVATION). THIS TECHNICAL APPENDIX CONTAINS DATA PERTINENT TO THE MINING, TRANSMISSION, AND GENERATING ASPECTS OF THE COLSTRIP PROJECT. EXTENSIVE USE IS MADE OF MAPS, TABLES, AND CHARTS.

U-284

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1979.

FINAL E.I.S.: COLSTRIP PROJECT. VOL. 2.

PORTLAND, ORE. 250 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

AVAILABLE FROM: COLSTRIP EIS TEAM, BONNEVILLE POWER ADMINISTRATION, PORTLAND, ORE.

(MONTANA: SANDERS & LAKE COUNTIES, & FLATHEAD INDIAN RESERVATION). THIS VOLUME IS A SUPPLEMENT TO VOLUMES 1 AND 2, AND CONTAINS CHANGES IN THE FORM OF REVISIONS, ADDITIONS, DELETIONS, CORRECTIONS, AND RESPONSES TO PUBLIC AND AGENCY COMMENTS RECEIVED DURING THE PUBLIC REVIEW PERIOD. TRANSCRIPTS OF PUBLIC HEARINGS ARE INCLUDED.

U-285

U.S. DEPARTMENT OF INTERIOR. GEOLOGICAL SURVEY.

1979.

GEOLOGIC MAP INDEX OF MONTANA.

RESTON, VA. 22 PP.

FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

AVAILABLE FROM: U.S. GEOLOGICAL SURVEY, OPEN-FILE SERVICE SECTION, BRANCH OF DISTRIBUTION, BOX 25425, FEDERAL CENTER, DENVER, CO. 80225.

(MONTANA: FLATHEAD, LAKE, & SANDERS COUNTIES). THIS PAPER ILLUSTRATES BY AREA ALL GEOLOGIC MAPS FOR THE STATE OF MONTANA AT SCALES OF 1:24000 OR LARGER. A BIBLIOGRAPHY OF THE MAPS LISTED IS INCLUDED.

U-286

U.S. DEPARTMENT OF INTERIOR, GEOLOGICAL SURVEY.
1979.

SELECTED WELL INVENTORY AND CHEMICAL ANALYSES OF GROUND WATER, PARTS OF MISSOULA AND POWELL COUNTIES, MONTANA.
HELENA, MT. 6 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: SWAN VALLEY). THIS REPORT PRESENTS GROUNDWATER DATA COLLECTED DURING 1975-1976 IN THE SWAN AND AVON VALLEYS. 122 WELLS WERE INVENTORIED AND 28 WELLS WERE SAMPLED FOR CHEMICAL ANALYSES. THE WELL INVENTORY DETAILS THE YEAR THE WELL WAS DRILLED, THE DEPTH AND DIAMETER, DEPTH TO WATER ABOVE OR BELOW LAND SURFACE, AND THE USE OF THE WATER.

U-287

U.S. DEPARTMENT OF INTERIOR, GEOLOGICAL SURVEY.
ANNUAL.
PACIFIC NORTHWEST WATER RESOURCES SUMMARY: ANNUAL SUMMARY.
PORTLAND, ORE.: NORTHWEST WATER RESOURCES DATA CENTER.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THESE REPORTS ARE BRIEF ANNUAL SUMMARIES OF HYDROMETEOROLOGICAL CONDITIONS (PRECIPITATION, AIR TEMPERATURE, ACCUMULATED SNOW, STREAMFLOW, WATER STORAGE, AND GROUNDWATER TEMPERATURES). WHENEVER POSSIBLE, THE DATA IS SHOWN WITH DATA FROM PREVIOUS YEARS ON A 15-YEAR AVERAGE.

U-288

U.S. DEPARTMENT OF INTERIOR, GEOLOGICAL SURVEY.
ANNUAL.
WATER RESOURCES INVESTIGATIONS IN MONTANA.
RESTON, VA.: WATER RESOURCES DIV. 1 P.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

AVAILABLE FROM: DISTRICT CHIEF, WATER RESOURCES DIVISION, U.S. GEOLOGICAL SURVEY, P.O. BOX 1896, HELENA, MT.

(MONTANA: FLATHEAD RIVER BASIN). THIS FOLDER CONTAINS A BRIEF DESCRIPTION OF THE WATER RESOURCES INVESTIGATIONS IN MONTANA IN WHICH THE USGS PARTICIPATES. THE PRINCIPAL MAP SHOWS THE LOCATION OF HYDROLOGIC-DATA STATIONS AND THE EXTENT OF THE HYDROLOGIC INVESTIGATIONS; SMALL MAPS GIVE A BROAD PICTURE OF VARIATIONS IN SOME OF THE HYDROLOGIC CHARACTERISTICS PERTAINING TO MONTANA'S WATER RESOURCES, AND ALSO SHOW COVERAGE OF THE STATE BY CERTAIN TYPES OF INFORMATION.

U-289

U.S. DEPARTMENT OF INTERIOR, GEOLOGICAL SURVEY.
MONTHLY.
CURRENT DISCHARGE AT SELECTED STATIONS IN THE PACIFIC NORTHWEST: MONTHLY DISCHARGE BASED ON DAILY OBSERVED DATA REPORTED BY AGENCIES PARTICIPATING IN THE REPORTING NETWORK FOR THE COLUMBIA RIVER MANAGEMENT GROUP.

PORTLAND, ORE.: WATER RESOURCES DIV., NORTHWEST RESOURCES DATA CENTER. 2 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THESE MONTHLY REPORTS PROVIDE DATA ON STREAM DISCHARGE, NOTING PAST RECORDS AND EXTREMES. THEY ALSO LIST DATA ON POOL ELEVATION AND STORAGE FOR MAJOR RESERVOIRS.

U-290

U.S. DEPARTMENT OF INTERIOR, GEOLOGICAL SURVEY.
MONTHLY.

MONTHLY REPORT: RIVER TEMPERATURES AT SELECTED STATIONS IN THE PACIFIC NORTHWEST.
PORTLAND, ORE.: NORTHWEST WATER RESOURCE DATA CENTER. 2 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST). THESE REPORTS PRESENT MONTHLY WATER TEMPERATURES FOR SELECTED STATIONS. MAXIMUM, MINIMUM, AND AVERAGE VALUES FOR THE MONTH OF THE REPORTING YEAR AND THE PREVIOUS YEAR ARE INCLUDED.

U-291

U.S. DEPARTMENT OF INTERIOR, GEOLOGICAL SURVEY.
MONTHLY.
PACIFIC NORTHWEST: WATER RESOURCES SUMMARY AND MONTHLY PRECIPITATION AND TEMPERATURES.
PORTLAND, ORE.: NORTHWEST WATER RESOURCES DATA CENTER.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: FLATHEAD RIVER BASIN). THESE MONTHLY PUBLICATIONS CONTAIN CHARTS ILLUSTRATING MONTHLY STREAMFLOW AT KEY GAUGING STATIONS, UNREGULATED STREAMS, AND GROUNDWATER LEVELS IN KEY WELLS. MAPS SHOW PRECIPITATION, TEMPERATURES, AND STREAMFLOW DATA.

U-292

U.S. DEPARTMENT OF INTERIOR, GEOLOGICAL SURVEY.
GLACIER PROFILES.
HELENA, MT.: WATER RESOURCES DIV.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE REPORTS PRESENT PROFILES FOR VARIOUS GLACIERS, NOTING DISTANCE AND ELEVATION IN FEET FOR TRANSVERSES AND OTHER PROFILES. BOULDER MOVEMENTS ARE ALSO NOTED.

U-293

U.S. DEPARTMENT OF INTERIOR, GEOLOGICAL SURVEY, AND THE BUREAU OF MINES.
1950-1958.
"PRELIMINARY RECONNAISSANCE REPORTS ON REPORTED OCCURRENCES OF URANIUM DEPOSITS, MONTANA, FLATHEAD COUNTY."
GRAND JUNCTION, CO.: ATOMIC ENERGY COMMISSION. 4 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE PRELIMINARY REPORT INVESTIGATED POSSIBLE URANIUM DEPOSITS IN FLATHEAD COUNTY.

U-294

U.S. DEPARTMENT OF INTERIOR, GEOLOGICAL SURVEY, AND U.S. BUREAU OF MINES.
978.
MINERAL RESOURCES OF THE BOB MARSHALL WILDERNESS AND STUDY AREAS, LEWIS AND CLARK, TETON, PONDERA, FLATHEAD, LAKE, MISSOULA, AND POWELL COUNTIES.

WASHINGTON, D.C. OPEN-FILE REPT. 78-295.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THIS MINERAL SURVEY CONSISTED OF RECONNAISSANCE GEOLOGIC MAPPING, EXTENSIVE GEOCHEMICAL SAMPLING, AEROMAGNETIC AND GRAVITY SURVEYS, AND DETAILED EXAMINATION OF ROCKS AND MINING CLAIMS. THE POTENTIAL FOR NATURAL GAS, OIL, COPPER AND SILVER, BARITE, COAL, AND LIMESTONE WERE ESTABLISHED. GEOLOGIC ROCK FORMATIONS AND STRUCTURES ARE DISCUSSED. DIAGRAMS ARE INCLUDED.

U-295

U.S. DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE.
1970-1924.

"PARKS, RESERVATIONS, AND ANTIQUITIES. GLACIER NATIONAL PARK. LEGISLATION CREATING PARK".
WASHINGTON, D.C. (TYPEWRITTEN).
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS COMPLETE LEGISLATIVE HISTORY OF THE ESTABLISHMENT OF GLACIER NATIONAL PARK INCLUDES COPIES OF THE BILLS, COMMITTEE REPORTS, AND EXECUTIVE DEPARTMENT CORRESPONDENCE, SURROUNDING THE CREATION OF THE PARK, AS WELL AS A COPY OF THE ACT ESTABLISHING THE PARK.

U-296

U.S. DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE.
1938.
PRELIMINARY CHECKLIST OF PLANTS OF THE WESTERN NATIONAL PARKS.
BERKELEY, CA.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(WESTERN UNITED STATES, INCLUDING GLACIER NATL. PARK). THE CHECKLIST OF THE FLOWERING PLANTS OF 13 WESTERN NATIONAL PARKS ALSO INCLUDES NOTES CONCERNING THE ABUNDANCE OF SEVERAL WOODY PLANTS.

U-297

U.S. DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE.
1939.
GLACIER NATIONAL PARK, MONTANA.
WASHINGTON, D. C. 30 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL, MT.

(GLACIER NATL. PARK). THIS BOOKLET CONTAINS GENERAL INFORMATION ABOUT THE PARK: WHAT TO DO AND SEE, ACCOMMODATIONS, INDIAN BACKGROUND, GEOLOGIC HISTORY, AND FLORA AND FAUNA.

U-298

U.S. DEPARTMENT OF INTERIOR, NATIONAL PARK SERVICE.
1950.
STATE OF MONTANA LANDS IN GLACIER NATIONAL PARK.
WASHINGTON, D. C. 6 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT IS CONCERNED WITH STATE OWNERSHIP OF PARK LAND WHICH WAS GRANTED TO THE STATE IN LIEU OF LOSSES TO ITS GRANT FOR COMMON SCHOOL AND CAPITOL BUILDING PURPOSES. IT PROPOSES THE FEDERAL

PURCHASE OF THE STATE HOLDINGS WHERE THE PURCHASE PRICE WOULD BE PAID INTO THE SCHOOL AND CAPITOL BUILDINGS BY THE FEDERAL GOVERNMENT (50%) AND THE MONTANA LEGISLATURE (50%).

U-299

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE.
1950 & 1952.

"AERIAL PHOTOS OF GLACIERS, GLACIER NATIONAL PARK, AND REPORT OF STATUS OF GLACIERS".
WEST GLACIER, MT. (TYPEWRITTEN). 27 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE LISTS GIVE THE NAMES OF GLACIERS PHOTOGRAPHED; THE PRINT NUMBERS; APPROXIMATE FLIGHT DIRECTION; TOWNSHIP, RANGE AND SECTION; THE BEST STEREO PAIR; THE BEST SINGLE PHOTO; AND REMARKS.

U-300

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE.

1967.

GLACIER NATIONAL PARK.

WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 31 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS GENERAL DESCRIPTIVE PAMPHLET INCLUDES A MAP OF THE PARK.

U-301

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE.

1979.

ROCKY MOUNTAIN REGION-INVENTORY OF ARCHEOLOGICAL SITES PROGRAM-GLACIER NATIONAL PARK.

LINCOLN, NE.: MIDWEST ARCHEOLOGICAL CENTER. 37+ PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK LIBRARY.

(GLACIER NATL. PARK). INCLUDED IN THIS PACKET OF ARCHEOLOGICAL RESOURCE MANAGEMENT INFORMATION IS: A SUMMARY OF THE HISTORY OF ARCHEOLOGICAL RESEARCH IN GLACIER NATIONAL PARK, A CHRONOLOGICAL LISTING OF ARCHEOLOGICAL WORK IN GLACIER NATIONAL PARK, A SUMMARY OF CULTURAL RESOURCES LEGISLATION AFFECTING THE MANAGEMENT OF ARCHEOLOGICAL RESOURCES IN NPS AREAS, AND BLUE LINE COPIES OF THE MOST UP-TO-DATE ARCHEOLOGICAL BASE MAPS AVAILABLE AT THE MIDWEST ARCHEOLOGICAL CENTER.

U-302

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK

1911-PRESENT.

SUPERINTENDENTS ANNUAL REPORT.

WEST GLACIER, MT.

PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE ANNUAL REPORTS CONTAIN THE FOLLOWING INFORMATION: PERSONNEL; VIP AND OTHER AUXILIARY PROGRAMS, BUDGET AND FINANCE, HISTORICAL PRESERVATION, PROCUREMENT AND PROPERTY MANAGEMENT, COOPERATIVE ASSOCIATIONS ACTIVITIES, PUBLIC RELATIONS, SPECIAL USE PERMITS, CONCESSIONS; ENVIRONMENTAL IMPACT STATEMENTS, LAW ENFORCEMENT SUMMARY, SOCIAL EVENTS, RESEARCH, CONSTRUCTION ACTIVITY, ROUTINE ACTIVITIES, SAFETY, ANNUAL WILDLAND AND STRUCTURAL FIRE REPORT, CHRISTIAN MINISTRY ACTIVITIES, WILDLIFE MANAGEMENT, WILD AND SCENIC RIVERS, AND WILDERNESS MANAGEMENT.

U-303

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1929-1938.

NATURE NOTES OF GLACIER NATIONAL PARK BEGINNING IN 1931 ENTITLED: GLACIER DRIFT: NOTES FROM GLACIER NATIONAL PARK.

GENERAL, NON-TECHNICAL, PART OF A SERIES, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN. AVAILABLE FROM: FLATHEAD COUNTY LIBRARY, KALISPELL, MT. MONTANA FILES.

(GLACIER NATL. PARK). THE MONTHLY PAMPHLET, EDITED BY THE PARK NATURALIST, IS CONCERNED WITH NATURAL HISTORY: MOUNTAIN CLIMBING, HIKES, TRAILS, ANIMALS, TREES, WILD FLOWERS, FIRES, INDIAN LORE, ETC. NOTICES, NEWS OF THE MONTH, PLACENAMES, AND WHO'S WHO IN THE PARK ARE SECTIONS INCLUDED.

U-304

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK

1936.

VEGETATIVE TYPE SURVEY OF GLACIER NATIONAL PARK.

WEST GLACIER, MT. (TYPEWRITTEN).

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS SURVEY AND ACCOMPANYING MAPS DESCRIBE THE COMPOSITION, EXTENT, AND CHARACTER OF THE VEGETATION OF GLACIER NATIONAL PARK. THE VEGETATION TYPE MAP WAS CONSTRUCTED BY SKETCHING THE BOUNDARIES OF VEGETATION ON A TOPOGRAPHICAL MAP. THE VEGETATION IS DIVIDED UP INTO HERBACEOUS, CHAPARRAL, AND TIMBER TYPES WITH SUBDIVISIONS. THE REFERENCE TYPE MAP INDICATES; THE LOCATION OF SPECIES THAT OCCUPY LESS THAN 20% OF THE COVER; THE BOUNDARIES AND DATE OF FIRES; THE AREAS OF LODGEPOLE PINE AND DOUGLAS-FIR REPRODUCTION; AND THE LOCATION OF SAMPLE PLOTS. PHOTOGRAPHS ARE INCLUDED IN THE TEXT TO ILLUSTRATE THE TYPES AND CONDITIONS REPRESENTED IN THE SAMPLE PLOTS.

U-305

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1937.

CUMULATIVE REPORT ON FISH STOCKED IN GLACIER NATIONAL PARK, 1912-1937.

WEST GLACIER, MT. (TYPEWRITTEN).

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A LISTING OF THE SPECIES, LOCATION AND NUMBER OF EGGS AND FINGERLINGS STOCKED IN THE LAKES AND STREAMS OF GLACIER NATIONAL PARK FROM 1912 THROUGH 1937.

U-306

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK

1939.

STATUS OF FOREST INSECT CONDITIONS-GLACIER NATIONAL PARK.

WEST GLACIER, MT. (TYPEWRITTEN). 25 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK HISTORICAL FILES.

(GLACIER NATL. PARK). THE OBJECTIVE OF THIS SURVEY WAS TO OBTAIN AN IDEA OF INSECT CONDITIONS WITHIN THE FORESTS OF GLACIER NATIONAL PARK. THE WORK WAS PLANNED ON AN EXTENSIVE SCALE AND CONFINED TO THE MOST IMPORTANT TIMBER STANDS. AREAS EXAMINED WERE: NORTH FORK OF THE FLATHEAD RIVER UNIT (KISHENENN

AND STARVATION CREEKS, STARVATION RIDGE, KINTLA LAKE, UPPER KINTLA CREEK AND LAKE, PARK RIDGE, INDIAN CREEK, BOWMAN LAKE, BOWMAN CREEK, QUARTZ RIDGE, LOGGING CREEK RANGER STATION, LOGGING RIDGE); LAKE MCDONALD UNIT (HEAVEN'S PEAK BURN, MCDONALD CREEK DRAINAGE, LAKE MCDONALD, FISH CREEK, HOWE RIDGE, DUTCH CREEK AND CAMUS CREEK); WALTON UNIT (PAOLA AND NYACK RANGER STATION). RECOMMENDATIONS AND CONCLUSIONS ARE INCLUDED.

U-307

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1939.

"STREAM AND LAKE SURVEY OF GLACIER NATIONAL PARK".

WEST GLACIER, MT. 12 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS BRIEF REPORT COVERS THE FOLLOWING TOPICS: FLUCTUATIONS IN STREAM VOLUMES; GRADIENT AND VELOCITY; COLOR AND TURBIDITY; TYPES OF BOTTOM; CHEMISTRY OF STREAMS; TEMPERATURE; EFFECT OF SEASON ON TEMPERATURE; THERMAL STRATIFICATION, TRANSPARENCY; CHEMICAL CONDITIONS IN SEASONAL STUDY LAKES; AND BRIEF REVIEWS OF RIVER AND CREEK CONDITIONS.

U-308

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK

1943.

APPROVED PLACE NAMES.

BELTON, MT. 36 PP.

FINAL, GENERAL, N, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE DOCUMENT LISTS PLACE NAMES APPROVED BY THE U.S. GEOGRAPHIC BOARD; NAMES ON THE GLACIER NATIONAL PARK TOPOGRAPHIC MAP, 1941 EDITION, NOT APPROVED BY THE U.S. GEOGRAPHIC BOARD; AND A LIST OF NAMES DESIGNATED BY ADMINISTRATIVE ACTION FOR OFFICIAL USE BY PARK PERSONNEL. THE PLACES ARE LISTED IN ALPHABETICAL ORDER; THEIR LOCATION (TOWNSHIP, RANGE, AND SECTION) IS NOTED.

U-309

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1945.

HISTORICAL FISHERIES MANAGEMENT MATERIAL PRIOR TO 1945.

WEST GLACIER, MT. (TYPEWRITTEN).

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE FOLLOWING REPORTS ARE INCLUDED: THE INTRODUCTION OF TROUT AND THE PLANTING OF EYED EGGS IN REMOTE AND ISOLATED WATERS OF GLACIER NATIONAL PARK BY JAMES P. BROOKS; FISH FOOD INVESTIGATIONS IN THE SUMMER OF 1925; BIOLOGICAL RECONNAISSANCE IN THE VICINITY OF FLATHEAD LAKE BY MORTON J. ELROD; A STREAM AND LAKE SURVEY; AND MANAGEMENT RECOMMENDATIONS FOR GLACIER NATIONAL PARK BY ALBERT S. HAZZARD.

U-310

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1948-1957.

GLACIER NATIONAL PARK: ANNUAL WILDLIFE.

WEST GLACIER, MT.

PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE REPORTS PRESENT ESTIMATED NUMBERS AND ACTUAL COUNTS OF ANIMALS FOR THE MAJOR SPECIES OF WILDLIFE IN THE PARK. COMMENTS CONCERNING MANAGEMENT PRACTICES AND COUNTING PROCEDURES ARE INCLUDED FOR MANY OF THE SPECIES. SOME REPORTS CONTAIN COUNTS OF DEAD ANIMALS, DESIGNATING CAUSE OF DEATH. LISTS OF BEAR DAMAGE AND INJURIES ARE ALSO INCLUDED IN SOME REPORTS.

U-311

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1955.

GLACIER NATIONAL PARK CONSERVATION PROBLEMS: THE GLACIER VIEW DAM PROJECT.

WEST GLACIER, MT. 8+ PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: NORTH FORK OF THE FLATHEAD RIVER). THE PAPER, DONE FOR ADMINISTRATIVE PURPOSES ONLY, DESCRIBES THE HISTORY OF THE GLACIER VIEW DAM PROJECT: ITS PROPOSAL BY THE ARMY CORPS OF ENGINEERS AND SUPPORT BY KALISPELL-AREA RESIDENTS. BASIC POLICIES OF THE NATIONAL PARK SERVICE ARE OUTLINED TO EXPLAIN ITS OPPOSITION TO THE PROJECT. THE APPRECIATION OF FREE-FLOWING STREAMS, WILDLIFE VALUES, ECONOMIC AND INTANGIBLE VALUES ARE DISCUSSED.

U-312

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK

1962.

FISHES OF GLACIER NATIONAL PARK.

WEST GLACIER, MT. 5 PP.

FINAL, GENERAL, TECHNICAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A LISTING OF THE SCIENTIFIC AND COMMON NAMES, WHERE THE SPECIES ARE FOUND, AND WHETHER THEY ARE INDIGENOUS OR INTRODUCED.

U-313

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1962.

SUMMARY OF OVERWINTER WILDLIFE RANGE USE, 1961-1962.

WEST GLACIER, MT. 7 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: MIDDLE FORK OF THE FLATHEAD RIVER, & ST. MARY & RED EAGLE VALLEYS). THIS REPORT SUMMARIZES A STUDY OF WILDLIFE USE OF WINTER RANGE. PREFERRED BROUSE SPECIES WERE IDENTIFIED. OVERUSE AREAS AND SOIL EROSION PROBLEMS WERE DOCUMENTED.

U-314

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK

1964.

"A BRIEF HISTORY OF FISH MANAGEMENT IN GLACIER NATIONAL PARK".

WEST GLACIER, MT. (TYPEWRITTEN). 13 PP.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). FISH PLANTINGS, INITIALLY CARRIED OUT BY INDIVIDUALS DURING THE YEARS 1910 THROUGH 1913, ARE CHRONICLED IN THIS REPORT. THE RECORDED PLANTINGS OF BROOK, CUTTHROAT AND RAINBOW TROUT AND KOKANEE SALMON; THE ESTABLISHMENT OF A FISH HATCHERY; FISH SURVEY WORK; FISHING REGULATIONS, AND THE INTERIM FISHERY MANAGEMENT PLAN FORMULATED IN 1964 ARE THE TOPICS DISCUSSED.

U-315

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1964.

APPENDUM TO MWR STAFF MINUTES, 8/23/64: THE GLACIER FLOOD".

WEST GLACIER, MT. 11 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE APPENDUM PRESENTS A SUMMARY OF THE JUNE 8-11, 1964 FLOOD WHICH AFFECTED BOTH SIDES OF THE PARK. IT NOTES THE SNOWPACK AND WEATHER CONDITIONS PRECEDING THE FLOOD, THE FIRST INDICATIONS OF FLOODING, THE ROADS AND BRIDGES WASHED OUT, COMMUNICATIONS LOSS, THE MIDDLE FORK OF THE FLATHEAD MEASUREMENTS, FLOW AND RATE OF RISING, THE RESPONSE OF PARK PERSONNEL AND OFFICIALS IN THE PARK SERVICE'S REGIONAL AND WASHINGTON OFFICES, AND DAMAGE SURVEYS AND ESTIMATES. ALSO INCLUDED IS A BRIEF OUTLINE OF FLATHEAD FLOODS SINCE 1894 AND A DISCUSSION OF RECOVERY OPERATIONS FROM THE 1964 FLOOD.

U-316

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1964.

"LONG RANGE WILDLIFE MANAGEMENT PLAN FOR GLACIER NATIONAL PARK."

WEST GLACIER, MT. (TYPEWRITTEN). 5 PP.

PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT INCLUDES LISTS OF: NATIVE WILDLIFE SPECIES THAT HAVE BEEN SUBJECTED TO MANAGEMENT PRACTICES IN THE PAST AND IT IS ANTICIPATED THAT MANAGEMENT TO SOME DEGREE WILL BE REQUIRED IN THE FUTURE; MAMMALS PAST MANAGEMENT PRACTICES HAVE BEEN APPLIED TO; AND SPECIES CONSIDERED TO BE RARE THAT WILL PROBABLY REQUIRE MANAGEMENT FOR THEIR CONTINUED EXISTENCE. THE OBJECTIVE OF THIS PLAN IS TO PERPETUATE AND MAINTAIN A BALANCED POPULATION OF NATIVE SPECIES IN HARMONY WITH THE BASIC NATURAL RESOURCES OF SOIL, WATER, AND VEGETATION. A FIVE POINT PROGRAM IS OUTLINED.

U-317

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1964 & 1966.

BEAR MANAGEMENT PLAN GLACIER NATIONAL PARK.

WEST GLACIER, MT. 2 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OBJECTIVE OF THESE PLANS IS TO REDUCE THE PROBABILITY OF PERSONAL INJURY AND PROPERTY DAMAGE RESULTING FROM BEARS. SPECIFIC MANAGEMENT ACTIONS ARE INCLUDED.

U-318

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1966.

ELK AND RANGE MANAGEMENT PLAN.

WEST GLACIER, MT. 5 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OBJECTIVE OF THIS MANAGEMENT PLAN IS TO MAINTAIN A BALANCED BIOTIC RELATIONSHIP BETWEEN ELK (*Cervus canadensis*), OTHER UNGULATES AND THE BASIC NATURAL RESOURCES OF SOIL AND NATIVE FORAGE PLANTS WHILE AFFORDING THE PARK VISITOR THE OPPORTUNITY TO OBSERVE NATIVE WILDLIFE IN ITS NATURAL HABITAT. A RESEARCH PROGRAM IS OUTLINED, THE PURPOSE OF WHICH IS TO OBTAIN

NEEDED INFORMATION ABOUT ELK FOOD HABITS, RANGE CONDITIONS AND TRENDS, ELK POPULATIONS AND HERD COMPOSITION, MIGRATIONS, AND THE EFFECTS OF COMPETITION BETWEEN ELK AND OTHER NATIVE UNGULATES. RESEARCH ACTIVITIES WERE CONCENTRATED IN THE ST. MARY-RED EAGLE DRAINAGES, THE MIDDLE FORK OF THE FLATHEAD RIVER, AND THE BELLY RIVER DRAINAGE.

U-319

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1966.

SMALL MAMMAL MANAGEMENT PLAN FOR GLACIER NATIONAL PARK.

WEST GLACIER, MT. 2 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A TWELVE POINT PROGRAM DESIGNED TO PREVENT DAMAGE TO ROADS, TRAILS, BUILDINGS, VEHICLES AND OTHER PERSONAL PROPERTY, AND TO REDUCE THE POSSIBILITY OF DISEASE TRANSMISSION TO HUMANS.

U-320

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1966-1968.

TRAVEL YEAR-VISITOR USE SUMMARY.

WEST GLACIER, MT. 21 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). PARK VISITATION FIGURES AND SUMMARIES OF VISITOR USE DURING 1966, 1967, AND 1968 TRAVEL YEARS ARE PRESENTED.

U-321

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1967.

GLACIER NATIONAL PARK FOREST FIRE REVIEW.

WEST GLACIER, MT. 79 PP.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE REVIEW OF THE FIRE SUPPRESSION EFFORT DURING THE CRITICAL 1967 SEASON WHEN 35 FIRES BURNED 12,393 ACRES WAS INITIATED AS A FACT FINDING SESSION TO IMPROVE FIRE OPERATIONS. PARK FIRE HISTORY AND FIRE LOAD, THE FIRE LOAD IN THE U. S. FOREST SERVICE'S REGION 1, THE WEATHER CONDITIONS OF THE 1967 SEASON, ANALYSIS OF THE INITIAL ACTION, CONTROL AND MOP-UP OF THE FLATHEAD FIRE, THE GLACIER WALL FIRE, AND THE COORDINATOR FIRE ORGANIZATION ARE TOPICS DISCUSSED. THE NUMBER OF FIRE FIGHTERS, THE AMOUNT OF EQUIPMENT AND RETARDANT, ACCIDENTS, AND COSTS OF FIRE SUPPRESSION NOTED.

U-322

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1967.

REPORT: GRIZZLY BEAR ATTACKS AT GRANITE PARK AND TROUT LAKE IN GLACIER NATIONAL PARK, AUGUST 13, 1967.

WEST GLACIER, MT. 22 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: GRANITE PARK & TROUT LAKE). THIS REPORT DESCRIBES THE TWO BEAR INCIDENTS OF AUGUST 13, 1967 THAT RESULTED IN THE DEATHS OF TWO WOMEN. THE ACCOUNTS OF WITNESSES ARE INCLUDED.

U-323

U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.

1969.

TRAILS IN GLACIER NATIONAL PARK. MAPS.

WEST GLACIER, MT.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). CONTAINS DIAGRAMS OF STANDARDS FOR TRAIL CONSTRUCTIONS AS WELL AS TOWNSHIP MAPS OF THE ENTIRE PARK; INDICATING TRAILS, BODIES OF WATER, AND SCENIC ATTRACTIONS.

U-324
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1969-1972.
BEAR MANAGEMENT PLAN.
WEST GLACIER, MT.
PART OF A SERIES, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OBJECTIVE OF THESE PLANS WAS TO PROTECT AND MAINTAIN THE NATURAL HABITAT AND STATUS OF BLACK BEARS, URSUS AMERICANUS, AND GRIZZLY BEARS, URSUS ARCTOS IN THE PARK ECOSYSTEM WHILE ENSURING, THROUGH REASONABLE PROCEDURES AND MANAGEMENT, THE SAFETY OF PARK VISITORS. FOR MANAGEMENT PURPOSES BEARS ARE DESIGNATED AS BACKCOUNTRY BEARS, HIGH VISITOR USE AREA BEARS, OR DEVELOPED AREA BEARS. MANAGEMENT SPECIFICS FOR EACH DESIGNATION ARE INCLUDED.

U-325
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1969-1976.
BEAR MANAGEMENT ACTIVITIES.
WEST GLACIER, MT.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THESE REPORTS PRESENT A SUMMARY OF BEAR INCIDENTS AND MANAGEMENT ACTIVITIES IN THE PARK. MOVEMENT OF MARKED BEARS, LOCATION OF BEAR INCIDENTS, REPORTED BEAR-CAUSED PROPERTY DAMAGES, PERSONAL INJURIES AND MOLESTATIONS ARE DETAILED.

U-326
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1970.
BIBLIOGRAPHY-GLACIER NATIONAL PARK. 1970.
WEST GLACIER, MT. 25 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A BIBLIOGRAPHY WHICH LISTS, BY AUTHOR, PRIMARILY SCIENCE PUBLICATIONS CONCERNING GLACIER NATIONAL PARK.

U-327
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1972.
INTERPRETIVE PROSPECTUS.
WEST GLACIER, MT. 29 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE GOAL OF THE INTERPRETIVE PROGRAM AT GLACIER NATIONAL PARK IS TO AROUSE AND INTENSIFY THE VISITORS' ENJOYMENT AND APPRECIATION OF THE PARK'S NATURAL RESOURCES. THE MOST BASIC OBJECTIVE OF THIS PROGRAM IS TO INSTILL ENVIRONMENTAL AWARENESS IN RELATION TO THE PARK'S RESOURCES AND TO THE VISITORS' DAILY ENVIRONMENT. THIS REPORT DETAILS: INTERPRETIVE THEMES, SITES, METHODS AND MEDIA, COOPERATIVE PROGRAMS, PRIORITIES, STUDY COLLECTION, RESEARCH, STAFFING, AND COST ESTIMATES.

U-328
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1972.
NATURAL RESOURCES STUDIES AND MANAGEMENT PLAN, GLACIER NATIONAL PARK.
WEST GLACIER, MT.
PART OF A SERIES, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT BRIEFLY DESCRIBES PROPOSED RESEARCH AND MANAGEMENT PROJECTS. PROJECT NAMES AND NUMBERS, A STATEMENT OF THE PROBLEM, A DESCRIPTION OF THE WORK, PERSONNEL, ADMINISTRATION, LOGISTICS, AND FUNDING ARE OUTLINED. UPDATED ANNUALLY.

U-329
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1972.
SUMMARY OF FIRES IN GLACIER NATIONAL PARK, 1967-1972.
WEST GLACIER, MT. 2 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS SUMMARY LISTS FIRES CHRONOLOGICALLY. THE ACREAGE INVOLVED IS BROKEN INTO SIX SIZE CLASSES. BOTH MAN-CAUSED AND LIGHTNING CAUSED FIRES ARE INCLUDED.

U-330
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1973.
THE PROPOSED LAKE MCDONALD MASTER SEWERAGE SYSTEM PLAN, GLACIER NATIONAL PARK, MONTANA: DRAFT ENVIRONMENTAL IMPACT STATEMENT.
WEST GLACIER, MT. 57 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE MCDONALD). THIS STATEMENT CONSIDERS THE CONSTRUCTION OF A MASTER SEWERAGE SYSTEM AND DESCRIBES IMPACTS: REDUCTION IN EXISTING WATER POLLUTION, DISRUPTION OF SOIL AND VEGETATION AT CONSTRUCTION SITES, ALTERATION OF SOIL AND VEGETATION AT LAGOON AND SPRINKLER SITES AND OF NUTRIENT-SOIL-PLANT RELATIONSHIPS, ODOR PROBLEMS, GROUNDWATER POLLUTION POTENTIAL AT AVALANCHE, NUTRIENT POLLUTION TO MCDONALD CREEK, AND AESTHETIC INTRUSION DUE TO CONSTRUCTION.

U-331
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1973.
PROPOSED MASTER PLAN, GLACIER NATIONAL PARK, MONTANA: DRAFT ENVIRONMENTAL IMPACT STATEMENT.
WEST GLACIER, MT. 90 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PLAN DESCRIBES FUTURE MANAGEMENT PROGRAMS AIMED AT MAINTAINING THE WILDERNESS AND SEMI-WILDERNESS CHARACTER OF THE PARK WHILE PROVIDING RECREATION EXPERIENCE. ADVERSE IMPACTS (LITERING, EROSION, WILDLIFE HARASSMENT, VANDALISM, NOISE, AND OTHER POLLUTION PROBLEMS) ARE DISCUSSED.

U-332
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1973.
PROPOSED WILDERNESS PLAN, GLACIER NATIONAL PARK, MONTANA: DRAFT ENVIRONMENTAL IMPACT STATEMENT.

WEST GLACIER, MT. 57 PP.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PLAN PROPOSES THE ESTABLISHMENT OF THREE WILDERNESS AREAS TOTALING 917,800 ACRES. ENVIRONMENTAL IMPACTS—ECOLOGICAL, SOCIAL, AND ECONOMIC—ARE CONSIDERED.

U-333
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1973.
WILDERNESS STUDY-GLACIER NATIONAL PARK. PRELIMINARY.
WEST GLACIER, MT. 21 PP.
PRELIMINARY, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). EXTENSIVE PORTIONS OF THE LAND AND WATER RESOURCES IN THE PARK HAVE BEEN FOUND SUITABLE FOR PRESERVATION AS WILDERNESS AND ARE PROPOSED FOR INCLUSION IN THE NATIONAL WILDERNESS PRESERVATION SYSTEM. THE THREE PROPOSED WILDERNESS UNITS INCLUDE ALMOST THE ENTIRE CONTINENTAL DIVIDE MOUNTAIN RANGES WITHIN THE PARK AND THE LAKES WITHIN THE PARK THAT ARE FREE FROM MOTORIZED BOAT USE. THESE LANDS AND WATER COMPRISE ALMOST 90% OF THE PARK. MANAGEMENT FACILITIES, PRACTICES, AND USES ARE OUTLINED.

U-334
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1974.
LOGAN PASS-MANAGEMENT PLAN.
WEST GLACIER, MT. 10 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). THIS OUTLINE OF THE MANAGEMENT PLAN PUTS FORTH AS ITS MAIN OBJECTIVE TO "MANAGE LOGAN PASS IN A MANNER THAT WILL MEET THE REQUIREMENTS SET FORTH IN THE NATIONAL PARK SERVICE ACT." A SET OF GOALS AND AN ACTION PLAN, IN ADDITION TO APPENDICES COVERING INTERPRETIVE OPERATIONS, A MAINTENANCE OPERATIONAL PLAN, AND A RESOURCE MANAGEMENT AND VISITOR OPERATIONAL PLAN ARE INCLUDED.

U-335
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1974.
WILDERNESS RECOMMENDATION. FINAL.
WEST GLACIER, MT. 29+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THREE UNITS OF WILDERNESS TOTALING 917,800 ACRES WERE PROPOSED FOR DESIGNATION AS WILDERNESS IN GLACIER NATIONAL PARK. THOSE PROPOSED WILDERNESS UNITS COMPRISE ABOUT 90 PERCENT OF THE PARK. THE AREAS INCLUDED IN THE PROPOSAL ARE DISCUSSED, MAPS ARE INCLUDED. A RECORD OF PUBLIC HEARING AND WRITTEN RESPONSES ARE SUMMARIZED. DEPARTMENTAL GUIDE LINES FOR WILDERNESS PROPOSALS ARE ALSO INCLUDED.

U-336
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1975.
OVERSNOW VEHICLE USE: REVISED ENVIRONMENTAL ASSESSMENT.
WEST GLACIER, MT. 20 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). TOPICS COVERED IN THIS REPORT INCLUDE: STATEMENT OF POLICY AND MANAGEMENT PROBLEM, DESCRIPTION OF THE ENVIRONMENT, PAST SNOWMOBILE ROUTES IN GLACIER AND ALTERNATIVES FOR THE FUTURE, REGIONAL ASPECTS, ENVIRONMENTAL IMPACTS OF SNOWMOBILE USE WITHIN THE PARK, NON-ENVIRONMENTAL BENEFITS AND IMPACTS, RESTRICTIONS AND REGULATIONS RELATING TO PROPOSALS AND MITIGATING MEASURES, IRREVERSIBLE AND IR-RETRIEVABLE COMMITMENTS OF RESOURCES, AND OUTLINES OF ALTERNATE PROPOSALS.

U-337
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1975.
STATEMENT FOR MANAGEMENT-GLACIER NATIONAL PARK.
WEST GLACIER, MT.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PLAN CLASSIFIES AREAS OF GLACIER NATIONAL PARK IN ORDER TO IDENTIFY THE RESOURCES IN A NATURAL ZONE, HISTORIC ZONE, DEVELOPMENT ZONE AND A SPECIAL USE ZONE. WITHIN THE NATURAL ZONE IS A WILDERNESS SUBZONE, A NATURAL ENVIRONMENT SUBZONE, AND A DEVELOPMENT SUBZONE. MAPS DELINEATING ZONES ARE INCLUDED, AS WELL AS TOPOGRAPHIC MAPS OF THE MAJOR LAKES. LEGISLATIVE AND ADMINISTRATION CONSULTANTS ARE OUTLINED. REGIONAL INFLUENCES WHICH EFFECT THE PARK INCLUDING INDIANS, DEVELOPMENT, CLIMATE, AND LAND USES ARE DISCUSSED. INFLUENCES FROM WITHIN THE PARK ARE ALSO DISCUSSED. MANAGEMENT OBJECTIVES WITH REGARD TO RESOURCE PRESERVATION AND MANAGEMENT AND VISITOR USE ARE DETAILED.

U-338
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1978.
DRAFT ENVIRONMENTAL ASSESSMENT-FOREST FIRE MANAGEMENT GLACIER NATIONAL PARK.
WEST GLACIER, MT.
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ENVIRONMENTAL ASSESSMENT DESCRIBES THE GLACIER PARK ENVIRONMENT, ITS RELATION TO FIRE, AND THE CHANGES WHICH ARE TAKING PLACE BECAUSE OF FIRE SUPPRESSION. POTENTIAL EFFECTS ARE DISCUSSED FOR EACH OF FOUR POSSIBLE APPROACHES TO FIRE MANAGEMENT: 1) TOTAL SUPPRESSION OF ALL FIRES TO THE EXTENT POSSIBLE UNDER PRESENT TECHNOLOGY; 2) ALLOWING ALL FIRES TO BURN WITHOUT CONTROL MEASURES; 3) ALLOWING SOME LIGHTNING-CAUSED FIRES TO BURN UNDER PRESCRIBED CONDITIONS; AND 4) INTRODUCING FIRE WHERE NEED IS DEMONSTRATED. THE PURPOSE OF THIS REPORT IS TO DESCRIBE THE MANY ASPECTS OF THE FIRE SITUATION IN GLACIER (ECOLOGICAL, SOCIAL, ECONOMIC, AND HISTORICAL), AND TO AID IN THE DEVELOPMENT OF A FIRE MANAGEMENT PLAN, WHICH IS IN KEEPING WITH NATIONAL PARK SERVICE POLICY AND THE FUNDAMENTAL PURPOSES OF GLACIER NATIONAL PARK.

U-339
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1978.
DRAFT: LOGAN PASS REVEGETATION PLAN.
WEST GLACIER, MT. (TYPEWRITTEN).
DRAFT, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LOGAN PASS). THIS DOCUMENT IS AN OPERATIONAL PLAN WHICH ASSIGNS RESPONSIBILITY AND PROVIDES GUIDE LINES FOR

THE REHABILITATION OF DISTURBED SITES IN THE LOGAN PASS AREA. REVEGETATION SITES ARE IDENTIFIED AND REVEGETATION METHODS ARE DESCRIBED. THE FOLLOWING REPORTS ARE INCLUDED IN THE APPENDICES: SUMMARY OF LOGAN PASS SEEDING EXPERIMENT, 1970; REVEGETATION OF DENUDED SITES IN THE ALPINE ZONE, 1970 & 1971; ALPINE COMMUNITY TYPES FOUND IN THE LOGAN PASS REGION; LOGAN PASS PLANT SPECIES; AND REVEGETATION OF IMPACTED SUBALPINE PLANT COMMUNITIES IN THE NORTH CASCADES.

U-340
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1978.
FIRE MANAGEMENT PLAN.
WEST GLACIER, MT. 60 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS PLAN SPECIFIES THE MANNER IN WHICH DECISIONS TO CONDUCT PRESCRIBED BURNS AND DECISIONS TO ALLOW NATURAL FIRES TO BURN OR TO TAKE SUPPRESSION STEPS ARE TO BE MADE. ACTIONS, ALTERNATIVES AND REQUIRED STEPS ARE OUTLINED.

U-341
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1978.
MAINTENANCE AND PROTECTION OF FACILITIES ADJACENT TO STREAM CHANNELS, GLACIER NATIONAL PARK. MANAGEMENT PLAN AND ENVIRONMENTAL ASSESSMENT.
WEST GLACIER, MT. 12 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS MANAGEMENT PLAN WAS PROPOSED TO MINIMIZE ENVIRONMENTAL EFFECTS FROM PAST FLOOD DAMAGE CONTROL MEASURES. THE PLAN RECOGNIZES FLOODS AS A NATURAL PHENOMENON AND CONSEQUENTLY PROVIDES FOR THE MINIMAL CONTROL NECESSARY DURING EMERGENCY PERIODS, REPAIRS FOLLOWING FLOODS, AND LONG RANGE RELOCATION OF PARTICULARLY CRITICAL FACILITIES.

U-342
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
1979.
BACKCOUNTRY MANAGEMENT
WEST GLACIER, MT. 7 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS IS AN ACTION PLAN FOR THE MANAGEMENT OF PEOPLE IN THAT PART OF THE PARK PROPOSED FOR WILDERNESS DESIGNATION. A PROGRAM FOR RESOURCE RESTORATION WHERE OVERUSE HAS OCCURRED AND BACK COUNTRY CAMPING REGULATIONS ARE INCLUDED.

U-343
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
ANNUAL.
VISITOR USE SUMMARY.
WEST GLACIER, MT. 5 PP.
PART OF A SERIES, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT SUMMARIZES VISITOR USE DATA FOR THE TRAVEL YEAR. INFORMATION IS IN TABULAR FORM LISTING DATA BY ACTIVITY: OVERNIGHT PAID FACILITIES; CAMPER DAYS, BOTH AUTO AND BACK COUNTRY SITES; BUS PASSENGERS ENTERING PARK; CONCESSIONER BOAT PASSENGERS; CROSS COUNTRY ACCIDENTS;

FOREST FIRES AND FATALITIES; CAMPGROUND VISITS, BOTH TENTERS AND RECREATION VEHICLE CAMPERS; VISITATION AS RECORDED AT THE PARK ENTRANCES, BOTH THE NUMBER OF CARS AND NUMBER OF PASSENGERS; PARK TRAVEL BY MONTH; ORIGIN OF PARK VISITORS; AND COMPARATIVE TRAVEL FIGURES FROM 1955 TO 1978.

U-344
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
CHECKLIST OF PLANTS, GLACIER NATIONAL PARK.
WEST GLACIER, MT. 15 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS CHECKLIST IS IN ALPHABETICAL ORDER AND INCLUDES BOTH COMMON AND SCIENTIFIC NAMES.

U-345
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
GLACIER NATIONAL PARK ARCHIVES.
WEST GLACIER, MT. SPEC. COLLECTION.
IN PROGRESS, GENERAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A COLLECTION OF PARK RECORDS, EXTENSIVE CORRESPONDENCE, CONGRESSIONAL DOCUMENTS, AND ARTIFACTS. MUCH OF THE MATERIAL RELATES TO AREA HISTORY BEFORE THE ESTABLISHMENT OF THE PARK, FOCUSING ON LOCAL PERSONALITIES AND MAJOR EVENTS IN THE EARLIER YEARS OF THE PARK'S HISTORY.

U-346
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
HISTORICAL FILE.
WEST GLACIER, MT.
IN PROGRESS, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: GLACIER NATIONAL PARK HISTORICAL FILES.

(GLACIER NATL. PARK). HISTORICAL FILES CONTAINING EXTENSIVE CORRESPONDENCE, MISCELLANEOUS DATA, AND REPORTS ON THE PARKS ADMINISTRATION, HISTORY AND RESOURCES. THE FILES COVER WILDLIFE AND FISHERIES, GEOLOGY, GLACIOLOGY, HYDROPOWER POTENTIAL, FORESTRY, INSECT AND DISEASE OCCURRENCE, RECREATIONAL USE, WILDERNESS, MINERALS, WATER RIGHTS AND NUMEROUS OTHER TOPICS.

U-347
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
HISTORICAL FILM LIBRARY.
WEST GLACIER, MT.
IN PROGRESS, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A COLLECTION OF FIFTY 16 MM FILMS, MADE FROM THE 1920'S TO THE 1950'S, SHOWING GLACIER NATIONAL PARK, ITS SCENERY, VISITORS, AND WILDLIFE.

U-348
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
HISTORICAL INTERVIEWS-MEN AND WOMEN.
WEST GLACIER, MT. (TYPEWRITTEN).
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK & VICINITY). INCLUDED IN THESE FILES ARE COPIES OF INTERVIEWS WITH EARLY SETTLERS IN THE GLACIER NATIONAL PARK AREA. THOSE INTERVIEWED ARE: MRS. DON BARNUM, MRS. RAY VINCENT, MRS. BEN ROVER (ADOLPH OPALKA), MRS. EVA BEEBE, HELEN FORMAN, MRS.

GENEVIEVE GUDGER, MRS. CHANNING HOWELL, CORA P. HUTCHINGS, MRS. BARRY KEITH, MARY MCFARLAND, MRS. ELMER NESS, EDWINA NOFFSINGER, MRS. RAY PRICE, MRS. RUTH VINCENT, HARRIET BLANKHELM, MRS. GONHILD ("BUD") HENDERSON, MRS. ISABEL RAE, JOHN ORVILLE BATES, EDWARD D. BRESTER, HUGH BUCHANAN, A. DAVID CANNAVINA, HORACE CHADBOURNE, FRANCIS H. ELMORE, FRANK HAMOR, FRANK HARRISON, JEROME G. MESSENGER, ANGUS AND LILY MONROE, JOE OPALKA, ACE POWELL AND BEA MACOMBER, IRA STINSON, DAN SULLIVAN, OSCAR THRONSON, RALPH THAYER, BERT WILKE, WILLIAM YENNE, AUSTIN WEIKERT, BEN HENSEN, NICK CARTER, JOHN L. CLARKE, DANIEL J. HEADINGS, GLENN MONTGOMERY, AND CHARLIE JENNINGS.

U-349
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
"INDIAN NAMES AND LEGENDS".
WEST GLACIER, MT. FILE NO. 181. (TYPEWRITTEN). 8 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS MANUSCRIPT CONTAINS A LIST OF NAMES GIVEN TO RIVERS AND MOUNTAINS BY THE BLACKFEET INDIANS IN THEIR OWN LANGUAGE, TOGETHER WITH THE ORIGINAL MEANING AND HISTORY OF THE NAMES. PHONETIC SPELLING IS USED TO OBTAIN THE INDIAN SOUNDS. THE ENGLISH NAME COMES FIRST AND IS FOLLOWED BY THE PHONETIC INDIAN NAMES AND A TRANSLATION VERBATUM AS NEARLY AS ENGLISH CAN RENDER IT. THE LEGEND BEHIND THE NAME, IF THERE IS ONE, CONCLUDES EACH ITEM.

U-350
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. GLACIER NATIONAL PARK.
"LAKE FILES."
WEST GLACIER, MT. (TYPEWRITTEN).
IN PROGRESS, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS IS UNPUBLISHED DATA ON FILE AT PARK HEADQUARTERS FOR MANY OF THE LAKES IN THE PARK. IT INCLUDES MISCELLANEOUS STOCKING RECORDS, GILL NET RECORDS, PHOTOGRAPHS, WATER QUALITY DATA, AND GENERAL NOTES.

U-351
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. ROCKY MOUNTAIN REGION.
1974.
FINAL ENVIRONMENTAL STATEMENT, PROPOSED WILDERNESS PLAN: GLACIER NATIONAL PARK, MONTANA.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 100 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE DOCUMENT ASSESSES THE ENVIRONMENTAL IMPACT OF THE ESTABLISHMENT OF THREE WILDERNESS AREAS TOTALLING 927,550 ACRES WITHIN THE PARK. THE ADDITIONAL LEGISLATIVE PROTECTION TO LARGE UNITS OF UNALTERED NATURAL ENVIRONMENT, POSSIBLE RATIONED USE, RESTRICTIONS ON BACK COUNTRY FACILITY DEVELOPMENT, INCREASED COSTS OF TRAIL MAINTENANCE, RESTRICTION OF CERTAIN RESEARCH PROJECTS, AND RESOURCE MANAGEMENT PRACTICES ARE THE IMPACTS CONSIDERED. ALTERNATIVES ARE DISCUSSED. INCLUDES COMMENTS FROM STATE AND FEDERAL AGENCIES.

U-352
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. ROCKY MOUNTAIN REGION.
1974.
WILDERNESS RECOMMENDATION: GLACIER NATIONAL PARK, MONTANA.
DENVER, CO.: DENVER SERVICE CENTER, AND WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 44 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE DOCUMENT RECOMMENDS THAT THREE AREAS WITHIN THE PARK TOTALLING 927,550 ACRES BE DESIGNATED WILDERNESS. DEPARTMENTAL GUIDELINES FOR WILDERNESS PROPOSALS ARE OUTLINED; VIEWS EXPRESSED IN PUBLIC HEARINGS AND WRITTEN RESPONSES ARE PRESENTED. THE ACREAGE LOCATIONS IN THE DIFFERENT UNITS AND THEIR ATTRIBUTES ARE DESCRIBED.

U-353
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. ROCKY MOUNTAIN REGION.
1976.
FINAL ENVIRONMENTAL STATEMENT, MASTER PLAN: GLACIER NATIONAL PARK, MONTANA.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 131 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE DOCUMENT ASSESSES THE ENVIRONMENTAL IMPACT OF A MASTER PLAN INTENDED TO MAINTAIN THE PRESENT WILDERNESS/SEMI-WILDERNESS CHARACTER OF THE PARK WHILE PROVIDING FOR PUBLIC USE. VISITOR USE IMPACT SUCH AS LITTERING, HUMAN EROSION, FEEDING AND HARASSMENT OF WILDLIFE, VANDALISM, UTILIZATION OF PARK LANDS FOR VISITOR USE FACILITIES, AND RELATED NOISE AND POLLUTION PROBLEMS ARE DESCRIBED. ALTERNATIVES ARE CONSIDERED. INCLUDES COMMENTS FROM STATE AND FEDERAL AGENCIES.

U-354
U.S. DEPARTMENT OF INTERIOR. NATIONAL PARK SERVICE. ROCKY MOUNTAIN REGION.
1977.
GLACIER NATIONAL PARK, MONTANA: FINAL MASTER PLAN.
DENVER, CO.: DENVER SERVICE CENTER, AND WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 40 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PLAN PROVIDES THE DIRECTION UNDERLYING FUTURE MANAGEMENT PROGRAMS AND SUGGESTS HOW THESE PROGRAMS CAN BEST SERVE THE PRESERVATION AND USE OF RESOURCES, WHILE BENEFITING THE PARK AND THE SURROUNDING REGION. THE ENVIRONMENT, HISTORIC RESOURCES, AND VISITATION OF THE PARK ARE DESCRIBED. THE PLANNING CONTROLS, FLATHEAD RIVER BOUNDARIES, GOING-TO-THE-SUN HIGHWAY, AND PATTERNS OF OVERNIGHT AND DAY USE, ARE TOPICS DISCUSSED.

U-355
U.S. DEPARTMENT OF INTERIOR. OFFICE OF INDIAN AFFAIRS.
1948.
REPORT ON CONDITIONS FOUND TO EXIST ON THE FLATHEAD IRRIGATION PROJECT, MONTANA.
LOS ANGELES, CA.: IRRIGATION DIV., AGRICULTURAL ECONOMICS UNIT. 144 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FLATHEAD IRRIGATION SERVICE.

(LOWER FLATHEAD VALLEY). THIS REPORT CONSISTS OF VOLUME 1, WHICH EVALUATES THE SITUATION

EXISTING ON THE PROJECT AND CONTAINS RECOMMENDATIONS FOR IMPROVEMENTS; VOLUME 2, WHICH CONTAINS SECTION PLATS SHOWING LAND CLASSIFICATION, LAND OWNERSHIP, LOCATION OF PRIVATE WATER RIGHTS, ETC.; AND AN APPENDIX, WHICH CONSISTS OF A SET OF TABULATIONS SHOWING BY 1/16 PART OF EACH SECTION THE ACREAGE OF LAND BY CLASSES AS DETERMINED BY A LAND CLASSIFICATION SURVEY COMPLETED IN 1944, THE IRRIGABLE ACREAGE, AND THE DIFFERENCE BETWEEN THE TOTAL OF CLASS 1, CLASS 2, AND CLASS 3 LAND IN A 1930 CLASSIFICATION AND THE ACREAGE DETERMINED IRRIGABLE IN THAT SURVEY.

U-356
U.S. DEPARTMENT OF TRANSPORTATION.
1975.
FINAL ENVIRONMENTAL IMPACT STATEMENT: APPENDIX. U.S. ROUTE 2 ALONG THE MIDDLE FORK OF THE FLATHEAD RIVER.
FEDERAL HIGHWAY ADMINISTRATION, FEDERAL HIGHWAY PROJECTS, REGION 8. 134 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(U.S. HIGHWAY 2: MIDDLE FORK OF THE FLATHEAD RIVER). THE REPORT CONTAINS DATA FROM AN AIR STUDY WHICH USED A MATHEMATICAL MODEL TO CALCULATE THE CONCENTRATION AT VARIOUS VERTICAL RECEPTOR HEIGHTS AND PERPENDICULAR RECEPTOR DISTANCES FROM THE HIGHWAY. A NOISE ANALYSIS WAS CONDUCTED FOR THE BRIDGE AND CONTINUING SOUTHEAST FOR ABOUT 3.5 MILES. LETTERS ACCESSING THE IMPACT ON THE FISHERY ARE INCLUDED. A BRIEF OUTLINE OF A LANDSCAPE STUDY IS ALSO INCLUDED.

U-357
U.S. DEPARTMENT OF TRANSPORTATION.
1977.
FINAL ENVIRONMENTAL IMPACT STATEMENT: MONTANA FOREST HIGHWAY ROUTE 13, U.S. ROUTE 2 ADMINISTRATIVE ACTION.
DENVER: FEDERAL HIGHWAY ADMINISTRATION, FEDERAL HIGHWAY PROJECTS, REGION 8. 110 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(U.S. HIGHWAY 2: MIDDLE FORK OF THE FLATHEAD RIVER). THIS FINAL IMPACT STATEMENT CONSIDERS THE FOLLOWING ALTERNATIVES TO CORRECT UNSAFE CONDITIONS: 1) RECONSTRUCT THE HIGHWAY TO A STANDARD SIMILAR TO THE ADJOINING SECTIONS CLOSELY FOLLOWING THE EXISTING ALIGNMENT, 2) RELOCATE THE HIGHWAY OUT OF A PORTION OF THE PARK, AND 3) NO-BUILD. THE PROJECT AREA IS DESCRIBED AND AERIAL OBLIQUE PHOTOGRAPHS ARE INCLUDED.

U-358
U.S. DEPARTMENT OF TRANSPORTATION.
1980.
"BIOGRAPHICAL ASSESSMENTS ON THE NORTH FORK OF THE FLATHEAD RIVER ROAD PROJECT."
FEDERAL HIGHWAY ADMINISTRATION, DENVER, CO. (TYPEWRITTEN). 61 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(NORTH FORK OF THE FLATHEAD RIVER). THIS REPORT INCLUDES BIOLOGICAL ASSESSMENTS OF THE IMPACTS OF THE PROPOSED IMPROVEMENT OF NORTH FORK THREATENED SPECIES. THE CONCLUSIONS OF THESE ASSESSMENTS ARE THAT THE PROPOSED ROAD IMPROVEMENT COULD ADVERSELY AFFECT THE GRIZZLY BEAR, GRAY WOLF, AND BALD EAGLE IN THE NORTH FORK AREA. THE PROPOSED PROJECT IS NOT EXPECTED TO AFFECT THE PEREGRINE FALCON OR THE PLANT SILENE SPALDINGII.

U-358
U.S. DEPARTMENT OF TRANSPORTATION.
ANNUAL SINCE 1945.
HIGHWAY STATISTICS.
WASHINGTON, D.C.: FEDERAL HIGHWAY ADMINISTRATION. 300 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES: MONTANA). THIS DOCUMENT PRESENTS ANNUAL ANALYZED STATISTICS OF GENERAL INTEREST ON MOTOR FUEL, MOTOR VEHICLES, DRIVER LICENSING, HIGHWAY-USER TAXATION, STATE HIGHWAY FINANCE, HIGHWAY MILEAGE, AND FEDERAL AID FOR HIGHWAYS, AND HIGHWAY FINANCE DATA FOR MUNICIPALITIES, COUNTIES, TOWNSHIPS, AND OTHER UNITS OF LOCAL GOVERNMENT.

U-360
U.S. ENVIRONMENTAL PROTECTION AGENCY.
1971.
INTERIM REPORT: SURVEY OF AIRBORNE FLUORIDES IN GLACIER NATIONAL PARK.
WASHINGTON, D.C.: OFFICE OF AIR PROGRAMS. 75 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: COLUMBIA FALLS). THIS REPORT DESCRIBES A SIX-MONTH SURVEY CONDUCTED IN THE GLACIER PARK AREA WHICH INVOLVED STUDIES OF AIR QUALITY AND AIR FLOW IN THE MOUNTAINOUS REGION OF THE PARK AND EXTENSIVE COLLECTIONS OF VEGETATION AND SMALL ANIMAL SPECIES THROUGHOUT THE AREA FOR MACRO AND MICRO-SCOPICAL EXAMINATION AND CHEMICAL ANALYSIS.

U-361
U.S. ENVIRONMENTAL PROTECTION AGENCY.
1976.
WHITEFISH LAKE, FLATHEAD COUNTY, MONTANA. EPA REGION VIII.
CORVALLIS, ORE.: NATL. EUTROPHICATION SURVEY, CORVALLIS ENVIRONMENTAL RESEARCH LAB. WORKING PAPER NO. 804. 12 PP.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH LAKE). DATA ON THE LAKE AND WATERSHED INCLUDES NUTRIENT SOURCES AND CONCENTRATIONS COLLECTED FROM THE STUDY LAKE AND ITS DRAINAGE BASIN. DATA ON LAKE MORPHOMETRY, DRAINAGE AREA, STREAMFLOW FOR TRIBUTARIES, PRECIPITATION, AND WATER QUALITY PARAMETERS ARE PRESENTED.

U-362
U.S. ENVIRONMENTAL PROTECTION AGENCY.
1977.
REPORT ON FLATHEAD LAKE, FLATHEAD AND LAKE COUNTIES, MONTANA. EPA REGION VIII.
CORVALLIS, ORE.: NATL. EUTROPHICATION SURVEY, CORVALLIS ENVIRONMENTAL RESEARCH LAB. PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). IN THIS REPORT, THE FIRST STAGE OF EVALUATION OF DATA ON NUTRIENT SOURCES, CONCENTRATIONS, AND IMPACTS COLLECTED FROM THE STUDY LAKE AND ITS DRAINAGE BASIN ARE DOCUMENTED. DATA ON LAKE MORPHOMETRY, DRAINAGE AREA, STREAM FLOW FOR TRIBUTARIES, PRECIPITATION, AND WATER QUALITY PARAMETERS ARE PRESENTED.

U-363
U.S. ENVIRONMENTAL PROTECTION AGENCY.
1977.
REPORT ON LAKE MARY NONAN, LAKE COUNTY, MONTANA. EPA REGION VIII.
CORVALLIS, ORE.: NATL. EUTROPHICATION SURVEY, CORVALLIS ENVIRONMENTAL RESEARCH LAB. PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). IN THIS REPORT, THE FIRST STAGE OF EVALUATION OF DATA ON NUTRIENT SOURCES, CONCENTRATIONS, AND IMPACTS COLLECTED FROM THE STUDY LAKE AND ITS DRAINAGE BASIN ARE DOCUMENTED. DATA ON LAKE MORPHOMETRY, DRAINAGE AREA, STREAM FLOW FOR TRIBUTARIES, PRECIPITATION, AND WATER QUALITY PARAMETERS ARE PRESENTED.

U-364
U.S. ENVIRONMENTAL PROTECTION AGENCY.
1977.
REPORT ON LAKE McDONALD, FLATHEAD COUNTY, MONTANA. EPA REGION VIII.
CORVALLIS, ORE.: NATL. EUTROPHICATION SURVEY, CORVALLIS ENVIRONMENTAL RESEARCH LAB. WORKING PAPER NO. 800.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). IN THIS REPORT, THE FIRST STAGE OF EVALUATION OF DATA ON NUTRIENT SOURCES, CONCENTRATIONS, AND IMPACTS COLLECTED FROM THE STUDY LAKE AND ITS DRAINAGE BASIN ARE DOCUMENTED. DATA ON LAKE MORPHOMETRY, DRAINAGE AREA, STREAM FLOW FOR TRIBUTARIES, PRECIPITATION, AND WATER QUALITY PARAMETERS ARE PRESENTED.

U-365
U.S. ENVIRONMENTAL PROTECTION AGENCY.
1977.
REPORT ON SWAN LAKE, LAKE COUNTY, MONTANA. EPA REGION VIII.
CORVALLIS, ORE.: NATL. EUTROPHICATION SURVEY, CORVALLIS ENVIRONMENTAL RESEARCH LAB. WORKING PAPER NO. 800.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN LAKE). IN THIS REPORT, THE FIRST STAGE OF EVALUATION OF DATA ON NUTRIENT SOURCES, CONCENTRATIONS, AND IMPACT COLLECTED FROM THE STUDY LAKE AND ITS DRAINAGE BASIN ARE DOCUMENTED. DATA ON LAKE MORPHOMETRY, DRAINAGE AREA, STREAMFLOW FOR THE TRIBUTARIES, PRECIPITATION, AND WATER QUALITY PARAMETERS ARE PRESENTED.

U-366
U.S. ENVIRONMENTAL PROTECTION AGENCY.
1977.
REPORT ON TALLY LAKE, FLATHEAD COUNTY, MONTANA.
CORVALLIS, ORE.: NATL. EUTROPHICATION SURVEY, CORVALLIS ENVIRONMENTAL RESEARCH LAB. WORKING PAPER NO. 801.
PRELIMINARY, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(TALLY LAKE). IN THIS REPORT, THE FIRST STAGE OF EVALUATION OF DATA ON NUTRIENT SOURCES, CONCENTRATIONS, AND IMPACTS COLLECTED FROM THE STUDY LAKE AND ITS DRAINAGE BASIN ARE DOCUMENTED. DATA ON LAKE MORPHOMETRY, DRAINAGE AREA, STREAMFLOW FOR TRIBUTARIES, PRECIPITATION, AND WATER QUALITY PARAMETERS ARE PRESENTED.

U-367
U.S. FEDERAL POWER COMMISSION.
PLANNING STATUS REPORT: CLARK FORK-PEND D'OREILLE RIVER BASIN.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(CLARK FORK-PEND D'OREILLE RIVER BASIN). THIS REPORT SHOWS DATA ON EXISTING RESOURCE DEVELOPMENTS AND KNOWN POTENTIALS, SUMMARIZES THE LICENSE STATUS OF NON-FEDERAL HYDROELECTRIC DEVELOPMENTS, REVIEWS PLANNING STUDIES, AND IDENTIFIES THE NEEDS FOR ADDITIONAL PLANNING.

U-368
U.S. FOREST SERVICE. NORTHERN DISTRICT.
1929.
BLACKFEET NATIONAL FOREST, MONTANA.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. 1 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(UPPER FLATHEAD RIVER BASIN). THIS HISTORIC MAP OF FNF AREA INCLUDES NATIONAL FOREST, COUNTY, GAME PRESERVE BOUNDARIES, ROADS, RAILROADS, AND FOREST SERVICE STATIONS. DESCRIPTIONS OF NATURAL RESOURCES, WILDLIFE, WATERSHED PROTECTION AND RECREATION ARE INCLUDED ON THE MAP'S BACK.

U-369
U.S. FOREST SERVICE. NORTHERN REGION.
1936.
NORTHERN NEWS REGION, VOL. I.
MISSOULA, MT. 30 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST & GLACIER NATL. PARK). A NEWSLETTER OF THE FOREST SERVICE'S NORTHERN REGION CONTAINING ARTICLES ABOUT THE FLATHEAD. THEY ARE: THE FLATHEAD NATIONAL FOREST AND THE FLATHEAD VALLEY THEN AND NOW BY C. D. BLAKE, HISTORY OF LOGGING IN THE FLATHEAD BY J. G. McDONALD, FLATHEAD ELK STUDIES BY F. S. SPACE, THE CORAM EXPERIMENTAL FOREST BY T. M. WILES, GAME OF THE FLATHEAD NATIONAL FOREST BY W. J. THOL, THE FLATHEAD PULP CHANCE W. K. BENTHAL, RECOLLECTIONS OF A VETERAN BY F. J. LIEBIG, EVENTUALLY THE FLATHEAD BY F. S. FERGUSON, AND OUR RECREATIONAL INDUSTRY BY T. M. WILES.

U-370
U.S. FOREST SERVICE. NORTHERN REGION.
1955.
NATIONAL FOREST FACTS: INCLUDING BANKHEAD-JONES TITLE III LAND.
MISSOULA, MT. 21 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(MONTANA). DATA CONCERNING THE ORGANIZATION, ACTIVITIES RESOURCES INCOMES, AND EXPENDITURES WITHIN THE NORTHERN REGION (MONTANA, NORTH DAKOTA, WASHINGTON, IDAHO, AND SOUTH DAKOTA).

U-371
U.S. FOREST SERVICE. NORTHERN REGION.
1965.
CONTINENTAL DIVIDE TRAIL.
MISSOULA, MT. 94 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(CONTINENTAL DIVIDE: GLACIER NATL. PARK & BOB MARSHALL WILDERNESS AREA). ALTHOUGH PRIMARILY PHOTOGRAPHS AND MAPS OF THE PROPOSED ROUTE OF THE CONTINENTAL DIVIDE TRAIL, THIS REPORT ALSO INCLUDES DESCRIPTIONS OF THE TRAIL BY SECTIONS, CONSTRUCTION STANDARDS, USES OF THE TRAIL, FEEDER AND ACCESS TRAILS, AND ADMINISTRATIVE RESPONSIBILITY.

U-372
U.S. FOREST SERVICE. NORTHERN ROCKY MOUNTAIN FOREST AND RANGE EXPERIMENT STATION.
1941.
FOREST STATISTICS FOR FLATHEAD COUNTY MONTANA.
MISSOULA, MT. 13 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORD CENTER. SEATTLE, WA.

(FLATHEAD COUNTY). THIS REPORT CONSISTS OF TABLES OF STATISTICS WHICH COVER: LAND AREA BY LAND USE AND OWNERSHIP; FOREST LAND AREA BY OWNERSHIP AND BROAD COMMERCIAL CLASSES; COMMERCIAL FOREST LAND BY FOREST TYPE STAND CLASS AND OWNERSHIP; STOCKED COMMERCIAL FOREST LAND FOR CERTAIN FOREST TYPES BY OWNERSHIP AND CUTTING CONDITION; SAW TIMBER VOLUME (SCRIBNER LOG SCALE) ON COMMERCIAL FOREST LAND BY SPECIES AND OWNERSHIP AND FOREST TYPE; CUBIC VOLUME ON COMMERCIAL FOREST LAND BY SPECIES, TREE SIZE AND STAND CLASS; CURRENT ANNUAL INCREMENT (SCRIBNER LOG SCALE) ON COMMERCIAL FOREST LAND BY SPECIES, STAND CLASS AND OWNERSHIP; AVERAGE ANNUAL CUTTING, AND FIRE DRAIN (SCRIBNER LOG SCALE) FROM THE GREEN TIMBER RESOURCE BY SPECIES.

U-373
U.S. FOREST SERVICE. NORTHERN ROCKY MOUNTAIN FOREST AND RANGE EXPERIMENT STATION. 1952.
FOREST RESOURCES OF MONTANA, BY S. BLAIR HUTCHISON AND P. D. KEMP.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. FOREST RESOURCE REPT. NO. 5. 78 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

AVAILABLE FROM: SUPERINTENDENT OF DOCUMENTS.

(MONTANA). THE SURVEY CONSIDERS THE ECONOMIC ROLE OF FORESTS AND DESCRIBES THE RESOURCE: ITS DISTRIBUTION, SPECIES, VOLUME, AND GROWTH. LUMBER, MINE TIMBER, POLE, CHRISTMAS TREES, AND OTHER FOREST INDUSTRIES ARE DISCUSSED. SUCH MANAGEMENT PROBLEMS AS INSECTS, FIRES, AND DISEASE ARE EXAMINED; MANAGEMENT PROGRAMS ARE VENTURED.

U-374
U.S. PUBLIC HEALTH SERVICE. 1951.
WATER POLLUTION IN THE PACIFIC NORTHWEST DRAINAGE BASIN.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. FINAL, GENERAL, TECHNICAL, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). THIS REPORT COVERS THE USE OF WATER RESOURCES, WATER POLLUTION AND RESULTING DAMAGE, WATER POLLUTION MEASURES IN EFFECT, BENEFITS FROM POLLUTION PREVENTION, AND ABATEMENT MEASURES REQUIRED.

U-375
U.S. WEATHER BUREAU. 1965.
CLIMATIC SUMMARY OF THE UNITED STATES: SUPPLEMENT FOR 1951 THROUGH 1960. IN CLIMATOGRAPHY OF THE UNITED STATES NO. 66-22 DECENNIAL CENSUS OF THE UNITED STATES CLIMATE.
WASHINGTON, D.C.: U.S. GOVT. PRINTING OFFICE. FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, NATIONAL.

(UNITED STATES). THIS PUBLICATION INCLUDES TABLES FOR TOTAL PRECIPITATION, TOTAL SNOWFALL, MEAN NUMBER OF DAYS WITH PRECIPITATION ABOVE OR BELOW A CERTAIN LEVEL, MEAN TEMPERATURE, MEAN DAILY MAXIMUM TEMPERATURE AND MEAN DAILY MINIMUM TEMPERATURE, HIGHEST TEMPERATURE, LOWEST TEMPERATURE, MEAN EVAPORATION, AND STATION INDEX AND HISTORY FOR VARIOUS STATIONS THROUGHOUT THE U.S.

U-376
UNIVERSITY OF MONTANA. BUREAU OF EDUCATIONAL RESEARCH AND SERVICES. 1960.
A STUDY OF FLATHEAD COUNTY PUBLIC SCHOOL.
MISSOULA, MT. 260 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THIS EXTENSIVE COOPERATIVE STUDY EXAMINES: THE ECONOMIC AND SOCIOLOGICAL BACKGROUND; ORGANIZATIONAL, PHYSICAL AND FINANCIAL ASPECTS OF PUBLIC SCHOOL EDUCATION IN THE COUNTY; CURRICULUM PRACTICES; EDUCATIONAL PERSONNEL; AND IMPLICATIONS.

U-377
UNIVERSITY OF MONTANA. DIVISION OF EDUCATIONAL RESEARCH AND SERVICES. 1968.
MISSION MOUNTAIN COLLEGE. TEN PORTABLE CLASSROOMS.
MISSOULA, MT. 46 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY). THIS PLAN DESCRIBES THE SPACE REQUIREMENTS FOR ACADEMIC AND TECHNOLOGICAL INSTRUCTION. THE ACADEMIC INSTRUCTIONAL DIVISION ASSIGNED FIVE PREFABRICATED CAMPUS UNITS PROVIDING 1,000 SQUARE FEET OF FLOOR SPACE FOR: ADMINISTRATION, LIBRARY, EXPLORATORY MATHEMATICS AND GEOLOGY, CLASSROOM AND LECTURE FACILITIES. THE TRADE AND TECHNICAL DIVISION WAS ASSIGNED FIVE UNITS FOR THE FOLLOWING PURPOSES: SECRETARIAL AND COMMERCIAL, COSMETOLOGY, ACADEMIC CARPENTRY, ENGINEERING AND SURVEYING AIDS, LAW ENFORCEMENT AND POLICE ACADEMY.

U-378
UNIVERSITY OF MONTANA. DIVISION OF EDUCATIONAL RESEARCH AND SERVICES. 1968.
A TEN YEAR PLAN FOR INSTRUCTION AND CONSTRUCTION IN THE POLSON SCHOOL DISTRICT NO. 23, POLSON, MONTANA.
MISSOULA, MT. 120 PP.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(POLSON). THIS REPORT EMPHASIZES THE SPECIFIC REQUIREMENTS THAT THE POLSON BOARD OF EDUCATION AND ITS GROUPS FACE OVER A THREE PHASE TEN-YEAR PERIOD. INCLUDED IN THIS DOCUMENT ARE SPECIFIC RECOMMENDATIONS WITH REGARD TO THE SENIOR HIGH SCHOOL, A MIDDLE SCHOOL, THE RENOVATION AND REMODELING OF SEVERAL UNITS IN THE POLSON DISTRICT, AND A SITE SELECTION PROGRAM.

U-379
UNIVERSITY OF MONTANA. DIVISION OF EDUCATIONAL RESEARCH AND SERVICES. 1975.
KALISPELL COMMUNITY SURVEY-SPRING 1975.
MISSOULA, MT. 38 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL). THE SURVEY WAS CONDUCTED BY THE KALISPELL PUBLIC SCHOOL DISTRICT NO. 5 AND THE RESULTS WERE SUBMITTED TO THE DIVISION OF EDUCATIONAL RESEARCH AND SERVICES WHERE THE DATA WAS PROGRAMMED AND ANALYZED. THE SURVEY WAS DIRECTED TOWARD ASSESSING CITIZEN, STAFF AND STUDENT ATTITUDES TOWARD VARIOUS ASPECTS OF SCHOOL OPERATIONS.

U-380
UNIVERSITY OF MONTANA. DIVISION OF EDUCATIONAL RESEARCH AND SERVICES. 1975.
SELF DETERMINATION THROUGH EDUCATION: QUARTERLY REPORT.
MISSOULA, MT. 40 PP.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: FLATHEAD INDIAN RESERVATION). THIS QUARTERLY REPORT REFLECTS THE ACTIVITIES OF THE "SELF-DETERMINATION THROUGH EDUCATION" PROJECT FOR THE MONTHS OF APRIL AND MAY 1975. FINAL WORKSHOPS WERE PRESENTED ON THE SEVEN MONTANA RESERVATIONS, ON THE SUBJECT OF CURRICULUM DEVELOPMENT AND PUBLIC LAW 93-838, THE INDIAN SELF-DETERMINATION AND EDUCATION ASSISTANCE ACT. THIS REPORT SUMMARIZES THE WORKSHOPS, DISCUSSES THE CONSULTANTS USED, AND PRESENTS A BUDGET REPORT.

U-381
UNIVERSITY OF MONTANA. DIVISION OF EDUCATIONAL RESEARCH AND SERVICES. 1978.
INDIAN TRIBES OF MONTANA: A RESOURCE MATERIALS GUIDE FOR EDUCATORS.
MISSOULA, MT. 55 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

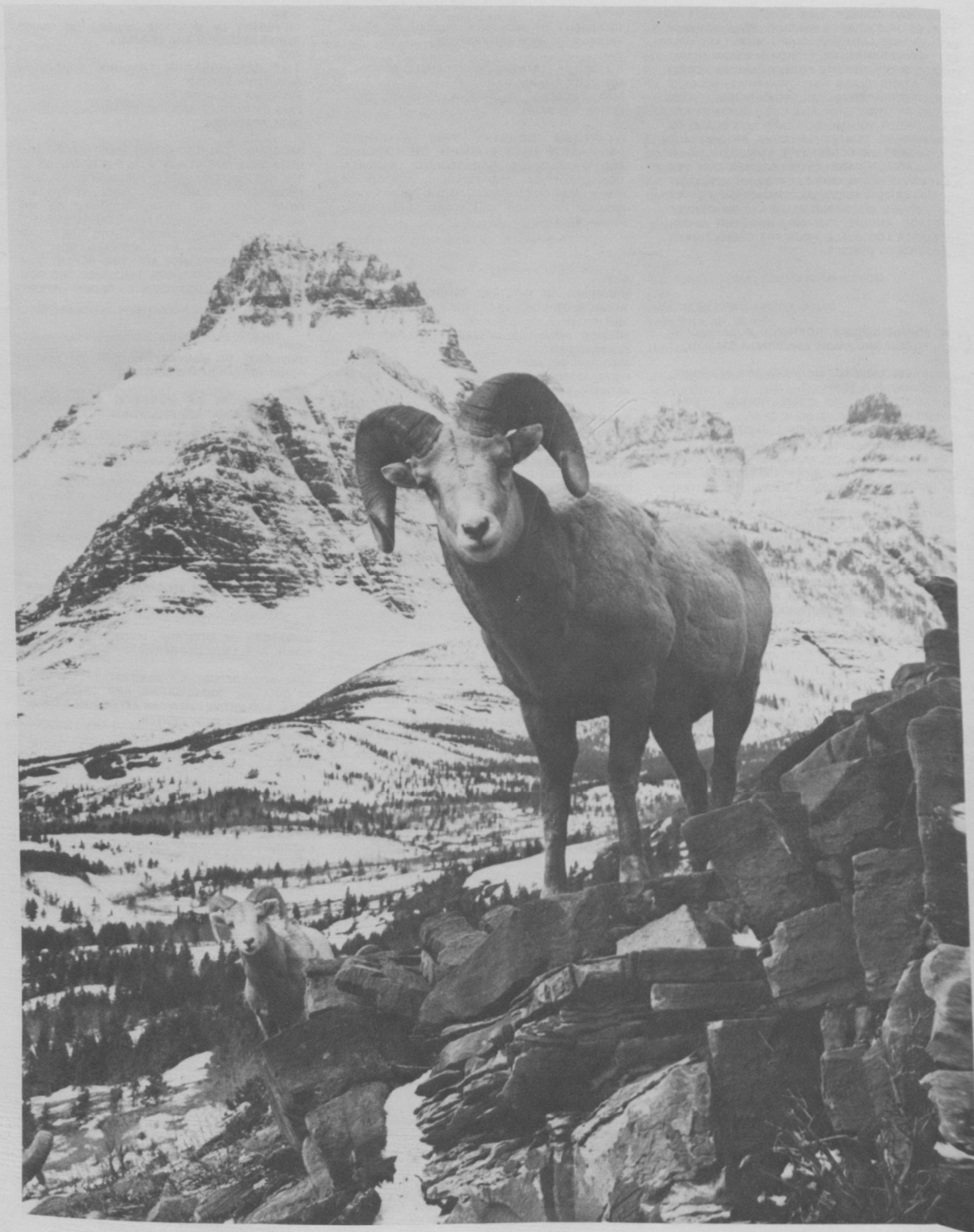
(MONTANA: FLATHEAD INDIAN RESERVATION). THIS RESOURCE GUIDE PROVIDES DESCRIPTIVE ANNOTATIONS FOR BOOKS RELATING TO THE SEVEN MONTANA INDIAN RESERVATIONS, AS WELL AS REFERENCES DEALING WITH NATIVE AMERICANS IN GENERAL.

U-382
UNIVERSITY OF MONTANA. DIVISION OF EDUCATIONAL RESEARCH AND SERVICES. 1978 & 1979.
EVALUATION REPORT: FLATHEAD VALLEY COMMUNITY COLLEGE, COORDINATING AND DEVELOPING RURAL AND NATIVE AMERICAN EXTENSION, SALISH-KOOTENAI EXTENSION CENTER.
MISSOULA, MT. 64 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY COMMUNITY COLLEGE). THIS EVALUATION REPORT EXAMINES THE ROLES THE SALISH AND KOOTENAI CENTER AND THE COORDINATING AND DEVELOPING RURAL AND NATIVE AMERICAN EXTENSION OF FLATHEAD VALLEY COMMUNITY COLLEGE PLAYED IN CONSTITUTING THE OVERALL TITLE III PROGRAM. PROGRAM EVALUATION CRITERIA ARE OUTLINED AND RECOMMENDATIONS ARE MADE.

U-383
UNIVERSITY OF MONTANA. DIVISION OF EDUCATIONAL RESEARCH AND SERVICES. 1980.
SALISH KOOTENAI COMMUNITY COLLEGE-FEASIBILITY STUDY.
MISSOULA, MT. 40 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS FEASIBILITY STUDY EXAMINES: THE HISTORICAL BACKGROUND; SOCIO-CULTURAL, ECONOMIC AND EDUCATIONAL ENVIRONMENT; POPULATION TO BE SERVED BY SALISH-KOOTENAI COMMUNITY COLLEGE; ISOLATION FROM ALTERNATIVE EDUCATIONAL OPPORTUNITY; DESCRIPTION OF THE CURRICULUM OFFERED BY THE COLLEGE; PRESENT AND PROJECTED INSTITUTIONAL CAPABILITIES; RECORD OF ACADEMIC PROGRESS, AND OPERATING BUDGET.



V-1
VALLEY, KARL.
1968.
"THE BIOLOGY AND IMMATURE STAGES OF CERTAIN CHLOROPID FLIES (DIPTERA: CLOROPIDAE)." M.A. THESIS, KENT STATE UNIV., KENT, OH. 96 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(PORTAGE & LAKE COUNTIES). THIS STUDY RECORDS DETAILED BIOLOGIC OBSERVATIONS AND DESCRIPTIONS ON THE IMMATURE STAGES OF THE FOLLOWING GENERA: ELACHIPTERA, ERIBOLUS, GAURAX, LASIOSINA, MEROMYZA, OSCINELLA, AND STENOSCINIS. DRAWINGS ARE INCLUDED.

V-2
VANDERBURG, LYNN.
1979.
"THE HISTORY OF A PEOPLE'S RESPONSE TO A VISION: PAGEANT, SEPTEMBER 23, 1979, ST. IGNATIUS, MONTANA." ST. IGNATIUS, MT. (MIMEO).

(ST. IGNATIUS MISSION). THE TEXT OF A PAGEANT GIVEN TO CELEBRATE THE 125TH ANNIVERSARY OF THE FOUNDING OF ST. IGNATIUS MISSION IN 1954. SKCC.

V-3
VAN DYNE, LARRY A.
1973.
"A COLLEGE THAT BELIEVES IN 'COMMUNITY'." CHANGE 5:52-55. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(KALISPELL). THIS ARTICLE DISCUSSES THE FLATHEAD VALLEY COMMUNITY COLLEGE, KALISPELL'S MAJOR NEW INDUSTRY.

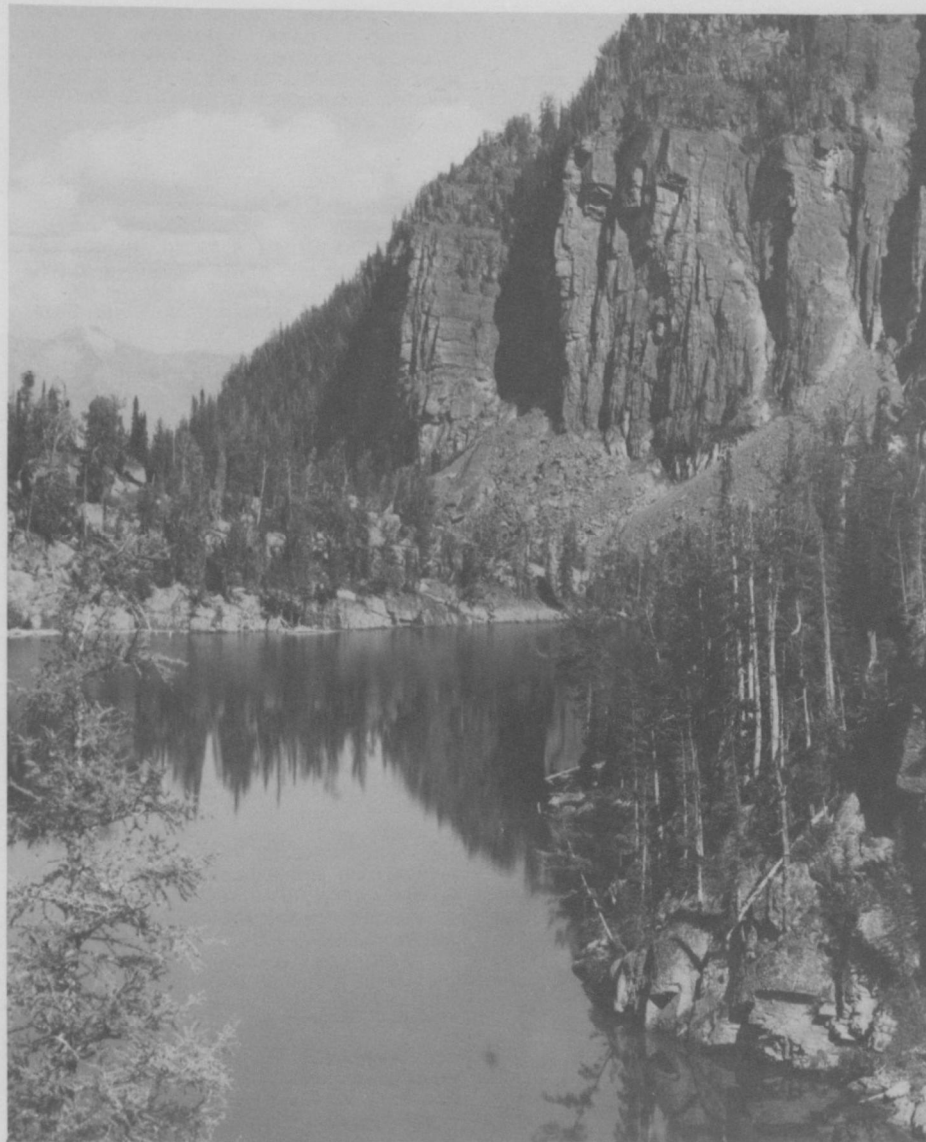
V-4
VAN RENNELAER, H., REV.
1887.
"SKETCH OF THE CATHOLIC CHURCH IN AMERICA." AMERICAN CATHOLIC QUARTERLY REVIEW 12:492-507. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, NATIONAL.

(UNITED STATES: FLATHEAD INDIAN RESERVATION: ST. IGNATIUS MISSION). THIS HISTORY OF THE JESUIT MISSION IN THE BITTERROOT AND JOCKO VALLEYS DISCUSSES THE ST. IGNATIUS MISSION, THE TWO SCHOOLS FOR INDIAN CHILDREN, AND THE INDIAN-ENGLISH DICTIONARY WRITTEN BY FATHERS MENGARINI AND GIORDA.

V-5
"VARIOUS SENIOR THESES, STUDENT TRAINEE REPORTS, AND UNDERGRADUATE CLASS REPORTS CONDUCTED AT THE NATIONAL BISON RANGE." NATIONAL BISON RANGE, MOIESE, MT. FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

NOTE: COPIES ARE NOT AVAILABLE FOR DISTRIBUTION, BUT ONE COPY OF EACH REPORT IS DEPOSITED AND MAY BE REVIEWED AT THE NATIONAL BISON RANGE.

(NATL. BISON RANGE). THESE PAPERS CONCERN BOTANY, MAMMALOGY, ORNITHOLOGY, AND OTHER INVESTIGATIONS CONDUCTED FOR UNDERGRADUATE OR TRAINEE CREDIT.



V-6
VAUGHN, ROBERT.
1900.
"THEN AND NOW: OR THIRTY-SIX YEARS IN THE ROCKIES: PERSONAL REMINISCENCES OF SOME OF THE FIRST PIONEERS OF THE STATE OF MONTANA, 1864-1900." MINNEAPOLIS: TRIBUNE PRINTING CO.

(ROCKY MTNS.). THIS BOOK FREQUENTLY MENTIONS THE FLATHEADS AND PEND D'OREILLES IN MATERIAL FROM EDWARD A. LEWIS AND HIS PIEGAN WIFE, JOHN D. BROWN, AND FRANK H. WOODY. LEWIS' WIFE MENTIONS A NUMBER OF BATTLES BETWEEN THE BLACKFEET AND THE FLATHEADS AND PEND D'OREILLES. WOODY AND BROWN RELATE EXPERIENCES WITH CHIEF MOISE. SKCC.

V-7
VEEDER, WILLIAM H.
1967.
"MEMORANDUM RELATIVE TO THE TITLES TO RIGHTS TO THE USE OF WATER AND THE AUTHORITY TO CONTROL AND ADMINISTER THEM ON THE FLATHEAD INDIAN RESERVATION." NATIONAL LAW LIBRARY, BOULDER, CO. NO. 001926.

(FLATHEAD INDIAN RESERVATION). THIS LEGAL MEMORANDUM REFERS TO WATER RIGHTS ON THE FLATHEAD RESERVATION. SKCC.

V-8
VEEDER, WILLIAM H.
1969.
"INVENTORY OF RIGHTS OF THE USE OF WATER ON THE FLATHEAD INDIAN RESERVATION." NATIONAL INDIAN LAW LIBRARY, BOULDER, CO. NO. 001927.

(FLATHEAD INDIAN RESERVATION). THIS LEGAL MEMORANDUM GIVES AN INVENTORY OF WATER RIGHTS ON THE FLATHEAD INDIAN RESERVATION. SKCC.

V-9
VEST, GEORGE C., AND MAGINNIS, MARTIN.
1884.
"REPORT OF THE SUBCOMMITTEE OF THE SPECIAL COMMITTEE OF THE UNITED STATES SENATE APPOINTED TO VISIT THE INDIAN TRIBES IN NORTHERN MONTANA." SENATE REPT. NO. 283, 48TH CONGRESS, 1ST SESSION, SERIAL 2174.

(FLATHEAD INDIAN RESERVATION). VEST NEGOTIATED WITH CHARLO ABOUT THE BITTERROOT REMOVAL, VISITED THE RESERVATION, AND EVENTUALLY ARRANGED FOR CHARLO'S 1884 TRIP TO WASHINGTON, D.C. SKCC.

- V-10
VINES, CATHERINE.
1950.
"THE REORGANIZATION OF THE POLSON HIGH SCHOOL LIBRARY."
M.E. THESIS, MONTANA STATE UNIV., MISSOULA. 33 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (POLSON). THIS THESIS IS AN EXPLANATION OF THE METHODS USED IN THE REORGANIZATION OF THE LIBRARY, DESIGNED TO ENCOURAGE STUDENT USE OF THE FACILITY.
- V-11
VINYARD, WILLIAM C.
1957.
"ALGAE OF THE GLACIER NATIONAL PARK REGION, MONTANA."
PROC. MONTANA ACADEMY SCIENCES 17:49-53.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA.
- (GLACIER NATL. PARK). THIS PAPER IS A TAXONOMIC LIST OF SPECIES WITH ECOLOGICAL NOTES AND COLLECTION DATA. THE HABITATS REPRESENTED WERE FROM SUBALPINE AND ALPINE REGIONS AT ELEVATIONS RANGING FROM 5200 FEET TO 8000 FEET.
- V-12
VIRODYNE CORPORATION.
1972.
TECHNICAL ASSISTANCE TO THE FLATHEAD COUNTY BOARD OF COMMISSIONERS FOR THE PLANNING OF AN INDUSTRIAL PARK NEAR COLUMBIA FALLS, MONTANA.
ENGLEWOOD, CO. 45 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (COLUMBIA FALLS). THE OBJECTIVE OF THIS TECHNICAL ASSISTANCE PROJECT WAS TO: 1) PREPARE A PHASED PLAN FOR DEVELOPMENT OF THE PARK; 2) DETERMINE WATER AND SEWAGE FACILITIES NEEDED; 3) PREPARE A PLOT LAYOUT SHOWING LOCATION OF ROADS, PARKING AREAS, FENCING, AND LIGHTING FACILITIES; AND 4) RECOMMEND AN OPERATIONAL AND MANAGEMENT PLAN FOR THE INDUSTRIAL SITE.
- V-13
VITORELLO, ICARO, AND VAN DER VOO, R.
1977.
"LAKE HADRYNIAN AND HELIKIAN POLE POSITIONS FROM THE SPOKANE FORMATION, MONTANA."
CANADIAN J. EARTH SCIENCES 14:67-73.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). TOPICS COVERED IN THIS REPORT INCLUDE: MEASUREMENT AND DEMAGNETIZATION, THE CHARACTERISTIC DIRECTION AND ITS POLE POSITION, THE INTERMEDIATE DIRECTION AND ITS POLE POSITION, AND THE THERMAL HISTORY OF THE BELTIAN SEDIMENTS IN GLACIER NATIONAL PARK.
- V-14
VOERMAN, GARRETT B.; GAUFIN, ARDEN R.; AND TIBBS, JOHN F.
1975.
AN IN-SITU STUDY OF THE NUTRITION OF LAKE ZOOPLANKTON USING CARBON 14 AND PHOSPHORUS 32, FLATHEAD LAKE, MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV., JOINT WATER RESOURCES RESEARCH CENTER, AND WASHINGTON, D.C.: OFFICE OF WATER RESEARCH & TECHNOLOGY. REPT. NO. 72. 40 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD LAKE). THE STUDY CONSIDERS THE STATE OF ZOOPLANKTON NUTRITION IN THE LAKE
- USING C-14 AS A RADIOTRACER. THE CHEMICAL AND BIOLOGICAL DATA INDICATES ITS ORTHOPHOSPHATE LEVELS. THE ACCURATE MEASUREMENT OF PHOSPHATES MAKES IT POSSIBLE TO MONITOR PHOSPHORUS DYNAMICS TO MAINTAIN PRESENT WATER QUALITY.
- V-15
VOGL, RICHARD J.
1969.
"EFFECTS OF SLASH BURNING ON CONIFER REPRODUCTION IN MONTANA'S MISSION RANGE."
NORTHWEST SCIENCE 43(AUGUST 1969):135-147.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (MISSION RANGE). THIS STUDY INVESTIGATED THE EFFECTS OF BURNING LARGE SLASH PILES ON CONIFER REPRODUCTION. VEGETATION INVADING BURNED SITES WAS SAMPLED AND COMPARED TO UNBURNED SITES. THE EFFECTS OF HIGH TEMPERATURES AND ADDITIONS OF ASH AND CHARCOAL ON THE PHYSICAL STRUCTURE OF SOILS WAS ALSO STUDIED. RECOMMENDATIONS FOR SLASH DISPOSAL ARE INCLUDED.
- V-16
VOGT, HANS.
1940.
THE KALISPELL LANGUAGE: AN OUTLINE OF THE GRAMMAR WITH TEXTS, TRANSLATIONS, AND DICTIONARY.
OSLO, NORWAY: I KOMMISSJON HOS JACOB DYBWAD. 136 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). THIS PUBLICATION ADDRESSES THE PHONOLOGY AND MORPHOLOGY OF THE KALISPELL LANGUAGE. IT INCLUDES A TEXT, TRANSLATION, AND DICTIONARY. SIMILARITIES WITH THE FLATHEAD LANGUAGE ARE NOTED.
- V-17
VOIGHT, BARRY, ED.
1974.
ROCK MECHANICS: THE AMERICAN NORTHWEST - AN ADVANCE EXPEDITION REPORT.
UNIV. PARK, PA.: PENNSYLVANIA STATE UNIV., COLL. EARTH & MINERAL SCIENCES EXPR. STAT. 292 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.
- (AMERICAN NORTHWEST: FLATHEAD RIVER BASIN). THE PURPOSE OF THIS BOOK WAS TO PROVIDE A WIDE-RANGING SURVEY OF ROCK MECHANICS PROBLEMS ASSOCIATED WITH BOTH CIVIL AND MINING ENGINEERING EFFORTS AND WITH TECTONOPHYSICAL INTERPRETATIONS OF EARTH DEFORMATION. IT CONTAINS SEVERAL ARTICLES PERTINENT TO THE FLATHEAD BASIN AND THE LEWIS OVERTHRUST BELT.
- V-18
VON GUNTEN, BARBARA.
1970.
"PRONGHORN FAWN MORTALITY ON THE NATIONAL BISON RANGE."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 82 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (NATL. BISON RANGE). THE OBJECTIVE OF THIS STUDY WAS TO DETERMINE THE CAUSE AND EXTENT OF MORTALITY OF ANTILOCAPRA AMERICANA THROUGH THE OUTFITTING OF 30 FAWNS WITH RADIO TRANSMITTERS. POSSIBLE MORTALITY FACTORS EXAMINED WERE: LARGE COYOTE POPULATION ON THE RANGE, LOW NUMBER OF ALTERNATE COYOTE PREY, CONCENTRATION OF COYOTE DENS NEAR FAWNING AREAS, AND THE CONFINEMENT OF PRONGHORNS (A NON-INDIGENOUS SPECIES) WITH EXPERIENCED PREDATORS.
- V-19
VON BARGIN, PATTI.
1979.
FLATHEAD COUNTY OVERALL ECONOMIC DEVELOPMENT PLAN.
KALISPELL, MT.: FLATHEAD COUNTY COMMISSIONERS. 37 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD COUNTY). THE OVERALL ECONOMIC DEVELOPMENT PLAN COMMITTEE SET A PRIMARY GOAL OF DECREASING UNEMPLOYMENT THROUGH: EXPANSION OF EDUCATION AND OCCUPATIONAL TRAINING PROGRAMS, PROMOTION OF COUNTY-WIDE RECREATION AND TOURIST FACILITIES, AND THE IMPROVEMENT OF PUBLIC SERVICES, AGRICULTURAL AND COMMERCIAL OPPORTUNITIES, AND TRANSPORTATION FACILITIES. THIS PLAN OUTLINES PROPOSED ACTION PROGRAMS; IT INCLUDES PROGRAM BENEFITS, COSTS AND SOURCES.
- V-20
VORSE, MARY HEATON.
1935.
"FROM FLATHEAD TO BLACKFEET."
INDIANS AT WORK, SEPTEMBER 15, 1935. PP. 31-36.
- (FLATHEAD INDIAN RESERVATION). THIS ARTICLE INCLUDES A DESCRIPTION OF A VISIT TO AN EMERGENCY CONSERVATION WORK CAMP ON THE FLATHEAD RESERVATION AND SOME GENERAL OBSERVATIONS ON THE RESERVATION IN THE 1930'S. SKCC.
- V-21
VOSE, R. HARRY.
1964.
"A PERSONAL NARRATIVE."
18 PP.
FINAL, SPECIFIC NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- AVAILABLE FROM: MONTANA FILES, FLATHEAD COUNTY LIBRARY, KALISPELL.
- (FLATHEAD VALLEY: HISTORIC ASHLEY). THIS INDIVIDUAL'S ACCOUNT OF HIS FAMILY'S ARRIVAL AND SETTLEMENT DESCRIBES THE SETTLERS' WAY OF LIFE, BUILDING CABINS, GETTING SUPPLIES IN MISSOULA, RAISING CATTLE AND HORSES, DEER HUNTING, AND ATTENDING SCHOOL IN ASHLEY AND KALISPELL. RAILROADS, STEAMBOATS, INDIANS, AND MURDERS ARE OTHER SUBJECTS DISCUSSED.
- V-22
VOTH, HAZEL H., ET. AL.
1938.
A GENERAL INDEX TO "GLACIAL DRIFT" (NATURE NOTES), 1927-1938.
BERKELEY, CA.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE. 37 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.
- AVAILABLE FROM: GLACIER NATIONAL PARK LIBRARY, WEST GLACIER, MT.
- (GLACIER NATL. PARK). THIS BIBLIOGRAPHY LISTS, BY SUBJECT, ARTICLES APPEARING IN THE PARK SERVICE PUBLICATION "GLACIAL DRIFT."
- V-23
VOTH, HAZEL H.; BENTON, JOHN C.; ET. AL.
1940.
GLACIER NATIONAL PARK: A BIBLIOGRAPHY.
BERKELEY, CA.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE. 30 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THE BIBLIOGRAPHY CONTAINS BOOKS, MAGAZINE AND JOURNAL ARTICLES, AND SCIENTIFIC STUDIES PERTAINING TO THE PARK'S HISTORY, TRAVEL, DESCRIPTION, ADMINISTRATION, MAINTENANCE, FAUNA, FLORA, AND GEOLOGY.

W-1

WACKWITZ, LINDA K.

1975.

"REGIONAL TECTONIC SYSTEMS OF THE PACIFIC NORTHWEST DELINEATED FROM ERTS-1 IMAGERY."

M.A. THESIS, UNIV. MONTANA, MISSOULA. 62 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, REGIONAL.

(PACIFIC NORTHWEST). AN EARTH RESOURCE TECHNOLOGY SATELLITE MOSAIC OF THE REGION, AT A SCALE OF 1:1,000,000 AND COVERING 1.5 x 106 SQUARE KILOMETERS, WAS ANNOTATED TO EXTEND THE TECHNIQUE OF LINEAMENT DELINEATION TO A LARGE AREA TO TEST WHETHER A CORRELATION WITH KNOWN TECTONIC ELEMENTS WOULD STILL BE VALID AT THAT SCALE. THE THESIS ARGUES THAT THE ERTS IS A FUNDAMENTAL TOOL IN RECONNAISSANCE WORK.

W-2

WAKE, BENJAMINE F., ET. AL.

1963-1964.

A STUDY OF AIR POLLUTION IN THE FLATHEAD VALLEY, FLATHEAD COUNTY, MONTANA.

HELENA, MT.: MONTANA BOARD OF HEALTH, DIV. DISEASE CONTROL.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY: FLATHEAD COUNTY). THE POTENTIAL FOR THE DEVELOPMENT OF A SERIOUS AIR POLLUTION SITUATION IN THE AREA IS DISCUSSED. METHODS AND PROGRAMS TO ALLEVIATE THE PROBLEM ARE OUTLINED. THE RECOMMENDATIONS FOLLOW THE DETERMINATION OF THE QUANTITY AND TYPES OF MATERIALS, ESPECIALLY PARTICULATES, IN THE AIR AND THE PROJECTION OF FUTURE AIR QUALITY CONDITIONS, AS WELL AS THE EFFECT OF CERTAIN INDUSTRIAL AND DOMESTIC PRACTICES.

W-3

WALCOTT, CHARLES D.

1899.

"PRE-CAMBRIAN FOSSILIFEROUS FORMATIONS."

BULL. GEOLOGICAL SOCIETY AMERICA 10(6 APRIL 1899):199-244.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, NATIONAL.

(UNITED STATES: MONTANA). CLASTIC ROCKS OF THE ALGONKIAN PERIOD AT VARIOUS LOCATIONS THROUGHOUT THE U.S., INCLUDING THE BELT SERIES IN MONTANA, ARE DESCRIBED. COMPOSITION AND CHARACTER OF THE OCCURRENCE, ITS FORMATIONS, THE UNCONFORMITY BETWEEN THE SERIES AND THE CAMBRIAN, AND THE AGE OF CAMBRIAN BEDS ARE DISCUSSED. EVIDENCE CONCERNING FOSSILIFEROUS CHARACTER OF CERTAIN PRECAMBRIAN STRATA IS REVIEWED.

W-4

WALCOTT, CHARLES D.

1906.

"ALGONKIAN FORMATIONS OF NORTHWESTERN MONTANA."

BULL. GEOLOGICAL SOCIETY AMERICA 17(17 MAY 1906):1-28.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(NORTHWEST MONTANA). VARIOUS SECTIONS OF PRECAMBRIAN FORMATIONS ARE COMPARED AND CORRELATED. EACH SECTION IS DISCUSSED, AND ITS GENERAL CHARACTERISTICS ARE DESCRIBED.

W-5

WALDRON, ELLIS.

1958.

MONTANA POLITICS SINCE 1864: AN ATLAS OF ELECTIONS.

MISSOULA, MT.: MONTANA STATE UNIV. PRESS. 428 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.



(MONTANA). THIS COMPILATION OF OFFICIAL ELECTION RETURNS BROUGHT TOGETHER THE RECORD OF MORE THAN NINE DECADES OF ELECTIVE POLITICS IN THE TERRITORY AND STATE SINCE ITS BEGINNING IN 1864. MAPS ARE INCLUDED TO SHOW PARTISAN ALIGNMENT OF THE COUNTIES IN THE PRINCIPAL CONTESTS OF EACH ELECTION.

W-6

WALDRON, ELLIS.

1961.

MUNICIPAL FACILITIES AND SERVICES IN MONTANA: A SURVEY OF 108 INCORPORATED CITIES AND TOWNS.

MISSOULA, MT.: MONTANA STATE UNIV., BUREAU GOVERNMENT RESEARCH. PUBL. NO. 4 76 PP.

FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: KALISPELL & COLUMBIA FALLS). THIS PROFILE OF FACILITIES AND SERVICES IN MONTANA'S URBAN COMMUNITIES IS DERIVED FROM A QUESTIONNAIRE SENT TO CITY CLERKS. THE TOWNS WERE CLASSIFIED BY POPULATION—STATISTICS ARE INCLUDED FOR KALISPELL AND COLUMBIA FALLS. TOPICS COVERED ARE: THE ORGANIZATION OF GOVERNMENT, PROTECTIVE FUNCTIONS, UTILITIES, AND FACILITIES.

W-7

WALDUM, PETER H., ET. AL.

1967.

FLATHEAD COUNTY ANTI-CRIME COMMISSION REPORT.

KALISPELL: FLATHEAD ANTI-CRIME COMMISSION, FLATHEAD COUNTY COMMISSIONERS.

FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD COUNTY). THE PURPOSE OF THIS COMMISSION WAS TO DETERMINE THE OBJECTIVES OF

THE COUNTY'S SYSTEM OF CRIMINAL LAW, WHAT PROCEDURES WERE USED TO REACH THE OBJECTIVES, HOW A GREATER PUBLIC UNDERSTANDING AND PARTICIPATION COULD BE ACHIEVED, AND WHAT CHANGES SHOULD BE MADE TO MORE EFFECTIVELY REACH OBJECTIVES.

W-9

WALKER, M. V.

"A PHYSIOGRAPHIC AND GEOLOGIC SKETCH OF THE GLACIER NATIONAL PARK REGION."

U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. WEST GLACIER, MT. (TYPEWRITTEN). 10 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT PRESENTS THE PHYSIOGRAPHIC HISTORY OF GLACIER NATIONAL PARK, BEGINNING AT THE APPROXIMATE CLOSE OF THE CRETACEOUS PERIOD. THE PHYSIOGRAPHY OF THE AREA WAS PRODUCED LARGELY THROUGH THE ACTION OF MOUNTAIN MAKING, FOLDING AND FAULTING, AND THE DEVELOPMENT OF THE SUBSEQUENT DRAINAGE SYSTEM.

W-8

WALKER, ELKANAH, REV.

1842.

SPOKANE (FLATHEAD) PRIMER.

LAPWAI, ID.: TSHIMAKAIN MISSION PRESS. 61 PP.

FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

NOTE: SEE APPENDIX OF CLIFFORD DRURY'S NINE YEARS AMONG THE SPOKANE INDIANS (1976). GLENDALE, CA., FOR A REPRING OF THE ORIGINAL.

(FLATHEAD INDIAN RESERVATION). THE PRIMER REPRESENTS THE FIRST BOOK PRINTED IN THE FLATHEAD LANGUAGE BY THE INDIVIDUAL WHO FIRST REDUCED THE LANGUAGE TO WRITING. IT INCLUDES A KEY TO THE ALPHABET AND PRONUNCIATION.

- W-13
WALLIS, O. L.
1957.
"AN EVALUATION OF THE FISHERY RESOURCES OF GLACIER NATIONAL PARK AND NEEDS FOR INTERPRETATION, RESEARCH, AND MANAGEMENT." U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, WASHINGTON, D.C. (TYPEWRITTEN). 36 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THE REPORT CALLS FOR A SURVEY OF WATERS AND FISH FAUNA, AN HISTORICAL REVIEW, STATUS AND LIFE HISTORY STUDIES OF FISH SPECIES, AND A DETERMINATION OF FISHING PRESSURE. PUBLIC INFORMATION PROGRAMS ON FISHERY RESOURCES, MANAGEMENT PROGRAMS, AND ANGLING REGULATIONS ARE DESCRIBED.
- W-12
WALLBRIDGE, THOMAS A., JR.
1948.
"A SURVEY OF CHRISTMAS TREE PRODUCTION ON PRIVATE LANDS IN WESTERN MONTANA." M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 104 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (WESTERN MONTANA: KALISPELL, BIGFORK, & SOMERS-DAYTON AREAS). THE OBJECTIVES OF THIS SURVEY WERE TO DETERMINE: 1) THE WAY IN WHICH THE INDUSTRY IS CONDUCTED, 2) THE TYPE OF LAND SUITABLE FOR CHRISTMAS TREE PRODUCTION, 3) EFFECTIVE MANAGEMENT PRACTICES, 4) YIELDS UNDER PRESENT PRACTICES, AND 5) YIELDS UNDER MANAGEMENT. A TOTAL OF 27 GROWERS WERE INTERVIEWED IN SIX DIFFERENT AREAS.
- W-11
WALLACE, ROBERT F., AND BLAKE, D. R.
1966.
MONTANA TRAVEL STUDY.
HELENA: MONTANA STATE HIGHWAY COMMISSION.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA). THE BODY OF THIS STUDY WAS DRAWN FROM TWO SURVEYS: THE LODGING SURVEY, IN WHICH TRAVEL PARTIES WERE INTERVIEWED OUT-OF-STATE MOTORISTS AS THEY ENTERED OR LEFT THE STATE. THE TOPICS COVERED INCLUDED WHERE THE TOURISTS CAME FROM, HOW THEY TRAVELED, WHERE THEY STAYED, THE TRAVEL PARTY, TRIP PLANNING AND PURPOSE, AND HOW MUCH THEY SPENT. MOST OF THE DATA IS CONTAINED IN TABLES AND GRAPHS.
- W-10
WALKER, M. V.; KAUFFMAN, E.; AND GRABER, E.
1942.
MASTER LIST: PLACE NAMES IN GLACIER NATIONAL PARK.
WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). PART I OF THIS EXTENSIVE DOCUMENT IS AN ALPHABETICAL LISTING OF PLACE NAMES APPROVED AS OF NOVEMBER 1942. PART II LISTS DECISIONS OF THE U.S. GEOGRAPHIC BOARD RELATING TO PLACE NAMES IN THE PARK FROM 1890 TO 1941. PART III CONTAINS APPROVED PLACE NAMES, THE SECTION OF THE TOPOGRAPHIC MAP ON WHICH THEIR LOCATION IS RECORDED, AND THE REASON FOR THE NAME.
- W-14
WALLWORK, SUSAN S.
1979.
"A SURVEY OF MONTANA HOUSEHOLDS." MONTANA BUSINESS QUARTERLY (WINTER 1979): 7-14.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: FLATHEAD RIVER BASIN). THIS ARTICLE REPORTS ON A SURVEY OF MONTANA HOUSEHOLDS TO DETERMINE THEIR CURRENT HOUSING SITUATIONS AND THE EXTENT OF THEIR HOUSING NEEDS AND PREFERENCES. DEMOGRAPHIC INFORMATION ABOUT HOUSEHOLD MAKEUP AND INCOME IS INCLUDED; THE SURVEY METHODOLOGY IS DESCRIBED.
- W-15
WALLWORK, SUSAN S.; JOHNSON, MAXINE; AND POLZIN, PAUL.
1979.
HOUSING NEEDS AND PREFERENCES: A SURVEY OF MONTANA HOUSEHOLDS.
HELENA: MONTANA BOARD OF HOUSING. 104 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA). THE REPORT PRESENTS THE RESULTS OF AN EXTENSIVE SURVEY OF MONTANA HOUSEHOLDS TO DETERMINE THEIR CURRENT HOUSING SITUATIONS AND THE EXTENT OF THEIR HOUSING NEEDS AND PREFERENCES. DISCUSSIONS OF THE METHODOLOGY AND THE SURVEY SAMPLE ARE INCLUDED IN THE APPENDICES, ALONG WITH COPIES OF THE SURVEY INSTRUMENTS.
- W-16
WALSH, T. F.
1901.
"PICTURESQUE LAKE MACDONALD." ROCKY MOUNTAIN MAGAZINE, JANUARY 1901, PP. 325-330.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (LAKE MCDONALD). THE ARTICLE DESCRIBES THE AUTHOR'S EXPERIENCES WHILE LIVING IN A CABIN LOCATED AT THE HEAD OF THE LAKE. THE PEOPLE IN THE AREA, FISHING IN MCDONALD CREEK, HORSEBACK TRIPS UP THE CAMAS TRAIL, AVALANCHE BASIN, AND SPERRY GLACIER ARE DISCUSSED.
- W-17
WALTER, DAVID.
1978.
"A TEACHER'S GUIDE TO MONTANA LOCAL HISTORY MATERIALS." MONTANA HISTORIAN 8:50-100.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.
- (MONTANA: FLATHEAD RIVER BASIN). THIS IS AN ANNOTATED LIST OF PUBLISHED MATERIAL READILY AVAILABLE TO MONTANA TEACHERS. THE PURPOSE OF THE ANNOTATIONS IS TO PROVIDE THE INSTRUCTOR WITH SUFFICIENT INFORMATION ABOUT A WORK TO JUDGE ITS APPLICABILITY TO HIS CLASSROOM SITUATION. GEOGRAPHIC AREA, INCLUSIVE DATES, AND THE NATURE OF THE MATERIAL ARE INCLUDED.
- W-18
WARD, JAMES V., AND STANFORD, JACK A.
1979.
"ECOLOGICAL FACTORS CONTROLLING STREAM ZOOBENTHOS WITH EMPHASIS ON THERMAL MODIFICATION OF REGULATED STREAMS." IN THE ECOLOGY OF REGULATED STREAMS, PP. 38-55.
NEW YORK: PLENUM PUBL. CORP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, NATIONAL.
- (UNITED STATES: MIDDLE & SOUTH FORKS OF THE FLATHEAD RIVER). THE MAJOR THRUST OF THIS REVIEW PAPER DEALS WITH EFFECTS OF THERMAL AND FLOW PHENOMENA ON BENTHIC MACROINVERTEBRATES IN LOTIC REACHES DOWNSTREAM FROM IMPOUNDMENTS, WITH SPECIAL EMPHASIS ON THE INFLUENCE OF TEMPERATURE REGIME ALTERATIONS. THE DISCUSSION CONCENTRATES ON RESULTS OF COMPREHENSIVE INVESTIGATIONS OF THE ZOOBENTHOS OF REGULATED STREAMS IN TEMPERATE LATITUDES.
- W-19
WARD, JAMES V., AND STANFORD, JACK A.
1979.
"LIMNOLOGICAL CONSIDERATIONS IN RESERVOIR OPERATION: OPTIMIZATION STRATEGIES FOR PROTECTION OF AQUATIC BIOTA IN THE RECEIVING STREAM." IN PROCEEDINGS OF MITIGATION SYMPOSIUM, PP. 499-501.
FT. COLLINS, CO.: U.S. DEPT. AGRICULTURE.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD LAKE). IT WAS THE PURPOSE OF THIS PAPER TO INTEGRATE LIMNOLOGICAL CONCEPTS WITH PRINCIPLES OF STREAM ECOLOGY IN EXAMINING POTENTIAL PROBLEMS IN REGULATED STREAMS, AND THEREBY TO ADDRESS AMELIORATIVE MEASURES TO PROTECT THE BIOTIC COMMUNITIES OF THESE MODIFIED LOTIC SYSTEMS. THE VARIOUS MODIFICATIONS RESULTING FROM AN UPSTREAM IMPOUNDMENT ARE DISCUSSED WITH SUGGESTIONS FOR THE IMPROVEMENT OF BIOLOGICALLY ADVERSE CONDITIONS. IN GENERAL THE DISCUSSION IS LIMITED TO DEEP HOLOMICTIC RESERVOIRS WHICH THERMALLY STRATIFY.
- W-20
WARD, JAMES V., AND STANFORD, JACK A.
1979.
"SYMPOSIUM SUMMARY AND CONCLUSIONS." IN THE ECOLOGY OF REGULATED STREAMS.
NEW YORK: PLENUM PUBL. CO.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, THE WORLD.
- (THE WORLD: MONTANA). THE PRIMARY PURPOSE OF THESE PROCEEDINGS WAS TO DOCUMENT THE EXTENT OF STREAM REGULATION AND RESULTING ECOLOGICAL RAMIFICATIONS ON LOTIC SYSTEMS AND TO PROVIDE DIRECTIONS FOR FURTHER RESEARCH. IN THIS BRIEF SUMMARY, FOCUS IS DIRECTED TOWARD THE MAJOR CONCEPTS DEVELOPED BY THE AUTHORS OF THE PAPERS PRESENTED TO THE SYMPOSIUM.
- W-21
WARLEY, DAVID E.; GREER, K.; AND PALMISCIANO, D.
1980.
"POSSIBLE RELATIONSHIPS BETWEEN TRICHINELLOSIS AND ABNORMAL BEHAVIOR IN BEARS: THEIR BIOLOGY AND MANAGEMENT. EDITED BY E. C. MESLOW.
IN PRESS.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.
- (NORTHERN ROCKY MTS.: GLACIER NATL. PARK). THE PURPOSE OF THIS REPORT IS TO CONSIDER THE POSSIBLE INFLUENCE OF PARASITIC INFECTIONS WITH THE MUSCLE WORM, TRICHINELLA SPIRALIS, IN TRIGGERING ANTAGONISTIC BEHAVIOR WHICH COULD LEAD TO BEAR-HUMAN CONFLICTS.
- W-22
WARREN, EDWARD R.
1914.
"HARLEQUIN DUCK IN GLACIER NATIONAL PARK." THE AUK 31(OCTOBER 1914): 535.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, ADJACENT TO THE BASIN.

(GLACIER NATL. PARK: ICEBERG LAKE). THE OBSERVATION OF A PAIR OF HARLEQUIN DUCKS, *HISTRIONICUS HISTRIONICUS*, IS REPORTED. THE LAKE AND BEHAVIOR OF THE DUCKS ARE DESCRIBED ALONG WITH THE AUTHOR'S ATTEMPTS TO PHOTOGRAPH THE PAIR.

W-23
WASEM, C. ROBERT.
 1984.
A BRIEF HISTORY OF FISH MANAGEMENT IN GLACIER NATIONAL PARK.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 13 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS HISTORY OF FISHERIES MANAGEMENT IN THE PARK LISTS THE NATIVE SPORT FISHES BELIEVED TO BE PRESENT AT THE TIME OF THE PARK'S ESTABLISHMENT. THE ESTABLISHMENT OF THE KOKANEE SALMON, THE CREATION OF THE GLACIER PARK FISH HATCHERY, POST-WAR FISH PLANTING ACTIVITIES, THE WORKS OF PARK BIOLOGISTS IN THE AREA OF FISHERIES, THE INITIATION OF A CREEL CENSUS IN 1959, THE ESTABLISHMENT OF A FISH AND WILDLIFE MANAGEMENT RANGER POSITION, AND OTHER, MORE RECENT MANAGEMENT ACTIVITIES, ARE DESCRIBED.

W-24
WASEM, C. ROBERT.
 1966.
DEATH OF A SWAN.
 WEST GLACIER, MT. 5 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK: LAKE McDONALD). THE PAPER REPORTS ON THE RETRIEVAL AND INSPECTION OF A DEAD, FULLY MATURE ADULT WHISTLING SWAN (*CYGNUS COLUMBIANUS*). MEASUREMENTS AND PHOTOGRAPHS WERE TAKEN, AND THE CAUSE OF DEATH DETERMINED.

W-25
WASEM, C. ROBERT.
 1968.
AN AID TO THE IDENTIFICATION OF THE ELEVEN SPORT FISH SPECIES OF GLACIER NATIONAL PARK.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 8 PP.
 FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE PAPER IS A KEY TO IDENTIFICATION OF SPORT FISHES. DIAGRAMS AND MAJOR EXTERNAL ANATOMICAL FEATURES ARE OUTLINED TO ASSIST FISHERMEN IN IDENTIFICATION OF RAINBOW, BROOK, CUTTHROAT, AND LAKE TROUT, DOLLY VARDEN, LAKE AND ROCKY MOUNTAIN WHITEFISH, GRAYLING, BURBOT, AND NORTHERN PIKE.

W-26
WASEM, C. ROBERT.
 1968.
AQUATIC ECOLOGY STUDIES AND BANDED ELK MOVEMENT STUDIES.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. NPS PROGRESS REPT. 79 PP.
 IN PROGRESS, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE REPORT IS IN FOUR PARTS. PART 1 DESCRIBES THE MOVEMENTS OF BANDED ELK (*CERVUS CANADENSIS*) IN THE WATER-TOON LAKES AND ST. MARY-RED EAGLE AREA. PART 2 REPORTS ON BASIC PHYSICAL AND CHEMICAL CHARACTERISTICS OF THE AREA'S WATERS. PART 3 DISCUSSES SURVEYS OF POPULATIONS OF DOLLY VARDEN CHAR (*SALVELINUS MALMA*). THE LAKE'S

SIZE, ELEVATION, WATER QUALITY, DEPTH, AND TEMPERATURE ARE DESCRIBED, AS WELL AS SURROUNDING VEGETATION, GEOLOGY, AND STREAMS. PART 4 CONSIDERS MAN-CAUSED ENRICHMENT AND PRESENTS WATER QUALITY DATA FROM 8 SAMPLE LOCATIONS, 5 OF WHICH ARE SUSPECT WATERS. THE LIMITED IMPORTANCE OF THE DATA IS EMPHASIZED; FUTURE STUDIES ARE CONSIDERED.

W-27
WASEM, C. ROBERT.
 1969.
ELK WINTER HABITAT RELATIONSHIPS.
 WEST GLACIER, MT.: U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, GLACIER NATIONAL PARK. 6 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). CONDITION AND TREND STUDIES OF *CERVUS CANADENSIS* WINTER RANGE, AS WELL AS STUDIES OF ELK HABITAT RELATIONSHIPS, WERE CARRIED OUT FROM 1961 TO 1968. SHRUB ABUNDANCE AND UTILIZATION OF KEY SPECIES ON WINTER RANGES WERE MEASURED, AND FORAGE SPECIES IMPORTANT IN THE DIET OF ELK WERE LISTED.

W-28
WEARSCH, TERESA KRSTOWSKI.
 1968.
"BIOLOGY AND IMMATURE STAGES OF CERTAIN CHLOROPIDAE (DIPTERA) ASSOCIATED WITH ELECCHARIS SPP."
 M.A. THESIS, KENT STATE UNIV., KENT, OH. 96 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(PORTAGE COUNTY, OHIO, & LAKE COUNTY, MONTANA). THIS STUDY PRESENTS LIFE HISTORY INFORMATION OBTAINED FOR THE FOLLOWING SPECIES OF CHLOROPIDAE: *KIPLOTOXA*, *LASIOSINA*, *ELLIPONEURA*, AND *CHLOROPS*. THE EGGS, LARVAL STAGES AND PUPA ARE DESCRIBED AND DRAWN.

W-29
WEAVER, HAROLD.
 1937.
"PHOTOGRAPHIC STUDY OF POORLY STOCKED LOGGED-OVER PINE LANDS OF THE FLATHEAD INDIAN RESERVATION."
 FLATHEAD INDIAN AGENCY, DIXON, MT. 10 PP.
 FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

AVAILABLE FROM: FEDERAL ARCHIVES AND RECORDS CENTER, GENERAL SERVICES ADMINISTRATION, SEATTLE, WA.

(FLATHEAD INDIAN RESERVATION). THIS SERIES OF PHOTOGRAPHS, WITH DESCRIPTION OF WHERE THEY WERE TAKEN, ACCOMPANIES A REPORT ON THE STATUS OF REGENERATION ON LOGGED OVER PONDEROSA PINE STANDS ON THE RESERVATION.

W-30
WEAVER, HAROLD.
 1937.
"REPORT ON LOGGED-OVER PONDEROSA PINE LANDS IN NEED OF PLANTING ON THE FLATHEAD INDIAN RESERVATION."
 FLATHEAD INDIAN AGENCY, DIXON, MT. 13 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THIS REPORT WAS DESIGNED TO DETERMINE THE LOCATION, EXTENT, AND CONDITION OF THE AREAS THAT WERE NOT RESTOCKED ADEQUATELY THROUGH NATURAL REGENERATION AND WERE IN NEED OF PLANTING.

W-31
WEBER AND ASSOCIATES, AND UNDERWOOD AND ASSOCIATES.
 1978.
ON SITE SEWAGE DISPOSAL WITHIN THE FLATHEAD DRAINAGE BASIN.
 KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT. 67 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, BASIN-WIDE.

(FLATHEAD RIVER DRAINAGE). THE PRINCIPLE COMPONENTS OF THIS STUDY WERE: 1) COMPILATION OF EXISTING LITERATURE ON THE LOCAL REGULATORY FRAMEWORK, LOCAL SITE-CONDITIONS AND ALTERNATE SYSTEMS OF ONSITE SEWAGE DISPOSAL; 2) A REVIEW OF THE EXISTING REGULATORY SYSTEM FOR ONSITE SEWAGE DISPOSAL; 3) COMPILATION OF MAPS FOR FIVE EXEMPLARY AREAS WITHIN THE FLATHEAD DRAINAGE WHICH DEPICT THE LIMITATIONS OF ONSITE SUBSURFACE SEWAGE DISPOSAL, REVIEW AND ANALYSIS OF AVAILABLE ALTERNATIVE SYSTEMS FOR ONSITE SEWAGE DISPOSAL, AND SELECTION OF THE SYSTEMS BEST SUITED FOR LOCAL CONDITIONS; AND 4) COMPILATION OF RECOMMENDATIONS FOR MINIMIZING THE POLLUTION POTENTIAL OF ONSITE SEWAGE DISPOSAL. DIAGRAMS OF TREATMENT PLANTS ARE INCLUDED.

W-32
WEBER AND ASSOCIATES, INC.
 1977.
FOREST WATER QUALITY WITHIN THE FLATHEAD DRAINAGE BASIN.
 KALISPELL, MT.: FLATHEAD DRAINAGE 208 PROJECT. 91 PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, BASIN-WIDE.

(FLATHEAD RIVER BASIN: ALL COUNTIES). THE PRINCIPLE OBJECTIVES OF THIS PROJECT WERE TO ACCURATELY CHARACTERIZE THE WATER RESOURCE OF DISTURBED AND UNDISTURBED FOREST WATERSHEDS AND THEREBY ESTABLISH A SET OF WATER QUALITY BASELINE-CRITERIA BY WHICH THE IMPACTS OF FOREST MANAGEMENT ACTIVITIES CAN BE ASSESSED. THE STUDY INCLUDED ASSEMBLING EXISTING WATER QUALITY DATA; DEVELOPMENT OF NEW DATA, WHERE NECESSARY, BY ESTABLISHING A SYSTEM OF QUALITY MONITORING STATIONS AND MAKING STRUCTURAL OR PROCEDURAL RECOMMENDATIONS FOR THE CONTROL OF NONPOINT SOURCE WATER POLLUTION ARISING FROM DISTURBED FOREST WATERSHEDS.

W-33
WEBER, W. MARK.
 1977.
FOREST WATER QUALITY WITHIN THE FLATHEAD DRAINAGE BASIN.
 KALISPELL, MT.: FLATHEAD DRAINAGE 208 WATER QUALITY PROJECT. 91+ PP.
 FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RIVER BASIN: HUNGRY HORSE AREA, ISLAND PLANNING UNIT, & VALLEY CREEK). THE PROJECT OBJECTIVES WERE TO ACCURATELY CHARACTERIZE THE WATER RESOURCE OF DISTURBED AND UNDISTURBED FOREST WATERSHEDS AND THEREBY ESTABLISH A SET OF WATER QUALITY CRITERIA BY WHICH THE IMPACTS OF FOREST MANAGEMENT ACTIVITIES CAN BE ASSESSED. THE INVESTIGATION ASSEMBLED EXISTING WATER QUALITY DATA; DEVELOPED NEW DATA WHEN NECESSARY BY ESTABLISHING A NEW SYSTEM OF QUALITY MONITORING STATIONS, AND MADE STRUCTURAL OR PROCEDURAL RECOMMENDATIONS FOR THE CONTROL OF NONPOINT SOURCE WATER POLLUTION.

- W-34**
WEBER, W. MARK, AND WITKIND, I. J.
1977.
BIG FORK-AVON ENVIRONMENTAL GEOLOGY MAPPING PROJECT.
GEOLOGIC SOCIETY OF AMERICA, ROCKY MT. SECTION. FIELD GUIDE NO. 2. 8 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (BIG FORK TO AVON CORRIDOR). A BRIEF DESCRIPTION OF THE CORRIDOR TO BE MAPPED IN 7½ MINUTE 1:24,000 GEOLOGIC QUADRANGLES. THE STUDY'S TWO OBJECTIVES ARE: THE PREPARATION OF AN INVENTORY OF EARTH RESOURCES AND THE FORMULATION OF LAND USE POTENTIAL. A ROAD LOG FROM MISSOULA-US 200-HOLLAND LAKE IS INCLUDED.
- W-35**
WECKWERTH, RICHARD P.
1957.
"THE RELATIONSHIP BETWEEN THE MARTEN POPULATION AND THE ABUNDANCE OF SMALL MAMMALS IN GLACIER NATIONAL PARK."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 76 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THE OBJECTIVES OF THIS STUDY WERE: 1) TO DETERMINE THE SEASONAL FOOD HABITS OF MARTES AMERICANUS THROUGH THE ANALYSIS OF SCATS; 2) TO DETERMINE THE AMOUNT AND TYPE OF FOOD AVAILABLE TO MARTENS THROUGH CENSUS OF SMALL MAMMALS; 3) TO DETERMINE MARTEN POPULATION DENSITY, DISTRIBUTION AND COMPOSITION THROUGH LIVE TRAPPING; AND 4) TO LEARN MORE OF THE LIFE HISTORY AND BREEDING CHARACTERISTICS OF MARTEN ON THE STUDY AREA.
- W-36**
WECKWERTH, RICHARD P., AND HAWLEY, V. D.
1962.
"MARTEN FOOD HABITS AND POPULATION FLUCTUATIONS IN MONTANA."
J. WILDLIFE MANAGEMENT 26(JANUARY 1962):55-74.
PART OF A SERIES, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THIS PAPER PRESENTS INFORMATION OBTAINED BETWEEN 1952 AND 1957 ON THE RELATIONSHIPS BETWEEN THE FOOD HABITS OF MARTES AMERICANA AND THE FLUCTUATIONS OF MARTEN AND PREY POPULATIONS IN THE STUDY AREA.
- W-37**
WECKWERTH, RICHARD P., AND WRIGHT, P. L.
1968.
"RESULTS OF TRANSPLANTING FISHERS IN MONTANA."
J. WILDLIFE MANAGEMENT 32:987-989.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (WESTERN MONTANA: FLATHEAD LAKE, SWAN RIVER, & NORTH FORK OF THE FLATHEAD RIVER). THIRTY-SIX LIVE FISHERS (MARTES PENNANTI) CAUGHT IN CENTRAL BRITISH COLUMBIA WERE RELEASED AT THREE SITES IN WESTERN MONTANA IN AN EFFORT TO REESTABLISH THE SPECIES WHERE IT HAD BEEN EXTIRPATED. TABLES AND MAPS INDICATE THE SITE, DATE, AND DISTANCE MOVED BY THE FISHERS WHICH WERE RECOVERED. THE STATUS OF THE REPRODUCTIVE TRACTS OF THE RECOVERED FEMALE FISHERS IS DISCUSSED.
- W-38**
WEHR, OLIVE C.
1976.
TO LIVE ON A RESERVATION.
ST. IGNATIUS, MT.: MISSION VALLEY NEWS. 100 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). A PICTORIAL HISTORY OF LIFE ON THE FLATHEAD RESERVATION. SECTIONS COVER FLATHEAD INDIANS, FAMILY LIFE ON THE RESERVATION, ST. IGNATIUS 1976, AND TWICE TOLD TALES.
- W-39**
WEHR, OLIVE C., ED.
1975.
THE HERITAGE OF MISSION VALLEY.
ST. IGNATIUS, MT.: MISSION VALLEY NEWS. 61 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION: ST. IGNATIUS). THIS BOOK GREW OUT OF A DESIRE TO PRESERVE A PERMANENT RECORD OF THE HERITAGE OF THE VALLEY. EXTENSIVE INTERVIEWS WITH LONG TIME VALLEY RESIDENTS, OLD PHOTOGRAPHS, AND A GENERAL HISTORY ARE INCLUDED.
- W-40**
WEIDMAN, R. M., AND ALT, D. D.
1976.
APPLICABILITY OF ERTS-1 TO MONTANA GEOLOGY.
GREENBELT, MD.: GODARD SPACE FLIGHT CENTER. 83 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: FLATHEAD RIVER BASIN). THE PRIMARY OBJECTIVES OF THE INVESTIGATION WERE TO DEVELOP AND EVALUATE TECTONIC AND PHOTOGEOLOGIC MAPPING METHODS FOR BOTH FORESTED AND SPARSELY VEGETATED TERRAIN, AND TO TEST APPLICATIONS FOR MONTANA THAT INVOLVED THE STUDY OF IMAGERY FOR DIFFERENT SEASONS, SPECTRAL BANDS AND PRINT SCALES, THE LAYING AND STUDY OF MOSAICS, EXPERIMENTAL USE OF 70MM POSITIVE TRANSPARENCIES, AND OPTICAL COLOR ENHANCEMENTS OF MULTISPECTRAL 70MM CHIPS. IDENTIFICATION AND MAPPING OF MAJOR ROCK UNITS, FOLDS, AND INTRUSIVE DOMES WAS DONE LOCALLY WITH PRECISION. AN ERTS LINEAMENT MAP OF WESTERN MONTANA WAS PREPARED BY ANNOTATION OF FRACTURE CONTROLLED GEOLOGIC LINES. PHOTOGRAPHS, MAPS, AND CHARTS ARE INCLUDED.
- W-41**
WEIGAND, JOHN P., AND JANSON, REUEL G.
1976.
MONTANA'S RING-NECKED PHEASANT: HISTORY, ECOLOGY AND MANAGEMENT.
HELENA, MT.: MONTANA DEPT. FISH & GAME, GAME MANAGEMENT DIV. 178 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA). THIS BULLETIN EXPLORES THE VARIOUS BIOLOGICAL AND ECOLOGICAL PHENOMENA WHICH CONTRIBUTE TO PHEASANT POPULATION FLUCTUATIONS. IT DESCRIBES THE BIRD'S LIFE HISTORY, HABITAT REQUIREMENTS, POPULATION DYNAMICS, AND THE INFLUENCE OF VARIOUS ENVIRONMENTAL FACTORS INCLUDING AGRICULTURAL CHEMICALS. THE HISTORY OF PHEASANTS AND PHEASANT POPULATIONS IN MONTANA, THEIR MANAGEMENT, AND RESEARCH ON THEIR POPULATIONS AND HABITAT IS ALSO EXAMINED.
- W-42**
WEISEL, GEORGE F.
1942.
"THE MORPHOLOGY OF MATURING AND MATURED TESTES OF THE SOCKEYE SALMON (ONCORHYNCHUS NERKA) WITH A COMPARISON TO THE TESTES OF THE RAINBOW TROUT (SALMO GAIRDNERII)."
M.A. THESIS, MONTANA STATE UNIV., MISSOULA. 47 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD LAKE, SOMERS STATE FISH HATCHERY, & CRESTON FEDERAL FISH HATCHERY). TESTES DEVELOPMENT OF THE SOCKEYE SALMON (ONCORHYNCHUS NERKA) AND THE RAINBOW TROUT (SALMO GAIRDNERII) WAS INVESTIGATED, ALONG WITH THE CHANGES OCCURRING IN THE TESTICULAR DUCTS. THE RAINBOW DOES NOT DEVELOP SECONDARY SEX CHARACTERS TO A HIGH DEGREE AS DOES THE SALMON AND GENERALLY SPAWNS MORE THAN ONCE IN ITS LIFESPAN. THE RAINBOW ALSO SPAWNS IN THE SPRING WHEREAS THE SALMON SPAWN IN THE LATE FALL AND EARLY WINTER. HENCE, COMPARISON OF THE TWO SPECIES' MORPHOLOGY AND GERM CELLS OF THE ADULT TESTES WAS ATTEMPTED.
- W-43**
WEISEL, GEORGE F.
1951.
"THE RAM'S HORN TREE AND OTHER MEDICINE TREES OF THE FLATHEAD INDIANS."
MONTANA MAGAZINE OF WESTERN HISTORY 1(JULY 1951):8-16.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (ABORIGINAL LANDS OF THE FLATHEAD INDIANS). THIS ARTICLE DESCRIBES STORIES AND LEGENDS SURROUNDING THE RAM'S HORN TREE: TREES CONSIDERED TO HAVE POWERFUL MEDICINE. WRITTEN ACCOUNTS BY FUR TRADERS DEPICTING PINE TREES WITH RAM HORNS ATTACHED TO THEM ARE ALSO RELATED.
- W-44**
WEISEL, GEORGE F.
1952.
"ANIMAL NAMES, ANATOMICAL TERMS, AND SOME ETHNOZOOLOGY OF THE FLATHEAD INDIANS."
J. WASHINGTON ACADEMY SCIENCES 42(NOVEMBER 1952):345-355.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). THE ARTICLE INCLUDES A LISTING OF ANIMALS (FISH, AMPHIBIANS, REPTILES, BIRDS, WILD AND DOMESTIC MAMMALS) AND ANATOMICAL TERMS (VERTEBRATE ANATOMY AND INVERTEBRATES) IN THE FLATHEAD LANGUAGE. THE INDIANS' AQUAINTANCE WITH AND USE OF ANIMALS IS EXPLAINED.
- W-45**
WEISEL, GEORGE F.
1952.
"A FLATHEAD INDIAN TALE."
J. AMERICAN FOLKLORE 65:359-360.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). A FLATHEAD TALE, TAPE-RECORDED AND PRESENTED IN TRANSLATION HERE, DESCRIBES THE PLIGHT OF THE YOUNGEST OF FOUR BROTHERS. IT TELLS HOW HIS THREE BROTHERS WERE KILLED, HOW HE ATE TOO MUCH AND EXPLODED, AND HOW MOSQUITOES-LOTS OF THEM-CAME OUT OF HIM.
- W-46**
WEISEL, GEORGE F.
1954.
"POSSIBLE CAUSES OF HYBRIDIZATION AMONG CYPRINID FISHES IN WESTERN MONTANA."
PROC. MONTANA ACADEMY SCIENCES 14:29-30.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (WESTERN MONTANA: FLATHEAD LAKE). THE HYBRIDIZATION OF MYLOCHEILUS CAURINUS WITH PTYCHOCEILUS OREGONENSIS AND M. CAURINUS WITH RHINICHTHYS CATARACTAE IN FLATHEAD LAKE IS DISCUSSED IN RELATION TO THE POSSIBLE ECOLOGICAL FACTORS OPERATING TO BREAK DOWN THE BREEDING BARRIERS BETWEEN SPECIES.

W-47
WEISEL, GEORGE F.
1954.

"A REDISCOVERED CYPRINID HYBRID FROM WESTERN MONTANA - MYLOCHEILUS CAURINUS RICHARDSONIUS BALTEATUS BLATEATUS." COPEIA 4(29 OCTOBER 1954):278-282.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THIS PUBLICATION DESCRIBES THE RARE HYBRIDIZATION BETWEEN N. CAURINUS AND R. BALTEATUS WHICH WAS NETTED IN FLATHEAD LAKE IN 1952. THE REPORT COMPARES THE HYBRID WITH ITS PUTATIVE PARENTS BY EXAMINING: SIZE AND COLOR, HEAD, POSITION OF DORSAL AND PELVIC FINS, SCALES AND FIN RAYS, AND PHARYNGEAL TEETH AND GILL RAKERS.

W-48
WEISEL, GEORGE F.
1955.

"THREE NEW INTERGENERIC HYBRIDS OF CYPRINID FISHES FROM WESTERN MONTANA." AMERICAN MIDLAND NATURALIST 53:396-411.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: FLATHEAD LAKE). THIS REPORT EXAMINES THE HYBRID CHARACTERISTICS THAT OCCUR WHEN A COLUMBIA RIVER CHULO (MYLOCHEILUS CAURINUS) CROSSES WITH A SQUAW FISH (PTYCHOCEILUS OREGONENSIS); A COMPARISON OF ADULT HYBRIDS WITH THEIR PUTATIVE PARENTS DESCRIBES: THE MOUTH AND JAWS, BARBELS, HEAD, POSITION OF DORSAL FIN, SCALES, DORSAL AND ANAL RAYS, PHARYNGEAL TEETH, COLOR, SEX RATIO, AND CONDITION OF GONADS. HYBRIDIZATIONS OF P. OREGONENSIS AND RICHARDSONIUS BALTEATUS, AND RHINICHTHYS CARACTATAE AND R. BALTEATUS ARE ALSO BRIEFLY DISCUSSED.

W-49
WEISEL, GEORGE F.
1959.

TEN ANIMAL MYTHS OF THE FLATHEAD INDIANS. MISSOULA, MT.: MONTANA STATE UNIV. ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 18. 15 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). FLATHEAD ANIMAL MYTHS THAT HAVE BEEN TRANSLATED FROM SALISH ARE PRESENTED. THE PAPER BRIEFLY DISCUSSES SIMILARITIES BETWEEN THE FLATHEAD IN MONTANA AND COASTAL CULTURES AND THE EFFECTS OF ACCULTURATION.

W-50
WEISEL, GEORGE F.

FISH GUIDE FOR INTERMOUNTAIN MONTANA. MISSOULA, MT.: MONTANA STATE UNIV. PRESS. 88 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS GUIDE PROVIDES SIMPLE IDENTIFICATION KEYS, SPECIES DESCRIPTIONS (LIFE HISTORIES AND DISTRIBUTIONS), AND A LIST OF PERTINENT LITERATURE.

W-51
WEISEL, GEORGE F., AND NEWELL, ROBERT L.
1970.

QUALITY AND SEASONAL FLUCTUATION OF HEADWATER STREAMS IN WESTERN MONTANA. UNIV. MONTANA, SCHOOL FORESTRY, MONTANA FOREST & CONSERVATION EXPER. STAT. BULL. 38. 16 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THIS REPORT PRESENTS THE RESULTS OF AN INVESTIGATION INTO THE WATER QUALITY OF 25 HEADWATER STREAMS AND THE BLACKFOOT RIVER. PARAMETERS INCLUDED: TEMPERATURE, TURBIDITY, DISSOLVED OXYGEN, CARBON DIOXIDE, PH, ALKALINITY, TOTAL DISSOLVED SOLIDS, AND TOTAL HARDNESS. SAMPLES WERE TAKEN DURING ALL FOUR SEASONS OF THE YEAR TO DETECT SEASONAL TRENDS. ROUGH STREAM FLOW ESTIMATES WERE OBTAINED WITH A GURLEY CURRENT METER. TWO TABLES OF WATER QUALITY DATA FOR OTHER WATERS SUCH AS THE FLATHEAD RIVER AT COLUMBIA FALLS AND LOST, GOAT, LION, AND BUCK CREEKS OF THE SWAN VALLEY ARE INCLUDED FOR COMPARISON.

W-52
WEISEL, GEORGE F.; HANZEL, D. A.; AND NEWELL, R. L.
1972.

THE PYGMY WHITEFISH, PROSOPIUM COULTERI, IN WESTERN MONTANA. KALISPELL, MT.: MONTANA DEPT. FISH & GAME. 11 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THE STUDY CONSIDERED THE STATUS OF PROSOPIUM COULTERIA. NOTING ITS MERISTIC COUNTS. THE FISH'S ANNUAL GROWTH, AGE AT MATURITY, FOOD, SPAWNING SEASON, FECUNDITY, ETC. WERE EXAMINED.

W-53
WELLS, CHARLES A.
1970.

"FIRE HISTORY IN THE NORTHERN ROCKY MOUNTAINS." IN SYMPOSIUM OF THE ROLE OF FIRE IN THE INTERMOUNTAIN WEST, SPONSORED BY INTERMOUNTAIN FIRE RESEARCH COUNCIL. 25 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN ROCKY MOUNTAINS). THIS ARTICLE DISCUSSES FIRE FREQUENCY, FIRE DAMAGE, AND EFFECTS OF FIRE ON FOREST COVER. TABLES ILLUSTRATE ESTIMATED FIRE DAMAGE IN MAJOR ECOSYSTEMS, OUTLINE THE RELATIVE FIRE RESISTANCE OF THE MORE SILVICULTURALLY IMPORTANT NORTHERN ROCKY MOUNTAIN CONIFERS, AND LIST THE NUMBER OF FOREST FIRES BY CAUSE AND NATIONAL FOREST ACREAGE BURNED IN THE NORTHERN REGION.

W-54
WELSH, J. R.; STEWART, V. R.; SHARP, E. L.; TAYLOR, G. A.; AND HEHN, E. R.
1970.

REGISTRATION OF CREST WHEAT. CROP SCIENCE 10(JULY-AUGUST 1970):4-6.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THE ARTICLE DESCRIBES THE HARD RED WINTER WHEAT, 'CREST' (TRITICUM AESTIVUM L. EM THELL) AND NOTES ITS SELECTION FOR STRIPE RUSH AND DWARF BUNT RESISTANCE AND ITS MILLING AND BAKING PROPERTIES.

W-55
WELTY, LEON E.
1974.

"IRRIGATED PASTURES CAN HELP EASE CATTLEMAN'S WOES." MONTANA FARMER-STOCKMAN, MAY 16, 1974.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THE ARTICLE REPORTS ON STUDIES OF IRRIGATED PASTURE MIXTURES TO INCREASE PRODUCTION PER ANIMAL AND THE NUMBER OF ANIMALS PER ACRE. IT DESCRIBES FERTILIZER APPLICATION OF NITROGEN AND P2O5, IRRIGATION,

CLIPPING AND HARROWING, ROTATIONAL GRAZING, AND OTHER MANAGEMENT PROCEDURES. YIELDS OF THE PASTURES (ESKI SAINTFOIN - EMPIRE BIRD-FOOT TREFOIL AND LADINO CLOVER - POTOMAC ORCHARDGRASS), BEEF PRODUCTION, AND CARRYING CAPACITY ARE AMONG THE TOPICS DISCUSSED.

W-56
WELTY, LEON E.
1975.

"IRRIGATED PASTURES." NOW, SPRING 1975, P. 10.
IN PROGRESS, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THIS ARTICLE REPORTS ON STUDIES DESIGNED TO EVALUATE THE SUITABILITY OF VARIOUS SPECIES OF FORAGE PLANTS FOR USE IN PASTURES.

W-57
WELTY, LEON E.
1976.

"INTENSIVE MANAGEMENT OF IRRIGATED PASTURES RETURNS HIGH BEEF YIELDS." MONTANA FARMER-STOCKMAN, JUNE 3, 1976.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). YIELDS, CARRYING CAPACITY, BEEF PRODUCTION AND INCOME RESULTING FROM IMPROVED MANAGEMENT SYSTEMS FOR IRRIGATED PASTURES AND UTILIZING DIFFERENT GRASSES AND LEGUMES ARE REPORTED.

W-58
WELTY, LEON E.
1976.

"PROPER ESTABLISHMENT KEY TO CROP SUCCESS." MONTANA FARMER-STOCKMAN, MAY 20, 1976.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(CRESTON). THE ARTICLE STRESSES THE IMPORTANCE OF SEEDBEDS TO ACHIEVE OPTIMUM STANDS OF SMALL-SEEDED GRASSES AND LEGUMES. USES OF HERBICIDES, SEEDING RATES, USES OF FERTILIZERS, RHIZOBIA INOCULATIONS OF LEGUMES, HARVESTING TIME, AND OTHER MANAGEMENT PROCEDURES ARE DISCUSSED.

W-59
WELTY, LEON E.
1977.

SOD SEEDING WITH MINIMUM TILLAGE. NOW, SUMMER 1977, PP. 10-11.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(NORTHERN PLAINS: KALISPELL). THIS ARTICLE EXAMINES A RESEARCH PROJECT WHICH IS STUDYING THE POSSIBILITIES OF USING SOD SEEDING TO INCREASE FORAGE PRODUCTION ON THE NATION'S RANGELANDS AND PASTURES. SOD SEEDING INVOLVES INTERSEEDING A LEGUME OR GRASS INTO EITHER PASTURE OR RANGE LAND WITH DRILLS DESIGNED TO PENETRATE THE SOD. THE ADVANTAGES OF MINIMUM TILLAGE ARE LABELED.

W-60
WELTY, LEON E.
1979.

"BOOST FORAGE YIELDS WITH SMALL GRAINS." MONTANA FARMER-STOCKMAN, MAY 3, 1979.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: CHARLO). THE YIELDS AND PROTEIN LEVELS OF NEW VARIETIES OF SMALL GRAINS (OATS AND BARLEY) WERE MEASURED UNDER DIFFERENT GROWING CONDITIONS.

- W-81**
WELTY, LEON E.
1979.
EVALUATION OF FOUR IRRIGATED PASTURES FOR BEEF PRODUCTION.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT. BULL. 714, 13 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (CRESTON). THE BULLETIN REPORTS THE RESULTS OF IRRIGATED PASTURE RESEARCH, INITIATED TO DETERMINE THE BEST ADAPTED SPECIES FOR IRRIGATED PASTURES, EVALUATE SAINFOIN (*ONOBRYCHIS VICIFOLIA*) MORE THOROUGHLY FOR IRRIGATED PASTURES, DETERMINE THE EFFECT OF INTENSIVE GRAZING ON LONGEVITY OF LEGUMES, AND DEMONSTRATE INTENSIVE IRRIGATED PASTURE MANAGEMENT TO AREA FARMERS. FOUR IRRIGATED PASTURES WERE EVALUATED FROM 1974 TO 1977: 1) ESKISAINFOIN - EMPIRE BIRDSFOOT TREFOIL - MAN-CHAR SMOOTH BROMEGRASS, 2) LADINO CLOVER - CHINOOK ORCHARDGRASS, 3) THOR ALFALFA - POTOMAC ORCHARD GRASS - TROY BLUE GRASS, AND 4) THOR ALFALFA.
- W-82**
WELTY, LEON E.
1979.
"ORCHARD GRASS IDEAL FOR PASTURE, HAY."
MONTANA FARMER-STOCKMAN, MAY 3, 1979.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (CRESTON). THE ATTRIBUTES OF ORCHARD GRASS VARIETIES AND BEST MANAGEMENT PRACTICES FOR OPTIMAL YIELDS ARE REPORTED.
- W-83**
WELTY, LEON E.; WESNER, L. E.; DITTERLINE, K. L.; AND COOPER, C. S.
1979.
GROWING ORCHARD GRASS IN MONTANA.
BOZEMAN, MT.: MONTANA STATE UNIV., MONTANA AGRIC. EXPR. STAT. BULL. 713, 14 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: CRESTON). THE STUDY DESCRIBES ORCHARD GRASS (*DACTYLIS GLOMERATA*): ITS DISTRIBUTION, ADAPTATION AND STAND ESTABLISHMENT (SEEDBED PREPARATION, SEEDING RATE, DRILL CALIBRATION). CULTIVATORS ARE RECOMMENDED ORCHARD GRASS FOR PASTURES, HAY, AND SEED PRODUCTION. WEED CONTROL, FERTILIZATION, IRRIGATION, HARVEST METHODS, AND OTHER MANAGEMENT PROCEDURES ARE DISCUSSED.
- W-84**
WESTERN RESEARCH AND CONSULTING SERVICES.
CONFEDERATED SALISH AND KOOTENAI TRIBES PROPOSED DISASTER PLAN.
MISSOULA, MT. 41 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). THE PURPOSE OF THIS PLAN IS TO SAFEGUARD THE RESIDENTS OF THE FLATHEAD RESERVATION AGAINST ANY EXTRAORDINARY NATURAL OR MAN-MADE DISASTER OR EMERGENCY. IT GIVES INFORMATION AND GUIDANCE TO TRIBAL DEPARTMENTS ON THE OVERALL CONCEPT OF THE TRIBES RESPONSES TO EMERGENCIES AND DISASTERS.
- W-85**
WESTERN STATES WATER COUNCIL.
1989.
A REVIEW OF INTER-REGIONAL AND INTERNATIONAL WATER TRANSFER PROPOSALS.
SALT LAKE CITY, UT. 13 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, NATIONAL.
- (WESTERN UNITED STATES: ROCKY MTN. TRENCH). THE PUBLICATION SUMMARIZES LARGE-SCALE INTERSTATE AND INTERBASIN PLANS AND PROJECTS FOR DEVELOPMENT, CONTROL AND UTILIZATION OF WATER RESOURCES, AND INDICATES HOW SUCH PROJECTS AND PLANS RELATE TO THE ORDERLY AND OPTIMUM DEVELOPMENT OF WATER RESOURCES, CANADIAN RESOURCES, STUDIES, AND COMMENTS ARE INCLUDED. INTER-REGIONAL AND INTERNATIONAL WATER TRANSFER PROPOSALS ARE REVIEWED.
- W-86**
WESTERN TRANSMISSION STUDY 190 STEERING COMMITTEE.
1968.
TRANSMISSION STUDY 190 - STEERING COMMITTEE REPORT WESTERN U.S. EXTRA HIGH VOLTAGE INTER-CONNECTION.
WASHINGTON, D.C.: SOUTHWESTERN POWER ADMINISTRATION. 40+ PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.
- (WESTERN UNITED STATES). STUDY 190 IS AN ENGINEERING AND ECONOMIC RECONNAISSANCE STUDY, THE PURPOSE OF WHICH WAS TO INVESTIGATE THE BROAD ENGINEERING ASPECTS OF EXTRA HIGH VOLTAGE INTERCONNECTIONS WHICH MAY BE PROPOSED FOR CONSTRUCTION AMONG UTILITY SYSTEMS IN THE WESTERN UNITED STATES. GROWTH OF THE LOADS AND CORRESPONDING GENERATION REQUIRED TO MEET THE GROWTH WAS ANALYZED FOR 1975 AND 1980.
- W-87**
WESTERN U.S. WATER PLAN STUDY.
1973.
WESTERN U.S. WATER PLAN: LAND RESOURCE BASE.
DENVER: U.S. BUREAU OF RECLAMATION. 20 PP.
GENERAL, NON-TECHNICAL, PART OF A SERIES, EXISTING DATA, REGIONAL.
- (WESTERN UNITED STATES: MONTANA). THE FOLLOWING DATA, LISTED BY STATE, IS CONTAINED WITHIN THIS REPORT: LAND OWNERSHIP, SURFACE COVER, AND SELECTED USES FOR THE PRODUCTION OF FOOD, FIBER, AND WOOD PRODUCTS. THE DATA IS PRESENTED IN TABLES AND CHARTS, SOME MAPS ARE INCLUDED.
- W-88**
THE WESTERN U.S. WATER PLAN STUDY
1973.
WESTERN U.S. WATER PLAN: INDIAN RESERVATIONS IN THE ELEVEN WESTERN STATES.
DENVER, CO.: U.S. DEPT. INTERIOR, BUREAU OF RECLAMATION. 25 PP.
GENERAL, NON-TECHNICAL, PART OF A SERIES, EXISTING DATA, REGIONAL.
- (WESTERN UNITED STATES: MONTANA). THIS DOCUMENT PRESENTS A BRIEF REVIEW OF WATER RIGHTS, CURRENT CONDITIONS, AND STUDY NEEDS FOR THE INDIAN RESERVATIONS IN THE WESTERN U.S. WATER PLAN STUDY AREA. INCLUDED ARE TABULATIONS ON NUMBER AND ACREAGES OF RESERVATIONS AND REPORTED INDIAN LAND USE BY STATES: INDIAN POPULATION COMPARISONS AND PAST AND PROJECTED TRENDS; COMPARISONS BETWEEN INDIAN AND STATE WIDE AVERAGES FOR SELECTED ECONOMIC FACTORS; AND A SUMMARY OF INDIAN RESERVATION WATER AND RELATED PROBLEMS BY RESOURCE AREA AND TIME FRAME.
- W-89**
THE WESTERN U.S. WATER PLAN STUDY.
1973.
WESTERN U.S. WATER PLAN: SOCIOECONOMIC CHARACTERISTICS.
DENVER: U.S. BUREAU OF RECLAMATION. 53 PP.
SPECIFIC, NON-TECHNICAL, PART OF A SERIES, EXISTING DATA, REGIONAL.
- (WESTERN UNITED STATES: MONTANA-FLATHEAD RIVER BASIN). THIS DOCUMENT GRAPHICALLY SHOWS SUBAREAS WITHIN STATES AND TABULARLY RECORDS SOCIO-ECONOMIC CHARACTERISTICS BY WHOLE COUNTY APPROXIMATIONS FOR EACH OF THE ELEVEN WESTERN STATES. (POPULATION BY RESIDENCE AND MINORITY RACE, INCOME EARNINGS AND PERCENT LESS THAN POVERTY FOR INDIVIDUALS AND FAMILIES, AND EMPLOYMENT); SIZE OF CIVILIAN LABOR FORCE, PERCENT UNEMPLOYED AND EMPLOYMENT BY INDUSTRIES AND OCCUPATIONS. THE DATA IS TAKEN FROM 1970 CENSUS DATA. FLATHEAD RIVER BASIN DATA IS INCLUDED IN SUBAREA 1702.
- W-70**
WESTERN U.S. WATER PLAN STUDY.
1973.
WESTERN U.S. WATER PLAN: WILDERNESS, POTENTIAL WILDERNESS, RESEARCH NATURAL AREAS AND NATIONAL LANDMARKS.
DENVER, CO.: U.S. DEPT. INTERIOR, BUREAU OF RECLAMATION. 158 PP.
GENERAL, NON-TECHNICAL, PART OF A SERIES, EXISTING DATA, REGIONAL.
- (WESTERN UNITED STATES: MONTANA: BOB MARSHALL & MISSION MTN. WILDERNESS AREAS). THIS COMPILATION OF EXISTING AND POTENTIAL WILDERNESS AREAS AND NATURAL LAND MARKS WAS MADE BY THE U.S. FOREST SERVICE WITH COOPERATION FROM OTHER AGENCIES. INFORMATION ON RESEARCH NATURAL AREAS WAS DERIVED FROM "A DIRECTORY OF RESEARCH NATURAL AREAS." THE INTRODUCTORY MATERIAL TOUCHES ON THE PHILOSOPHY OF WILDERNESS AND THE CURRENT STATUS OF WILDERNESS STUDIES. THE TABULAR MATERIAL LISTS BY RESPONSIBLE AGENCY, THE RESPECTIVE WILDERNESS AND RESEARCH NATURAL AREAS, ACREAGE, DATE OF ESTABLISHMENT, AND A GENERAL DESCRIPTION OR TYPE OF THE AREA.
- W-71**
WESTERN U.S. WATER PLAN STUDY.
1975.
WESTERN U.S. WATER PLAN: THE ROLE OF GROUND WATER IN RESOURCE PLANNING IN THE WESTERN UNITED STATES.
DENVER, CO.: U.S. DEPT. INTERIOR, BUREAU OF RECLAMATION. 77 PP.
GENERAL, TECHNICAL, PART OF A SERIES, EXISTING DATA, REGIONAL.
- (WESTERN UNITED STATES: COLUMBIA-NORTHERN PACIFIC REGION: CLARK FORK - KOOTENAI - SPOKANE SUBREGION). THIS REPORT ATTEMPTS TO PLACE GROUND WATER IN ITS PROPER PERSPECTIVE IN PLANNING WATER RESOURCES MANAGEMENT. THE REPORT SUMMARIZES THE GENERAL SETTING, THE SURFACE WATER SUPPLY, THE AVAILABILITY AND USE OF GROUND WATER MANAGEMENT AND HYDROLOGIC INFORMATION NEEDED IN EACH OF THE WATER RESOURCES COUNCIL REGIONS, BY SUBREGIONS. THE DESCRIPTIONS OF ALTER-NATIVES IN GROUND WATER MANAGEMENT ARE BASED ON PHYSICAL FACTORS, WITHOUT FULL CONSIDERATION OF COSTS AND LEGAL CONSTRAINTS. IN THIS REPORT IT IS POSSIBLE TO PRESENT ONLY THE GENERAL MAGNITUDE OF THE GROUND WATER SUPPLY AND GENERAL CONCEPTS OF MANAGEMENT.
- W-72**
WEYDEMEYER, ART.
1975.
WORKING BIBLIOGRAPHY FOR MONTANA LOCAL GOVERNMENT STUDY COMMISSIONERS.
MISSOULA, MT.: UNIV. MONTANA, BUREAU GOVT. RESEARCH. OCCASIONAL PAPERS IN LOCAL GOVERNMENT. NO. 7. 23 PP.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). THIS BIBLIOGRAPHY IS DESIGNED AS A REFERENCE WHICH STUDY COMMISSIONERS CAN DRAW UPON DURING THEIR REVIEW. IT CONTAINS A LISTING OF REPORTS WHICH CONCENTRATE UPON THOSE ASPECTS OF LOCAL GOVERNMENT MOST RELEVANT TO THE COMMISSIONERS' NEEDS. THE BIBLIOGRAPHY IS DIVIDED INTO TWO CATEGORIES: NATIONAL AND MONTANA ENTRIES.

W-73
WEYDEMEYER, WINTON.
1927.

"SOME NEW BIRDS FROM WESTERN MONTANA."
THE CONDOR 29(MAY-JUNE 1927):159.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: LIBBY AREA & GLACIER NATL. PARK). THE OBSERVATIONS OF SEVEN BIRD SPECIES ARE REPORTED: SPOTTED OWL (STRIX OCCIDENTALIS), ASH THROATED FLYCATCHER (SAYORNIS SAYA), PINON JAY (CYANOCEPHALUS CYANOCEPHALUS), CHESTNUT-COLLARED LONGSPUR (CALCARIUS ORNATUS), WHITE THROATED SPARROW (SONOTRICHIA ALBI COLLIS) AND INDIGO BUNTING (PASSERINA CYANEA).

W-74
WEYDEMEYER, WINTON.
1928.

"SOME WINTER RECORDS FROM MONTANA."
THE CONDOR 30(JULY-AUGUST 1928):246-247.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
STATEWIDE.

(MONTANA: FORTINE AREA, LIBBY AREA, BOZEMAN). NOTES OF WINTER OCCURRENCES OF BIRDS, UNREPORTED OR REPORTED ONLY SLIGHTLY IN SAUNDER'S "A DISTRIBUTIONAL LIST OF THE BIRDS OF MONTANA." ARE PRESENTED. TWELVE SPECIES ARE LISTED.

W-75
WEYDEMEYER, WINTON.
1931.

"A DAY WITH THE BIRDS OF GLACIER NATIONAL PARK."
BIRD LORE 33(MAY-JUNE 1931):169-175.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE BIRDS VISIBLE OR AUDIBLE ON A TRIP THROUGH THE PARK. IT NOTES THEIR SONGS, OCCURRENCE, AND HABITAT. FOUR SPECIES NOT LISTED IN FLORENCE M. BAILEY'S SECTION ON BIRDS IN "WILD ANIMALS OF GLACIER PARK" ARE INCLUDED.

W-76
WEYDEMEYER, WINTON.
1932.

"THE BLACK SWIFT IN GLACIER NATIONAL PARK."
THE CONDOR 34:100.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(GLACIER NATL. PARK). A REPORT OF TWO OBSERVATIONS OF BLACK SWIFTS (NEPHOCETES NIGER BOREALIS) IN GLACIER NATIONAL PARK, NEAR THE MOUTH OF AVALANCHE CREEK AND NEAR AVALANCHE LAKE.

W-77
WEYDEMEYER, WINTON.
1932.

"THE BRONZED GRACKLE IN LINCOLN COUNTY, MONTANA."
THE AUK 49(APRIL 1932):228.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FORTINE AREA). THE OBSERVATIONS OF THREE BRONZED GRACKLES (QUISCALUS QUISCULA AEREUS) ARE REPORTED. NO PREVIOUS RECORD OF THE BIRD'S OCCURRENCE IN THE STATE WEST OF THE CONTINENTAL DIVIDE IS APPARENT.

W-78
WEYDEMEYER, WINTON.
1932.

"WESTERN FIELD SPARROW IN NORTHWESTERN MONTANA."
THE AUK 49(APRIL 1932):231-232.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FORTINE AREA). THE OBSERVATION OF A SOLITARY MALE AND A PAIR OF WESTERN FIELD SPARROWS (SPIZELLA PUSILLA ARENACEA) IS REPORTED. THE SINGING OF THE MALE, THE POSSIBLE NESTING OF THE PAIR, AND THE ARRIVAL OF TWO SOLITARY MALES THE FOLLOWING YEAR IS DISCUSSED.

W-79
WEYDEMEYER, WINTON.
1933.

"THE HOARY REDPOLL IN MONTANA."
THE AUK 50(JULY 1933):365.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FORTINE AREA). AN OBSERVATION OF A HOARY REDPOLL, ACANTHIS HORNEMANNI EXILIPES, IS REPORTED IN THIS NOTE. THE ONLY PREVIOUS OBSERVATION IN MONTANA HAD OCCURRED IN MILES CITY AND DAWSON COUNTY. THE BIRD WAS SEEN AT A DISTANCE OF LESS THAN TEN FEET AND COMPARISONS OF ITS SIZE, COLOR, AND MARKINGS WITH THOSE OF THE COMMON REDPOLL, ACANTHIS LINARIA LINARI, WAS POSSIBLE.

W-80
WEYDEMEYER, WINTON.
1933.

"NESTING OF THE ROUGH-WINGED SWALLOW IN MONTANA."
THE AUK 50(JULY 1933):362-363.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FORTINE AREA). THE NESTING BEHAVIOR OF THE ROUGH-WINGED SWALLOW (STELGIDOPTERYX RUFICOLLIS SERPENNIS) IS DISCUSSED. THE SETTING OF THE NESTS AND THE DIGGING OF BURROWS IS DESCRIBED. A RANGE OF DATES FOR DIFFERENT STAGES OF NESTING, NOTING EGG AND NEST NUMBERS IS GIVEN.

W-81
WEYDEMEYER, WINTON.
1933.

"ON THE OCCURRENCE OF CERTAIN HAWKS IN NORTHWESTERN MONTANA."
THE CONDOR 25(MAY-JUNE 1933):121-122.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: LINCOLN & FLATHEAD COUNTIES). THE WINTER AND SUMMER OCCURRENCES OF SEVEN SPECIES OF HAWKS ALONG WITH OBSERVATIONS ON THEIR ABUNDANCE AND NESTING RITES ARE REPORTED.

W-82
WEYDEMEYER, WINTON.
1933.

"ZONAL RANGE OF THE RED-BREASTED NUTHATCH IN NORTHWESTERN MONTANA."
THE CONDOR 35(JANUARY-FEBRUARY 1933):32-33.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FORTINE AREA). THE BREEDING RANGE OF THE RED-BREASTED NUTHATCH (SITA CANADENSIS) IS DISCUSSED.

W-83
WEYDEMEYER, WINTON.
1934.

"FURTHER OCCURRENCE OF THE BRONZED GRACKLE IN NORTHWEST MONTANA."
THE AUK 51(JULY 1934):384.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FORTINE AREA). ADDITIONAL RECORDS OF OBSERVATIONS CONCERNING THE BRONZED GRACKLE (QUISCALUS QUISCULA AENEUS) ARE REPORTED. A SENTENCE SUMMARIZING PREVIOUS SITINGS OF THE BIRDS IS INCLUDED.

W-84
WEYDEMEYER, WINTON.
1934.

"WESTERN FIELD SPARROW AGAIN IN NORTHWESTERN MONTANA."
THE AUK 51(OCTOBER 1934):531.
FINAL, SPECIFIC, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FORTINE AREA & STILLWATER RIVER AREA). A SUMMARY OF OCCURRENCES (AND NON OCCURRENCES), OF THE WESTERN FIELD SPARROW (SPIZELLA PUSILLA ARENACEA) IS GIVEN, ALONG WITH THE CURRENT YEARS OBSERVATIONS OF THE SPECIES. FOUR SINGING MALES IN THE AREA AND TWO SINGING MALES ALONG THE MIDDLE FORK OF THE STILLWATER RIVER IN FLATHEAD COUNTY WERE SEEN.

W-85
WEYDEMEYER, WINTON.
1935.

"A PROBABLY INCORRECT RECORD OF 'EMPIDONAX HAMMONDI' FROM NORTHWESTERN MONTANA."
THE AUK 52(OCTOBER 1935):453.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FORTINE AREA). THE ARGUMENT IS VENTURED THAT AN OBSERVATION OF HAMMOND'S FLYCATCHER (EMPIDONAX HAMMONDI) BY T. D. BURLEIGH IN 1921 MORE LIKELY INVOLVED WRIGHT'S FLYCATCHER (E. WRIGHT). THE LATTER IS CONSIDERED AS THE MOST ABUNDANT FLYCATCHER IN THE AREA, AND ITS NESTING AREA AND HABITATS ARE BRIEFLY NOTED.

W-86
WEYDEMEYER, WINTON.
1935.

"WINTER OCCURRENCE OF THE WESTERN BLUEBIRD AND THE MOUNTAIN BLUEBIRD IN MONTANA."
THE CONDOR 37:177.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(POLSON). A REPORT ON THE OBSERVATION OF A FEMALE SIALIA MEXICANA OCCIDENTALIS FEEDING ON BERRIES IN POLSON, MONTANA.

W-87
WEYDEMEYER, WINTON.
1973.

"SINGING HABITS OF TRAIL'S FLYCATCHER IN NORTHWESTERN MONTANA."
THE WILSON BULL. 85(SEPTEMBER 1973):276-282.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FORTINE AREA). THE CALLS, SONGS, AND SINGING OF THE TRAIL'S FLY CATCHER (EMPIDONAX TRAILLI) ARE THE SUBJECT OF THIS ARTICLE, WHICH IDENTIFIED 8 TYPES OF SONGS (PERCH SONGS, PERCH TO

PERCH FLIGHT SONG, CHASE SONG, TRUE FLIGHT SONG). VARIATIONS IN THE USE OF THESE SONGS WITH THE SEASON, TIME OF DAY, AND ACTIVITY IS DESCRIBED.

W-88

WEYDEMAYER, WINTON.

1973.

"THE SPRING MIGRATION PATTERNS AT FORTINE, MONTANA."

THE CONDOR 75(WINTER 1973):400-413.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FORTINE AREA). A SUMMARY OF SPRING ARRIVAL DATES FOR VARIOUS SPECIES OF BIRDS RECORDED OVER A 50 YEAR PERIOD IS PRESENTED. PARTICULAR ATTENTION WAS GIVEN TO WIDE VARIATIONS IN ARRIVAL DATES FOR NEARLY ALL SPECIES. ALSO DISCUSSED IS THE INFLUENCE OF WEATHER ON MIGRATION AND THE RELATION OF FEEDING HABITS AND WINTER RANGE TO ARRIVAL TIME. THE DATA IS GIVEN IN TABULAR FORM, LISTING SPECIES, STATUS, NUMBER OF YEARS OF RECORDS, MEAN ARRIVAL DATE, AND YEARLY VARIATIONS.

W-89

WEYDEMAYER, WINTON.

1975.

"HALF-CENTURY RECORD OF THE BREEDING BIRDS AND POPULATION STATUS."

THE CONDOR 77(AUTUMN 1975):281-287.

FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: FORTINE AREA). THIS LIST OF 154 BIRDS SPECIES THAT BREED IN THE AREA PROVIDES INFORMATION ON NESTING DATES, CLUTCH AND BROOD NUMBERS, AND CHANGES IN POPULATION THAT HAVE OCCURRED DURING A 53-YEAR PERIOD. RECORDS ARE SUMMARIZED FOR ABOUT 4000 OCCUPIED NESTS AND ABOUT 2000 BROODS OF YOUNG OUT OF THE NEST, LARGELY OBTAINED IN AN AREA OF ABOUT 700 SQUARE MILES SURROUNDING FORTINE. A SEPARATE LISTING OF 19 SPECIES THAT MAY BREED IN THE AREA GIVES INFORMATION ON OCCURRENCES THERE AND BREEDING RECORDS FROM LOCALITIES NOT MORE THAN 80 MILES DISTANT.

W-90

WEYDEMAYER, WINTON; SWAN, K. D.; AND RAPRAGERN, E. F.

A LIST OF THE BIRDS OF WESTERN MONTANA.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. FIELD NOTES ON WILDLIFE. FINAL, GENERAL, TECHNICAL, EXISTING DATA, STATEWIDE.

(WESTERN MONTANA). IN ADDITION TO THE COMMON AND SCIENTIFIC NAME, THIS LIST GIVES A BRIEF STATEMENT OF THE RESIDENCY OF EACH SPECIES.

W-91

WHEELER, OLIN D.

1894.

INDIANLAND AND WONDERLAND.

ST. PAUL, MN.: NORTHERN PACIFIC RAILROAD.

(FLATHEAD INDIAN RESERVATION, MISSOULA, & JOCKO VALLEY). THIS BOOK INCLUDES A DESCRIPTION OF MISSOULA AND THE JOCKO VALLEY AND THE FLATHEAD RESERVATION, INCLUDING COMMENTS ON THE STATUS OF THE INDIAN COMMUNITY AT THE TIME. SKCC.

W-92

WHEELER, RICHARD H.

1978.

A FOREST SERVICE ASSESSMENT OF WATER POLLUTION PROBLEMS ON THE NATIONAL FORESTS IN MONTANA WITH EMPHASIS ON SILVICULTURE AND RELATED ACTIVITIES, LOGGING AND ROADS.

MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. 250 PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA: FLATHEAD NATL. FOREST). THE REPORT COVERS NONPOINT POLLUTION DUE TO FOREST PRACTICES, NATURAL AND MAN-CAUSED POLLUTION SOURCES, THE REHABILITATION NEEDS ON NATIONAL FORESTS, AND WATER USES AND RECREATIONAL QUALITY (AESTHETICS, FISHING). OF THE 500 IDENTIFIED POLLUTION PROBLEMS, HALF ARE ATTRIBUTED TO ROADS, TIMBER HARVESTING, AND LOGGING. THE CORRECTION OF THESE PROBLEMS AND THE ROLES OF THE FOREST SERVICE AND THE STATE WATER QUALITY BUREAU ARE DISCUSSED.

W-93

WHEELING, TERRY.

1976.

"CONSUMPTION OF NATURAL GAS AND ELECTRICITY IN MONTANA."

MONTANA ENERGY ADVISORY COUNCIL, HELENA, MT. STAFF PAPER 76-4. 40 PP.

PRELIMINARY, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). INFORMATION AND ESTIMATES CONCERNING THE CONSUMPTION OF NATURAL GAS AND ELECTRICITY ARE PRESENTED FOR THE RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL SECTORS. APPLIANCE SATURATION ESTIMATES REGARDING RESIDENTIAL USE ARE CONTAINED IN THE APPENDIX, ALONG WITH MONTANA POWER'S RESIDENTIAL APPLIANCE SATURATION SURVEY OF JANUARY 1974, 1971, AND 1968.

W-94

WHEELING, TERRY.

1976.

MONTANA HISTORICAL ENERGY STATISTICS.

HELENA, MT.: MONTANA ENERGY ADVISORY COUNCIL. 126 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). HISTORICAL ENERGY STATISTICS, WITH REGARD TO RESERVES, PRODUCTION, CONSUMPTION, PROCESSING, AND PRICES OF NATURAL GAS, CRUDE PETROLEUM AND PETROLEUM PRODUCTS, COAL, ELECTRICITY, AND URANIUM, ARE ASSEMBLED IN THIS DOCUMENT. SOME COMPARATIVE DATA FOR THE NATION ARE ALSO INCLUDED. THE BULK OF THE REPORT CONSISTS OF STATISTICAL TABLES ORGANIZED IN THE FOLLOWING SECTIONS: 1) FOSSIL FUEL RESERVE ESTIMATES; 2) NATURAL GAS STATISTICS; 3) CRUDE PETROLEUM AND PETROLEUM PRODUCTS STATISTICS; 4) COAL STATISTICS; 5) ELECTRICITY STATISTICS; AND 6) URANIUM.

W-95

WHIDDON, THOMAS R.

1975.

A COMPARATIVE STUDY OF DRUG KNOWLEDGE, ATTITUDES TOWARD DRUGS, AND USE OF DRUGS AMONG TWELFTH GRADE STUDENTS IN CLASS I, II, AND III SCHOOLS IN WESTERN MONTANA.

PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA. 148 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THE PURPOSE OF THE STUDY WAS TO COMPARE DRUG KNOWLEDGE, ATTITUDES TOWARD DRUG USE, AND DRUG USE AMONG TWELFTH GRADE STUDENTS GROUPED BY SEX, SCHOOL SIZE, AND SEX-SCHOOL-SIZE. 300 STUDENTS

FROM LARGE, INTERMEDIATE, AND SMALL PUBLIC SCHOOLS LOCATED WITHIN A 135 MILE RADIUS OF MISSOULA, MONTANA, WERE RANDOMLY SAMPLED. A THREE PART QUESTIONNAIRE WAS ADMINISTERED THAT CONSISTED OF QUESTIONS REGARDING DRUG KNOWLEDGE, THE USE OF SEVEN DIFFERENT DRUGS (ALCOHOL, AMPHETAMINES, BARBITUATES, HEROIN, LSD, MARIJUANA AND TOBACCO), AND A SEMANTIC DIFFERENTIAL SCALE WITH EVALUATIVE POTENCY, AND ACTIVITY DIMENSIONS WHICH ASSESSED THEIR ATTITUDES TOWARDS THE SEVEN DRUGS. TWO-FACTOR ANALYSES OF VARIANCE WAS USED TO DETERMINE SIGNIFICANT DIFFERENCES IN THE MEANS WITHIN THE SEX, SCHOOL SIZE, SEX-SCHOOL SIZE SUBGROUPS OF DRUG KNOWLEDGE, ATTITUDES, AND USE. PEARSON AND MULTIPLE CORRELATION COEFFICIENTS WERE COMPUTED AND TRANSFORMED TO A FISHER'S Z STATISTIC; COMPARISONS OF THE DIFFERENCES BETWEEN COEFFICIENTS AMONG THE SUBGROUPS WERE MADE. CONCLUSIONS ARE DISCUSSED.

W-96

WHIE, RANDLE V., AND KEEGAN, C. E.

1978.

THE WOOD PRODUCTS INDUSTRY IN MONTANA: RAW MATERIALS AND FINISHED PRODUCTS.

MONTANA BUSINESS QUARTERLY (SUMMER 1978):8-16.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: ALL COUNTIES WITHIN THE BASIN). THE OBJECTIVE OF THIS SURVEY WAS TO COMPILE BASIC DATA ON THE SOURCE AND VOLUME OF RAW MATERIALS USED BY THE INDUSTRY, AND THE VOLUMES AND TYPES OF FINISHED PRODUCTS PRODUCED IN THE STATE DURING THE CALENDAR YEAR. TOPICS COVERED INCLUDE GEOGRAPHIC TYPES OF ROUNDWOOD PRODUCTS; SPECIES COMPOSITION OF SAWLOGS AND VENEER LOGS, SAWMILLS, PLYWOOD PLANTS, PULP, PAPER PARTICLEBOARD AND FIBERBOARD, AND OTHER WOOD PRODUCTS MANUFACTURERS.

W-97

WHITE, BRIAN.

1970.

"ALGAL STROMATOLITES, DEPOSITIONAL ENVIRONMENTS AND AGE OF THE ALTYN FORMATION OF MONTANA."

GEOLOGICAL SOCIETY AMERICA. ABSTRACTS WITH PROGRAMS 2:719-720.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE OCCURRENCE OF ALGAL STROMATOLITES IN SEVERAL HORIZONS OF THE ALTYN FORMATION IS REPORTED IN THIS ABSTRACT. CHANGES IN THE FORMATION BECAUSE OF DIFFERENT DEPOSITIONAL ENVIRONMENTS ARE DESCRIBED.

W-98

WHITE, BRIAN.

1973.

"PRECAMBRIAN PERITIDAL CARBONATE SEDIMENTATION."

GEOLOGICAL SOCIETY AMERICA. ABSTRACTS 5:237.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). COMPARISONS WITH RECENT CARBONATE SEDIMENTS INDICATES THAT CERTAIN PRE CAMBRIAN CARBONATE ROCKS FORMED IN THE PERITIDAL ZONE, HOWEVER, IMPORTANT DIFFERENCES BETWEEN PRECAMBRIAN AND RECENT ENVIRONMENTS ARE REFLECTED IN THE ROCKS. PARTICULARLY IMPORTANT IS THE ABSENCE OF A FAUNA AND ALGAL FLORA IN THE PRECAMBRIAN.

W-99
WHITE, BRIAN.
1974.

"MICROFOSSILS FROM THE LATE PRECAMBRIAN ALTYN FORMATION OF GLACIER NATIONAL PARK, MONTANA. GEOLOGICAL SOCIETY AMERICA. ABSTRACTS WITH PROGRAMS (JANUARY 1974):85. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE SEDIMENTS OF THE ALTYN FORMATION, DEPOSITED IN MARINE ENVIRONMENTS WHICH RANGED FROM SHALLOW SUBTIDAL TO SUPRATIDAL, ARE DISCUSSED IN THIS SUMMARY ABSTRACT. THE OCCURRENCE OF ALGAL LAMINATED SEDIMENTS AND STROMATOLITES IS DESCRIBED.

W-100
WHITE, BRIAN.
1974.

"MICROFOSSILS FROM THE LATE PRECAMBRIAN ALTYN FORMATION OF MONTANA." NATURE 247:452-452. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). A REPORT ON THE DISCOVERY OF MICROFOSSILS WHICH ARE OLDER THAN 1,300 MILLION YEARS FROM THE LOWER BELT ALTYN FORMATION. THE MICROFOSSILS OCCURRED IN A SILICEOUS GRAIN IN A CLASTIC DOLARENTIE, AND OCCUR AS A LOSELY COILED THALLUS COMPOSED OF YELLOW-BROWN FILAMENTS.

W-101
WHITE, BRIAN.
1977.

SILICIFIED EVAPORITES FROM THE MIDDLE PROTEROZOIC ALTYN FORMATION LOWER BELT SUPERGROUP OF MONTANA. GEOLOGICAL SOCIETY AMERICA. ABSTRACTS WITH PROGRAMS. VOL. 9. NO. 7. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ABSTRACT REVIEWS AN INVESTIGATION OF SILICEOUS REPLACEMENTS OF ANHYDRITE AND GYPSUM WHICH OCCUR IN THE ALTYN FORMATION AND PROVIDE INFORMATION ABOUT THE DEPOSITIONAL ENVIRONMENT OF THE SEDIMENTS. SILICEOUS NODULES SIZE, COMPOSITION, VARIETY OF SHAPES, THE OCCURRENCE OF FIBROUS AND LENTICULAR GYPSUM AND ANHYDRITE RELICS, AND THE OCCURRENCE OF ANHYDRITE AND GYPSUM IN SANDSTONES IS DISCUSSED.

W-102
WHITE, BRIAN.
1978.

"THRUSTING IN THE NORTHWESTERN MONTANA OVERTHRUST BELT." PH.D. DISSERTATION, UNIV. OF MONTANA, MISSOULA. 103 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NORTHWESTERN MONTANA: SOUTHEASTERN GLACIER NATIONAL PARK TO JUST WEST OF AUGUSTA.). THIS STUDY IS A STRUCTURAL ANALYSIS, SEEKING TO DETERMINE NOT ONLY THE PRESENT STRUCTURAL GEOMETRY OF THE AREA BUT ALSO THE NATURE OF MOVEMENTS AND FORCES DURING DEFORMATION. DATA WAS GATHERED WITHIN EACH OF 33 SMALL AREAS, OR STATIONS. FOUR MAJOR DOMAINS OF INDIVIDUALLY DISTINCTIVE MOVEMENT GEOMETRY, EACH RESTRICTED TO DISCRETE INTERVALS OF STRATA, ARE DISTINGUISHED. A DISCUSSION OF SEQUENTIAL GRAVITATIONAL SLIDING, VIEWED AS THE ORIGIN OF THE DOMAINS, ALSO CONSIDERS THE FORMATION OF STRIKE-SLIP FRACTURES, TILTED STRATA, AND CONTINUED STRIKE-SLIP MOVEMENTS AND FRACTURING.

W-103
WHITE, BRIAN.
1979.

"STRATIGRAPHY AND MICROFOSSILS OF THE PRECAMBRIAN ALTYN FORMATION OF GLACIER NATIONAL PARK." PROC. FIRST CONFERENCE ON SCIENTIFIC RESEARCH IN THE NATIONAL PARKS 2:727-735. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS REPORT EXAMINES: THE GENERAL STRATIGRAPHY OF THE BELT SUPERGROUP IN GLACIER NATIONAL PARK; THE AGE OF THE ALTYN FORMATION, AND THE STRATIGRAPHY OF THE ALTYN FORMATION. INCLUDED ARE PHOTOMICROGRAPHS OF COCCOIDAL AND FILAMENTOUS MICROFOSSILS IN THIN SLICES OF BLACK CHERT.

W-104
WHITE, GEORGE M.
1973.

WINDSHIELD GEOLOGY OF THE FLATHEAD. RONAN, MT.: BY THE AUTHOR. 57 PP. FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD RIVER VALLEY: MISSOULA TO COLUMBIA FALLS). THE GUIDE FOR AUTOMOBILE TRAVELERS DESCRIBES GEOLOGIC FEATURES VISIBLE FROM ROADS. THE GEOLOGIC HISTORY OF THE GLACIAL PERIOD IS BRIEFLY OUTLINED. COMMENTS CONCERNING THE MORAINES AT POLSON AND ELMO, SITES LOCATED ALONG THE FLATHEAD RIVER, THE CAMAS PRAIRIE RIPPLES, AND THE PABLO AND BIGFORK SAND HILLS ARE PRESENTED. MAPS DEPICTING THE SITES ARE INCLUDED.

W-105
WHITE, KEN R. AND COMPANY.
1967.

1966 DEVELOPMENT POLICY AND PLAN, LAKE COUNTY AND POLSON, MONTANA. POLSON: MONTANA STATE PLANNING BOARD, AND POLSON CITY COUNTY PLANNING BOARD. 48 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY: POLSON). THIS REPORT STATES THE RECOMMENDED LONG-RANGE DEVELOPMENT POLICY AND PLAN FOR THE NORTHERN PART OF LAKE COUNTY, INCLUDING THE CITY OF POLSON: THE PLANNING PROGRAM USED IN THIS REPORT ATTEMPTED TO INTEGRATE THREE MAJOR AREAS OF LOCAL GOVERNMENTAL RESPONSIBILITY: ADMINISTRATION, PHYSICAL, AND ECONOMIC. THE SURVEY AND ANALYSIS PHASE OF THE PROJECT PROVIDED A GENERAL BACKGROUND TO THE DEVELOPMENT POLICIES. KEY ISSUES ARE IDENTIFIED AND RECOMMENDATIONS ARE MADE. COMMERCIAL, TOURIST, AND INDUSTRIAL DEVELOPMENT POLICY AND PLAN ARE DESCRIBED. A COMPREHENSIVE DEVELOPMENT PLAN IS OUTLINED, AND CAPITAL IMPROVEMENTS ARE DISCUSSED.

W-106
WHITE, KEN R. AND COMPANY.
1971.

RELOCATION STUDY AND FINANCIAL FEASIBILITY STUDY FOR NEIGHBORHOOD PROJECT AREAS: KALISPELL, MONTANA. KALISPELL: KALISPELL NEIGHBORHOOD DEVELOPMENT AUTHORITY. 13 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(KALISPELL). THE NEIGHBORHOOD DEVELOPMENT PROGRAM WAS PROPOSED TO BE BASICALLY A REHABILITATION PROGRAM FOR EXISTING HOUSING IN TWO PROJECT AREAS IN KALISPELL. THE RELOCATION STUDY WAS DESIGNED TO PROVIDE ADVICE AND ASSISTANCE IN REGARD TO RELOCATION PROBLEMS - IT EXAMINES THE AVAILABILITY OF HOUS-

ING FOR RELOCATES. THE FINANCIAL FEASIBILITY STUDY EXAMINES THE AVAILABILITY OF NON CASH GRANTS-IN-AID.

W-107
WHITE, M. CATHERINE, ED.
1950.

DAVID THOMPSON'S JOURNALS RELATING TO MONTANA AND ADJACENT REGIONS, 1808-1812. MISSOULA, MT.: MONTANA STATE UNIV. PRESS. 345 PP. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.

(PACIFIC NORTHWEST: MONTANA). PARTS OF THOMPSON'S JOURNALS FOR THE PERIOD FROM 1808 TO 1812 ARE PRESENTED. THIS EDITION ALSO INCLUDES A CHRONOLOGY OF THOMPSON'S JOURNALS RECORDING HIS ACTIVITIES IN THE ROCKIES FROM 1807 TO 1812, AND A BIOGRAPHICAL SKETCH.

W-108
WHITE, THAIN.
1950.

"COYOTE MARRIES DOG." A KUTENAI TALE TOLD BY MRS. MADALINE LEFTHAND (LITTLE CHIPMUNK) TO THAIN WHITE. TRANSLATED BY JEROME NICKLOS. DAYTON, MT. (TYPEWRITTEN). 3 PP. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL LANDS OF THE KUTENAI INDIANS). THIS KUTENAI STORY WAS TOLD TO THE AUTHOR BY AN 80-YEAR-OLD KUTENAI WOMAN FROM ELMO, MONTANA.

W-109
WHITE, THAIN.
1952.

THE BATTLE PITS OF THE "KOYOKES." MISSOULA, MT.: UNIV. MONTANA. ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 10. 16 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE: WEST SIDE). UNUSUAL PIT STRUCTURES ARE THE SUBJECT OF THIS PAPER. ALTHOUGH THE PURPOSES OF PITS ARE UNKNOWN, CLUES INDICATE THAT THEY MAY HAVE BEEN CONNECTED WITH WARFARE PRACTICES OF PREHISTORIC PEOPLE. IN DISCUSSING THE MAKERS OF THE STRUCTURES, REFERENCES ARE MADE TO THE "KOYOKES", PEOPLE THE KUTENAI SAY PRECEDED THEM IN THE REGION. NINE SITES ARE DESCRIBED.

W-110
WHITE, THAIN.
1952.

"FIRSTS" AMONG THE FLATHEAD LAKE KUTENAI. (A NARRATIVE OF CHIEF BAPTISTE MATHIAS). EDITED BY CARLING MALOUF. MISSOULA, MT.: UNIV. MONTANA, DEPT. SOCIOLOGY AND ANTHROPOLOGY. ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 8. 3 PP. FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ABORIGINAL TERRITORY OF THE KUTENAI INDIANS). THE ARTICLE IS CONCERNED WITH THE ORAL TRADITION OF THE KUTENAI'S INITIAL EXPERIENCES AND CONTACTS WITH WHITES. NARRATED (AND TRANSLATED) STORIES ARE INCLUDED ABOUT: THE FIRST MILK, BOTTLE, PAIL, AND PANS.

W-111
WHITE, THAIN.
1953.
AN ARCHAEOLOGICAL SITE AT SWAN LAKE. IN ARCHAEOLOGICAL SITES IN THE FLATHEAD LAKE REGION: A SYMPOSIUM. MISSOULA, MT.: ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 15. 3 PP. FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(SWAN LAKE). AT THE HEAD OF SWAN LAKE IS AN OLD CAMPSITE THAT WAS EVIDENTLY OCCUPIED BY SEVERAL OF THE TRIBES OF THE AREA. PROJECTILE POINTS FOUND THERE ARE DISCUSSED IN THE EDITORS COMMENTS.

W-112
WHITE, THAIN.
1953.
THE LAKESIDE OCCUPATION SITE. IN ARCHAEOLOGICAL SITES IN THE FLATHEAD REGION: A SYMPOSIUM.
MISSOULA, MT.: ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 15. 1 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKESIDE). A DESCRIPTION OF THE PHYSICAL SETTING, AND A DRAWING OF THE SITE LOCATION ARE INCLUDED IN THIS REPORT. EDITORS COMMENTS FOLLOW.

W-113
WHITE, THAIN.
1954.
SCARRED TREES IN WESTERN MONTANA.
MISSOULA, MT.: ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 17. 13 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WESTERN MONTANA: FLATHEAD INDIAN RESERVATION). THE PURPOSE OF THIS PAPER IS TO PROVIDE DATA ON THE INDIAN (PRIMARILY KOOTENAI) CUSTOM OF EATING THE INNER BARK OF TREES. IT DESCRIBES THE BARK, AND METHODS OF PREPARATION, DETERMINED THROUGH INTERVIEWS WITH SOME OLDER INDIANS. A CHART OF SCARRED TREES AND DATES OF PEELING, AND PHOTOGRAPHS OF SCARRED TREES ARE INCLUDED.

W-114
WHITE, THAIN.
1959.
TIPI RINGS IN THE FLATHEAD LAKE AREA, WESTERN MONTANA.
MISSOULA, MT.: MONTANA STATE UNIV. ANTHROPOLOGY & SOCIOLOGY PAPERS, NO. 19. 8 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE AREA). TIPI RINGS, OR CIRCLES OF STONES, ARE DESCRIBED IN THIS PAPER. EXPLANATIONS FOR THE USES AND ORIGIN OF THE RINGS ARE DISCUSSED. THREE SITES ARE DESCRIBED.

W-115
WHITE, THAIN.
1960.
MEDICINE ROCK.
LAKESIDE, MT.: FLATHEAD LAKE LOOKOUT MUSEUM. 31 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY). MEDICINE ROCK, OR SKINKUTS, WHICH MEANS COYOTE, WAS LOCATED ADJACENT TO THE OLD INDIAN TRAIL ON THE DIVIDE BETWEEN FOREY CREEK AND BIG LODGE FLATS. THIS ARTICLE DESCRIBES EARLY REFERENCES TO THE ROCK, WHICH THE KOOTENAI USED AS A WISHING WELL.

W-116
WHITE, THAIN.
1982.
AN ARTIFACT FROM THE LOCATION WHERE J. M. DUNN WAS MURDERED BY AN INDIAN IN SEPTEMBER 1889.
LAKESIDE, MT.: FLATHEAD LAKE LOOKOUT MUSEUM. FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY). THIS IS AN ACCOUNT OF THE MURDER OF PROSPECTOR, J. M. DUNN BY THE KOOTENAI PASCALE NEAR ANGER HILL SOUTH OF LAKESIDE. THE DISCOVERY OF A .45 COLT CARTRIDGE LINED TO THE MURDER IS DESCRIBED.

W-117
WHITE, THAIN.
1969.
BUFFALO SOLDIERS IN THE FLATHEAD VALLEY, 1890.
LAKESIDE, MT.: FLATHEAD LAKE LOOKOUT MUSEUM. 22 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(NORTHERN FLATHEAD VALLEY). A HISTORICAL ACCOUNT OF THE EARLY DAYS OF DEMERSVILLE. THE COMING OF COMPANY H OF THE 25TH REGIMENT "BUFFALO SOLDIERS" TO GATHER UP RENEGADE KOOTENAI INDIANS IS RELATED. MANY PHOTOGRAPHS ARE INCLUDED.

W-118
WHITE, THAIN.
1970.
AN EXAMINATION OF DIGGING STICKS AND HANDLES USED BY THE INDIANS.
LAKESIDE, MT.: FLATHEAD LAKE LOOKOUT MUSEUM. 25 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE COUNTY: DAYTON). A RARE ARCHAEOLOGICAL SPECIMEN, AN ELK HORN USED FOR A HANDLE ON A KOOTENAI DIGGING STICK, WAS DISCOVERED AT A PRIMARY BURIAL SITE NEAR DAYTON. THIS ARTICLE DESCRIBES THE ARTIFACT, THE HISTORICAL USE OF THE INSTRUMENT, AND INCLUDES PHOTOGRAPHS AND DRAWINGS.

W-119
WHITE, THAIN.
1970.
"VESSELS AND HISTORY OF FLATHEAD LAKE."
STEAMBOAT BILL 27:10-20.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY). THIS LISTING OF ALL THE STEAMBOATS THAT SAILED IN FLATHEAD LAKE FROM 1883 TO 1951 INCLUDES MANY EARLY PHOTOGRAPHS.

W-120
WHITE, THAIN.
KUTENAI PIPES IN WESTERN ANTHROPOLOGY.
WESTERN STATES BRANCH, AMERICAN ANTHROPOLOGY ASSOC. MISSOULA, MT. NO. 1. 11 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD INDIAN RESERVATION). THE ARTICLE DESCRIBES THE SEQUENCE OF PIPE TYPES: TABULAR TO CARLINITE PIPES. QUARRY SITES FOR PIPE MATERIALS AT POLSON, BIG ARM, AND LIBBY ARE DISCUSSED. THE FIRING OF PIPESTONES PRIOR TO PRODUCTION, THE WOOD TYPE FOR PIPE STEMS AND METAL INLAIS ARE AMONG THE SUBJECTS CONSIDERED.

W-121
WHITE, THAIN.
KUTENAI PLACE NAMES OF THE FLATHEAD LAKE REGION IN NORTHWESTERN MONTANA.
LAKESIDE, MT.: FLATHEAD LAKE LOOKOUT MUSEUM. NO. 11. 6 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY: FLATHEAD INDIAN RESERVATION). THIS PAPER CONTAINS IMPORTANT NAMES AND DESCRIPTIONS OF THE PLACES USED BY THE KUTENAI IN THE UPPER FLATHEAD LAKE REGION.

W-122
WHITEFISH LAKE STABILIZATION DISTRICT, ET. AL.
1979.
DRAFT WATERSHED PLAN AND ENVIRONMENTAL IMPACT STATEMENT, WHITEFISH LAKE WATERSHED, FLATHEAD COUNTY, MONTANA.
WHITEFISH, MT.
PRELIMINARY, SPECIFIC, TECHNICAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH LAKE, WHITEFISH RIVER, & WHITEFISH). THE WATERSHED PLAN ATTEMPTS TO SOLVE THE PRINCIPAL PROBLEMS FACING THE WATERSHED: 1) LOSS OF RECREATIONAL OPPORTUNITIES IN LATE JULY AND AUGUST DUE TO LOW LAKE LEVELS, 2) SEASON, AND 3) LOW LATE SUMMER FLOWS IN THE WHITEFISH RIVER FOR FISH AND WILDLIFE. THE PROPOSED PROJECT WOULD PROVIDE A RELIABLE IRRIGATION SUPPLY FOR UP TO 6,800 ACRES OF CROPLAND, HIGHER FLOWS FOR THE WHITEFISH RIVER FISH, AND INCREASED WATERFOWL HABITAT. PUBLIC BASED RECREATION AND THE MUNICIPAL WATER SUPPLY WOULD BE ENHANCED BY INCREASED LATE SEASON LAKE LEVELS. STRUCTURAL MEASURES TO BE INSTALLED INCLUDE A MULTIPURPOSE WATER CONTROL STRUCTURE ON THE WHITEFISH RIVER AND A PUBLIC RECREATIONAL FACILITY WITH BOAT DOCK ON CITY PARK LAND ADJACENT TO THE RIVER. RIVER DEBRIS WOULD BE REMOVED FROM THE OUTLET OF WHITEFISH LAKE TO THE WATER CONTROL STRUCTURE SITE.

W-123
WHITFORD, HARRY N.
1903.
MISSOULA, MT.: UNIV. MONTANA. BULL NO. 16.
PART OF A SERIES, SPECIFIC, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(UNIV. MONTANA BIOL. STAT.). PLANT ASSOCIATIONS AND THE ENVIRONMENTAL CONDITIONS IN WHICH THEY ARE FORMED ARE THE SUBJECTS OF THIS PAPER. FIVE ASSOCIATIONS ARE DESCRIBED FOR THE BIGFORK AREA.

W-124
WHITFORD, HARRY N.
"FORESTS OF THE FLATHEAD VALLEY, MONTANA CONTRIBUTIONS FROM THE HULL BOTANICAL LABORATORY."
THE BOTANICAL GAZETTE 39(JANUARY-JUNE 1905):99-122;194-218;276-296.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD VALLEY). A GENERAL SURVEY OF THE FORESTS OF THE FLATHEAD VALLEY WAS MADE WHICH COVERED PHYSIOGRAPHY, GEOLOGY, THE CLIMATE OF FLATHEAD VALLEY IN RELATION TO CLIMATIC FORMATIONS, EDAPHIC FORMATIONS, WESTERN LARCH/DOUGLAS-FIR FORMATIONS, THE DOUGLAS-FIR/BULL PINE AND PRAIRIE FORMATIONS, AND THE INFLUENCE OF FIREST ON THE PRESENT COMPOSITION OF THE FORESTS OF FLATHEAD VALLEY. PHOTOGRAPHS ARE INCLUDED.

W-125
WHITKIND, IRVING J.
1978.
"GIANT GLACIAL GROOVES AT THE NORTH END OF THE MISSION RANGE, NORTHWEST MONTANA."
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. J. RESEARCH 8(JULY-AUGUST 1978):425-433.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTNS.). THIS ARTICLE DESCRIBES GIANT GLACIAL GROOVES CUTTING ACROSS AND WRAPPING AROUND THE NORTH END OF THE RANGE.

- W-126
WIKSTROM, J. H., AND ALLEY, J. R.
1967.
COST CONTROL IN TIMBER GROWING ON THE NATIONAL FORESTS OF THE NORTHERN REGION.
OGDEN, UTAH: U.S. DEPT. AGRICULTURE, FOREST SERVICE, INTERMTN. FOREST & RANGE EXPR. STAT. RESEARCH PAPER INT-42. 37 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.
- (U.S. FOREST SERVICE: REGION ONE). THIS REPORT DESCRIBES IMPROVEMENTS MADE IN THE ESTABLISHMENT OF INFORMATION SYSTEMS FOR RESOURCE, WORK PLANNING, AND COSTS. METHODS OF EVALUATION OF COST FACTORS IN TIMBER GROWING ARE DISCUSSED, AND TECHNIQUES OF DEVELOPING COST PREDICTION EQUATIONS WITH THE AID OF ELECTRONIC DATA EQUIPMENT ARE DESCRIBED. SAMPLES OF DATA SUMMARIES ARE INCLUDED.
- W-127
"WILL PROVIDE CONVENIENT TOWNSITES FOR THE FLATHEAD RESERVATION."
THE WESTERN HOMESEAKER, MARCH 1906, P. 30.
- (FLATHEAD INDIAN RESERVATION). THIS ARTICLE NOTES THE PROGRESS OF DIXON'S BILL TO PROVIDE FOR TOWNSITES ON THE FLATHEAD RESERVATION. SKCC.
- W-128
WILLARD, E. EARL, AND HERMAN, MARGARET.
1977.
GRIZZLY BEAR AND ITS HABITAT.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE; AND UNIV. MONTANA, SCHOOL FORESTRY. 28 PP.
FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, REGIONAL.
- (U.S. FOREST SERVICE: NORTHERN REGION: GLACIER NATL. PARK, & BOB MARSHALL WILDERNESS AREA). THE REPORT SUMMARIZES INFORMATION ON URSUS ARCTOS: THE BEAR'S HISTORICAL DISTRIBUTION, PRESENT STATUS, AND HABITAT RELATIONSHIPS. EXPERIENCES OF EARLY EXPLORERS WITH THE GRIZZLY, ITS DISTRIBUTION IN NATIONAL PARKS AND REPORTS OF SIGHTINGS IN OTHER AREAS, THE VEGETATION PRESENT IN ITS HABITAT, HABITAT TYPES, FOOD HABITATS, DEN HABITATS, DENS, DAYBEDS, AND HOME RANGE ARE DISCUSSED.
- W-129
WILLIAMS, CHRISTINA MACDONALD MCKENZIE.
1922.
"THE DAUGHTER OF ANGUS MACDONALD."
WASHINGTON HISTORICAL QUARTERLY 13(APRIL 1922):107-117.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, REGIONAL.
- (MONTANA & BRITISH COLUMBIA). IN THIS PERSONAL NARRATIVE THE AUTHOR DISCUSSES HER PARENTS AND THEIR RELATIVES, THEIR MARRIAGE, AND THE BIRTH OF THEIR CHILDREN. ALSO DESCRIBED ARE HER FATHER'S ASSOCIATIONS WITH INDIANS AND WHITE MEN, LIFE AT SALEESH HOUSE, LIFE WITH HER HUSBAND IN VICTORIA, AND HER PARENTS' MOVE TO THE FLATHEAD INDIAN RESERVATION.
- W-130
WILLIAMS, DENNIS A., AND CLARK CHARLES H.
LANDSLIDE RESEARCH.
HELENA, MT.: MONTANA STATE COMMISSION HIGHWAYS, MATERIALS DIV. 109 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: U.S. 93 IN SOUTHEAST FLATHEAD COUNTY). KNOWN LANDSLIDES ON NEW, EXISTING, OR PLANNED HIGHWAYS WERE STUDIED AND A COMPREHENSIVE FILE OF UNSTABLE AREAS WAS COMPILED. METHODS UTILIZED DRILLINGS, PORTABLE GEOPHYSICAL EQUIPMENT, AERIAL PHOTOGRAPHY, AND SURVEYS. THE DETAILED LANDSLIDE STUDIES INCLUDED A STUDY OF A 1964 FLATHEAD SLIDE.
- W-131
WILLIAMS, GARY.
1978.
"THE TRIBES' TREES: MONTANA'S FLATHEAD INDIAN RESERVATION AND THE BIA TIMBER MANAGEMENT."
ASSOCIATES NATIONAL AGRICULTURAL LIBRARY, INC., NEW SERIES, 3(JANUARY/JUNE 1978):27-30.
- (FLATHEAD INDIAN RESERVATION). THIS ARTICLE PROVIDES A SUMMARY OF THE TIMBER MANAGEMENT HISTORY ON THE FLATHEAD RESERVATION. SKCC.
- W-132
WILLIAMS, R. S.
1902.
"NEW OR INTERESTING SPECIES FROM MONTANA."
THE BRYOLOGIST 5:100-102.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, STATEWIDE.
- (MONTANA: LAKE MCDONALD & COLUMBIA FALLS). THIS IS DESCRIPTIVE LIST OF TWELVE MOSS SPECIES PREVIOUSLY UNREPORTED OR OF INTEREST.
- W-133
WILLIAMS, RALPH E.
1978.
LODGEPOLE PINE NEEDLE CAST IN THE LOWER CLARK FORK RIVER DRAINAGE.
MISSOULA, MT.: U.S. DEPT. AGRICULTURE, FOREST SERVICE, REGION ONE. STATE & PRIVATE FORESTRY. REPT. NO. 78-10. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (SANDERS COUNTY). THE PINE NEEDLE CAST FUNGUS LOPHODERMELLA CONCOLOR, CAUSED SEVERE DISCOLORATION AND SUBSEQUENT DEFOLIATION OF PINUS CONTROTA ON OVER 4,000 ACRES IN THE LOWER CLARK FORK RIVER DRAINAGE IN 1975. THIS REPORT PRESENTED MAPS, AND DETERMINES THE TOTAL ACREAGE INVOLVED. GROUND CHECKS WERE RUN ON ACCESSIBLE AERIALY MAPPED AREAS TO VERIFY AERIAL OBSERVATIONS. PHOTOGRAPHS ARE INCLUDED.
- W-134
WILLIS, BAILEY.
1901.
"OIL OF THE NORTHERN ROCKY MOUNTAINS."
THE ENGINEERING AND MINING JOURNAL (14 DECEMBER 1901):3-6.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.
- (NORTHERN ROCKY MTNS.: GLACIER NATL. PARK). THIS EARLY REPORT DESCRIBES THE OCCURRENCE OF OIL OCCURRING AS A SEEPAGE UPON THE WATERS OF SPRINGS AND STREAMS IN THE VICINITY OF THE U.S.-CANADIAN BORDER. THE GEOLOGIC STRUCTURE OF THE RANGE IS ANALYZED AND THE POSSIBLE SOURCE OF THE OIL AS WELL AS THE NATURE OF THE RESERVOIR ARE DETAILED. MAPS INDICATE THE LOCATION OF SEEPS WITHIN GLACIER NATIONAL PARK.
- W-135
WILLIS, BAILEY.
1902.
"STRATIGRAPHY AND STRUCTURE, LEWIS AND LIVINGSTON RANGES, MONTANA."
BULL. GEOLOGICAL SOCIETY AMERICA 13:310-352.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.
- (LEWIS & LIVINGSTON RANGES: NORTH FORK OF THE FLATHEAD). THIS EARLY GEOLOGY REPORT DESCRIBES THE FLATHEAD AREA NORTH OF KALISPELL. IT DESCRIBES PHYSICAL FEATURES; STRATIGRAPHY (ALGONKIAN, CRETACEOUS, AND TERTIARY LAKE BEDS OF THE NORTH FORK); STRUCTURE (SYNCLINE OF THE FRONT RANGES, LEWIS OVERTHRUST, STRUCTURAL ANTECEDENTS OF THE LEWIS THRUST, AND NORTH FORK NORMAL FAULT); AND PHYSIOGRAPHY.
- W-136
WILLIS, BAILEY.
1902.
"STRUCTURE OF THE FRONT RANGE, NORTHERN ROCKY MOUNTAINS, MONTANA."
SCIENCE 15(17 JANUARY 1902):86-87.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THE FRONT RANGE OF THE ROCKIES IS DESCRIBED AS A SERIES OF LIMESTONE, QUARTZITES, AND SILICIOUS ARGILLITES FLEXED IN A SYNCLINAL FORM. INFERENCES ARE MADE REGARDING THE STRUCTURAL HISTORY OF THE RANGE.
- W-137
WILLIS, BAILEY.
1938.
"GLACIER NATIONAL PARK: EARLY EXPLORATION."
GLACIER NATIONAL PARK. (TYPEWRITTEN). 7 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THE PAPER DISCUSSES THE CANADIAN-AMERICAN BORDER CONTROVERSY OF 1900 AND DESCRIBES THE AUTHOR'S 1901 EXPLORATIONS OF THE BOUNDARY AREA IN ORDER TO EXAMINE THE FACTS OF THE ISSUE. THE GOALS OF THE EXPLORATIONS INVOLVED LOCATING THE BOUNDARY AND GEOLOGICAL RECONNAISSANCE. DESCRIPTIONS OF TRIPS INTO LOGGING, BOWMAN, AND KINTLA LAKE AREAS ARE INCLUDED.
- W-138
WILSON, CHARLES.
1866.
"REPORT ON THE INDIAN TRIBES INHABITING THE COUNTRY IN THE VICINITY OF THE 49TH PARALLEL OF NORTH LATITUDE."
TRANS. ETHNOLOGICAL SOCIETY OF LONDON 4(1866):275-332.
- THIS ARTICLE DESCRIBES SALISH AND KOOTENAI LIFE IN 1860 AND 1861 AND GIVES A KALISPELL VOCABULARY. SKCC.
- W-139
WILSON, CHARLES.
1970.
MAPPING THE FRONTIER: CHARLES WILSON'S DIARY OF THE SURVEY OF THE 49TH PARALLEL, 1858-1862.
EDITED BY GEORGE F. G. STANLEY.
TORONTO, ONTARIO: MACMILLAN OF CANADA.
- THIS BOOK INCLUDES DESCRIPTIONS OF SEVERAL MEETINGS WITH THE FLATHEADS AND KOOTENAI DURING THE 1860 AND 1861 PERIOD. IT ALSO MENTIONS A BATTLE BETWEEN THE SIOUX AND THE FLATHEADS. SKCC.
- W-140
WILSON, DELORES M.
1978.
PRINCIPAL FACTS FOR GRAVITY STATIONS IN FLATHEAD, GLACIER, PONDERA, AND TETON COUNTIES, MONTANA.
DENVER: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. OPEN FILE REPT. 78-104. 13 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(FLATHEAD, PONDERA, GLACIER, & TETON COUNTIES). A GRAVITY SURVEY WAS MADE IN PARTS OF FLATHEAD, GLACIER, PONDERA, & TETON COUNTIES TO PROVIDE INFORMATION ON STRUCTURAL RELATIONSHIPS AND SUBSURFACE GEOLOGY AS PART OF GEOLOGIC MAPPING AND RESOURCE EVALUATION PROJECTS.

W-141
WILSON, EUGENE, AND WARDEN, DONALD.
1978.

GLACIER NATIONAL PARK BICYCLE PATH STUDY.
U.S. DEPT. INTERIOR, NATIONAL PARK SERVICE, NORTHERN ROCKY MOUNTAIN PARKS STUDY PROGRAMS. 44 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, EXISTING DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE FOCUS OF THIS STUDY WAS TO EVALUATE ALTERNATIVE BICYCLE ROUTES WHICH WOULD BE CONSISTENT WITH GLACIER NATIONAL PARK MASTER PLAN. THE OBJECTIVES WERE AS FOLLOWS: 1) EVALUATE THE SCALE OF DEVELOPMENT FOR BICYCLE FACILITIES; AND 2) DETERMINE EXISTING FACILITIES AND/OR HIGH USAGE AREAS CONSIDERING: ESTHETICS OF THE PROPOSED FACILITY, IMPACT ON WILDLIFE, IMPACT ON OTHER PARK RESOURCES, AND REQUIRED BICYCLE PERFORMANCE CRITERIA.

W-142
WILSON, JOHN W.
1953.

REPORT ON THE BIOLOGICAL INVESTIGATION OF POLLUTION IN ASHLEY CREEK, KALISPELL, MONTANA, APRIL 21-22, 1953.
HELENA: MONTANA DEPT. FISH & GAME. 6 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(ASHLEY CREEK). THIS REPORT DETAILS THE BIOLOGICAL INVESTIGATION MADE OF ASHLEY CREEK, AND EXAMINES THE FISH KILL WHICH OCCURRED A WEEK BEFORE THE INVESTIGATION. THE INVESTIGATION INCLUDED A STREAM RECONNAISSANCE SURVEY AND A SERIES OF DISSOLVED OXYGEN DETERMINATIONS. DETERMINATION OF NUMBERS AND KINDS OF FISH OCCURRING AT CERTAIN STATIONS WERE MADE. A SERIES OF TESTS WERE CONDUCTED FOR: B.O.D., PH, ALKALINITY, AND COLIFORM BACTERIA. PLANKTON WERE SAMPLED.

W-143
WILSON, RAYMOND CARL, JR.
1970.

"THE MECHANICAL PROPERTIES OF THE SHEAR ZONE OF THE LEWIS OVERTHRUST, GLACIER NATIONAL PARK, MONTANA."
PH.D. DISSERTATION, TEXAS A & M UNIV., COLLEGE STATION. 89 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS WORK IS AN INVESTIGATION OF THE ROLE OF THE MECHANICAL PROPERTIES OF THE SHEAR ZONE. THE HYPOTHESIS EVALUATED WAS THAT THE SHALE SHEAR ZONE MATERIAL ACTED AS A LUBRICANT FOR THE MOVEMENT OF THE OVERTHRUST. A NEW THEORY OF CLAY MECHANICS - THE VISCOUS ADHESION THEORY - WHICH EXPLAINS HOW SHALE CAN ACT AS A LUBRICANT FOR OVERTHRUST FAULTS, IS DESCRIBED, AS WELL AS TWO SETS OF EXPERIMENTS WHICH TEST THE PREDICTIONS OF THE VISCOUS ADHESION THEORY. INCLUDED IS A STUDY OF THE LEWIS SHEAR ZONE SHALE, BY ELECTRON MICROSCOPY, WHICH REVEALED THE MICROFABRIC AND FURNISHED CLUES TO THE MECHANISMS OF DEFORMATION OF SHALE DURING OVERTHRUST MOVEMENT.

W-144
WILSON, RAYMOND CARL, JR.
1970.

SHALE LUBRICATION OF THE LEWIS OVERTHRUST, GLACIER NATIONAL PARK, MONTANA.
GEOLOGICAL SOCIETY AMERICA. ABSTRACTS WITH PROGRAMS 2:305.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THIS ABSTRACT BRIEFLY DISCUSSES THEORIES ON THE MOVEMENT OF THE LEWIS OVERTHRUST. THE SHALE SHEAR ZONE IS BELIEVED TO HAVE ACTED AS A FLUID MEDIUM, REDUCING THE COEFFICIENT OF SLIDING FRICTION.

W-145
WILSON, ROY A.
1921.

"THE GEOLOGY OF THE MISSION RANGE, MONTANA."
PH.D. DISSERTATION, UNIV. CHICAGO, CHICAGO. 93 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION RANGE NORTH OF THE JOCKO RIVER). THIS DISSERTATION GIVES AN OVERVIEW OF THE GEOLOGY OF THE MISSION RANGE. THE TOPOGRAPHY, PHYSIOGRAPHIC SUBDIVISIONS, STRATIGRAPHY, GEOLOGIC STRUCTURE, AND ORIGIN OF THE MISSION RANGE WAS INVESTIGATED.

W-146
WILSON, ROY A.
1924.

"GEOLOGY AND PHYSIOGRAPHY OF THE MISSION RANGE REGION, MONTANA."
UNIV. MONTANA, GEOLOGY DEPT., MISSOULA, MT. 107 PP. (TYPEWRITTEN).
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(MISSION MTN. RANGE). THIS PAPER DISCUSSES THE AREA'S STRUCTURAL AND AERIAL GEOLOGY AS WELL AS ITS TOPOGRAPHIC FEATURES. RELIEF AND DRAINAGE FEATURES ARE DESCRIBED AND A PHYSIOGRAPHIC HISTORY (PRE-GLACIAL PERIOD, GLACIAL PERIOD, POST GLACIAL PERIOD) ARE PRESENTED. THE RAVALLI, NEWLAND, AND SPOKANE SERIES ARE DISCUSSED AND THE OCCURRENCE OF IGNEOUS ROCKS IS EXAMINED. INCLUDED IN THE DISCUSSION OF STRUCTURAL GEOLOGY IS THE FOLLOWING: THE FLATHEAD VALLEY ANTICLINE, THE MISSION RANGE MONOCLINE, GENERAL STRUCTURAL FEATURES IN THE EASTERN PART OF THE AREA, AND MINOR STRUCTURAL FEATURES OF THE MISSION RANGE. THE ORIGIN OF SEDIMENTARY ROCKS AND OF THE RANGE ITSELF IS OUTLINED IN A CONTEXT OF GEOLOGIC HISTORY.

W-147
WINCHELL, JOHN R.
1963.

"AGE CRITERIA FOR AMERICAN BISON."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 70 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). THE OBJECTIVES OF THIS STUDY WERE TO DEVELOP A GENERAL AGING TECHNIQUE FOR BISON BY TOOTH REPLACEMENT AND WEAR, USING KNOWN AGE ANIMALS; AND TO DEVELOP MORE ACCURATE METHODS OF AGING BISON BY SECTIONING THE CENTRAL INCISOR TEETH AND MEASURING THE WEIGHT OF THE LENS OF THE EYE.

W-148
WINSLOW, NANCY
1978.

"GEOLOGY CONTROVERSY OVER LOWER FLATHEAD RIVER PROPOSED DAMS."
UNIV. MONTANA, DEPT. GEOLOGY. (TYPEWRITTEN). 15 PP.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LOWER FLATHEAD RIVER). THIS PAPER MAKES AN EFFORT TO DOCUMENT THE PROFESSIONAL OPINIONS HEARD AT THE PUBLIC GEOLOGY SESSIONS THAT EXAMINED THE GEOLOGY AFFECTING DAM CONSTRUCTION ON THE LOWER FLATHEAD RIVER. ALSO INCLUDED ARE QUOTES FROM GEOLOGISTS AT THE FLATHEAD FORUM, HELD IN DIXON, MONTANA IN MAY OF 1978.

W-149
WINSTON, DON, AND LANGE, IAN.
1977.

"ALLUVIAL FAN SHALLOW WATER AND SUB-WAVE BASE DEPOSITS OF THE BELT SUPERGROUP NEAR MISSOULA, MONTANA." IN GEOLOGICAL SOCIETY OF AMERICA, FIELD GUIDE NO. 5.
30TH ANNUAL MEETING, ROCKY MOUNTAIN SECTION, GEOLOGICAL SOCIETY AMERICA. 41 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, EXISTING DATA, STATEWIDE.

(MONTANA: LOWER FLATHEAD RIVER). THIS GUIDE PRESENTS THE BELT SUPERGROUP IN THE CONTEXT OF A SEDIMENTARY GENETIC MODEL. A FIELD TRIP LOG DESCRIBES THE GEOLOGY ENCOUNTERED ON A ROUND TRIP FROM MISSOULA TO SUPERIOR AND BACK, TRAVELLING ALONG A PORTION OF THE LOWER FLATHEAD RIVER.

W-150
WINTERS, JOHN B.
1969.

"TRICHINIASIS IN MONTANA MOUNTAIN LIONS."
BULL. WILDLIFE DISEASE ASSOC. 5(OCTOBER 1969):400.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA). THE OCCURRENCE OF TRICHINELLA SPIRALIS LARVAE IN TISSUES OF 3 MOUNTAIN LIONS (FELIS CONCOLOR) IS DISCUSSED IN THIS BRIEF ARTICLE. THE REPORT IS THE FIRST NORTH AMERICAN RECORD OF A TRICHINA INFECTION IN FELIS CONCOLOR UNDER WILD CONDITIONS.

W-151
WINTERSPORTS, INC., AND BEHAN, M. J.
1976.
MASTER PLAN AND ENVIRONMENTAL ANALYSIS OF THE BIG MOUNTAIN SKI RESORT.
WHITEFISH, MT.: WINTER SPORTS, INC. 136 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WHITEFISH: THE BIG MOUNTAIN). THIS MASTER PLAN PROPOSES THE INSTALLATION OF 4 ADDITIONAL CHAIR LIFTS, THE GENERAL EXPANSION OF BASE AREA FACILITIES, AND THE UPGRADING OF THE SEWAGE TREATMENT SYSTEM. AN EXAMINATION OF THE FEASIBILITY OF FUTURE SKI SLOPES BEING DEVELOPED IN THE HELL ROARING BASIN AND BIG CREEK DRAINAGE IS INCLUDED. THE ENVIRONMENTAL ANALYSIS DESCRIBES THE PRESENT ENVIRONMENT: SOILS, TEMPERATURE, SNOW DEPTH, VEGETATION, AND HYDROLOGY. THE PRIMARY AND SECONDARY IMPACTS OF EACH PROPOSED EXPANSION ARE DESCRIBED.

W-152
WIRTH, THEODORE J., AND ASSOCIATES, AND MUELLER ENGINEERING.
1970.

COMPREHENSIVE AREA-WIDE WATER AND SEWER PLAN: LINCOLN, LAKE, AND SANDERS COUNTIES.
HELENA, MT.: MONTANA DEPT. PLANNING, ENGINEERING DIV. 119 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(LAKE, LINCOLN, & SANDERS COUNTIES). THIS COMPREHENSIVE WATER AND SEWER STUDY ANALYZES THE PRESENT STATE OF WATER SUPPLY AND SEWAGE DISPOSAL, AND IS BASED ON PROJECTED CHANGES IN POPULATION, ECONOMY, AND LAND USE. IT PROJECTS IMPROVEMENTS AND ADDITIONS REQUIRED TO MEET NEEDS DURING THE NEXT TWENTY YEARS. THIS PLAN ENCOMPASSES ALL RURAL COMMUNITIES WITHIN THE COUNTY CONTAINING FIVE OR MORE DWELLING UNITS BUT HAVING A POPULATION OF LESS THAN 5,500. MAPS OF EACH TOWN ARE INCLUDED.

W-153
WIRTZ, ELMER H., ET AL.
1977.
COLSTRIP TRANSMISSION ENVIRONMENTAL REPORT: FEDERAL INTERAGENCY COLSTRIP TRANSMISSION CORRIDOR ANALYSIS.
PORTLAND, ORE.: U.S. DEPT. INTERIOR, BONNEVILLE POWER ADMINISTRATION; BUREAU INDIAN AFFAIRS; AND U.S. DEPT. AGRICULTURE, FOREST SERVICE. 595 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(MONTANA: LAKE & SANDERS COUNTIES). THE REPORT PROVIDES AN ENVIRONMENTAL ASSESSMENT OF BOTH THE COLSTRIP PROJECT MANAGEMENT'S (CPM) PROPOSED CORRIDOR AND THE ALTERNATE CORRIDORS PRESENTED BY CPM AND THE MONTANA STATE GOVERNMENT. IN ADDITION, NEW CORRIDORS WERE TO BE GENERATED AROUND PROBLEM AREAS ON PUBLIC LANDS. THE PROPOSED TRANSMISSION SYSTEM CONSISTS OF TWO PARALLEL 500-KILOVOLT TRANSMISSION LINES TO BE CONSTRUCTED FROM COLSTRIP TO HOT SPRINGS, MONTANA, WHERE THEY WOULD TIE IN WITH THE BPA 500 KILOVOLT SYSTEM.

W-154
WITKIND, IRVING.
1975.
PRELIMINARY MAP SHOWING KNOWN AND SUSPECTED ACTIVE FAULTS IN WESTERN MONTANA.
DENVER, CO.: U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. OPEN-FILE REPT. 75-285.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, STATEWIDE.

(WESTERN MONTANA: SWAN FAULT, JOCKO FAULT, & WHITEFISH FAULT). KNOWN SUSPECTED ACTIVE FAULTS IN THE NORTHERN ROCKY MOUNTAINS ARE PLOTTED ON THE STATE MAP OF WESTERN MONTANA (SCALE 1:500,000) WHICH ACCOMPANIES THIS REPORT. EACH ACTIVE FAULT IS IDENTIFIED BY A RANDOM NUMBER AND A LETTER. PERTINENT DATA ABOUT EACH FAULT IS RECORDED ON FILE CARDS, COPIES OF WHICH ARE INCLUDED IN TEXT. THE LETTER REFERS TO THE YOUNGEST BEDS BROKEN BY THAT FAULT. THE RANGE EXTENDS FROM HISTORIC BREAKS (R) TO OTHER FAULTS THAT HAVE BEEN RECURRENTLY ACTIVE SINCE THE MIDDLE MIOCENE.

W-155
WITKIND, IRVING J.
1977.
MAJOR ACTIVE FAULTS AND SEISMICITY IN AND NEAR THE BIG FORK-AVON AREA, MISSOULA-KALISPELL REGION, NORTHWESTERN MONTANA.
U.S. DEPT. INTERIOR, GEOLOGICAL SURVEY. MISC. FIELD STUDIES. MAP MF-923.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(BIGFORK, AVON AREA). THIS CONTRIBUTION CONSISTS OF A MAP SHOWING FAULTS AND EARTHQUAKE EPICENTERS IN THE STUDY AREA; A TABLE GIVING LOCATION, DEPTH, MAGNITUDE, INTENSITY, CULTURAL EFFECTS, PLATE AND SOURCE OF INFORMATION FOR EARTHQUAKES PLOTTED ON THE MAP; AND A DISCUSSION OF ACTIVE FAULTS, SEISMICITY, AGE OF THE LATEST MOVEMENT, GEOLOGIC HAZARD AND RISK, POSSIBLE DAMAGE, AND CONCLUSIONS.

W-156
WITWER, DIANE M.
1970.
"BIOLOGY AND IMMATURE STAGES OF CERTAIN STEM BORING AGROMYZIDAE (DIPTERA)." M.A. THESIS, KENT STATE UNIV., KENT, OH. 68 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, REGIONAL.

(OHIO & NORTHWESTERN MONTANA: POLSON, RONAN, SWAN VALLEY & YELLOW BAY BIOL. STAT.). THIS STUDY PRESENTS LIFE HISTORY INFORMATION FOR 10 SPECIES OF AGROMYZIDAE THAT WERE FOUND BORING THE STEMS OF NINE SPECIES OF ANGIOSPERMS. THE FAMILIES OF HOST PLANTS INFESTED ARE: BORAGINACEAE, COMPOSITAE, LEGUMINOSAE, ROSACEAE, AND UMBELLIFERAE. TWO NEW SPECIES, MELANAGROMYZA SP. N. NO. 1 AND MELANAGROMYZA SP. N. NO. 2, WERE DISCOVERED AS WELL AS THE HOST PLANTS FOR SIX OTHER SPECIES. DESCRIPTIONS OF IMMATURE STAGES ARE INCLUDED.

W-157
WOLFF, MAYER H.
1941.
"THE BOB MARSHALL WILDERNESS AREA." THE LIVING WILDERNESS, JULY 1941, PP. 5-6.
FINAL, SPECIFIC, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(BOB MARSHALL WILDERNESS AREA). THE CREATION OF THE WILDERNESS AREA IS DESCRIBED ALONG WITH ITS ATTRACTIONS. THE MERGING OF THREE PRIMITIVE AREAS (THE SOUTH FORK OF THE FLATHEAD AND THE PENTAGON PRIMITIVE AREAS OF THE FLATHEAD NATIONAL FOREST, AND THE SUN RIVER PRIMITIVE AREA OF LEWIS AND CLARK NATIONAL FOREST, IS DISCUSSED.

W-158
WOODCOCK, CLARENCE.
1964.
"THE HERITAGE OF THE FLATHEAD: WORTHY OF CENTENNIAL PRESERVATION."
MONTANA MAGAZINE OF WESTERN HISTORY 14(APRIL 1964):120-121.

THIS ARTICLE CALLS FOR THE PRESERVATION OF THE HERITAGE OF THE FLATHEAD INDIANS. SKCC.

W-159
WOODGERD, WESLEY R.
1952.
"A STUDY OF PLANT DEVELOPMENT COINCIDENT WITH SOME PHASES OF RING-NECKED PHEASANT BREEDING BEHAVIOR."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 62 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(NATL. BISON RANGE). PLANT AND PHEASANT (PHASIANUS COLCHICUS) PHENOLOGIES WERE INVESTIGATED IN THIS STUDY OF PHEASANT REPRODUCTIVE BEHAVIOR. SEASONAL PLANT DEVELOPMENT IN THE AREA WAS DETERMINED BY MEASURING LINEAR GROWTH OF 10 DIFFERENT SPECIES ON SIX STATIONS. A CROWING COUNT WAS USED TO INDICATE THE SEASONAL RISE AND FALL OF PHEASANT BREEDING ACTIVITY AND OBTAIN INFORMATION ON THE DAILY CROWING CURVE. ALSO CONDUCTED WAS A NESTING STUDY TO DETERMINE THE DATE OF PEAK HATCHING AND THE DURATION OF THE NESTING PHASE. THE IMPORTANT EVENTS IN THE PHEASANTS' BREEDING SEASON WERE COMPARED TO STAGES IN PLANT DEVELOPMENT ON A WEEK BY WEEK BASIS.

W-160
WOODGERD, WESLEY R., AND DONALD J. FORRESTER.
1962.
"OBSERVABILITY OF COLORED EAR MARKERS ON ROCKY MOUNTAIN BIGHORN LAMBS (ORVIS C. CANADENSIS)." THE DESERT BIGHORN TRANSACTIONS, SIXTH ANNUAL MEETING, GRAND CANYON, ARIZONA. PP 65-68.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(WILDHORSE ISLAND). TEN INDIVIDUALLY COLOR MARKED BIGHORN LAMBS WERE OBSERVED OVER A PERIOD OF 18 MONTHS. DISTRIBUTION WAS NOTED AND THE SUCCESS OF OBSERVING COLOR MARKERS WAS TESTED.

W-161
WOODWARD, LEE A.
1959.
"GEOLOGY OF CENTRAL PART OF THE FLATHEAD RANGE, MONTANA."
M.S. THESIS, MONTANA STATE UNIV., MISSOULA. 45 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD NATL. FOREST: SPRUCE PARK). THE PURPOSE OF THIS STUDY WAS TO COLLECT GEOLOGIC DATA FOR USE IN FEASIBILITY STUDIES FOR DAM AND TUNNEL CONSTRUCTION. THE MAIN AREA OF INTEREST WAS A NARROW ZONE EXTENDING FROM SPRUCE PARK TO THE MOUTH OF HOKE CREEK. IT WAS NECESSARY TO COVER ADJACENT AREAS IN ORDER TO TRACE AND PROJECT GEOLOGIC FEATURES INTO THE ZONE OF INTEREST. EMPHASIS WAS PLACED ON STRUCTURAL INTERPRETATIONS.

W-162
WOODWARD, LEE A.
"NORMAL FAULTING IN THE FLATHEAD RANGE, MONTANA."
BULL. GEOLOGICAL SOCIETY AMERICA. ABSTRACTS WITH PROGRAMS 70:1791.
FINAL, SPECIFIC, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD RANGE). TWO SETS OF NORMAL FAULTS CUTTING THE BELT SERIES AND PALEOZOIC STRATA WERE DISCLOSED IN A GEOLOGIC MAPPING PROJECT: 1) LONGITUDINAL NORTHWEST-TRENDING FAULTS DIPPING TO THE WEST, WHICH ARE PARALLEL TO THE RANGE AND THE STRIKE OF THE EASTERLY DIPPING STRATA AND WHICH INVOLVES THREE FAULTS (THE FLATHEAD, THE ROOSEVELT FAULTS, AND AN INTERMEDIATE FAULT); 2) TRANSVERSE NORTHEAST-TRENDING FAULTS, DIPPING BOTH NORTH AND SOUTH. THE RELATIONSHIP OF THE FAULTS TO THE LEWIS OVERTHRUST WAS EXAMINED.

W-163
WORLD DATA CENTER FOR GLACIOLOGY (SNOW AND ICE).
1979.
GLACIOLOGICAL FIELD STATIONS. PART 2. REPORT GD-4.
BOULDER, CO.: INSTITUTE ARCTIC & ALPINE RESEARCH, UNIV. COLORADO. 227 PP.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WORLD-WIDE.

(THE WORLD: GLACIER NATL. PARK: SPERRY GLACIER). THIS PUBLICATION PRESENTS INFORMATION ON WORLD WIDE DATA COLLECTION ACTIVITIES IN GLACIOLOGICAL SCIENCE. A QUESTIONNAIRE WAS SENT TO ALL KNOWN GLACIOLOGICAL FIELD STATIONS REQUESTING INFORMATION ABOUT THE GEOGRAPHICAL LOCATION, A DESCRIPTION OF THE STATION, CALENDAR TIMING OF ACTIVITIES OF THE STATION, MAIN TYPES OF RESEARCH, AND DATA COLLECTED. CHALET FIELD PROJECT IN GLACIER NATIONAL PARK IS INCLUDED.

- W-164
WRIGHT, C. C.
1946.
"GENERAL INFORMATION ABOUT THE FLATHEAD INDIAN RESERVATION IN WESTERN MONTANA."
DIXON-AGENCY MONTANA STUDY GROUP, DIXON, MT. (MIMEO). 10 PP.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). THIS BRIEF PAPER, BY THEN SUPERINTENDENT C. C. WRIGHT, DESCRIBES THE GEOGRAPHY, HISTORY, LAND TENURE, ECONOMY, AND ADMINISTRATION OF THE FLATHEAD RESERVATION.
- W-165
WRIGHT, PHILIP L.
1950.
"SYNAPTOMYS BOREALIS FROM GLACIER NATIONAL PARK, MONTANA."
J. MAMMALOGY 31(NOVEMBER 1950):460.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (GLACIER NATL. PARK). THIS NOTE REPORTS ON THE FIRST RECORD OF SYNAPTOMYS BOREALIS FROM GLACIER NATIONAL PARK. THE COLLECTION SITE AND CHARACTERISTICS OF THE SPECIMEN ARE DESCRIBED AND RELATED TO SPECIMENS FROM WESTERN CANADA.
- W-166
WRIGHT, PHILIP L.
1953.
"INTERGRADATION BETWEEN MARTES AMERICANA AND MARTES CAURINA IN WESTERN MONTANA."
J. MAMMALOGY 34(FEBRUARY 1953):74-96.
(IDAHO & NORTHWESTERN MONTANA). SKULLS AND SKINS OF MARTEN FROM VARIOUS REGIONS IN NORTHWESTERN MONTANA AND CENTRAL AND NORTHERN IDAHO WERE STUDIED. STATISTICAL ANALYSIS OF CRANIAL CHARACTERS WERE UNDERTAKEN AND VARIATIONS IN THE PELAGE DESCRIBED.
- W-167
WRIGHT, PHILIP L.
1956.
"THE .30.06 VS. THE .375 ON ELK. THE RESULTS OF CAREFULLY CONTROLLED SHOOTING EXPERIMENTS."
THE AMERICAN RIFLEMAN (04C11):28-32.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (NATL. BISON RANGE). THIS ARTICLE COMPARES THE SUITABILITY OF THE .30.06 USING 220-GRAIN SILVERTIP BULLETS WITH THE .375 MAGNUM USING 300-GRAIN SIVERTIPS FOR KILLING ELK. TWENTY FOUR ELK WERE KILLED UNDER CONTROLLED CONDITIONS. THE BEHAVIOR OF THE ANIMAL WHEN HIT WAS OBSERVED, AND THE WOUND WAS EXAMINED.
- W-168
WRIGHT, PHILIP L., AND CONAWAY, CLINTON H.
1950.
"WHITE-TAILED PTARMIGAN IN THE MISSION MOUNTAINS."
THE CONDOR 52(SEPTEMBER-OCTOBER 1950):238.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (MISSION MTNS.). A REPORT ON THE OBSERVATION AND COLLECTION OF LAGOPUS LEUCURUS SPECIMEN ON McDONALD PEAK IN THE MISSION MOUNTAINS.
- W-169
WRIGHT, PHILIP L., AND DOW, SUMNER A., JR.
1962.
"MINIMUM BREEDING AGE IN PRONGHORN ANTELOPE."
J. WILDLIFE MANAGEMENT 26(JANUARY 1962):100-101.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (NATL. BISON RANGE). THIS BRIEF PAPER SUMMARIZES DATA OBTAINED FROM A NUMBER OF ANTELOPE SPECIMEN THAT GAVE EVIDENCE OF THE TIME OF FIRST BREEDING. REPRODUCTIVE HISTORIES OF INDIVIDUALS ARE DISCUSSED. DATA ARE PRESENTED IN TABULAR FORM.
- W-170
WRIGHT, WILLIAM FRED.
1966.
"A STUDY OF LAND MANAGEMENT AND RECREATIONAL USERS OF THE MISSION MOUNTAINS PRIMITIVE AREA, MONTANA."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 121 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (MISSION MTN. PRIMITIVE AREA). THE OBJECTIVES OF THIS STUDY WERE TO: 1) DETERMINE THE CHARACTERISTICS OF INTERVIEWED RECREATIONAL USERS OF THE MISSION MOUNTAINS PRIMITIVE AREA, AND THEIR UNDERSTANDING OF THE WORD "WILDERNESS;" 2) STUDY MANAGEMENT POLICIES AND PRACTICES FOR THE LANDS RELATED TO THE PRIMITIVE AREA, AND 3) ANALYZE INFORMATION COLLECTED FROM THE INTERVIEWED RECREATIONAL USERS AND THE MANAGERS OF THE RELATED LANDS IN ORDER TO DETERMINE POSSIBLE CONFLICTS OF LAND USE. THE STUDY DISCUSSES DIFFERENT MANAGEMENT PRACTICES AND LAND USERS, AND SUGGESTS RECOMMENDATIONS THAT MAY AID THE LAND MANAGERS.
- W-171
WUJEK, DANIEL E.
1979.
"INTRACELLULAR BACTERIA IN THE BLUE GREEN ALGA PLEUROCAPSA MINOR."
TRANS. AMERICAN MICROSCOPIC SOCIETY 98:143-145.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD LAKE). THIS PAPER DOCUMENTS WITH ELECTRON MICROSCOPY THE OCCURRENCE OF ENDOPHYTE BACTERIA IN A MEMBER OF THE CYANOPHYCEAE: PLEUROCAPSA MINOR. NATURALLY OCCURRING POPULATIONS WERE COLLECTED; SECTIONS WERE CUT WITH A DIAMOND KNIFE, STAINED WITH AQUEOUS ACETATE AND/OR LEAD CITRATE, AND THEN EXAMINED USING AN ELECTRON MICROSCOPE. OBSERVATIONS ARE DISCUSSED.
- W-172
WUJEK, DANIEL E.
IN PRESS.
DIATOMS OF NORTHWEST MONTANA.
MOUNT PLEASANT, MI.: CENTRAL MICHIGAN UNIV.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD RIVER BASIN). THE TAXONOMY OF THE DIATOMS OF THE NORTHWEST MONTANA WAS INVESTIGATED. PERIPHYTON AND PLANKTON SAMPLES WERE COLLECTED FROM JUNE THROUGH AUGUST IN 1976 AND 1978. OVER THREE HUNDRED TAXA WERE IDENTIFIED.
- W-173
WUJEK, DANIEL E.; WEE, JIM; AND WUJEK, M.
IN PRESS.
NEW ADDITIONS TO THE ALGA FLORA OF MONTANA.
MOUNT PLEASANT, MI.: CENTRAL MICHIGAN UNIV.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD RIVER BASIN). FROM FIELD COLLECTIONS MADE DURING THE SUMMERS OF 1976 AND 1978 FROM NORTHWEST MONTANA, 24 TAXA NEW TO THE STATE ARE REPORTED. ELEVEN ARE CHRYSOPHYTES, FIVE XANTHOPHYTES, FOUR GREENS, TWO DIATOMS, AND ONE EACH OF A BLUE-GREEN AND A RED. INCLUDED ARE THREE NEW TO THE UNITED STATES: NEONEMAQUADRATUM, CHLOROBOTYRS ELLIPSOIDEA, AND LEP-TOCHROMULINA CALYX.
- W-174
WUNDER, LAURA.
1977.
"WATER USE, SURFACE WATER, AND WATER RIGHTS ON THE FLATHEAD INDIAN RESERVATION, MONTANA: A REVIEW."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 128 PP.
FINAL, GENERAL, TECHNICAL, EXISTING DATA, WITHIN THE BASIN.
- (FLATHEAD INDIAN RESERVATION). THIS PAPER REPRESENTS AN ATTEMPT TO COMPILE AND SUMMARIZE AVAILABLE WATER RESOURCE DATA ON THE RESERVATION. THE REPORT IS CONFINED TO A DISCUSSION OF SURFACE WATERS ONLY. A DESCRIPTION OF THE STUDY AREA AND A DISCUSSION OF WATER QUALITY ARE INCLUDED.
- W-175
WURL, HOLLY L.
1976.
"INITIATION OF THE FLATHEAD RURAL SCHOOLS COMMUNICATION DISORDERS PROGRAM."
M.S. THESIS, UNIV. MONTANA, MISSOULA. 59 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.
- (FLATHEAD COUNTY). THE GOALS OF THIS PROGRAM WERE TO: 1) IDENTIFY PUPILS NEEDING SPEECH AND LANGUAGE SERVICES; 2) PROVIDE DIRECT SERVICES TO AS MANY IDENTIFIED PUPILS AS POSSIBLE; 3) PROVIDE CONSULTATION SERVICES TO PARENTS AND TEACHERS, PARTICULARLY IN SCHOOLS TO FAR AWAY OR WITH CASE LOAD POPULATIONS TO SMALL TO RECEIVE REGULAR THERAPY SERVICES; AND 4) MAKE RECOMMENDATIONS FOR, AND ASSIST IN THE DEVELOPMENT OF, A LONG RANGE PROGRAM.



Y-1
YANDELL, MICHAEL D.
1974.

NATIONAL PARKWAYS: A PHOTOGRAPHIC AND COMPREHENSIVE GUIDE TO GLACIER AND WATERTON LAKES NATIONAL PARKS.

CASPER, WY.: WORLD-WIDE RESEARCH AND PUBL. CO., NATL. PARKS DIV. 74 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

(GLACIER & WATERTON LAKES NATL. PARKS). THE PUBLICATION CONSISTS OF PHOTOGRAPHS OF MOUNTAIN SCENERY, FLOWERS, WATERFALLS, AND LAKES AND DESCRIPTIONS OF PARK FEATURES, HIGHWAYS AND TRAILS, THE PARK'S HUMAN AND NATURAL HISTORY. THE AVAILABLE RECREATION AND FACILITIES ARE LISTED.

Y-2
YARD, ROBERT S.
1919.

"GLACIER REVEALED."

SCRIBNER'S MAGAZINE, APRIL 1919, PP. 385-403.
FINAL, GENERAL, NON-TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(GLACIER NATL. PARK). THE ARTICLE DESCRIBES THE UNIQUE, "EXTRAORDINARY" LANDSCAPE OF

THE PARK. GLACIERS, CIRQUES, VALLEYS, LAKES, STRATA AND GEOLOGIC HISTORY ARE DESCRIBED. IT CONCLUDES WITH A DESCRIPTION OF THE KINTLA LAKE AREA, ITS GLACIERS AND MOUNTAINS.

Y-3
YOUNG, KENNETH B.; ASMUS, E. BARRY; AND MC-
CONNEN, R. J.
1971.

"ESTIMATED INDUSTRIAL WATER USE IN MONTANA."
MONTANA BUSINESS QUARTERLY 9(SUMMER
1971):23-26.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA, STATEWIDE.

(MONTANA). WATER USE OVER A ONE YEAR PERIOD BY INDUSTRIAL CONSUMERS WAS SURVEYED AND RECORDED. FUTURE INDUSTRIAL NEEDS WERE ESTIMATED.

Y-4
YOUNG, PATRICE V.
1976.

FLATHEAD COUNTY HUMAN RESOURCE DIRECTORY.
K, M: RETIRED SENIOR VOLUNTEER PROGRAM. 100 PP.

FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA, WITHIN THE BASIN.

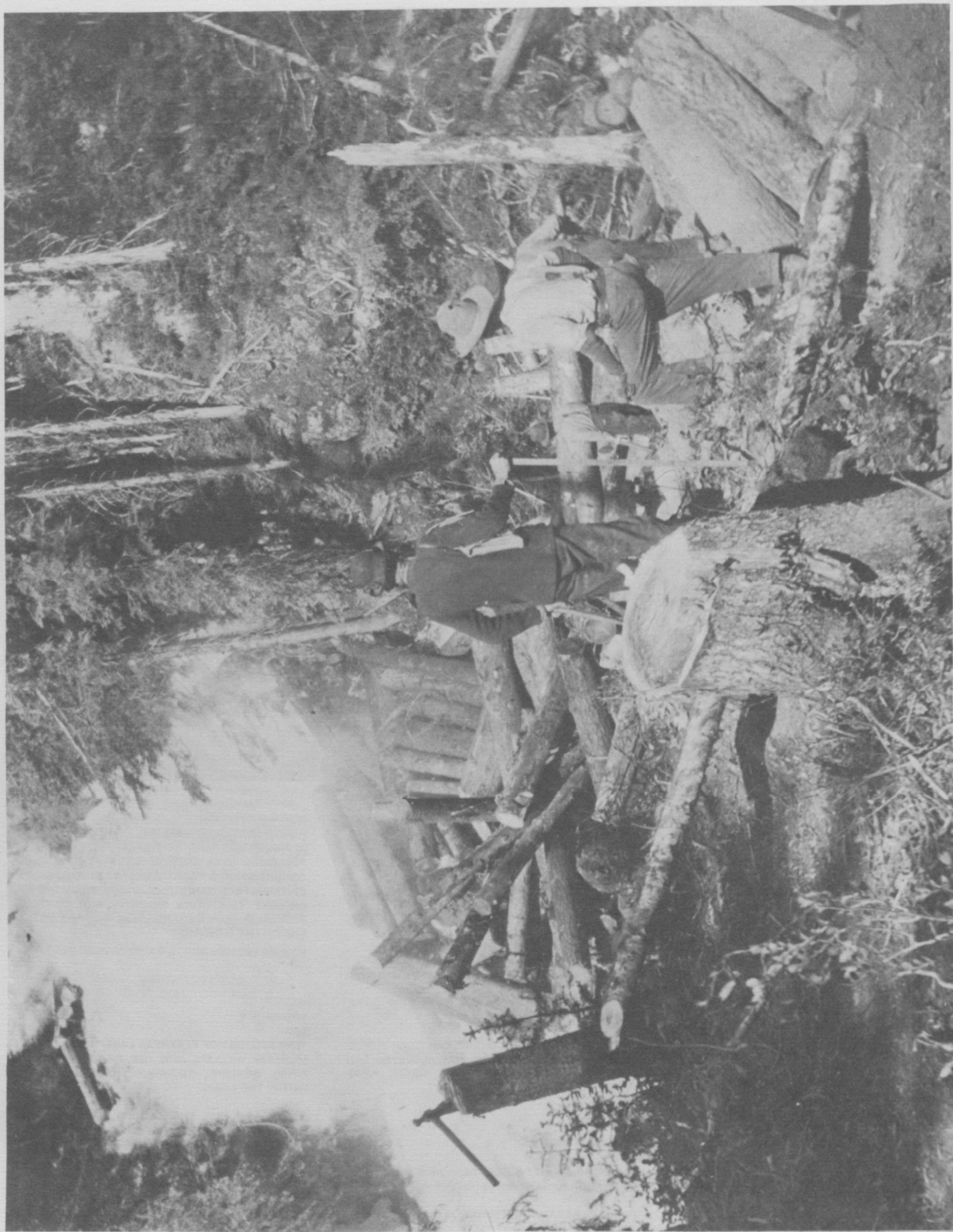
(FTD CO.) THE DIRECTORY INCLUDES NON-PROFIT HUMAN SERVICE GROUPS. THE FIRST PORTION IS AN ALPHABETICAL AND A TOPICAL INDEX AND IS FOLLOWED BY A SECTION NOTING THE SERVICE ORGANIZATION'S AVAILABLE SERVICES, ELIGIBILITY CRITERIA, FEES, SANCTIONS, AND FUNDING. THE ADDRESSES, TELEPHONE NUMBERS, AND CONTACT PEOPLE OF EACH ORGANIZATION IS LISTED AT THE END OF THE DIRECTORY.

Y-5
YOUNG, R. T.
1929.

"THE ZOOLOGY OF FLATHEAD LAKE."

MONTANA WILDLIFE, JUNE 1929, PP. 10-11.
FINAL, GENERAL, TECHNICAL, ORIGINAL DATA, WITHIN THE BASIN.

(FLATHEAD LAKE). THE ARTICLE DISCUSSES THE WORK OF THE BIOLOGICAL STATION, SPECIFICALLY, THE COLLECTION OF FISH SPECIMENS AND PLANT ORGANISMS SERVING AS FISH FOOD. THE SPECIMENS WERE IDENTIFIED AND STUDIED. THE ABUNDANCE OF PLANKTON WAS DETERMINED FROM SAMPLING 10 STATIONS. A GENERAL DISCUSSION AND CONCLUSIONS CONSIDER THE VARIETY AND NUMBERS OF SPECIES.



Z-1

ZAGER, PETER.
1979.

**"TIMBER HARVEST, WILDFIRE, AND GRIZZLY BEARS
IN NORTHWESTERN MONTANA."**

PH.D. DISSERTATION, UNIV. MONTANA, MISSOULA.
FINAL, PART OF A SERIES, SPECIFIC, TECHNICAL,
ORIGINAL DATA, REGIONAL.

(NORTHWEST MONTANA). THE EFFECTS OF
WILDFIRE AND LOGGING ON THE ABUNDANCE AND
DISTRIBUTION OF GRIZZLY BEAR FOODS WAS
STUDIED IN NORTHWEST MONTANA FROM 1977
THROUGH 1979. PHYTOSOCIOLOGICAL DATA WERE
COLLECTED FROM 48 LOGGED SITES, 75 BURNS, AND
95 OLD-GROWTH SITES KNOWN TO BE USED BY
GRIZZLIES. SUBSTANTIAL STRUCTURAL DIF-
FERENCES WERE REVEALED WHEN COMPARING THE
VEGETATION ON DIFFERENTLY TREATED SITES.

Z-2

ZARTMAN, ROBERT E., AND STACEY, JOHN S.
1971.

**"LEAD ISOTOPES AND MINERALIZATION AGES IN
BELT SUPERGROUP ROCKS, NORTHWESTERN MON-
TANA AND NORTHERN IDAHO."**

ECONOMIC GEOLOGY 66(SEPTEMBER-OCTOBER
1971):849-860.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
REGIONAL.

(NORTHWEST MONTANA & NORTHERN IDAHO). LEAD
ISOTOPES WERE USED TO DISTINGUISH BETWEEN
PRECAMBRIAN MINERALIZATION AND MESOZOIC OR
CENOZOIC MINERALIZATION IN AN AREA OF BELT
SUPERGROUP ROCKS. DEPOSITS CONTAINING THE
PRECAMBRIAN LEAD AND THE MESOZOIC OR
CENOZOIC LEAD ARE IDENTIFIED. THE ABILITY TO
DISTINGUISH (BY THEIR LEAD ISOTOPES) TWO
GENERATIONS OF ORE WIDELY SPACED IN TIME BUT
OVERLAPPING GEOGRAPHICALLY PROMISES TO BE
A VALUABLE AID IN UNRAVELING THE STRUCTURAL
HISTORY AND IN CARRYING OUT FUTURE PROSPEC-
TING WITHIN THIS AREA.

Z-3

ZEMKO, WILLIAM A.
1974.

**"SUMMER ZOOPLANKTON POPULATIONS OF VAN
LAKE, MONTANA."**

M.S. THESIS, EASTERN NEW MEXICO UNIV. 76 PP.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(LAKE COUNTY: VAN LAKE). IN THIS STUDY PHYSICAL
AND CHEMICAL DATA WERE RECORDED AT WEEKLY
INTERVALS AT ONE DEEP AND ONE SHALLOW STA-
TION. QUANTITATIVE ZOOPLANKTON, AND
QUALITATIVE PHYTOPLANKTON SAMPLES WERE
ALSO TAKEN WEEKLY. WATER QUALITY
PARAMETERS WERE: DO, PH, CALCIUM HARDNESS,
TOTAL HARDNESS, CU, NO-3, NO-2, FE, PHOSPHATES,
CL, CR, AND FREE CO₂. SYMAP COMPUTER PROJEC-
TIONS WERE MADE OF COPEPODA (TOTAL),
CLADOCERA, CERATRIUM HIRUNDINELA, AND
TEMPERATURE ON SELECTED DATES AT THE BEGIN-
NING, MIDDLE, AND END OF THE SURVEY.

Z-4

ZEMKO, WILLIAM A., AND BUSCEMI, P. A.
1975.

**"SYMAP COMPUTER PROJECTIONS OF SUMMER
ZOOPLANKTON POPULATIONS IN VAN LAKE, MON-
TANA."**

PROC. INTERNATL. ASSOCIATION OF THEORETICAL
AND APPLIED LIMNOLOGY 19(OCTOBER 1975):850-855.
FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(LAKE COUNTY: VAN LAKE). THE DISTRIBUTION
BOUNDARIES OF THE SUMMER ZOOPLANKTON
POPULATIONS, AS REGULATED BY TEMPERATURE
WERE EXAMINED IN THIS STUDY OF THE LAKE. MAPS
WERE PRODUCED UTILIZING SYMAP, A COMPUTER
PROGRAM FOR PRODUCING MAPS WHICH
GRAPHICALLY DEPICT SPATIALLY ARRANGED QUAN-
TITATIVE AND QUALITATIVE INFORMATION. THE
LAKE'S CHARACTERISTICS ARE DESCRIBED.



Z-5

ZILKA, N. T.
1972.

**GEOLOGY AND MINERAL RESOURCES OF THE
FLATHEAD RIVER STUDY AREA.**

SPOKANE: U.S. BUREAU MINES, WESTERN FIELD
OPERATION CENTER. 43 PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
BASIN-WIDE.

(NORTH, MIDDLE, & SOUTH FORKS OF THE
FLATHEAD RIVER). THIS STUDY WAS BEGUN WHEN
THE BUREAU OF MINES WAS REQUESTED TO
EVALUATE THE MINERAL RESOURCES OF THE
FLATHEAD RIVER WILD AND SCENIC STUDY AREA,
AND TO DETERMINE WHETHER MINING ACTIVITY
WOULD AFFECT OR BE AFFECTED BY CLASSIFICA-
TION. THE FOLLOWING TOPICS ARE COVERED:
PRECAMBRIAN ROCKS; MESOZOIC; CENOZOIC;
STRUCTURE; MINERAL RESOURCE APPRAISAL;
METHOD OF EVALUATION; MINERAL COMMODITIES
(GOLD, COPPER, COAL, OIL BARITE); MINING CLAIMS;
COAL BANK, KINTLA, TETON PASS, BLANKENSHIP,
JAVA, GLACIER, DEERLICK, GARRY, AND BELTON
AREAS; HODAG PLACER; MIDDLE FORK STONE; AND
FLATHEAD RIVER SAND AND GRAVEL.

Z-6

ZINGMARK, RICHARD G.
1969.

**"THE DIATOMS OF FLATHEAD LAKE, MONTANA, AND
VICINITY."**

M.A. THESIS, HUMBOLT STATE COLL., ARCATA, CA. 65
PP.

FINAL, SPECIFIC, TECHNICAL, ORIGINAL DATA,
WITHIN THE BASIN.

(FLATHEAD LAKE & VICINITY). THE STUDY IN-
VESTIGATES THE PRESENCE OF DIATOM SPECIES IN
24 PRESERVED, MIXED ALGAL COLLECTIONS. 118
SPECIES AND 17 VARIETIES ARE REPORTED AS WELL
AS AN ADDITIONAL 51 SPECIES, 1 FORM AND 9
VARIETIES FOUND IN PREVIOUS STUDIES. THE DATE
OF SAMPLING AND SOME COLLECTION DATA IS
AVAILABLE FOR 39 COLLECTIONS.

Z-7

ZINNECKER, R. DEAN.
1974.

MONTANA COUNTIES ON THE MOVE.

HELENA, MT.: MONTANA ASSOC. COUNTIES. 81 PP.
FINAL, GENERAL, NON-TECHNICAL, EXISTING DATA,
STATEWIDE.

NOTE: INCLUDES DEMOGRAPHIC AND ECONOMIC
STATISTICS ACCORDING TO COUNTIES.

(MONTANA: FLATHEAD, LAKE & SANDERS
COUNTIES). THE STUDY EXAMINES THE PAST, PRE-
SENT, AND FUTURE OF COUNTY GOVERNMENT. THE
ORGANIZATION OF THE STATE INTO COUNTIES, THE
FORMS OF COUNTY GOVERNMENT, COUNTY OF-
FICES, SERVICES AND FINANCES ARE DISCUSSED.
INCLUDES TABLES CLASSIFYING SUCH INFORMA-
TION BY COUNTIES AS: POPULATION COMPARISONS
FOR 1930 AND 1970 AND FOR 1960 AND 1970, POPULA-
TION DENSITY, AREA AND COUNTY SEAT, EMPLOY-
MENT STATISTICS FOR EACH COUNTY GOVERN-
MENT, COUNTY ROAD MILEAGE, FEDERAL REVENUE
SHARING AND PROPERTY TAXES LEVIED.

Z-8

ZURENKO, JOHN GEORGE.
1967.

**"AN INVESTIGATION OF FACTORS AFFECTING THE
COMPARATIVE GENERAL LEVEL OF MANAGEMENT
FOR FARM OPERATORS ON THE JOCKO VALLEY DIVI-
SION OF THE FLATHEAD IRRIGATION PROJECT AS
MEASURED BY INDEXED ALFALFA FIELDS."**

M.S. THESIS, MONTANA STATE UNIV., BOZEMAN. 69
PP.

FINAL, SPECIFIC, TECHNICAL, EXISTING DATA,
WITHIN THE BASIN.

(JOCKO VALLEY). THIS STUDY IS A CONTINUATION OF
A PREVIOUS STUDY WHICH REVEALED THAT THERE
WERE MEASURABLE DIFFERENCES IN LEVELS OF
MANAGEMENT AMONG AND WITHIN CULTURAL AND
TENURE GROUPS. THE CRITERION FOR MEASURING
MANAGEMENT WAS INDEXED ALFALFA YIELDS. THE
INPUTS WHICH MAKE UP YIELD, IN ADDITION TO
MANAGEMENT, ARE SOIL AND WEATHER CONDI-
TIONS. THESE ADDITIONAL INPUTS WERE REMOVED
BY SAMPLING ONLY A SMALL GEOGRAPHICAL AREA
AND USING A SOIL INDEXING PROCEDURE. THE PUR-
POSE OF THIS STUDY WAS TO IDENTIFY THOSE FAC-
TORS CAUSING VARIATIONS IN INDEXED ALFALFA
YIELDS RELATIVE TO THE ROLE THEY PLAY AS IN-
DICES OF THE GENERAL LEVEL OF MANAGEMENT OF
FARM OPERATORS.



APPENDIX A

Additional Miscellaneous Studies

This list contains studies we were not able to obtain copies of or studies that were in progress at this writing.

- Allen, Harriet L. In press. Floodplain Plant Communities of the North Fork, Flathead River, Glacier National Park, West Glacier, Montana. Objectives of this study are to characterize and classify the major floodplain plant communities of the North Fork of the Flathead River in Glacier National Park.
- Appert, Sue. In progress. A Comparative Study of the Benthic Invertebrates in Natural and Regulated Areas of the Flathead River, Montana. Flathead Research Group, University of Montana Biological Station, Yellow Bay, Montana. The objectives of the study are 1) to examine the effects of various temperature and food regimes in regulated and unregulated areas of the Flathead River on insect life histories, and 2) to determine flow and temperature regimes which would most probably maintain diverse insect communities and a food base for fish in regulated areas of the Flathead River.
- Behn, Mark. In press. Effects of Fertilization on Western Larch Growth and Follar Mineral Content. Botany Department, University of Montana, Missoula, Montana.
- Burnett, Gary. In progress. Ecological Study of American Pine Marten. Unpublished M.S. Thesis, University of Montana, Missoula, Montana. This study attempts to analyze successional changes that have occurred in a pine marten population over approximately a 20 year period. Data on population, prey base, habitat and dispersal will be compiled.
- Chaney, Luciana W. 1885 (Dec. 13). A Glacier in the Montana Rockies. n.s. Vol. 2 and Vol. 4 761-762.
- Chapman, Robert H. 1900. Bureau of American Ethnology - Smithsonian Institute. Flathead Lake Beaver Kootenai.
- Earhart, Robert L. In progress. Geology of Glacier National Park. U.S. Geological Survey, Denver Federal Center, Denver, Colorado. Objectives of the study are 1) to determine geological environments from Precambrian to modern times through detailed sedimentary, structural, glacial, paleontological, and geomorphological studies in order to provide a better understanding of geological events in the park and to provide information for regional geological synthesis; 2) to provide park managers with geological information, including the identification of potential geologic hazards, which will be useful in future planning of park facilities and administration; and 3) to provide technical and popular geologic maps and reports useful to park managers and which will contribute to public appreciation of the park through a better understanding of its natural history.
- Edwards, J. Gordon. 1950. Amphizoidae of the World. *Wasmann Jour. Biol.* 8: 303-32 (Three species are in Glacier N.P.)
- Edwards, J. Gordon. 1951. Cupesid Beetles attracted to Soap in Montana. *Coleopterists' Bull.* 5: 42-43. (Lk. McDonald, Glacier N.P.)
- Edwards, J. Gordon. 1953. The morphology of the male terminalia of *Pericoma*. *Inst. Royal des Sciences Naturelles de Belgique, Bull.* 20, No. 28: 1-8, 8 illus. (Based on specimens from G.N.P.)
- Edwards, J. Gordon. 1954. Observations on the biology of Amphizoidae. *Coleopterists' Bull.* 8: 19-24. (Study made at Swift current R.S., G.N.P.)
- Edwards, J. Gordon. 1954. A note on the eggs and larvae of Amphizoa. (First eggs ever found) *Pan-Pacific Entomologist* 30: p. 86. (G.N.P.)
- Edwards, J. Gordon. 1956. Entomology above timberline. *Mazama Annual* 38: 13-17.
- Edwards, J. Gordon. 1957. Some general observations on the ecology of Glacier National Park, with special reference to certain entomological aspects. *Wasmann Jour. Biol.* 15:123-151, 5 photographs.
- Edwards, J. Gordon. 1957. The Ptarmigan of Glacier National Park. *Audubon Magazine* Nov - Dec 1957, pp. 252-255, 5 photographs.
- Edwards, J. Gordon. 1953. The peculiar clasping mechanisms of the phallus of males of *Pericoma*. *Coleopterists' Bull.* 7(3): 17-20. (Based on specimens mentioned in 1951 article, above).
- Edwards, J. Gordon. 1973. Carabidae of Glacier National Park, Montana. *Coleopterists' Bull.* 12: 41-46.
- Edwards, J. Gordon. 1973. Cerambycidae of Glacier National Park, Montana. (MS form)
- Edwards, J. Gordon. In progress. High-altitude Entomology of Glacier National Park. Glacier National Park, West Glacier, Montana. The objective of this study is to examine the insect fauna of Glacier National Park. Although the primary emphasis has been placed on high-altitude insects and on beetles, insects of other orders and other habitats have also been studied. Comparisons are made between the insect fauna of Glacier and those encountered in other western mountain ranges.
- Fogglin, G. Thomas, III and McClelland, B. Riley. In progress. The Impact of Kokanee Salmon and Man on the Chemistry and Bacteriology of McDonald Creek, Glacier National Park, West Glacier, Montana. The objectives of this study are 1) to determine the annual hydrochemical and bacteriological patterns of selected parameters for lower McDonald Creek, 2) to evaluate the influence of salmon (*Oncorhynchus nerka*) decomposition on the concentration of selected nutrients, and 3) to evaluate the influence of a sewage sprayfield and horse pasture on the chemical and bacteriological patterns of the creek.
- Fogglin, G. Thomas, III and McClelland, B. Riley. In press. The Impact of Kokanee Salmon and Man on the Chemistry and Bacteriology of McDonald Creek, Glacier National Park, West Glacier, Montana. In Proceedings of the Second Conference on Scientific Research in the National Parks.
- Graham, Patrick. In progress. Fisheries Studies in the Upper Flathead Drainage. Montana Department of Fish, Wildlife and Parks, Kalispell, Montana.
- Hanzel, D. Z., Vinyard, W. C. and Drimer. In press. Feeding Success of Hatchery Reared Kokanee and Wild Yellow Perch on Zooplankton Prey.
- Hinkley, T. K. 1979. Identity of Natural and Polluted Dusts in Snowpacks at Widely Distributed Sites. U.S. Geological Survey, Denver, Colorado.
- Hogg, Jack. 1980. A study of Social Organization, Social Behavior and Population Dynamics in Rocky Mountain Bighorn Sheep on the National Bison Range. Unpublished Ph.D. Dissertation, University of Montana, Missoula, Montana.
- Horberg, L. 1956. A Deep Profile of Weathering on Pre-Wisconsin Drift in Glacier National Park, Montana: *Journal Geol.* V. 64, p. 201-218.
- Horodyski, Robert J. In progress. Geology and Paleogeology of the Belt Supergroup, Glacier National Park. Department of Earth Sciences, Tulane University, New Orleans, Louisiana. Objectives of this project are 1) to determine the paleoenvironmental setting and manner of formation of stromatolites as time-stratigraphic and paleoenvironmental indicators, 2) to study microfossils preserved in strata of the Belt Supergroup for the purpose of expanding our knowledge of the evolution of life during the Precambrian, and 3) to determine the depositional history of the Belt Supergroup in Glacier National Park and vicinity to aid in evaluating the Precambrian history of western North America.
- International Geog. Cong. 6th Rept. (58th U.S. Congress, 3rd Sess. House Doc. 480) 1904. Glacial exploration in Montana Rockies. pp. 493-496.
- Kohler, Steve. In progress. Survey of Montana Butterflies. Montana Department of Natural Resources and Conservation, Missoula, Montana. The objective of this study is to provide a detailed account of the butterflies (Lepidoptera, Phopalocera) of Montana, which will include 1) a list of species known to occur in the state, 2) a guide to identification of the species, 3) dorsal and ventral illustrations of the male and female of each species, 4) maps showing the distribution of each species in the state, 5) detailed records of collection localities and dates, and 6) life history and food plan information.
- Larsen, M. J., M. F. Jurgensen, A. E. Harvey and J. C. Ward. 1979. Dinitrogen fixation associated with sporophores of *Fomitopsis pinicola*, *Fomes fomentarius*, and *Echinodontium tinctorium*. *Mycologia* Lxx(6): 1218-1222.
- McClelland, B. Riley and Shea, David S. In progress. Local and Longrange Movements of Bald Eagles Associated with Autumn Concentrations in Glacier National Park. University of Montana, Missoula, Montana. The objectives of the study are: 1) to determine long range movement patterns of bald eagles arriving at and departing from the autumn concentrations in Glacier National Park, and 2) to record daily movement patterns of eagles in and near the park during autumn concentrations.
- Marnell, Leo F. 1981. Genetic Reconnaissance of Cutthroat Trout, *Salmo clarki* Richardson in Twenty-two Westslope Lakes in Glacier National Park, Montana. Objectives of this research are to 1) evaluate the status of the cutthroat trout (*Salmo clarki*) population in park waters, 2) document the location of indigenous trout (*S. clarki lewisii*) and 3) assess the extent of hybridization between native and introduced trout.
- Martinka, Clifford J. In progress. Grizzly Bear Population Studies. Research Division, Glacier National Park, West Glacier, Montana. Objectives are to obtain quantitative data on the population dynamics and management of grizzly bears (*Ursus arctos*) in Glacier National Park.
- Miller, Orson K., Jr. In progress. High-elevation and Common Edible Fungi of Glacier National Park. Department of Biology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia. The objective is to describe the higher fungi (Eumycota) of Glacier National Park and vicinity. The emphasis is on edible and poisonous species as well as species that are dominant saprophytes and parasites. The relationship of the higher fungi to specific species of plants and specific plant communities is the second focus of the study.

Neuenschwander, Leon F., and Armour, Charles D. In progress. Succession of Fuels and Vegetation in Mountain Pine Beetle Killed Lodgepole Pine Forests. University of Idaho, Moscow, Idaho. The primary objectives are to determine secondary succession of fuels and vegetation in selected habitat types of the spruce/fir (picea/abies) association in response to a mountain pine beetle (*Dendroctonus ponderosae*) epidemic and to determine the flammability of the forest through fuel data analysis.

Osborn, Gerald D. In progress. Holocene Glacier Fluctuations, Glacier National Park. Department of Geology, University of Calgary, Calgary, Alberta. The objective of this study is to determine, insofar as possible, the timing and extent of minor cirque-glacier advances occurring in "post-glacial" time (approximately the last 10,000 years) in Glacier National Park.

Peterson, Larry C. In progress. Aquatic Ecosystem Baseline Inventory, Middle Fork Flathead River, Glacier National Park. Division of Fishery Resources, U.S. Fish and Wildlife Service, Kallispell, Montana. Objectives are to obtain baseline biological and physical data from seven streams and one lake in Glacier National Park that are tributaries to the Middle Fork of the Flathead River.

Peterson, Larry C. In progress. Aquatic Ecosystem Baseline Inventory, North Fork Flathead River, Glacier National Park. Division of Fishery Resources, U.S. Fish and Wildlife Service, Kallispell, Montana. The objective of this investigation is to document the aquatic habitat of Sage, Starvation and Kishenehn Creeks over a period of several years.

Peterson, Larry C. In progress. Fisherman Use Investigation, Glacier National Park. Division of Fishery Resources, U.S. Fish and Wildlife Service, Kallispell, Montana. The objective of instituting a system of free fishing permits and voluntary return of fishing information is to reveal patterns of visitor use and fish harvest from lakes and streams in Glacier National Park during 1979.

Peterson, Larry C. In progress. Lacustrine Ecosystem Baseline Inventory Efforts, Glacier National Park. Division of Fishery Resources, U.S. Fish and Wildlife Service, Kallispell, Montana. The objective is to prepare contour maps of Kintla, Bowman, McDonald, St. Mary, Josephine and Swiftcurrent Lakes.

Peterson, Larry C. In press. A Method for Analyzing Physical, Chemical and Biological Aspects of Small Cold-water Streams for Baseline Inventory. In Proceedings of the Second Conference on Scientific Research in the National Parks.

Pye, Laurel H.; Dooling, Oscar J.; and Carlson, Clinton E. Evaluation of Flouride Concentrations in Trees, Shrubs, and Grasses on Lands Near the Anaconda Aluminum Plant. Forest Insect and Disease Management, U.S. Forest Service, Missoula, Montana. Vegetation near Columbia Falls, Montana, was sampled in September 1979 to provide data on current flouride injury. Tree, shrub or dominant forb, and grass samples were collected from 10 permanent plots for flouride analysis and needle-injury evaluation. Two of the study plots, #8 and #9, were located within Glacier National Park.

Ream, Robert R., and Boyd, Diane. In progress. Wolf Ecology in the Northern Rocky Mountains. Forestry School, University of Montana, Missoula, Montana. Wolves (*Canis lupus*) are very rare in Montana, Idaho and Wyoming, but specimens collected in 1964, 1966 and 1974 indicate that the *C. l. irremotus* subspecies still exists. There have been many, apparently valid reports in recent years, but we can presently only conjecture about wolves' social structure, territories, home ranges, movements, and prey requirements in the area. The objective of this study is to determine the present distribution, population level, and environmental requirements of the northern Rocky Mountain wolf.

Stewart, Kenneth W., and Stark, Bill P. In progress. Larvae of North American Stoneflies. Department of Biological Sciences, North Texas State University, Denton, Texas. Stoneflies (Plecoptera) represent one of the four major insect orders inhabiting North American stream ecosystems, yet their larvae are poorly known. Larvae (nymphs) of 10 of the 87 genera are completely unknown, and many of the rest have been inadequately described. This 5-year research program encompasses a comprehensive collecting, rearing, and correlation effort, coupled with a comparative morphological study of the 87 North American genera of Plecoptera. Such a program is fundamental to the eventual species-level characterization of these important insects which is, in turn, so essential to basic and applied research in stream systems. The goal of the research is to generate new species-level descriptions and larval data that can be used to test phylogenetic, evolutionary, and zoogeographic theories that have been proposed from adult systems. The objective of the work during July 1979 in Glacier National Park was to collect and rear the

stoneflies (*Iednia tumana*) and (*Bolshecapnia spenceri*). *Lednia* larvae were unknown, and *Bolshecapnia* larvae were inadequately described.

Stoffel, K. L., and Curry, R. R. Radiometric Data on Southern Flathead Lake Montana. Abstract Amer. Quaternary Assoc., Natl. Conf. Abstr. No. 5 p. 233.

Tate, Arthur C., Stanford, Connecticut. The Sketches, Photos and Writing of his Explorations in 1927 and 1928. Appalachia. December 1929.

Trospen, Ronald L. 1974. The Economic Impact of the Allotment Policy on the Flathead Indian Reservation. Ph.D. Dissertation. Harvard University, Cambridge, Massachusetts. (ordered Univ. Microfilms)

Underhill, Robert and Merriam. The Sketches, Photos and Writings of their Explorations in 1947. Appalachia. December 1950.

Wolf Ecology Project Annual Report. October 1978 -September 1979.

Zimmerman, Earl G. In progress. Population Genetics of Bull Trout in Upper Kintla Lake. Department of Biological Sciences and Genetics Center, North Texas State University, Denton, Texas. A primary goal in recent investigations of protein variation in natural populations has been to assess the degree of genetic heterogeneity and the environmental basis which might contribute to such variation. An increasing number of studies have focused on fish populations and the interpretation of gene data as an aid in management of sport fisheries or simply to elucidate basic population genetics of fish populations. Because fish are restricted to water, a precise definition of those parameters most responsible for genome structuring is possible. Comparisons can be made between populations from large streams and their smaller tributaries or lake populations isolated by barriers which prevent gene flow from contiguous populations. There also exists an array of life history patterns within certain fish species which offers a large source of information on which to base hypotheses relative to degree of genetic variation. Such investigations provide a preliminary basis for evaluation of the status of native fish populations in Glacier National Park.

Zimmerman, Earl G. In progress. Population Genetics of Sculpin, *Cottus* spp., in the Flathead Rivers. Department of Biological Sciences and Genetics Center, North Texas State University, Denton, Texas.

APPENDIX B

List of Corps of Engineers' Studies of Hydropower Potential in the Flathead River Basin, Montana

1. House Document 103, 73rd Congress, 1st Session, March 29, 1932, U.S. Army Corps of Engineers. "Columbia '308' Report."

Sites Identified: Flathead River - Canyon Creek, Coram and Kerr. Middle Fork Flathead River - Bear Creek. South Fork Flathead River - Hungry Horse.

This report was in response to Section 1 of the River and Harbor Act of January 21, 1927, and reports plans for development of the water resources of the Columbia basin.

2. House Document 531, 81st Congress, 2d Session, March 20, 1950, U.S. Army Corps of Engineers, "Review Report on Columbia River and Tributaries."

Sites Identified: Flathead River - Glacier View, Fool Hen Hill, Canyon Creek, Lower Canyon Creek, Bad Rock Canyon, Columbia Falls, Big Rock, Coram, Buffalo Rapids, Sheepheads No. 2, Hill, Oxbox, Finhead No. 3, Perma and Knowles. Middle Fork of Flathead River - Dryad Creek, Upper Belton and Lower Belton. South Fork of Flathead River - Hungry Horse, Swan River - Swan Lake and Swan River.

This report resulted from the review of House Document No. 103. It reports on potential developments and proposed plans for development of the water resources of the Columbia basin.

3. House Document 403, 87th Congress, 2d Session, May 10, 1962, U.S. Army Corps of Engineers, "Water Resource Development of the Columbia River Basin."

Sites Identified: Flathead River - Smoky Range, Coram, Flathead Lake Outlet, Buffalo Rapids No. 4 and Knowles.

Middle Fork of Flathead River - Spruce Park.

This report resulted from the review of House Document No. 531. It is currently in the process of being reviewed and updated.

4. U.S. Army Corps of Engineers, August 20, 1943, "Definite Project Report for obtaining 3,000,000 acre-foot Storage in Clark Fork Basin."

Sites Identified: Flathead River - Big Rock, Kerr, Oxbox and Crow Creek.

5. House Document 643, 78th Congress, 2d Session, 1944, U.S. Army Corps of Engineers, "Hungry Horse Dam."

Sites Identified: South Fork of Flathead River - Hungry Horse.

6. U.S. Army Corps of Engineers, September 1967, "Memorandum Report on Clark Fork Basin, Montana, for the Federal Power Commission."

Sites Identified: Flathead River - Glacier View, Smoky Range, Buffalo Rapids Nos. 2 & 4, Sloan Bridge and Knowles. Middle Fork of the Flathead River - Spruce Park.

7. U.S. Army Corps of Engineers, January 1976, "Pumped Storage in the Pacific Northwest, an Inventory."

Sites Identified: Beaver Creek No. 2, Big Hawk Lake, Black Lake, Blackfoot Lake No. 1, Blue Bay Creek, Boulder Creek, Lower South Fork, Boulder Creek, Upper South Fork, North Fork Cliff Lake, Cold Creek No. 2,

Crane Creek, Gunderson Creek, Haskill Basin, Hellroaring Creek, Howsley Creek, Lolo Creek, Lost Johnny Creek, Margaret Lake, Mountain Meadow, Murray Creek, Parker Creek, Pilgrim Lakes, Reid Creek, Station Creek, Takling Water Creek, Teepees Creek, Turquoise Lake, Upper Holland Lake, Wildcat Lake and Yellow Bay Creek.

8. U.S. Army Corps of Engineers, May 1976, "Inventory of Potential Hydropower in the Pacific Northwest, CRT 28."

Sites Identified: Flathead River - Glacier View, Smoky Range, Lower Canyon Creek, Columbia Falls, Buffalo Rapids Nos. 2 and 4, Sloan Bridge, Moise, Perma and Knowles. Middle Fork of Flathead River - Spruce Park. South Fork Flathead River - Meadow Mountain.

9. House Document 94-635, 94th Congress, 2d Session, September 28, 1976, U.S. Army Corps of Engineers, "Flathead and Clark Fork River Basin (Flathead River Near Kalispell), Montana."

Sites Identified: Flathead River - Smoky Range and Kerr Dam. Middle Fork of Flathead River - Spruce Park. South Fork of Flathead River - Hungry Horse.

10. U.S. Army Corps of Engineers, January 1978, "Pacific Northwest Regional Pumped - Storage Study CRT 37 Status Report."

Sites Identified: Big Hawk Lake, Blue Bay Creek, Boulder Creek, Parker Creek, Pilgrim Lake, Station Creek and Yellow Bay.

APPENDIX C

EARTHQUAKE DATA FILE

**USDC National Oceanic and Atmospheric Administration
Environmental Data Service
National Geophysical and Solar-Terrestrial Data Center
Boulder, Colorado**

The Earthquake Data File is a magnetic tape file of earthquake origin times, locations, magnitudes, and related information on effects that have been compiled from many sources. It is a useful tool for providing searches of the seismicity of selected regions, for preparing lists of earthquakes of given characteristics (large magnitude, intensity, tsunami, etc.), for plotting maps and for making statistical studies. It is an expanding file, and new earthquake catalogs are added as quickly as they become available in machine-readable form.

The file includes for each event the date, origin time, geographic location, focal depth, magnitude, and intensity when available. It contains additional information on the source of the data, quality factors, associated phenomena (tsunami, volcanism, faulting, etc.), and seismic region number. In addition to earthquakes, the file contains phenomena that have surface effects similar to earthquakes, including known or suspected explosions and associated collapse phenomena, coal bumps, rockbursts, quarry blasts, and other earth disturbances. At present, data for the 1638-1899 period are practically limited to earthquakes in the United States, a few hundred in number, which had a maximum intensity of V or greater.

The data file is available on magnetic tape, computer printout, and microfilm in 1) a chronological sort; 2) a geographical sort according to 10 degree Marsden Squares; and 3) sorted by Flinn-Engdahl regions. The file also can provide selected data for specific geographic areas or for any magnitude range or time period within the limits of the file.

APPENDIX D

STORET: Computerized Water Quality Data Base

**U.S. Environmental Protection Agency
Office of Water and Hazardous Materials
Washington, D.C.**

STORET is a computerized data base utility maintained by the Environmental Protection Agency for the storage and retrieval of parametric data relating to the quality of the waterways of the United States. Nationally, some 1800 unique water quality parameters are defined within STORET.

Information pertaining to water quality stations in the Flathead River Basin may be obtained from Region 8 of the Environmental Protection Agency in Denver, Colorado. Data can be requested in a number of different formats, from detailed to summary type reports, relative to a specific station or a general area. The data reported can reflect the latest most current information available or it can draw upon the historical depth of the data.

The file includes data from stations maintained by the Environmental Protection Agency, Army Corps of Engineers, Geological Survey, Forest Service, Park Service, Bureau of Reclamation, Montana Department of Health and Environmental Sciences, Montana Bureau of Mines, Montana Department of Natural Resources and other State and Federal agencies.

The file lists the station name, location, identification number, monitoring agency, region, river basin, the parameters sampled, number of samples and results of the analysis.

APPENDIX E

MONTANA WATER QUALITY RECORDS SYSTEM

**Montana Department of Health and Environmental Sciences
Water Quality Bureau
Helena, Montana**

The Montana Water Quality Records System is a statewide, data storage and retrieval computer file. The system includes roughly 50 unique chemical and physical parameters.

Output format is limited, however, data may be obtained for an individual station or all the stations in a given geographical area. The file includes data from 1972 to the present.

Montana Department of Health and Environmental Sciences (MDHES) water quality monitoring data and MDHES contract monitoring data is stored on the system. Data on this system is also stored on STORET, the Environmental Protection Agency's computerized water quality data base.

The file lists the station name, location, type of source, water use, agency, date, time, altitude, depth of sample, the parameters and results of the analysis.

APPENDIX F

INTERAGENCY STREAM FISHERY DATA BASE

**U.S Forest Service Region One
Missoula, Montana
Montana Department of Fish, Wildlife and Parks
Helena, Montana**

The Stream Fishery Data Base is a statewide computer file of stream fish habitat information.

The file includes: stream location data; administrative and ownership data; access information; flow data and other physical and chemical data (valley width, riparian width, channel measurements, gradient, pool/riffle ration, bottom types, bank stability, temperature, alkalinity, specific conductance, turbidity, pH, TDS); recreational uses; special values; channel stability; habitat ratings; fish use and abundance; fish standing crop; planting regularity; potential fish biomass; debris loading; imbeddedness; aquatic plants and aquatic invertebrates; problems and abuses; and monthly minimum flow requirements.

Data compilation for the file began in 1977 and is incomplete for all streams. The file is accessible through the U.S. Forest Service, Region One in Missoula, Montana.

APPENDIX G

FISH STOCKING RECORDS DATA FILE

Montana Department of Fish, Wildlife and Parks Helena, Montana

The Montana Department of Fish, Wildlife and Parks maintains a computer file of fish stocking data from the 1920's to the current year.

The file includes the location, number of fish planted, species and variety, size, weight and agency. It includes both U.S. Fish and Wildlife Service records and the Montana Department of Fish, Wildlife and Parks (formerly Montana Fish and Game Department) records.

The file is accessible through the Department's state office in Helena, Montana.

APPENDIX H

FISHERIES REPORTS

Montana Department of Fish, Wildlife and Parks Helena, Montana

The following reports of the Montana Department of Fish, Wildlife and Parks (formerly Montana Department of Fish and Game) contain information pertaining to Flathead area fisheries.

NORTHWEST MONTANA FISHERY STUDY

AUTHOR	PROJECT #	JOB #	
Domrose, R.J.	F7R18	III	Job Progress Report, April 1, 1968 - March 31, 1969 - Lake Mary Ronan Summer Creel Census
Domrose, R.J.	F7R19	I-a	Job Progress Report, April 1, 1969 - March 31, 1970 - Inventory of Waters of Project Area
Domrose, R.J.	F7R19	I-b	Job Progress Report, April 1, 1969 - March 31, 1970 - Fish Management Surveys
Domrose, R.J.	F7R20	I-a	Job Progress Report, April 1, 1970 - March 31, 1972 - Inventory of Waters of Project Area
Domrose, R.J.	F7R20	I-b	Job Progress Report, April 1, 1970 - March 31, 1971 - Fish Management Surveys
Domrose, R.J.	F7R21	I-a	Job Progress Report, April 1, 1970 - March 31, 1972 - Inventory of Waters of Project Area
Domrose, R.J.	F7R21	I-b	Job Progress Report, April 1, 1971 - March 31, 1972 - Fish Management Surveys
Domrose, R.J.	F7R22	I-a	Job Progress Report, April 1, 1972 - March 31, 1972 - Inventory of Waters of Project Area
Domrose, R.J.	F7R22	I-b	Job Progress Report, April 1, 1972 - March 31, 1973 - Fish Management Surveys
Domrose, R.J.	F7R23	I-a	Job Progress Report, April 1, 1973 - March 31, 1974 - Inventory of Waters of Project Area
Domrose, R.J.	F7R23	I-b	Job Progress Report, April 1, 1973 - March 31, 1974 - Fish Management Surveys
Domrose, J.R.	F7R25	I-a	Job Performance Report, April 1, 1975 - March 31, 1976 - Inventory of Waters of Project Area
Stefanich, F.A.	F7R6	II	Job Completion Report, May 1, 1956 - Nov. 30, 1956 - Effectiveness of Smith Lake Rearing Pond
Stefanich, F.A.	F7R6	IV	Job Completion Report, May 1, 1956 - Nov. 30, 1956 - Establishing Measures of Abundance of Cutthroat Trout in Ashley Lake
Stefanich, F.A.	F7R6	VI	Job Completion Report, May 1, 1956 - April 30, 1957 - Survey of Cutthroat Trout Fishery in the Flathead River and Tributaries Above Flathead Lake
Stefanich, F.A.	F7R7	I	Job Completion Report, May 1, 1957 - April 30, 1958 - Inventory of Waters of the Project Area
Stefanich, F.A.	F7R7	II	Job Completion Report, May 1, 1957 - April 30, 1958 - Productive Capacity of Smith Lake Rearing Pond with More than One Age Class of Fish
Stefanich, F.A.	F7R7	IV	Job Completion Report, May 1, 1957 - April 30, 1958 - Survey of Cutthroat Trout Fishery in the Flathead River and Tributaries Above Flathead Lake
Stefanich, F.A.	F7R8	I	Job Completion Report, May 1, 1958 - April 30, 1958 - Inventory of Waters of the Project Area

Stefanich, F.A.	F7R8	II	Job Completion Report, May 1, 1958 - April 30, 1959 - Productive Capacity of Smith Lake Rearing Pond with more than One Age Class of Fish
Stefanich, F.A.	F7R8	III	Job Completion Report, May 1, 1958 - March 30, 1959 - Relationships of Cutthroat Trout & Yellow Perch in Lower Thompson Lake
Stefanich, F.A.	F7R8	IV	Job Completion Report, May 1, 1958 - April 30, 1959 - Survey of Cutthroat Trout Fishery in Flathead River and Tributaries above Flathead Lake
Stefanich, F.A.	R23D4		Job Completion Report, May 1, 1958 - March 30, 1959 - Statewide Lake & Stream Rehabilitation - Milnor Lake
Stefanish, F.A.	F24D6		Job Completion Report, May 1, 1957 - April 30, 1958 - Statewide Lake and Stream Rehabilitation - Sophie Lake
Opheim, B.R.	F24D23		Job Completion Report, May 1, 1959 - March 30, 1960 - Statewide Lake & Stream Rehabilitation
Opheim, B.R.	F24R25		Job Completion Report, May 1, 1959 - March 30, 1960 - Statewide Lake & Stream Rehabilitation - Twin (Turtle) Lake
Hanzel, D.A.	F24D30		Job Completion Report, May 1, 1960 - April 30, 1961 - Statewide Lake & Stream Rehabilitation - Crystal Lake
Hanzel, D.A.	F24D31		Job Completion Report, May 1, 1960 - April 30, 1961 - Statewide Lake and Stream Rehabilitation - Lake Five
Domrose, R.J.	F24D38		Job Completion Report, March 4, 1968 - June 30, 1968 - Rehabilitation of Lake Five, Halfmoon and Mud Lakes

FISHERY INVESTIGATION LABORATORY

AUTHOR	PROJECT #	JOB #	
Bailey, J.E.	F23R3	III	Job Completion Report, May 1, 1959 - April 30, 1960 - A Study of the Relationships Between Total Dissolved Solids and Trout Growth Rate
Peters, J.C.	F23R6	I & II	Job Completion Report, July 1, 1962 - June 30, 1963 - Age and Growth Studies and Analysis of Bottom Samples in Connection with Pollution Studies

FLATHEAD LAKE FISHERY STUDY

AUTHOR	PROJECT #	JOB #	
Hanzel, D.A.	F33R1	I	Job Completion Report, July 1, 1966 - June 30, 1967 - Flathead Lake Investigations of the Fish Population and Its Chemical and Physical Characteristics
Hanzel, D.A.	F33R2	I	Job Completion Report, July 1, 1967 - June 30, 1968 - Flathead Lake Investigation of the Fish Population and Its Chemical and Physical Characteristics
Hanzel, D.A.	F33R3	I	Job Completion Report, November, 1967 - August, 1970 - Flathead Lake, Investigations of Its Fish Populations and Its Chemical and Physical Characteristics
Hanzel, D.A.	F33R4	I-a	Job Progress Report, July 1, 1969 - December 30, 1970 - The Seasonal and Depth Distribution of the Fish Population in Flathead Lake
Hanzel, D.A.	F33R4	I-b	Job Progress Report, July 1, 1969 - December, 1970 - The Seasonal Measurements of the Basic Water Chemistry, Water Temperature, Plankton & Bottom Organisms in Flathead Lake
Hanzel, D.A.	F33R5	I-a	Job Progress Report, July 1, 1970 - June 30, 1971 - Age and Growth Analysis of the Fishes of Flathead Lake - Pygmy Whitefish
Hanzel, D.A.	F33R5	I-C	Job Progress Report, July 1, 1970 - June 30, 1971 - Develop Techniques for Sampling Juvenile Kokanee and Determine Trends in Kokanee Population
Hanzel, D.A.	F33R5	II-a	Job Progress Report, October, 1970 - September, 1971 - Seasonal Measurements of Basic Water Chemistry, Plankton Production and Certain Physical Characteristics of Flathead Lake, Montana

AUTHOR	PROJECT #	JOB #	
Hanzel, D.A.	F33R6	I-a	Job Progress Report, July 1, 1971 - June 30, 1972 - The Seasonal and Depth Distribution of the Fish Population in Flathead Lake
Hanzel, D.A.	F33R6	I-b	Job Progress Report, July 1, 1971 - June 30, 1972 - Age and Growth Analysis of Fishes of Flathead Lake - Kokanee
Hanzel, D.A.	F33R6	I-c	Job Progress Report, July 1, 1971 - June 30, 1972 - Develop Techniques for Sampling Juveniles and Determining Trends in Flathead Lake Kokanee Populations
Hanzel, D.A.	F33R6	II-a	Job Progress Report, September 1, 1971 - June 30, 1972 - Seasonal Measurement of Basic Water Chemistry, Plankton Production and Certain Physical Characteristics of Flathead Lake
Hanzel, D.A.	F33R7	I-a	Job Progress Report, July 1, 1972 - June 30, 1973 - The Seasonal and Depth Distribution of the Fish Population in Flathead Lake
Hanzel, D.A.	F33R7	I-b	Job Progress Report, July 1, 1972 - June 30, 1973 - Age and Growth Analysis of Fishes of Flathead Lake - Kokanee
Hanzel, D.A.	F33R7	I-c	Job Progress Report, July 1, 1972 - June 30, 1973 - Develop Techniques for Sampling Juveniles and Determining Trends in Flathead Lake Kokanee Populations
Hanzel, D.A.	F33R7	II-a	Job Progress Report, July 1, 1972 - June 30, 1973 - Seasonal Measurements of Basic Water Chemistry, Plankton Production and Certain Physical Characteristics of Flathead Lake
Hanzel, D.A.	F33R8	I-b	Job Progress Report, July 1, 1973 - June 30, 1974 - Age and Growth Analysis of Fishes of Flathead Lake - Kokanee
Hanzel, D.A.	F33R8	I-c	Job Progress Report, July 1, 1973 - June 30, 1974 - Develop Techniques for Sampling Juveniles and Determining Trends in Flathead Lake Kokanee Populations
Hanzel, D.A.	F33R9	I-a	Job Performance Report, July 1, 1974 - June 30, 1975 - The Seasonal, Area and Depth Distribution of Kokanee in Flathead Lake
Hanzel, D.A.	F33R9	I-b	Job Progress Report, July 1, 1974 - June 30, 1975 - Measure Annual Trends in Recruitment and Migration of the Kokanee Populations and Identify the Major Factors Affecting Trends
Hanzel, D.A.	F33R10	I-a	Job Performance Report, July 1, 1975 - June 30, 1976 - The Seasonal, Area and Depth Distribution of Cutthroat Trout and Dolly Varden in Flathead Lake
Hanzel, D.A.	F33R10	I-b	Measure Annual Trends in Recruitment and Migration of Kokanee Populations and Identify Major Factors Affecting Trends
Hanzel, D.A.	F33R11	I-a	Job Performance Report, July 1, 1976 - June 30, 1977 - Seasonal, Area & Depth Distribution of Cutthroat Trout & Dolly Varden in Flathead Lake
Hanzel, D.A.	F33R11	I-b	Job Performance Report, July 1, 1976 - June 30, 1977 - Measure Annual Trends in Recruitment and Migration of Kokanee Populations and Identify Major Factors Affecting Trends
Hanzel, D.A.	F33R12	I-b	Job Performance Report, July 1, 1976 - June 30, 1978 - Measure Annual Trends in Recruitment and Migration of Kokanee Populations and Identify Major Factors Affecting Trends

RESERVOIR INVESTIGATIONS

AUTHOR	PROJECT #	JOB #	
Huston, J.E.	F34R1	II	Job Completion Report, March 1, 1967 - June 30, 1967 - Hungry Horse Reservoir Studies
Huston, J.E.	F34R2	II	Job Completion Report, July 1, 1967 - June 30, 1968 - Hungry Horse Reservoir
Huston, J.E.	F34R3	II	Job Progress Report, July 1, 1968 - June 30, 1969 - Hungry Horse Reservoir
Huston, J.E.	F34R4	II-a	Job Progress Report, July 1, 1969 - June 30, 1970 - Hungry Horse Reservoir Study

Huston, J.E.	F34R4	III-a	Job Progress Report, July 1, 1969 - June 30, 1970 - Life Cycle Studies of Westslope Cutthroat Trout and Mountain Whitefish
Huston, J.E.	F34R5	II-a	Job Progress Report, July 1, 1970 - June 30, 1971 - Hungry Horse Reservoir Study
Huston, J.E.	F34R5	III-a	Job Progress Report, July 1, 1970 - June 30, 1971 - Life History Studies of Westslope Cutthroat Trout and Mountain Whitefish
Huston, J.E.	F34R6	II-a	Job Progress Report, July 1, 1971 - June 30, 1972 - Hungry Horse Reservoir Study
Huston, J.E.	F34R6	III-a	Job Progress Report, July 1, 1971 - June 30, 1972 - Life History Studies of Westslope Cutthroat Trout
Huston, J.E.	F34R7	II-a	Job Progress Report, July 1, 1972 - June 30, 1973 - Hungry Horse Reservoir Study
Huston, J.E.	F34R7	III-a	Job Progress Report, July 1, 1972 - June 30, 1973 - Life Cycle Studies of Westslope Cutthroat Trout
Huston, J.E.	F34R8	II-a	Job Progress Report, July 1, 1973 - June 30, 1974 - Hungry Horse Reservoir Study
Huston, J.E.	F34R8	III-a	Job Progress Report, July 1, 1973 - June 30, 1974 - Life Cycle Study of Westslope Cutthroat Trout
Huston, J.E.	F34R9	II-a	Job Progress Report, July 1, 1974 - June 30 - 1975 - Hungry Horse Reservoir Study
Huston, J.E.	F34R9	III-a	Job Progress Report, July 1, 1974 - June 30, 1975 - Life Cycle Studies of Westslope Cutthroat Trout
Huston, J.E.	F34R10	II-a	Job Performance Report, July 1, 1975 - June 30, 1976 - Hungry Horse Reservoir Study
Huston, J.E.	F34R10	III-a	Job Performance Report, July 1, 1975 - June 30, 1976 - Life Cycle Studies of Westslope Cutthroate Trout
Huston, J.E.	F34R10	IV-a	Job Performance Report, February 1, 1976 - June 30, 1976 - Inventory & Survey of North Fork Flathead River

APPENDIX I

WILDLIFE REPORTS

Montana Department of Fish, Wildlife and Parks Helena, Montana

The following reports of the Montana Department of Fish, Wildlife and Parks (formerly Montana Department of Fish and Game) contain information pertaining to Flathead area wildlife and wildlife habitat. The statewide reports that include Flathead data are listed first, these are followed by Region One (formerly District One) reports which were conducted from the Kalispell Office.

Year	Title of Report
	Chukar Partridge - Statewide
1952	Survival Value of Chukar Partridge - Ferry Basin Area - Sanders Co. Survival Value of Chukar Partridge - Ferry Basin Area - Sanders Co.
1955	Chukar Partridge - Life History Notes, Release Areas Chukar Partridge Winter Food Preference Determination Survival of Game Farm Reared Exotics - Chukar Partridges
	Pheasant Shelters - Statewide
1946	Construction of Pheasant Shelters
1947	Winter Food Refuges
	Pheasants - Statewide
1941	Pheasants - Statewide - 1941
1942	Flathead Valley Pheasant Census
1944	Chinese Pheasant Census - Flathead Valley Unit - Lake County
1946	Strip County - Flathead Valley area Statewide Pre-season Pheasant Check
1947	Preliminary Pheasant Road Count - Flathead Valley 1947 Pre-season Pheasant Census Survival Studies on Game Farm Raised Pheasants in Montana The Relation of Pheasants to Agriculture in Montana (Printed) The Reproductive Cycle of Ring-necked Pheasants in Montana (Printed) Winter Food Refuges
1948	1947 Post-season Pheasant Census Preliminary Ring-neck Pheasant Population and Productivity Check in Montana for 1948 1948 Pre-season Pheasant Census Pheasant Growing Count Studies Pheasant Checking Station Data Pheasant and Range Conditions - Western Montana 1948
1949	Rural Mail Carriers Survey Western Montana Pheasant Census by Growing Count in 1949 Progress Report of Magpie Investigation Nesting Phase

- 1950 Spring-Released Hen Pheasant Investigation - 1949
 Band Returns from Game Farm Pheasants in Montana
 1949 Pheasant Checking Station Data
 Ringnecked Pheasant Winter Census
 Montana Pheasant Census by Crowing Counts in 1950
 Upland Game Bird Survey and Investigations
 Preliminary Ringnecked Pheasant Population and
 Productivity Study in Montana for 1950
 Emergency Winter Feeding Program
 1950 Pheasant Checking State Data
- 1951 1950 Pheasant Harvest Findings
 1951 Pheasant Breeding Population Survey
 Effect of Land Use on Pheasant Production
- 1952 Pheasant Breeding Populations and Production
 Pre-Hunting Season Roadside Counts
 Pre- and Post-Season Sex Ratios, and Hunter Harvest
 Roadside Brood Counts and Sex Ratios - 1952
 Pheasant Breeding Populations and Production
- 1953 Survival of Game Farm Reared Pheasants
 Pheasant Mortality and Causes
 Pheasant Mortality and Causes
 Pre- and Post-Season Sex Ratios, and Hunter Harvest
 Pheasant Breeding Populations and Production
 Pheasant Breeding Populations and Production - Pre-Hunting
 Season Roadside Counts
- 1954 Upland Game Bird Habitat Development Investigation
 Pheasant Sex Ratio Determination Techniques
 Hunter Harvest
 Hunter Harvest
 Instructions for Sign Records and Brood Counts - 1954
 Brood Counts - 1951
- 1955 Predator Relationships
 Determination of Production, Hatching Dates, Hunter
 Success and Pressure through Checking Stations
 Refinement of Pheasant Sex Ratio Determination Techniques
 Pheasant Mortality and Causes
 Hunter Harvest Determination
 Pheasant Brood Counts
 Instructions for Pheasant Census by Crowing Count
 Pheasant Crowing Counts
- Fur-Bearers - Statewide**
- 1951 Fur Resources Survey and Investigation - Qtrly Progress
 Report
- 1952 Survey of Fur Animal Distribution and Habitat
 Survey of Fur Animal Distribution and Habitat
 The Annual Fur Harvest as Determined from Analysis of
 Trapper Report Cards
 Annual Yield and Income from the Fur Resource as
 Determined by Examination of Fur Dealer Records -
 1950-51 Season
 Fur Resources Survey and Investigations
 Distribution and Status of the Wolverine
 Fur Resources Survey and Investigations
- 1953 Fur Resources Survey and Investigations
 Annual Yield and Income from the Fur Resource as
 Determined by Examination of Fur Dealer Records -
 1951-52 Season
 Fur Resources Survey and Investigations
 Fur Resources Survey and Investigations
 Annual Fur Take as Determined from Analysis of Trapper
 Report Cards
 Fur Resources Surveys and Investigations
 Beaver Ecology in Western Montana with Special Reference
 to Movement J. Townsend
 Yearly Food Habits of the River Otter in the Thompson Lakes
 Region, Northwestern Montana, as Indicated by Scat
 Analyses - K. Greer

1954	Progress on a Marten Life Trapping Study - F. Newby Mink Population Trends - Age and Sex Ratios Population Status and Movements of Marten Muskrat Population Trends Extensive Survey of Fur Animal Distribution, Habitat and Population Status - Aerial Beaver Colony Count Annual Yield and Income from the Fur Resources as Determined by Examination of Fur Dealer Records Beaver Age and Sex Ratios Progress on a Marten Live Trapping Study	
1955	Fur Resources Survey and Investigation (Jefferson Basin) II-D Marten Age Classes Marten Ecology Marten Population Status Muskrat Population Trends Analysis of the 1953-54 Beaver Take Analysis of the 1953-54 Fur Take Pilot Study of Marten Transplanting Mink Age and Sex Ratios Beaver Population and Distribution Trends - Aerial Survey Fur Resources Survey and Investigation (Jefferson Basin) II-C	
1956	Marten Age and Sex Ratios Marten Ecology Marten Population Status Mink Sex and Age Ratios Mink Age and Sex Ratios Mink Age and Sex Ratios Beaver Population and Distribution Trends - Aerial Survey Analysis of the 1954-55 Fur Take Muskrat Population Trends Beaver Age and Sex Ratios	
1956-57	Mink Population Study Marten Age and Sex Ratios Marten Ecology Marten Population Status Beaver Population and Distribution Trends - Aerial Survey Mink Age and Sex Ratios Beaver Age and Sex Ratios Analysis of the 1955-56 Fur Take Muskrat Population Trends	
1957-58	Fur Resources and Predator Surveys and Investigations	
1958-59	Beaver Age and Sex Ratios - II-B Muskrat Population Trends - II-F	
1959-60	Predator and Wildlife Damage Surveys Muskrat Population Trends Analysis of the 1958-59 Fur Take Beaver Age and Sex Ratios - 1957-58 Season Mink Age and Sex Ratios Study of Predator Ecology in Sun River Area Investigations of Reported Bear Depredations on Livestock Black Bear Population Studies Beaver Population and Distribution Trends - Aerial Survey Marten Population Studies Mink Population Studies Fisher Restocking Investigations	III-B II-F I-A II-B II-E III-D III-C IV-A II-A II-G II-M II-N
1960-61	Fur Resources Surveys and Investigations Muskrat Population Trends	I-A(W-49-R-10) II-F(W-49-R-11)
1961-62	Analysis of the Annual Fur Take Beaver Population & Distribution Beaver Population Study Beaver Age Ratios Muskrat Population Trends Marten Population Studies Mink Population Study Fisher Restocking Investigations Mink Age and Sex Ratios	I-A(W-49-R-11) II-A II-B, Seg. 1 II-B, Seg. 2 II-F II-G II-M II-N II-E
1962-63	Analysis of Annual Fur Take	D-1 & D-2(W-71-R-9 thru W-77-R-9)
1963-64	Analysis of Annual Fur Take	D-1(W-71-R-9 thru W-77-R-9)

1964-65	Analysis of Annual Fur Take	D-1(W-71-R-10 thru W-77-R-10)
1965-66	Analysis of Annual Fur Take	D-1(W-71-R-11 thru W-77-R-11)
1966-67	Analysis of Annual Fur Take	D-1(W-71-R-12 thru W-77-R-12)
1967-68	Analysis of Annual Fur Take	D-1(W-71-R-13 thru W-77-R-13)
1968-69	Analysis of Annual Fur Take	D-1(W-71 thru 77)
1969-70	Statewide Wildlife Survey and Inventory - Statewide Fur Survey and Inventory D-1 thru 7	II-9 W-130-R-1

Year	Title of Report	Job No.
1970-71	Statewide Wildlife Survey and Inventory Statewide Fur Survey and Inventory D-1 thru 7	II-9 W-130-R-1
1971-72	Statewide Wildlife Survey and Inventory Statewide Fur Survey & Inventory R-1 thru 7	W-130-R-4 II-9
1972-73	Statewide Wildlife Survey & Inventory Statewide Fur Survey & Inventory	W-130-R-4 II-9
1973-74	Statewide Wildlife Survey & Inventory Statewide Fur Survey & Inventory	W-130-R-5 II-9

General - Statewide

1946	Quarterly Progress Reports Surveys and Investigations Summary of Wildlife Restoration Work
1951	Western Montana Big Game Investigations and Rechecks
1953	Big Game Survey in South Fork, Middle Fork and North Fork of Flathead, Whitefish, Swan, Blackfoot and Adjacent Areas
1954	Big Game Survey in South Fork, Middle Fork and North Fork of Flathead, Whitefish, Swan, Blackfoot and Adjacent Areas

Game-Range Management - Statewide

1948	Diagnostic Score Sheet for Grading the Condition and Trend of Big Game Ranges in the Northern Rocky Mountain Areas
	Judging and Grading the Condition and Trends of Big Game Ranges in the Northern Rocky Mountain Areas - R. Casebeer

Flathead - Sun River Salting - Statewide

1948	Salt Plans - Kalispell Unit
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Bighorn Sheep - Statewide

1954	Mountain Sheep Herd Classification and Sex Ratio Determination
	Mountain Sheep Census and Distribution
	Mountain Sheep Trapping and Transplanting
	Letter to W.C. GLazener (Texas) from J.L. Egan
	A Population Study of the Rocky Mountain Bighorn Sheep on Wildhorse Island - H.A. Ogren

Mt. Goats - Statewide

1953	South Fork Goat Trapping Site Progress Report - Investigations Projects (Sex Ratio & Herd Production Studies)	
1954	Mountain Goat Trapping and Transplanting	
1961-62	Rocky Mountain Goat Investigations (Population phase)	B-9, W-98-R-2
1961-62	Rocky Mountain Goat Investigations (Range phase)	B-9, W-98-R-2 (Peek)

Elk and Elk Tagging - Statewide

1943	Elk Tagging, 1943
1946	Special Elk Hunt - 1946
1952	Census and Survey of Established Elk Herds
1954	Census and Survey of Established Elk Herds

Bear - Statewide

1954	Grizzly Bear Investigation and Recheck	W-60-R-1
1955	Grizzly Bear Survey	W-60-R-2
1956	Grizzly Bear Survey	W-71-R, W-72-R, W-74-R
1960-61	Black Bear Population Studies	W-98-R-1, Job # B-I
1961-62	Black Bear Population Studies	W-98-R-2, Job # B-I

Region One - (W-71-R)

1955-56	Deer Surveys	A-1
	Evaluation of Big Game Salting	A-1.1
	Elk Surveys	A-2
	Mountain Goat Surveys	A-4
	Mountain Sheep Surveys	A-5
	Moose Surveys	A-6
	Grizzly Bear Surveys (Statewide)	A-7
	Ringnecked Pheasant Investigations	B-1
	Grouse and Chukar Investigations	B-2
	Breeding Ground Survey (Statewide)	C-1
	Waterfowl Banding	C-2
	Winter Waterfowl Survey (Statewide)	C-3
	Canada Goose Investigation	C-4
	Analysis of Annual Fur Take (Project file, fur or W-49-R)	D-1
	Beaver Populations and Distribution Trends (Project file W-49-R)	D-2
	Beaver Age Ratios (Project File W-49-R)	D-3
	Hunter Harvest Evaluation	E-1
	Measuring Hunting Pressure on Canada Geese in the Flathead Valley (Stockstad & Craighead) not compl. rpt.	
1956-57	Waterfowl Breeding Ground Survey (Statewide) 1957	C-1
	Winter Waterfowl Survey	
	Canada Goose Investigation	C-4
	Waterfowl Banding	C-2
	Waterfowl Breeding Ground Survey (Statewide 1956)	C-1
	Grouse and Chukar Investigations	B-2
	Ringnecked Pheasant Investigations	B-1
	Big Game Surveys District-wide	A-1
	Big Game Surveys - Kootenai Unit	A-2
1957-58	Preliminary Grizzly Bear Investigations - District 1	A-3
	Waterfowl Breeding Ground Survey and Waterfowl Banding	C-1
	Winter Waterfowl Survey	C-2
	Canada Goose Investigation	C-3
	Winter Waterfowl Inventory (Statewide)	C-2
	Ringnecked Pheasant Investigations	B-1
	Grouse and Chukar Investigations	B-2
	District Big Game Surveys & Investigations	A-1
	Big Game Surveys and Investigations-Swan Unit	A-2
1958-59	Grizzly Bear Study	A-3
	District Big Game Survey & Investigations	A-1
	Big Game Surveys & Investigations - South & Middle Fork Units	A-2
	Ringnecked Pheasant Investigations	B-1
	Grouse & Chukar Investigations	B-2
	Canada Goose Investigation	C-3
1959-60	District Big Game Survey & Investigation (W-71-R-5)	A-1
	Big Game Surveys & Investigations - Lower Clarks Fork Unit (W-71-R-5)	A-2
	Exotic Upland Game Bird Survey & Investigations (W-71-R-5)	B-1
	Native Upland Game Bird Survey & Investigations (W-71-R-5)	B-2
	Canada Goose Investigations (With attached manuscript of Stockstad & Craighead - "Use of Artificial Nesting Platforms by Canada Geese")	C-1.1
1960-61	Exotic Upland Game Bird Survey & Investigation (W-71-R-6)	B-1
	Native Upland Game Bird Survey & Investigation (W-71-R-6)	B-2
	Canada Goose Investigations (W-71-R-6)	C-1.1
	Big Game Surveys & Investigations North Fork Unit	A-2
	District Big Game Survey & Investigations	A-1

1961-62	District Big Game Survey & Investigations	A-1
	Big Game Surveys & Investigations, Kootenai-Stillwater	
	Unit 10	A-2
	Exotic Upland Game Bird Survey & Investigation	B-1
	Native Upland Game Bird Survey & Investigation	B-2
	Canada Goose Investigation (W-71-R-7)	C-1.1
1962-63	Exotic Upland Game Bird Survey & Investigations (W-71-R-8)	B-1
	Canada Goose Investigations (W-71-R-8)	C-1.1
	Native Upland Game Bird Survey & Investigations (W-71-R-8)	B-2
	Big Game Surveys & Investigations (W-71-R-8)	A-1
1963-64	Big Game Surveys & Investigations (W-71-R-9)	A-1
	Exotic Upland Game Bird Surveys & Investigations (W-71-R-9)	B-1
	Native Upland Game Bird Survey & Investigations (W-71-R-9)	B-2
	Canada Goose Investigations (W-71-R-9)	C-1.1
1964-65	Exotic Upland Game Bird Survey & Investigation (W-71-R-9)	B-1
	Native Upland Game Bird Survey & Investigations (W-71-R-10)	B-2
	Big Game Surveys & Investigations (W-71-R-10)	A-1
	Canada Goose Investigations (W-71-R-10)	C-1.1
1965-66	Big Game Surveys & Investigations (W-71-R-11) Swan	
	Recheck	A-2
	Big Game Surveys & Investigations (W-71-R-11)	A-1
	Native Upland Game Survey & Investigations (W-71-R-11)	B-2
	Exotic Upland Game Bird Survey & Investigations (W-71-R-11)	B-1
	Canada Goose Investigations (W-71-R-11)	C-1.1
1966-67	Big Game Surveys & Investigations (W-71-R-12)	A-1
	Big Game Surveys & Investigations, South and Middle Forks	
	Recheck, units 14 & 15 (W-17-R-12)	A-2
	Exotic Upland Game Bird Survey & Investigations (W-71-R-12)	B-1
	Native Upland Game Survey & Investigations (W-71-R-12)	B-2
	Canada Goose Investigations (W-71-R-12)	C-1.1
1967-68	Big Game Surveys & Investigations (W-71-R-13)	A-1
	Big Game Surveys & Investigations - Lower Clark Fork	
	Recheck, Units 12 & 120	A-2
	Exotic Upland Game Survey & Investigations (W-71-R-13)	B-1
	Native Upland Game Survey & Investigations (W-71-R-13)	B-2
	Canada Goose Investigations (W-71-R-13)	C-1.1
1968-69	Big Game Surveys & Investigations - North Fork Unit 11	
	Recheck (W-71-R-14)	A-2
	Exotic Upland Game Survey & Investigations (W-71-R-14)	B-1
	Native Upland Game Survey & Investigations (W-71-R-14)	B-2
	Canada Goose Investigations (W-71-R-14)	C-1.1
	Big Game Survey & Investigations (W-71-R-14)	A-1
1969-70	Big Game Survey & Investigations (W-130-R-1)	I-1
1970-71	Big Game Survey & Investigations (W-130-R-2)	I-1
1969-70	Upland Game Survey & Investigations (W-130-R-1) (Fur Survey	
	Inventory)	II-1
1970-71	Big Game Survey & Inventory - Investigations - District 1	
	(W-130-R-2)	I-1
1971-72	Wildlife Investigations - Upland Game Bird (Fur Survey)	
	Inventory W-130-R-2 District 1	II-1
	Big Game Survey & Inventory - Clark Fork Unit Recheck	
	W-130-R-3	I-2.1
	Big Game Survey & Inventory (W-130-R-3)	I-1
1972-73	Wildlife Investigations, Upland Game Bird (Fur Survey)	
	Inventory Region 1 W-130-R-4	II-1
	Wildlife Investigations, Big Game Survey & Inventory	
	Region 1 W-130-R-4	I-1
1973-74	Wildlife Investigations, Big Game Survey & Inventory	
	Region 1 W-130-R-5	I-1
	Wildlife Investigations, Upland Game Bird (Fur Survey)	
	Inventory Region 1 W-130-R-5	II-1
1974	Statewide Wildlife Survey & Inventory W-130-R-6	I-1
	Big Game Survey & Inventory (Regions 1 and 4)	
	7/1/74-12/31/74	I-4
1974-75	Upland Game Bird (and Fur Survey) W-130-R-6	II-1
	Big Game Survey & Inventory W-130-R-6	I-1
1975-76	Upland Game Bird (Fur Survey)	II-1
	Wildlife Investigations - Region 1	I-1
	Big Game Survey & Inventory	I-1
	Montana Deer Studies (Statewide)	

Year	Title of Report	Job No.
1976-77	Wildlife Investigations - Region 1	I-1
	Big Game Survey & Inventory	
	Montana Deer Studies (Statewide)	
	Upland Game Bird (and Fur Survey) Inventory - Region 1	
	(W-130-R-8)	II-1
1977-78	Upland Game Bird (Fur Survey) Inventory - Region 1	
	(W-130-R-9)	II-1
	Montana Deer Studies (Statewide)	
	Big Game Survey & Inventory - Region 1 - W-130-R-9	I-1
1978-79	Upland Game Bird (Fur Survey) Inventory - Region 1	
	W-130-R-10	II-1
	Wildlife Investigations W-130-R-10	I-1
	Big Game Survey & Inventory - Region 1	

APPENDIX J

INFORMATION SYSTEMS FILE

**Department of Administration
Division of Research and Information Systems
Helena, Montana**

As a division of the Montana Department of Administration the Research and Information Systems Division (RIS) is responsible for supplying information and providing research assistance to the Department, other governmental agencies, and research organizations. Its functions consist of developing and operating systems for acquisition, storage, retrieval, and updating social, economic, demographic, and land use information for Montana and analyzing this information for other entities.

Information sources the RIS maintains fall into four main categories:

I. SOCIO-ECONOMIC COMPUTER DATA BASES

Name of File	Geographic Area
1970 Census of Population & Housing	
First Count, Population & Housing	Enumeration District (ED) & Above
Second Count, Population & Housing	County Census Division (CCD) & Above
Third Count, Population & Housing	Block & Above
Fourth Count, Population	ED, Place, CCD & Above
Fourth Count, Housing	Place, CCD & Above
Sixth Count, Population	State
Sixth Count, Housing	State
1969 Census of Agriculture Land & Sales	
Characterists	County & State
1972 Census of Governments, Expenditures, Revenue & Employment	State, Counties, Places, School Districts & Special Districts
Finance File A (1 of 2)	
Finance File A (2 of 2)	
Name & Address (1 of 1)	
Employment File B (1 of 2)	
Employment File C (2 of 3)	
County Profiles	Counties
1973 Montana Employers File	Places & Above
1976-77, 1980 Montana Manufacturers File	Places & Above
745 Montana Manufacturers	
County Business Patters, 1975-1977	All Counties, State & Region 8
Migration, 1970-1972	
Inmigrant Summary by Sex, Age, Race	U.S., State & Counties
Outmigrant Summary by Sex, Race, Age	U.S., State & Counties
Nonmigrant Summary by Sex, Race, Age	U.S., State & Counties
Entrant & Exit by Sex, Race, Age	U.S., State & Counties
Local Government Finance Data System	All Towns, Cities & Counties
1929-1972 Regional Economic Inf. Syst.	
Total Personal Income (TPI) - one digit	U.S., Mont., & Counties 1929-1976
Quarterly Personal Income - one digit	U.S., Montana 1948-1974
Personal Income & Earnings (All Detail) two digit	U.S., Mont., & Counties 1967-1977
Employment by Source - one digit	U.S., Mont., & Counties 1967-1977
Employment - two digit	U.S., Mont., & Counties 1967-1977
BEA Farm Income & Expenditures	U.S., Mont., & Counties 1965-1977

II. LAND & NATURAL RESOURCE COMPUTER DATA BASE

Type of File	Source	Geographic Area
Administrative Boundaries		
State File	USGS 1:250,000 maps	Entire State
County File	USGS 1:250,000 maps	Entire State
Place File	USGS 1:250,000 maps	Entire State
National Parks File	USGS 1:250,000 maps	Entire State
National Forest File	USGS 1:250,000 maps	Entire State
Indian Reservations File	USGS 1:250,000 maps	Entire State
Townships File	USGS 1:250,000 maps	Entire State
County Census Division File	US Bureau of Census	Entire State
Transportation		
Interstate Highway System	USGS 1:250,000 maps	Entire State
Primary Highway System	USGS 1:250,000 maps	Entire State
Secondary Highway System	USGS 1:250,000 maps	Entire State
Railroad Network	USGS 1:250,000 maps	Entire State
Airports	FAA State Airport File	Entire State
Land Ownership		
Dept. of State Land File	Dept. of State Lands	Entire State
Dept. of Fish, Wildlife & Parks	Dept. of Fish, Wildlife & Parks	Entire State
Dept. of Natural Resources and Conservation	Dept. of Natural Resources and Conservation	Entire State
Utilities		
Elec. Power Distribution System	USGS 1:250,000 maps	Entire State
Pipeline Distribution System	USGS 1:250,000 maps	Entire State
Recreation		
Recreation File	Dept. of Fish, Wildlife & Parks Administ. Recds.	Most of Montana
Recreation Inventory Management Systems (Rims)	US Forest Service	All United States
Recreation Facilities Inventory	Bur. of Outdoor Recreation	All Montana
Wildlife		
Wildlife Refuges	USGS 1:250,000 maps	Entire State
Subdivision File	Mont. Dept. of Revenue Dept. of Commerce	Entire State 30 Counties

III. SERVICE COMPUTER DATA BASES

Statutory Information Retrieval System (SIRS)
Federal Outlays 1970 thru 1973

IV. RESEARCH LIBRARY

8,000 Document Collection
Automatic Document Retrieval System
Legislature Reference Files

APPENDIX K

WATER RESOURCES DATA

U.S. Geological Survey Reston, Virginia

The annual series of water supply papers that give information on quantity of surface waters in the Upper Columbia River basin are given in the following table.

Table 1 - Water supply paper numbers containing results of stream measurements in the Upper Columbia River basin 1899-1970 including compilation reports.

Year	WSP No.	Year	WSP No.	Year	WSP No.
1899	38	1921	532	1944	1012
1900	51,52	1922	552	1945	1042
		1923	572		
1901	66,75	1924	592	1946	1062
1902	85	1925	612	1947	1092
1903	100			1948	1122
1904	135	1926	632	1949	1152
1905	178	1927	652	1950	1182
		1928	672		
1906	214	1929	692	1951	1216
1907	252	1930	707	1952	1246
1908	252			1953	1286
1909	272	1931	722	1954	1346
1910	292	1932	737	1955	1396
		1933	752		
1911	312	1934	767	1956	1446
1912	332A	1935	792	1957	1516
1913	362A			1958	1566
1914	392	1936	812	1959	1636
1915	412	1937	832	1960	1716
		1938	862		
1916	442	1939	882	1961-65	1933
1917	462	1940	902	1966-70	2133
1918	482				
1919	512	1941	932	1950	
1920	512	1942	962	Compilation	1316
		1943	982		
				1960	
				Compilation	1736

Publication of groundwater level data for the United States in water supply papers was begun by the Geological Survey in 1935. From 1935 through 1939, a single water supply paper for each year covering the entire nation was issued (Water Supply Papers 777,817,840,845 and 886). From 1940 through 1974, separate water supply papers were issued for 6 sections of the United States. Water level data for Montana are in the water supply papers listed in the following table, each report containing one or more calendar years (January -December) of data.

Table 2 - Water supply paper numbers for Northwestern United States, calendar years 1940-70.

Year	WSP No.	Year	WSP No.	Year	WSP No.
1940	910	1946	1075	1952	1225
1941	940	1947	1100	1953	1269
1942	948	1948	1130	1954	1325
1943	990	1949	1160	1955	1408
1944	1020	1950	1169	1956-60	1760
1945	1927	1951	1195	1961-65	1845
				1966-70	1980

The annual series of water supply papers that give information on quality of surface waters in the Upper Columbia River basin are shown in the following table.

Table 3 - Water supply paper number, water years 1947-70.

Year	WSP No.	Year	WSP No.	Year	WSP No.
1947	—	1955	1403	1963	1951
1948	—	1956	1453	1964	1959
1949	—	1957	1523	1965	1966
1950	—	1958	1574	1966	1996
1951	1200	1959	1645	1967	2016
1952	1253	1960	1745	1968	2100
1953	1293	1961	1885	1969	2150
1954	1352	1962	1945	1970	2160

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water quality records beginning with the 1964 water year, and groundwater data since the 1971 water year have been similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and groundwater are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, the 1977 report is identified as "U.S. Geological Survey Water Data Report MT-77-1". Water Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

APPENDIX L

NUMBERED AND UNNUMBERED OPEN-FILE REPORTS AND MAPS

U.S. Geological Survey

Open-file reports and maps of the U.S. Geological Survey (USGS) are preliminary reports that have not been edited or reviewed for conformity with USGS standards and nomenclature. They are available for reference in the Helena, Montana and Reston, Virginia offices of the U.S. Geological Survey; copies ordinarily are not reproduced for distribution.

Open-file reports relating to the Flathead River Basin are listed below.

- Boettcher, A.J. 1974.
Evaluation of the groundwater supply at eight sites in Glacier National Park, northwestern Montana.
- Boner, F.C., and Omang, R.J. 1967.
Magnitude and frequency of floods from drainage areas less than 100 square miles in Montana.
- Harrison, J.E., Grizza, A.B., and Wells, J.D. 1974.
Preliminary geologic map of the Wallace 1:250,000 sheet, Idaho-Montana: USGS open-file map. 1:250,000.
- Johnson, Arthur. 1959.
Glacier observations, Glacier National Park, Montana, 1957 and 1958: 32 p., 4 figs. USGS open-file report.
- Johnson, Arthur. 1960.
Glacier observations, Glacier National Park, Montana, 1959: 23 p., 2 figs., 3 tables. USGS open-file report.
- Johnson, Arthur. 1961.
Glacier observations, Glacier National Park, Montana, 1960: 15 p., 1 fig. USGS open-file report.
- Johnson, Arthur. 1962.
Glacier observations, Glacier National Park, Montana, 1961: 16 p., 3 figs., 6 tables. USGS open-file report.
- Johnson, Arthur. 1964.
Glacier observations, Glacier National Park, Montana, 1963: 23 p., 5 figs. USGS open-file report.
- Johnson, Arthur. 1968.
Glacier observations, Glacier National Park, Montana, 1966-67: 31 p., 4 figs., 11 tables. USGS open-file report.
- Johnson, M.V. and Omang, R.J. 1976.
A method for estimating magnitude and frequency of floods in Montana. USGS open-file report 75-650.
- Johnson, M.V. and Omang, R.J. (1969-1975).
Annual peak discharge from small drainage areas in Montana through September (1968-1974).
- Johnson, M.V., Omang, R.J. and Hull, J.A. 1967.
Annual peak discharge from small drainage areas in Montana through September 1975.
- Johnson, M.V. and Omang, R.J. 1974.
Floods of January 15-17, 1974, in northwestern Montana. USGS open-file report. 74-38.
- Johnson, M.V., and Omang, R.J. 1976.
Floods of May-July, 1975 along the Continental Divide in Montana. USGS open-file report. 76-424.
- Knapton, J.R. and Bochy, B.M. 1976.
Results of phytoplankton sampling at National Stream Quality Accounting Network Stations in Montana—1975 water year. USGS open-file report. 76-219.
- Mudge, M.R. 1968.
Preliminary geologic map of the Great Falls-Browns Lake area, northwestern Montana: USGS open-file map. 1:250,000.
- Mudge, M.R. and Earhart, R.L. 1977.
Geologic map and section of the Bob Marshall Wilderness and Study Area, Lewis and Clark, Teton, Pondera, Flathead, Lake, Missoula, and Powell Counties, Montana: USGS open-file map 77-350. 1:125,000.
- Mudge, M.R. and Earhart, R.L. 1979.
Geologic map of Choteau 1° x 2° quadrangle, Lewis and Clark, Teton, Powell, Missoula, Lake, Flathead and Cascade Counties, Montana: USGS open-file report 79-280.
- Mudge, M.R. and Earhart, R.L. 1979.
Structure and structure contour maps of the Choteau 1° x 2° quadrangle, Lewis and Clark, Teton, Powell, Missoula, Lake, Flathead and Cascade Counties, Montana: USGS open-file report 79-280.
- Mudge, M.R., Earhart, R.L. and Rice, D.D. 1977.
Preliminary bedrock geologic map of part of the Northern Disturbed Belt, Lewis and Clark, Teton, Pondera, Glacier, Flathead and Powell Counties, Montana: USGS open-file report 77-25.
- Simons, W.D. 1968.

- Hydrology of Hungry Horse Reservoir, Montana — basic data supplement: 154 p., 1 fig. USGS open-file report.
- U.S. Geological Survey. 1961-64.
Surface water records of Montana. (one volume for each year).
- U.S. Geological Survey. 1964.
Water quality records of Montana.
- U.S. Geological Survey. 1965-74.
Water resources data for Montana — Part 1, Surface water records; Part 2, Water quality records. (one volume for each year).
- Witkind, I.J. 1977.
Preliminary map showing surficial deposits in the Cygnet Lake quadrangle, Missoula County, Montana: USGS open-file map 77-198. 1:24,000.
- Witkind, I.J. 1977.
Preliminary map showing surficial deposits in the Ovando (N. Half) quadrangle, Missoula and Powell Counties, Montana: USGS open-file map 77-196. 1:24,000.
- Witkind, I.J. 1977.
Preliminary map showing surficial deposits in the Salmon Lake quadrangle, Montana: USGS open-file map 77-197. 1:24,000.
- Witkind, I.J. 1977.
Preliminary map showing surficial deposits in the west half of the Holland Lake quadrangle, Missoula County, Montana: USGS open-file map 77-199. 1:24,000.
- Witkind, Irving. 1977.
Preliminary map showing surficial deposits in the Lake Inez quadrangle, Missoula County, Montana: USGS open-file map 77-200. 1:24,000.
- Witkind, I.J. 1977.
Preliminary map showing surficial deposits in the Seeley Lake West quadrangle, Missoula County, Montana: USGS open-file map 77-201. 1:24,000.
- Witkind, I.J. 1977.
Preliminary map showing surficial deposits in the Seeley Lake East quadrangle, Missoula and Powell Counties, Montana: USGS open-file map 77-202. 1:24,000.
- Witkind, I.J. 1977.
Preliminary map showing surficial deposits in the Woodworth quadrangle, Montana: USGS open-file report 77-203. 1:24,000.
- Witkind, I.J. 1977.
Preliminary map showing surficial deposits in the east half of the Peck Lake quadrangle, Missoula and Lake Counties, Montana: USGS open-file report 77-539.
- Witkind, I.J. 1977.
Preliminary map showing surficial deposits in the west half of the Condon quadrangle, Missoula, Lake and Flathead Counties, Montana: USGS open-file report 77-540. 1:24,000.

APPENDIX M

TOPOGRAPHIC QUADRANGLE MAPS

U.S. Geological Survey Denver, Colorado

The U.S. Geological Survey has published a series of standard topographic maps that cover the United States. The unit of survey is a quadrangle bounded by parallels of latitude and meridians of longitude. Quadrangles covering 7½ minutes of latitude and longitude are published at the scale of 1:24,000. Quadrangles covering 15 minutes of latitude and longitude are published at the scale of 1:62,500. Topographic maps covering the Flathead River Basin are listed below (all are 7½ minutes of latitude and longitude unless otherwise noted).

Dealers for topographic maps in the Flathead area include: Lakeside Mercantile Inc., Lakeside, Montana 59922; Books West, Main and First Streets, Kalispell, Montana 59901; Rocky Mountain Outfitter, 135 Main Street, Kalispell, Montana 59901; The Sportsman, 40 East Idaho, Kalispell, Montana 59901; and Golden Engineering, Inc., No. 8 Eighth Avenue West, Polson, Montana 59860. The University of Montana Library, Documents Department in Missoula, Montana maintains reference files of the published maps of the Geological Survey. These maps may be purchased nationally from Branch of Distribution, U.S. Geological Survey, Federal Center, Denver, Colorado 80225.

Topographic Quadrangle Maps Flathead River Basin

Ahern Pass 7½'	Conner Creek 7½'	Hemlock Lake 7½'
Alberton 15'	Crater Lake 7½'	Holland Lake 7½'
Amphitheatre Mountain 7½'	Crescent Cliff 7½'	Holland Peak 7½'
Arlene 15'	Crimson Peak 7½'	Horse Hill 7½'
Ashley Mountain 7½'	Cut Bank Pass 7½'	Horseshoe Peak 7½'
Baldy Lake 7½'	Cyclone Lake 7½'	Hot Springs 7½'
Bassoo Peak 7½'	Cygnal Lake 7½'	Hot Springs NE 7½'
Beaver Lake 7½'	Dahl Lake 7½'	Hubbart Reservoir 7½'
Belmont Point 7½'	Danaher Mountain 7½'	Huckleberry Mountain 7½'
Belmore Sloughs 7½'	Demers Ridge 7½'	Irvine Hill 7½'
Benchmark 7½'	Dixon 7½'	Jewel Basin 7½'
Big Hawk Mountain 7½'	Doris Mountain 7½'	Johnson Peak 7½'
Big Salmon Lake East 7½'	Dunsire Point 7½'	Kintla Lake 7½'
Big Salmon Lake West 7½'	East Bay 7½'	Kintla Peak 7½'
Blacktail 7½'	Essex 7½'	Ksanka Peak 7½'
Blue Grass Ridge 7½'	Felix Peak 7½'	Lake Inez 7½'
Bowen Lake 7½'	Flint Mountain 7½'	Lake Marshall 7½'
Bull Lake 7½'	Fort Connah 7½'	Lake McDonald East 7½'
Camas Ridge East 7½'	Gable Peaks 7½'	Lake McDonald West 7½'
Camas Ridge West 7½'	Gateway Pass 7½'	Lion Mountain 7½'
Capitol Mountain 7½'	Gold Creek 7½'	Logan Pass 7½'
Cedar Lake 7½'	Gold Creek Peak 7½'	Lone Lake 7½'
Charlo 7½'	Gooseberry Park 7½'	Lonepine 7½'
Circus Peak 7½'	Gray Wolf Lake 7½'	Loon Lake 7½'
Condon 7½'	Hahn Creek Pass 7½'	Lost Creek Divide 7½'
Coney Peak 7½'	Haystack Mountain 7½'	Lower Crow Reservoir 7½'

Markle Pass 7½'
 Marmot Mountain 7½'
 McDonald 7½'
 McGee Meadow 7½'
 Melton Ranch 7½'
 Moose Peak 7½'
 Morrell Lake 7½'
 Mount Bradley 7½'
 Mount Cannon 7½'
 Mount Carter 7½'
 Mount Geduhn 7½'
 Mount Grant 7½'
 Mount Harding 7½'
 Mount Hefty 7½'
 Mount Jackson 7½'
 Mount Rockwell 7½'
 Mount St. Nicholas 7½'
 Mount Stimson 7½'
 Mount Thompson Seton 7½'
 Murr Peak 7½'
 Nimrod 7½'
 Nyack 7½'
 Nyack SW 7½'
 Oliver Point 7½'
 Olney 7½'
 Pagoda Mountain 7½'
 Peck Lake 7½'
 Pentagon Mountain 7½'
 Perma 15'

Pilot Peak 7½'
 Pinnacle 7½'
 Pioneer Ridge 7½'
 Piper-Crow Pass 7½'
 Pleasant Valley Mtn. 7½'
 Polebridge 7½'
 Polson 7½'
 Porphyry Reef 7½'
 Prairie Reef 7½'
 Quartz Ridge 7½'
 Quintonkon 7½'
 Radnor 7½'
 Ravalli 7½'
 Red Meadow Lake 7½'
 Red Plume Mountain 7½'
 Rhodes 7½'
 Rollins 7½'
 Ronan 7½'
 Round Butte 7½'
 St. Ignatius 7½'
 Saint Mary's Lake 7½'
 Salmon Prairie 7½'
 Seeley Lake West 7½'
 Shaw Creek 7½'
 Skillet Mountain 7½'
 Skookoleel Creek 7½'
 Sloan 7½'
 Spotted Bear Mountain 7½'
 Stanton Lake 7½'

Stryker 7½'
 Stuart Peak 7½'
 Summit 7½'
 Sunburst Lake 7½'
 Sunday Mountain 7½'
 Swan Lake 7½'
 Swan Peak 7½'
 Sylvia Lake 7½'
 Tally Lake 7½'
 Tin Creek 7½'
 Trailcreek 7½'
 Trap Mountain 7½'
 Trilobite Peak 7½'
 Tuchuck Mountain 7½'
 Una Mountain 7½'
 Upper Jocko Lake 7½'
 Upper Whitefish Lake 7½'
 Vulture Peak 7½'
 Wapiti Lake 7½'
 Werner Peak 7½'
 West Glacier 7½'
 Whale Buttes 7½'
 Whitcomb Peak 7½'
 Woods Bay 7½'
 Yew Creek 7½'

APPENDIX N

MAPS AND CHARTS FILE

U.S. Geological Survey

This list contains charts and maps published by the Geological Survey relating to the geology, mineral and water resources of the Flathead River Basin. They may be purchased over the counter or ordered from the Branch of Distribution, U.S. Geological Survey, Building 41 Federal Center, Denver, Colorado 80225.

SPECIAL MAPS AND SHEETS

Flathead River (Middle Fork), Mont.

Plan and profile of Middle Fork of Flathead River from mouth to mile 49 and damsites. Scale, 1:31,680. Contour interval on land, 20 feet; on river surface, 5 feet. Vertical scale of profile, 20 feet to 1 inch. Size, 22 by 28 inches. 3 sheets (2 plans, 1 profile). 1939.

Flathead River (Knowles and Perma damsites), Mont.

Plan of damsites on the Flathead River. Scale, 1:9,600. Contour interval on land, 10 feet; on water surface, 1 foot. Size, 22 by 28 inches. 1 sheet. 1955.

Flathead River (Sloan Bridge damsite), Mont.

Plan of damsite on Flathead River. Scale, 1:12,000. Contour interval on land, 20 feet; on river surface, 1 foot. Size 22 by 28 inches. 1 sheet. 1955.

Flathead River (South Fork), Mont.

Plan and profile of South Fork of Flathead River, Montana, above mile 44, and tributaries. 1939.

Flathead River (South Fork), Mont.

Plan and profile of Flathead River, Flathead Lake to International Boundary, Montana, with damsites. 1947.

Flathead River (South Fork), Mont.

Plan and profile of Middle Fork Flathead River from mouth to mile 49, with damsites. 1950.

Geodetic Control Diagrams.

The Geological Survey and National Geodetic Survey are cooperating in publishing diagrams which show the location of level and transit traverse lines, electronic distance measurements, and triangulation stations established by these and other Federal agencies. The work of the Geological Survey is shown in red, the National Geodetic Survey in black, and other Federal agencies in brown. These diagrams are printed on a blue-line planimetric base of the 1:250,000-scale map series. They are intended primarily for professional use. The latest date of control information shown on the diagram is indicated below the sheet name.

Geologic Map of Montana, compiled by C.P. Ross, D.A. Andrew and I.J. Witkind. 1955.

Color patterns show the distribution and extent of about 75 different rock units ranging from highly metamorphosed schist and gneiss of Precambrian age to Recent alluvial deposits of sand and gravel. Scale 1:500,000. 2 sheets.

Glacier National Park, Montana (topographic). 1968.

Shows Glacier National Park and the adjacent area. The limiting parallels are 48°13' and 49°. The limiting meridians are 113°10' and 114°30'. Scale 1:100,000 (1 inch 8,400 feet). Contour interval 80 feet (24 m). This is an experimental edition in which the 38 by 42 inch sheet is folded and packaged in a 6½ by 12 inch reclosable clear polyethylene jacket.

Hydrologic Unit Map, Montana. 1974.

An overprint of the 1:500,000 scale State base map. Shows counties, location and names of all cities and towns and most of the smaller settlements, railroads, and township and range lines in black; water features in blue; hydrologic boundaries and codes in red; county codes in green. No contours. Two sheets. Sheet 1 40 by 46 inches; sheet 2 41 by 46 inches. 1974 base.

Montana (State).

Shows counties, location and names of all cities and towns and most of the smaller settlements, railroads and township and range lines (in black); rivers, many of the smaller streams and other water features (in blue). It does not show contours. Scale 1:500,000 or about 8 miles to 1 inch. Printed in two parts, assembled size, 47 by 79 inches. 1965. Also published in black and white (one sheet) at the scale 1:1,000,000 or about 16 miles to 1 inch: size, 24 by 40 inches.

Montana (Topographic).

An overprint of the 1:500,000 scale base map described directly above, and in addition, shows contours in brown and highways in purple. National forests, parks, monuments and wildlife refuges, and Indian reservations are indicated by color patterns. Contour interval, 500 feet.

Montana (Relief).

An overprint of the 1:1,000,000 scale base map which shows state and county boundaries, railroads, cities, towns and county seats (in black) and water features (in blue). The physical features are brought out by shaded relief in color. It does not show contours. Scale 1:1,000,000. Size 26 by 44 inches. 1965.

National Bison Range, Montana.

Shows the National Bison Range and Bird Refuge in Lake and Sanders Counties. Limiting parallels, 47°17'30" and 47°22'30". Limiting meridians, 114°09'55" and 114°16'40". Scale 1:31,680 or ½ mile to 1 inch. Contour interval 20 feet. Size 11 by 12 inches. 1929.

Sperry Glacier, Glacier National Park, Montana.

Plan of Sperry Glacier. Scale 1:6,000 or 500 feet to 1 inch. Contour interval 20 feet. Size 22 by 28 inches. 1 sheet. 1950-60.

GEOLOGIC QUADRANGLE MAPS

GQ-381.

Bedrock geologic map of the Sawtooth Ridge quadrangle, Teton and Lewis and Clark Counties, Mont., by M.R. Mudge. 1965. Lat 47°30' to 47°37'30", long 112°37'30" to 112°45'. Scale 1:24,000.

GQ-610.

Surficial geologic map of the Sawtooth Ridge quadrangle, Teton and Lewis and Clark Counties, Mont., by M.R. Mudge. 1967. Lat 37°37'30" long 112°37'30" to 112°45'. Scale 1:24,000.

GQ-1157.

Geologic map of the Alberton quadrangle, Missoula, Sanders, and Mineral Counties, Mont., by J.D. Wells, 1974 (1975). Lat 47° to 47°15', long 114°15' to 114°30'. Scale 1:62,500.

GEOPHYSICAL INVESTIGATIONS MAPS

GP-682.

Aeromagnetic map of the Libby and Mt. Pend Oreille quadrangles, Lincoln and Sanders Counties, Mont., and Bonner County, Idaho. 1969. Lat 48° to 48°30', long. 115°30' to 116°. Scale 1:62,500.

GP-683.

Aeromagnetic map of the Thompson Lakes quadrangle, Lincoln, Sanders and Flathead Counties, Mont. 1969. lat 48° to 48°30'.

GP-684.

Aeromagnetic map of the McGregor Lake-Tally Lake area, Flathead and Lincoln Counties, Mont. 1969. Lat 48° to 48°30', long. 114°30' to 115°. Scale 1:62,500.

GP-685.

Aeromagnetic map of the Trout Creek quadrangle, Sanders and Lincoln Counties, Mont., and Shoshone County, Idaho. 1969. Lat 47°30' to 48°, long. 115°30' to 116°. Scale, 1:62,500.

GP-686.

Aeromagnetic map of the Thompson Falls quadrangle, Lincoln and Sanders Counties, Mont. 1969. Lat 47°30' to 48°, long. 115° to 115°30'. Scale 1:62,500.

GP-687.

Aeromagnetic map of the Hubbart Reservoir-Hot Springs area. Sanders, Flathead and Lake Counties. Mont. 1969. Lat 47°30' to 48°, long. about 114°26' to 115°. Scale 1:62,500.

GP-691.

Aeromagnetic map of the Plains, Perma, Superior, and Tarkio quadrangles, Sanders, Mineral and Missoula Counties, Mont. 1969. Lat 47° to 47°30', long. 114°30' to 115°. Scale 1:62,500.

GP-830.

Aeromagnetic map of part of northwestern Montana and northern Idaho, by M.D. Kleinkopf, J.E. Harrison and R.E. Zartman. 1972. Lat 47° to 48°30', long. 114°25' to 116°30'. Scale 1:250,000. Accompanied by 5 page text.

Aeromagnetic map of the Wallace-Flathead area, Mont. Scale 1:62,500.

Aeromagnetic map of the Cut Bank-Hungry Horse Reservoir area, northwestern, Mont. Scale 1:62,500.

MISCELLANEOUS FIELD STUDIES MAPS

MF-293.

Major active faults and seismicity in and near the Bigfork-Avon area, Missoula-Kalispell region, northwestern Mont., by I.J. Witkind. 1977(1978). Lat 46°30' to 48°15', long. 112°15' to 114°45'. Scale 1:500,000 (1 inch = about 8 miles). Sheet 39 by 39 inches.

MISCELLANEOUS INVESTIGATIONS SERIES

I-768.

Geologic map of the Spokane quadrangle, Washington, Idaho and Montana, by A.B. Griggs. 1973(1974). Lat 47° to 48°, long. 116° to 118°. Scale 1:250,000.

I-1012.

Leasable mineral and waterpower land classification map of the Choteau 1° by 2° quadrangle, Montana, compiled by A.F. Bateman, Jr., and G.A. Lutz. 1977. 47° to 48°, long. 112° to 114°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 24 by 32 inches.

I-1013.

Leasable mineral and waterpower land classification map of the Cut Bank 1° by 2° quadrangle, Montana, compiled by A.F. Bateman, Jr., and G.A. Lutz. 1977. Lat 48° to 49°, long. 112° to 144°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 23 by 32 inches.

I-1016.

Leasable mineral and waterpower land classification map of the Kalispell 1° by 2° quadrangle, Montana, compiled by A.F. Bateman, Jr., E.G. Allen and G.C. Giles. 1977. Lat 48° to 49°, long 114° to 116°. Scale 1:250,000 (1 inch = about 4 miles). Sheet 24 by 32 inches.

OIL AND GAS INVESTIGATIONS CHARTS

OC-15.

Mississippian and Devonian stratigraphy of northwestern Montana, by L.L. Sloss and W.M. Laird. 1945.

OC-25.

Devonian stratigraphy of central and northwestern Montana, by L.L. Sloss and W.M. Laird. 1946.

APPENDIX O

FLOOD PRONE AREA FILES

**Montana Bureau of Mines and Geology
Butte, Montana**

Quadrangle maps in the Flathead River basin on which Flood Prone Areas are approximately delineated are listed below. These maps are available from the Montana Bureau of Mines and Geology in Butte, Montana.

Maps completed in 1969 using a 50-year flood.

Columbia Falls South	Flathead
Creston	Flathead
Kalispeil	Flathead

Maps completed in 1971 using 100-year flood or higher ice-affected elevations.

Bigfork	Swan & Flathead
Crater Lake	Swan
Somers	Flathead

7½ Quadrangles that were mapped in the 1974 fiscal year.

Columbia Falls North	Flathead River
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Soil Conservation Service Maps, 1975 fiscal year.

Ravalli	Jocko River
Rhodes	Stillwater River
Tally Lake	Stillwater River

APPENDIX P

GEOGRAPHIC SEARCH AND INQUIRY SYSTEM

**USDI Geological Survey National Cartographic Information Center (NCIC)
Earth Resources Observations Systems (EROS) Data Center
Sioux Falls, South Dakota**

The Geographic Search and Inquiry System is a computerized listing of imagery and photography of the earth's surface features.

Requests for information about imagery of a specific area will initiate a computerized geographic search. The search can be initiated by mail, visit, or phone to either the EROS Data Center, one of the EROS Applications Assistance Facilities, or one of the NCIC offices. A geographic search may be requested by any of the three following options:

- 1) Point search — all images or photographs with any portion falling over the point will be included.
- 2) Area rectangle — any area of interest defined by four corner coordinates of latitudes and longitudes. All images or photographs with any coverage of the area will be listed. The area must not exceed 200 1 degree squares (for example, latitude of 10 degrees by longitude of 20 degrees).
- 3) The point or area may be indicated on a map.

The file includes the following sources: Landsat, Skylab, NASA aircraft, Geological Survey or other agencies or organizations aircraft.

The computer listing indicates the type of coverage, film source, identification number, quality (scale of 1 to 9), cloud cover, data acquired, center point, first frame - last frame, and number of frames. It also gives the latitude and longitude and the image size of the master reproducible.

APPENDIX Q

Agencies, Organizations and Individuals Consulted

KALISPELL AREA

Agricultural Stabilization and Conservation Service
Bonneville Power Administration
Flathead County Extension Office
Flathead County Library
Flathead County Parks and Recreation Department
Flathead County Regional Development Office
Flathead Drainage 208 Project
Flathead National Forest
Flathead Valley Community College
Glacier National Park, West Glacier, Montana
Montana Department of Fish, Wildlife and Parks
Montana Department of Health and Environmental Sciences
Montana Department of Natural Resources and Conservation
Morrison and Maierle, Inc.
National Weather Service
Northwestern Agricultural Research Center, Creston, Montana
Oniel Jones, Bigfork, Montana
Soil Conservation Service
Stahly Engineering and Associates
Thain White, Dayton, Montana
Thomas, Dean and Hoskins
University of Montana Biological Station, Yellow Bay, Montana
U.S. Fish and Wildlife Service
U.S. Geological Survey

POLSON, PABLO, RONAN, ST. IGNATIUS, MOIESE

Bureau of Indian Affairs, Ronan, Montana
Confederated Salish and Kootenai Tribal Offices, Pablo & St. Ignatius, Montana
Flathead Cultural Committee, St. Ignatius, Montana
Flathead Irrigation Project, St. Ignatius, Montana
Lake County Planning Office, Polson, Montana
Mission Valley News, St. Ignatius, Montana
Polson City Library
Salish Kootenai Community College, Ronan, Montana
Soil Conservation Service, Polson, Montana
U.S. Fish and Wildlife Service, Moiese, Montana

MISSOULA

Border Grizzly Project, University of Montana
Bureau of Business and Economic Research, University of Montana
Division of Educational Research Services, University of Montana
Institute of the Rockies
Intermountain Forest and Range Experiment Station, USFS
Missoula County Library
Montana Cooperative Wildlife Research Unit, University of Montana
Montana Department of Natural Resources and Conservation
University of Montana Archives
University of Montana Faculty
University of Montana Library
U.S. Forest Service Regional Office
Wilderness Institute, University of Montana
Wolf Recovery Team, University of Montana

HELENA

Montana Department of Community Affairs
Montana Department of Fish, Wildlife and Parks
Montana Department of Health and Environmental Sciences
Montana Department of Highways
Montana Department of Labor and Industry
Montana Department of Natural Resources and Conservation
Montana Department of State Lands
Montana Energy Office
Montana Lieutenant Governor's Office
Montana State Library
U.S. Environmental Protection Agency
U.S. Geological Survey

BILLINGS

Bureau of Land Management
Old West Regional Commission
U.S. Fish and Wildlife Service

BOZEMAN

Intermountain Forest and Range Experiment Station, U.S. Forest Service
Montana Agricultural Experiment Station
Montana State University Library
Museum of the Rockies, Montana State University
Soil Conservation Service

BUTTE

Montana Bureau of Mines and Geology
Montana Power Company

GREAT FALLS

National Oceanic and Atmospheric Administration

BOISE, IDAHO

Water and Power Resources Services

DENVER, COLORADO

Heritage Conservation and Recreation Service
National Earthquake Center
National Oceanic and Atmospheric Administration
U.S. Bureau of Census
U.S. Environmental Protection Agency
U.S. Geological Survey
Water and Power Resources Services

MOSCOW, IDAHO

Idaho Cooperative Wildlife Research Unit, University of Idaho
University of Idaho Library

PORTLAND, OREGON

Bonneville Power Administration
Pacific Power and Light
Portland City Library
U.S. Army Corps of Engineers

RESTON, VIRGINIA

U.S. Geological Survey

SEATTLE, WASHINGTON

Federal Archives and Record Center
University of Washington Library
U.S. Army Corps of Engineers

VANCOUVER, WASHINGTON

Pacific Northwest River Basin Commission

WASHINGTON, D.C.

Honorable Senator John Melcher
Honorable Senator Max Baucus
Honorable Congressman Pat Williams
Library of Congress
Smithsonian Institution

LOS ALAMOS, NEW MEXICO

Los Alamos Scientific Laboratory
University of California

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A10, A11, A20, A42, A70, B23, B24, B25, B26, B105, B158, B192, B200, C33, C34, C37, C38, C39, C40, C42, C43, C46, C55, C141, C142, C186, C194, F129, F143, F147, G2, G38, H118, H129, H139, H150, H191, J51, J53, J54, J56, J57, J59, J61, J66, J70, J73, J76, K42, K61, K62, K75, K76, K82, K84, L92, M32, M127, M128, M130, M131, M132, M134, M135, M138, M139, M143, M144, M148, M149, M150, M152, M174, M175, M210, M439, M441, M484, M485, M493, N5, N9, O16, P26, P28, P60, P64, P66, P67, P90, R5, R31, R51, R52, R53, R54, R56, R68, R89, R90, S31, S50, S95, S96, S97, S108, S149, S156, S157, S160, S161, S162, S163, S262, S263, S264, S267, S271, S283, S284, S285, S286, S293, T51, T101, U24, U48, U83, U314, U319, U325, U326, V18, W27, W35, W36, W128, Z1

54 - Mammals - Behaviour—movements/migration

A5, A10, A11, A39, B23, B24, B26, B66, B105, B158, C33, C34, C35, C37, C38, C39, C40, C41, C42, C43, C45, C46, C194, D33, E2, F140, H108, H110, H119, H129, H191, J51, J53, J56, J57, J61, J66, J70, J71, J72, J73, J77, K62, K66, K75, K82, K99, M4, M50, M130, M131, M132, M134, M135, M137, M138, M141, M143, M144, M148, M150, M152, M175, M210, M484, M485, M491, N22, P26, P60, P66, P90, R18, R19, R51, R54, R56, R68, R89, R90, S31, S93, S95, S108, S149, S158, S157, S161, S275, S293, T101, U48, U127, U319, U325, U326, V18, W26, W37, W128

56 - Mammals - Behaviour—reproduction

A10, A11, A39, A42, B23, B26, B27, B66, B67, B68, B192, B193, B194, B196, B200, B202, B203, C15, C38, C43, C45, C46, C141, C142, C194, D11, F129, G89, H30, H111, H120, H129, H139, H160, H191, H222, J51, J53, J56, J63, J66, J70, K61, K62, K63, K64, K65, K66, K76, K79, L80, M131, M134, M136, M149, M150, M175, M219, M449, M450, M451, M468, M469, M485, M486, N5, N8, N22, O10, O18, P66, R51, R54, R89, R90, S82, S90, S96, S293, T80, V18, W37, W128, W169

58 - Mammals - Degradation Upon—vegetation

J77

59 - Mammals - Endangered/Threatened

B2, B158, B184, C35, C37, C39, C41, C46, C102, C186, C194, D33, D93, E20, E30, F49, F158, H129, H134, H151, H163, H177, H187, H188, H189, H206, J3, J7, J11, J50, J51, J55, J56, J57, J58, J59, J61, J62, J63, J64, J65, J66, J67, J68, J70, J71, J72, J73, J76, J77, K2, K48, K76, M7, M50, M59, M128, M129, M130, M131, M136, M137, M138, M139, M143, M144, M147, M175, M180, M284, N48, P60, R18, R19, R54, R56, S31, S93, S94, S95, S96, S99, S160, S161, S162, S236, S284, S275, S277, S286, U22, U30, U78, U103, U325, U360, W21, W128, Z1

60 - Mammals - General

B8, B69, B158, C15, C35, C37, C38, C39, C40, C41, C42, C43, C45, C46, C73, C93, C141, C142, C186, C175, C186, C194, D12, D71, D95, D96, E55, F82, F96, F129, F134, F140, F142, F145, F147, G1, G5, G49, G51, H29, H31, H108, H110, H111, H120, H121, H122, H129, H130, H150, H151, H157, H158, H159, H160, H162, H163, H191, H221, H222, J7, J11, J50, J51, J53, J56, J57, J58, J59, J61, J70, J73, J77, K2, K24, K42, K62, K61, K62, K66, K75, K81, K84, K96, L41, L43, L65, L79, M2, M3, M4, M32, M117, M123, M130, M131, M132, M134, M136, M137, M138, M139, M140, M141, M142, M143, M146, M148, M149, M150, M152, M154, M174, M175, M219, M235, M284, M449, M486, M470, M485, M490, N4, N5, N21, N23, O10, O11, O12, O14, O16, O18, O17, O18, O19, O20, P60, P66, P68, R5, R12, R18, R19, R45, R51, R52, R54, R68, R67, R68,

R70, R86, R89, R90, R99, S31, S82, S83, S89, S90, S98, S110, S149, S155, S156, S158, S159, S182, S183, S178, S264, S293, T10, T39, T60, T95, T101, U7, U18, U36, U55, U78, U103, U250, U251, U304, U311, U319, U320, U348, U360, U371, V18, W35, W37, W128, W160, W165, W169

61 - Mammals - General—data

A10, A11, A12, A21, A42, B2, B6, B7, B23, B24, B26, B183, B184, C37, C38, C41, C43, C46, C73, C93, C175, C194, D12, D71, D85, F129, F140, F145, G1, G5, G51, H20, H31, H106, H111, H121, H129, H139, H150, H157, H160, H191, J11, J50, J51, J56, J57, J61, J70, J73, J77, K42, K61, K66, K75, K81, K84, K99, L41, L43, L79, M3, M123, M131, M132, M134, M137, M138, M139, M140, M141, M142, M143, M144, M146, M148, M149, M150, M152, M154, M175, M236, M468, M490, N4, N5, N21, O10, O11, O12, O15, O17, O19, P98, R12, R52, R67, R68, R70, R86, S31, S89, S98, S156, S158, S162, S163, S178, S264, S293, T10, U18, U65, U78, U250, U304, U348, U360, U371, V18, W35, W128, W153

62 - Mammals - General—distribution

A10, A11, A42, B2, B6, B23, B184, B235, B244, C35, C37, C38, C39, C40, C43, C45, C73, C93, C194, D12, D71, E55, F96, F129, F142, H28, H110, H121, H129, H150, H157, H158, H159, H162, H163, H191, J51, J56, J57, J61, J63, J70, K2, K24, K42, K52, K99, L43, M4, M60, M130, M132, M134, M143, M146, M154, M175, M284, M485, N23, P60, R5, R12, R18, R19, R45, R51, R54, R89, R90, S90, S110, S149, S156, S178, S293, T95, T101, U251, U319, W35, W128, W160, W165

63 - Mammals - General—life history

A10, A11, A39, B23, B68, C15, C36, C45, C46, C93, C141, C142, D66, F82, F142, F147, H110, H120, H221, H222, J51, J70, J77, K61, M449, N5, O12, O18, O19, R54, R68, S82, S293, T101, W35, W169

64 - Mammals - General—surveys

A5, A10, A11, A20, A21, A42, A50, B27, B184, B192, C37, C38, C42, C43, F129, H129, H183, H191, J56, J57, J58, J59, J77, K24, L85, M117, M130, M131, M132, M134, M136, M137, M142, M175, N5, O20, P60, R18, R19, R51, R56, R89, S156, S163, U103, U311, U317, U319, U371, V18, W35, W37, W128, W160

65 - Mammals - Habitat

B150, C33, C34, C36, C37, C38, C39, C40, C41, C42, C43, C45, C46, C73, C141, C142, C186, C194, D12, D42, D71, E55, F49, F96, F129, F134, F173, G1, G2, G38, G57, G58, H106, H110, H111, H118, H127, H128, H129, H134, H139, H150, H157, H191, J3, J53, J54, J55, J56, J57, J58, J61, J62, J64, J65, J66, J67, J68, J70, J72, J73, J76, K42, K62, K66, K75, K76, K82, K84, K99, M8, M32, M60, M130, M131, M132, M134, M136, M138, M139, M141, M142, M143, M146, M147, M149, M150, M152, M154, M174, M180, M220, M437, M439, M441, M484, M485, M490, M491, M492, N5, N9, N22, N42, O20, P60, P64, P66, P67, R5, R6, R18, R31, R52, R54, R56, R68, R89, R90, S31, S94, S95, S96, S99, S110, S149, S156, S159, S160, S161, S162, S163, S263, S277, S286, S293, T51, T101, U18, U22, U24, U26, U30, U32, U46, U78, U83, U87, U127, U250, U314, U360, V18, W27, W35, W36, W128

66 - Mammals - Habitat—critical

C37, C38, H129, J3, J64, J65, J66, J67, J73, M136, M139, M180, R54, U22, W78, W27, W128

67 - Mammals - Habitat—maps

C186, P68, H150, J58, J66, J77, M150, M174, M180, R89, S110, S149, S266, U22, U30, U67, U319

68 - Mammals - Habitat—requirements

A5, A10, A11, A20, B23, B24, B104, B116, C33, C34, C35, C37, C38, C39, C40, C41, C42, C43, C45, C73, C141, C142, C186, C194, D12, D42, D71, E30, E55, F49, F173, G1, G2, G38, G57, G58, H106, H110, H111, H118, H128, H129, H134, H136, H157, H191, J54, J55, J66, J67, J68, J69, J61, J62, J64, J65, J67, J70, J72, J73, J76, K42, K62, K75, K76, K82, K84, K99, M8, M32, M60, M130, M132, M134, M136, M138, M139, M143, M146, M149, M150, M152, M154, M174, M180, M437, M439, M441, M484, M485, M490, M491, M492, N5, N22, O20, P64, P67, R5, R6, R18, R31, R62, R64, R66, R68, R90, S31, S94, S95, S149, S156, S158, S160, S161, S162, S163, S263, S277, S286, T51, T101, U18, U24, U32, U46, U83, U250, U314, U360, W27, W35, W36, W128

69 - Mammals - Management

A21, A42, B200, C2, C28, C35, C37, C38, C46, C144, C175, C183, C194, D33, E33, F46, F62, F91, F142, G86, H127, H128, H129, H134, H139, H170, J80, J83, J55, J66, J61,

J62, J64, J65, J66, J68, J69, J70, J73, K24, K42, K48, K66, K84, M2, M4, M6, M7, M50, M129, M131, M132, M134, M137, M138, M139, M141, M142, M143, M144, M146, M148, M149, M151, M153, M154, M175, M180, M210, M218, M220, M236, M239, M240, M484, M485, M499, N2, N5, N9, N21, N42, P64, P67, P68, R18, R54, R56, R66, R90, R97, S31, S93, S95, S99, S106, S156, S236, S262, S264, S275, S276, U24, U48, U55, U83, U311, U318, U323, U325, U326, W128

70 - Mammals - Mortality

A42, B67, B158, C15, C37, C38, C39, C42, C43, C45, C46, C194, D11, D12, D33, E20, F62, F134, F142, F143, F144, F145, F147, F148, G5, G66, G87, H139, H150, H190, J55, K75, L65, M9, M97, M123, M131, M132, M134, M136, M141, M142, M149, M174, M175, M183, M484, M485, M486, N5, N8, N22, N23, O10, O14, O20, P64, P66, P68, P103, R18, R19, R45, R52, R54, R86, R90, S89, S90, S91, S92, S156, S157, S161, S200, T52, T53, U48, U320, V18, W21, W37, W150, W167

71 - Mammals - Mortality—predators

A10, A11, A21, C37, C38, C46, G5, M64, M130, O10, R54, R90, S161, U48, V18

72 - Mammals - Mortality—diseases

A10, A11, A12, A19, A20, A21, F142, F143, F145, F147, F148, G87, H139, H190, M9, M123, M130, M132, M174, M183, O10, P103, R54, R90, S89, S90, S91, S92, S200, T52, T53, U48, W21, W150

73 - Mammals - Mortality—harvest

A82, A86, C39, C46, C194, E20, G86, H139, J55, K75, M97, M132, M484, M485, N5, N23, P64, R45, R90, S45, W167

74 - Mammals - Mortality—highway

A21, M130, M484, M485, S156, S157

75 - Mammals - Mortality—population control

A10, A11, C45, G66, K75, N5, P68, R90, U320

77 - Mammals - Techniques

A5, C28, C37, C38, C39, C42, C43, C142, C183, C186, D95, D97, H129, H192, J52, J56, J57, J63, K66, L41, L42, M38, M131, M175, M441, M451, N7, N22, O13, P60, R18, R51, R68, S31, S94, S161, S269, S286, S293, T10, V18, W128, W147, W160

78 - Mammals - Techniques—age determination

A10, A42, B70, C36, C142, D95, D97, L41, L42, M38, M451, N7, O20, S269, T10, W147

79 - Mammals - Techniques—census/survey

A10, A11, A20, B23, B24, C37, C38, C39, C42, C43, C186, H129, J56, J57, J59, K66, M131, M175, M441, N22, O18, P60, R18, R66, S31, S94, S161, S269, S293, V18, W128, W180

80 - Mammals - Techniques—stomach analysis

A20, B201, M441

81 - Mammals - Toxins

A50, F129, G55, G56, G57, G58, G60, G61, H78, M140, M295, S185

82 - TERRESTRIAL VEGETATION

83 - VEGETATION

84 - Vegetation - Agriculture

A13, A14, A32, A92, B10, B169, B170, B176, B224, B225, B226, B227, B228, C1, C161, C162, E13, F67, F82, F92, F101, F102, F103, F105, F136, G68, G69, G70, G72, H72, I4, K5, L6, M76, M77, M78, M79, M248, M249, M260, M263, M267, M294, M332, M358, M407, M408, M409, M430, N49, N50, N51, N52, N63, N54, O29, P22, P126, R63, R64, R65, R66, S122, S185, S253, S264, S265, S266, S267, U13, U116, U126, U131, U137, U138, U193, U211, U213, U218, U367, W54, W55, W56, W57, W58, W59, W60, W61, W62, W63, Z8

85 - Vegetation - Association

B18, C18, C28, C42, C67, C68, C78, C112, C166, C174, D7, D34, D39, D40, D42, D43, D71, D75, D90, D91, E11, E32, E42, E58, E59, E80, F19, F58, F68, F114, F129, F133, F175, G1, G55, G62, G64, G85, G106, H1, H2, H3, H4, H5, H6, H7, H8, H9, H10, H12, H13, H14, H16, H43, H44, H76, H77, H93, H96, H97, H99, H145, H182, H210, H211, H212, H213, H216, H242, J7, J29, J37, J38, J49, K23, K27, K34, K37, K38, K39, K44, K56, K70, K71, K91, K104, K106, K111, L18, L20, L21, L75, L88, L99, L90, L92, L93, K3, M16, M22, M29, M53, M58, M122, M130, M133, M139, M156, M161, M331, M342, M356, M357, M360, M391,

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86 - Vegetation - Association—forests

A5, A15, A17, A35, A47, A66, A75, A76, A77, A78, A80, A83, A92, B1, B9, B46, B49, B55, B58, B61, B61, B116, B141, B142, B164, B166, B179, B186, B237, C18, C26, C67, C78, C112, C158, C174, D7, D34, D39, D40, D42, D43, D71, D75, D90, D91, E11, E42, E58, E59, E60, F19, F58, F88, F114, F129, F133, G1, G55, G62, G85, G106, H1, H2, H4, H5, H6, H7, H8, H9, H12, H13, H14, H16, H43, H44, H77, H96, H97, H99, H145, H182, H210, H212, H213, H216, H242, J29, J37, J38, J49, K23, K27, K34, K37, K38, K39, K55, K70, K71, K91, K104, K111, L18, L20, K21, L75, L88, L89, L90, L93, M16, M22, M29, M53, M58, M122, M130, M133, M139, M161, M227, M331, M342, M356, M357, M380, M391, M455, O6, O9, O32, O33, P31, P66, P92, P100, R80, R105, R121, S31, S35, S37, S38, S42, S43, S68, S70, S118, S119, S120, S160, S197, S233, S238, S240, S262, T63, T77, T78, T80, T82, T84, T86, T88, U14, U15, U19, U24, U25, U27, U36, U51, U52, U53, U58, U72, U73, U74, U79, U102, U105, U120, U135, U216, U217, U220, U305, U339, U374, U375, W27, W98, W123, W124, W126, W133

87 - Vegetation - Association—grasslands

A5, A89, A92, B116, C42, C67, C68, D7, D71, E11, F175, G62, H3, H4, H6, H9, H10, H14, H83, K37, K39, K106, M16, M130, M133, M139, M247, M342, M357, M436, M438, M442, M480, M487, O20, R105, R108, S155, S293, U36, U79, U106, U120, U131, U305, U341, V5, W27, W59, W123

88 - Vegetation - Association—wetlands

D71, G64, H4, H9, H14, L92, S72, S73, S220, H119a

90 - Vegetation - General—control

B128, H213, M440

91 - Vegetation - General—data

A35, A66, A75, A79, A80, A85, A86, A90, B18, B20, B73, B106, B129, B130, B142, B169, B183, B196, B215, B226, C17, C18, C22, C23, C67, C73, C164, C193, D7, D34, E11, F57, F67, F133, G1, G62, G64, G85, G101, H1, H3, H4, H6, H6, H7, H8, H9, H12, H13, H14, H17, H78, H92, H131, H147, H242, J49, J87, K27, K35, K39, K44, K55, K57, K60, K69, K90, K104, K105, L18, L40, L89, L90, M48, M49, M70, M89, M91, M115, M130, M133, M161, M227, M249, M348, M356, M358, M380, M407, M409, M431, M437, M442, M480, M502, N10, N11, P65, R25, P81, S34, S43, S70, S74, U14, S115, S218, S220, S221, S278, T63, U14, U51, U62, U53, U58, U74, U102, U126, U135, U211, U218, U297, U304, U346, W123, W124, W129

92 - Vegetation - General—distribution

A35, A66, A75, A77, A78, A79, A80, A85, A86, A90, A92, B9, B18, B20, B142, B196, B247, C17, C68, C73, C89, C90, C164, D7, D34, E11, E32, E42, E62, F57, F64, F129, F133, G62, G64, G65, G101, H2, H3, H4, H6, H7, H8, H9, H12, H13, H17, H25, H78, H104, H132, H180, J7, J49, J67, K27, K35, K36, K44, K56, K57, K58, K60, K105, K106, L18, L89, M22, M33, M34, M70, M89, M115, M122, M130, M133, M176, M247, M348, M357, M431, M439, M440, M442, M480, N10, O32, P66, P66, P120, R30, R106, R109, R116, R118, R117, R118, R119, R120, S19, S43, S73, S103, S117, S119, S120, S147, S155, S218, S220, S221, S222, S236, S240, S262, T44, T63, U36, U74, U79, U106, U297, U308, U322, U346, U360, U375, W63, W124, W132

93 - Vegetation - General—productivity

A78, A90, A92, B1, B19, B71, B73, B130, B169, B176, B226, B228, C25, C161, C162, C173, C174, E51, F67, F68, F101, F133, F136, F175, G24, G69, G72, H1, H46, H210, H242, K23, K27, K71, K105, M76, M77, M78, M79, M227, M248, M263, M348, M356, M407, M408, M409, M431, M436, M437, M438, M441, N49, N50, N51, N52, N54, O89, R63, R64, R65, R79, R80, R81, S43, S74, S114, S115, S254, S255, S256, T43, U36, U62, U63, U72, U131, U136, U137, U211, U217, U218, U297, U374, U375, V15, W12, W65, W66, W67, W68, W69, W81, W82, W63, W124, Z8

94 - Vegetation - General—succession

A35, A66, A75, A76, A77, A79, B1, B116, C67, D40, E32, F133, G1, G60, H1, H3, H4, H5, H6, H9, H13, H16, H36,

H59, K36, K55, L18, L84, L90, M16, M33, M34, M133, M436, M480, P100, R82, U36, W53, W124

95 - Vegetation - General—taxonomic keys

A85, B9, B157, B238, H105, H131, H132, H147, H212, K44, L5, M442, M480, S221, U36

96 - Vegetation - General—esthetics

A15, H10, N10, O28, P51, R25, S10, S75, S117, S171, T59, U36

97 - Vegetation - General—fire

A9, A35, A83, A84, A90, A92, B38, B55, B56, B57, B58, B59, B116, B198, C79, C106, C112, D39, D40, D42, D43, F22, F58, F60, F114, G1, G44, H2, H4, H6, H8, H9, H16, H36, H212, K14, K34, K36, K37, K38, K39, K84, K103, L19, L84, L89, L90, M20, M128, M133, M150, M348, M380, N58, N59, O6, O9, O32, P29, P30, S74, S103, S117, S123, S160, S163, S185, S233, S237, S238, S240, S259, T78, U34, U36, U70, U74, U330, U342, U375, V15, W53

98 - Vegetation - General—forage

A5, A20, A70, B105, B237, C34, C42, C156, D75, F134, F173, G2, G38, H9, H118, H139, J68, K24, L75, L92, M128, M130, M149, M220, M436, N5, P67, R63, R66, S31, S95, S97, S162, S163, S267, S283, S284, S285, U24, U27, U36, U46, U55, U83, U314, U319, W27, Z1

99 - Vegetation - General—grazing

A90, F82, F84, F175, H4, H9, M122, M247, M332, M347, M348, M408, M436, M438, N49, N52, K54, R63, R64, R66, R106, S285, U27, U131, W55, W56, W57, W61, W62, W63

100 - Vegetation - General—insects/disease

A13, A14, A15, A17, A32, A47, A48, B72, B162, B163, B164, B165, B166, B238, C25, C26, C77, C78, C107, C168, D62, D63, D64, D65, D68, D69, D80, D90, D91, D92, E13, E58, E59, E80, F18, F19, F20, F21, F22, F23, F25, F125, F141, G33, G34, G67, G106, H4, H24, H36, H43, H44, H68, H101, H182, J37, J38, J68, K50, K70, K69, K90, K91, K92, K111, L20, L21, L22, L50, L51, M26, M53, M54, M55, M56, M57, M58, M248, M263, M348, M380, M391, N52, N54, O32, P92, P128, S38, S39, S40, S43, S74, S124, S198, S197, S219, T76, T77, T78, T79, T80, T81, T82, T83, T84, T86, T88, T89, U20, U25, U29, U37, U38, U88, U89, U307, U375, W63, W133, W156

101 - Vegetation - General—logging

A15, A17, A90, A92, B33, B56, B59, B79, B80, B81, B146, B148, B205, C156, C193, D39, D40, D41, D43, F20, F21, F45, F88, F130, G24, H4, H98, H128, H145, H213, H216, H228, H242, J2, J72, J86, K27, K70, K84, L88, M23, M50, M128, M227, M335, M348, M356, M380, M406, M455, N30, O32, O33, P29, P30, P31, P67, P92, P93, P100, P101, R79, R82, R84, R85, S70, S71, S74, S75, S118, S120, S121, S234, S238, S259, T1, T43, T76, U15, U16, U19, U24, U41, U45, U51, U52, U53, U58, U72, U73, U74, U98, U102, U105, U216, U217, U220, U222, U371, U374, U375, W30, W32, W96, W126, W131

102 - Vegetation - General—management

A17, A48, A66, A75, A83, A90, B33, B72, B80, B81, B106, B126, B151, B169, B205, C107, C156, C161, C162, B174, C168, D40, D42, D75, D91, D92, E51, F20, F21, F60, F66, F82, F114, F130, F138, F149, F175, G24, G69, G70, G72, G85, H8, H16, H36, H67, H77, H93, H98, H128, H145, H170, H211, H212, H213, H228, H242, J2, J86, K14, K23, K24, K36, K37, K39, K70, K71, K84, K105, L19, L86, L89, L90, L93, M20, M22, M26, M76, M78, M79, M87, M133, M161, M206, M227, M263, M331, M332, M335, M342, M348, M356, M380, M407, M409, M432, M440, M455, N30, N46, N50, N51, N52, N53, N54, O29, O32, P30, P86, P93, P126, R63, R64, R65, R78, R80, R82, R84, R85, R121, S35, S37, S38, S41, S43, S70, S74, S75, S116, S118, S119, S122, S123, S234, S238, S253, S254, S255, S285, S286, T1, T30, T43, T46, T76, U19, U20, U29, U34, U51, U52, U53, U56, U58, U60, U64, U70, U72, U74, U102, U116, U135, U216, U220, U222, U341, U342, U360, U375, V15, W12, W33, W55, W56, W57, W58, W59, W60, W61, W62, W63, W126, W131, Z8

103 - Vegetation - General—maps

A98, A78, A92, A142, A157, C68, D69, H8, H116, K27, M161, M348, M356, M431, M440, P65, P66, S282, U79, U97, U120, U305, U375

104 - Vegetation - General—population conditions

A80, B18, B20, B38, B71, B106, B163, B164, B166, C19, C22, C25, C26, C27, C67, C78, C174, D69, F18, F125, F175, G2, G67, G90, H1, H3, H6, H8, H16, H24, H44, H67, H84, H210, H211, H242, J2, J29, J38, J87, K23, K24, K27, K37, K39, K104, K105, L75, L93, M33, M34, M55, M87,

M227, M332, M356, M436, O33, R78, R79, R83, R106, S35, S38, S41, S43, T78, T89, U15, U16, U34, U51, U52, U58, U74, U217, U305, U375, W27, W30, W53

105 - Vegetation - General—productivity

A75, B33, B106, C22, C25, D75, F22, H95, J87, K27, M122, M227, M247, M248, M332, M391, M431, M455, M487, P83, R79, S38, S43, S122, T30, U16, U53, U74, U131, U375

106 - Vegetation - General—response to impacts

A51, A80, B33, B38, B61, B65, B72, B79, B237, B245, B246, B247, C19, C21, C22, C25, C26, C27, C115, C156, C188, D1, D40, D42, D43, D63, F20, F21, F43, F88, F175, G56, G58, G60, G61, H4, H9, H10, H24, H67, H93, H94, H95, H96, H212, H228, J7, J38, K24, L84, M87, M128, M133, M140, M247, M332, M436, M438, M440, M455, P29, P30, P63, P67, R79, R80, R81, R82, R83, S35, S37, S38, S39, S42, S132, S133, S134, S259, S283, S284, S285, T78, U20, U73, U331, U341, U362, V15, W30, W33, W53

107 - Vegetation - General—revegetation/regeneration

A80, A85, A92, B1, B33, B49, B58, B140, B141, B142, B237, C24, D40, D41, D42, D75, D108, F45, F138, F175, G1, H8, H23, H36, H67, H93, H94, H210, H213, H242, J29, J86, K27, K29, M122, M128, M332, M348, M380, M440, M455, O32, O33, P30, R78, R82, S36, S43, S116, S118, S120, S121, S122, S125, S134, S233, S240, S259, T59, U73, U305, U341, V15, W27, W29, W30, W59

108 - Vegetation - General—toxic substances

A49, A51, B61, C20, C21, C22, C25, C26, C27, F114, F129, G16, G53, G55, G56, G57, G58, G60, G61, H37, H78, M140, M295, M301, N51, P63, S133, U37, U362

109 - Vegetation - General—trace element accumulation

A49, A51, B73, C21, C22, C24, C27, G53, G56, G57, G58, G61, H37, P63

110 - Vegetation - General—wildlife use

A5, A20, A70, A99, B105, B116, B237, C22, C34, C42, C71, C156, C186, D71, D75, F134, F173, G1, G2, G38, G57, H118, H128, J54, J68, J72, K24, L75, L92, M22, M23, M28, M29, M50, M87, M128, M130, M134, M135, M139, M149, M150, M220, M332, M431, M436, M441, M442, N5, O20, P60, P67, R5, R45, R52, S50, S95, S97, S103, S118, S158, S162, S163, S267, S271, S283, S284, S285, U24, U27, U48, U55, U83, U314, U319, V18, W27, W159, Z1

112 - AIR RESOURCES

113 - CLIMATE

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114 - Climatology - Air Quality

A53, B56, C25, D42, F8, F53, F59, G27, G28, G29, G53, G56, G57, G58, G61, H37, H76, H183, J7, K103, M140, M223, M291, M295, M299, M301, M302, N58, N59, P63, P104, U358, U362, W2

115 - Climatology - Air Quality—data

A7, A8, A9, A49, A51, A52, C25, D42, F53, F59, G27, G28, G29, G53, G56, G57, G58, G61, H37, H76, H183, J7, K103, M291, M295, M299, M301, M302, P63, P104, U358, U362, W2

116 - Climatology - Air Quality—monitoring

A7, A8, A9, A51, G27, G28, G29, G56, G58, G61, H37, H76, H183, J7, K103, M140, M299, M301, M302, U362

118 - Climatology - Flood

F102, L91, U54, U118, U167, U172, U183, U263, U271, U272, U277, U282, U316, U343

119 - Climatology - Flood—data

B155, F102, L91, U54, U118, U167, U183, U263, U271, U277, U282

120 - Climatology - General

A80, B20, B54, B90, C169, D25, D26, D73, D74, D75, F102, F162, G27, G28, G29, H4, H9, H59, H116, J24, K36, L19, M155, M161, M295, M343, M437, N40, N64, P3, P5, P63,

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121 - Climatology - Precipitation

A4, A44, B20, B54, B90, B153, B155, B245, D25, D26, D54, D55, D73, F4, F5, F6, F7, F8, F101, F102, F139, G29, G43, G77, H4, H142, H245, J26, K4, L18, L19, L91, M295, M333, M423, N40, N49, N50, N51, N63, N64, P3, P5, P6, P130, R105, R106, S100, S151, S223, S240, S242, U54, U65, U97, U110, U111, U114, U119, U120, U122, U125, U127, U128, U134, U136, U138, U161, U162, U165, U179, U192, U263, U277, U282, U288, U292, U377

122 - Climatology - Storms

B155, B245, D25, D54, G29, L91, P3, P130, S223, S240, U54, U110, U114, U122, U263, U277

123 - Climatology - Solar Inventory

B90, D54, S151, U161, U162

124 - Climatology - Temperature

B54, B153, D54, D73, F53, F139, G29, G77, H4, J26, K4, L18, L19, N49, N50, N51, N63, N64, P3, P5, P6, P130, R106, S151, U134, U161, U162, U288, U292, U377

125 - Climatology - Temperature—data

B20, B57, B90, D54, D73, F53, F139, F140, G29, J26, L18, L19, N49, N50, N51, P3, P130, R106, S151, U134, U161, U162, U288, U292, U377

126 - Climatology - Weather Modification

A4, B138, B181, F140, G29, H76, M140, M145, M302, M333, N40, P3, P5, S100, U192

127 - Climatology - Winds

A9, B13, B56, B57, B90, F45, F140, G29, H76, K103, M302, N58, O9, P3, P6, P130, U162, U179

128 - EARTH RESOURCES

130 - Geology - Bedrock

A22, A26, A27, A28, A29, A31, A37, A38, A59, A60, A91, B20, B34, B36, B82, B93, B108, B109, B139, B144, C5, C9, C11, C13, C14, C56, C63, C64, C82, C83, C96, C98, C163, C189, C192, D1, D44, D46, D47, D48, D49, D50, D51, D52, D53, D60, D126, E3, E11, E47, F26, F27, F31, F32, F33, F40, F41, F46, F84, F172, G10, G37, G39, G40, G99, H26, H32, H33, H34, H36, H39, H41, H60, H74, H80, H81, H82, H83, H84, H85, H86, H88, H136, H137, H143, H144, H153, H154, H193, H197, K198, H218, I2, J13, J14, J15, J16, J17, J18, J19, J20, J21, J23, J24, J42, J82, K19, K67, K68, K72, L1, L2, L15, L16, L17, L28, L66, M8, M51, M63, M156, M158, M161, M177, M178, M182, M186, M211, M243, M256, M424, M466, M472, M473, M474, M475, M477, M478, N36, N38, N60, P33, P43, P72, P73, P125, P126, R39, R41, R43, R75, R100, R101, R102, R103, R104, S84, S102, S127, S128, S146, S165, S172, S175, S194, S294, T18, T19, T45, T61, T62, U21, U26, U61, U75, U79, U176, U265, U268, U295, V13, V17, W3, W4, W97, W99, W100, W101, W102, W103, W135, W136, W140, W143, W144, W145, W146, W148, W149, W154, W155, W161, W162, Z2

131 - Geology - Characteristics/Performance

A22, A28, A29, A31, A36, A37, A38, A59, A60, A91, B34, B36, B82, B93, B108, B109, B139, B144, B163, C5, C6, C63, C64, C83, C86, C96, C163, C169, C195, D44, D46, D47, D48, D49, D60, D61, D62, D63, D60, D106, D108, D126, E3, E47, F32, F33, F41, F46, F163, F172, G4, G16, G37, G99, H4, H26, H32, H80, H81, H83, H84, H85, H86, H109, H137, H144, H154, H186, H194, H195, H196, H197, H198, H218, H239, I2, J13, J14, J15, J16, J17, J18, J19, J23, J24, J26, J42, J82, K19, K67, K72, L1, L2, L15, L16, L17, L28, L66, M8, M51, M63, M156, M177, M178, M182, M186, M211, M472, M473, M474, M475, M478, N60, P32, P33, P43, P125, P126, Q1, Q2, R24, R39, R41, R43, R75, R102, R103, S102, S127, S128, S146, S165, S172, S175, S180, S250, S258, S294, T18, T19, T61, T62, U23, U28, U79, U108, U265, V13, V17, W3, W4, W34, W97, W99, W101, W102, W103, W104, W135, W136, W140, W143, W144, W145, W146, W148, W154, W155, W161, W162, Z2

132 - Geology - Economics

B84, C5, F36, H34, H82, J17, J21, L28, M477, R42, S126, T62, U268, U296, Z5

133 - Geology - Economics—maps

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134 - Geology - General

A25, A26, A29, A36, A37, B20, B34, B44, B82, B83, B84, B93, B106, B126, B139, B159, C5, C6, C7, C51, C63, C56,

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135 - Geology - Geochemistry
B84, D44, H36, H61, H82, H84, H87, H198, J14, J15, J18, J82, K74, L28, M177, M186, N34, N60, S128, S165, W101

136 - Geology - Geomorphology
A25, A27, A29, A30, A31, A36, A37, A38, B13, B19, B36, C3, C12, C51, C63, C82, C163, D1, D51, D53, D125, D126, E3, E11, E27, F26, F32, F33, F39, F46, F172, G37, H40, H136, H144, H153, H193, H194, H195, H196, H218, J13, J14, J17, J18, J24, J42, J82, K19, L15, L17, L28, M156, M182, M477, N36, N39, P42, R40, R102, R103, R104, S127, S128, S165, S294, T45, U109, U265, U268, U279, V17, W104, W143, W145, W146

137 - Geology - Glacial
A22, A25, A26, A27, A28, A29, A30, A31, A37, A38, A44, A61, B36, B54, B84, B131, B183, C3, C51, C53, C54, C56, C163, C192, C195, D27, D28, D44, D59, D74, D120, D121, D122, D123, D124, D125, D126, D127, E11, E27, F26, F46, G13, G91, H9, H38, H39, H41, H60, H61, H74, H75, H86, H186, J13, J14, J15, J17, J18, J26, L15, L28, M182, N38, N39, P42, R47, R48, R101, R102, S128, S135, S165, S175, S194, S266, T45, U75, U264, U265, U293, U300, U348, V17, W34, W104, W125, W145, W146, W163, Y2

138 - Geology - Sedimentology
A2, A22, A25, A29, A31, A37, A38, A59, B34, B82, B84, B93, B106, B139, C51, C63, C97, C98, C163, C189, C195, D44, D46, D48, D50, D52, D126, E3, F27, F28, F31, F32, F33, F34, F39, F46, F150, G39, G103, H26, H40, H83, H84, H86, H136, H143, H154, H193, H194, H195, H196, H218, I2, I6, J13, J14, J15, J17, J18, J24, J42, K74, L15, L66, M8, M63, M124, M177, M182, M472, M474, M477, N60, P72, P73, P111, P126, R24, R40, R41, R43, R103, R104, S128, S135, S165, S172, S175, S290, T19, T45, U9, U265, V17, W34, W97, W98, W100, W101, W103, W104, W146

139 - Geology - Subsurface
A26, A36, A38, A80, A91, B106, B109, B144, C9, C10, C11, C12, C13, C14, C63, C82, C163, D47, D51, D52, D72, F33, F41, F46, F84, F172, G37, G39, H33, H82, H109, H136, H143, H144, H153, H196, H218, J13, J14, J16, J17, J18, J24, K19, K68, K72, L1, L15, L17, M8, M182, M186, M214, M256, M472, M473, M474, M476, M477, M478, P32, P125, P126, Q2, R101, R104, S127, S128, S165, S172, S258, T62, U266, U265, V17, W136, W140, W149, W154

141 - Geology - Surface
A26, A28, A29, A37, A38, B13, B34, B36, B82, B84, B93, B106, B109, B178, B183, B245, B257, C8, C51, C63, C64, C82, D28, D44, D53, D126, E11, F32, F41, F46, F84, G10, G40, H83, H86, H144, H186, H218, J13, J14, J15, J17, J18, J24, K19, K67, L2, L15, L28, L58, M156, M157, M158, M182, M182, M256, M472, M474, M476, P40, P43, P72, R24, R42, R47, R48, S128, S165, S172, S294, T19, U81, U97, U264, U265, U267, U268, U296, U295, V17, W1, W34, W40, W101, W104, W146, W162, Y2

143 - Geology - Unique Features
A38, A91, B13, B241, B247, C5, C9, C10, C11, C12, C13, C14, C64, C97, C105, D27, D47, D49, D72, D74, D106, D121, D122, D123, D124, D125, D126, D127, F27, F33, F34, F40, F46, F167, G4, G91, G103, H38, H39, H41, H60, H83, H109, H186, H193, H194, H195, H197, H198, I2, J13, J14, J17, J18, J24, J26, K67, M63, M472, M473, P40, P42, Q2, R39, R47, R48, S14, S128, S132, S146, T19, U266, U296, W99, W100, W102, W104, W125, W134, Y2

144 - SOILS

146 - Soils - Characteristics
A92, C113, C172, C173, C174, D39, D41, D42, D43, D54, D70, E42, F109, F111, F133, G66, G70, G71, H18, H94, H95, H96, H97, H98, H99, H100, H101, H102, H137, J18, J22, J23, J24, J85, J86, K65, L22, L56, M3, M156, M157, M158, M159, M160, M184, M318, M345, M423, M437, M466, M487, N34, N35, N36, N49, O42, P29, P31, R108, S81, S117, S128, S134, S153, S165, S193, S196, T1, T67,

U23, U36, U75, U79, U92, U93, U94, U109, U116, U134, U162, V15

146 - Soils - Characteristics—chemical
B19, B20, D39, D41, D42, D43, F70, G66, G70, G71, H18, H98, H101, J18, J23, J24, J85, J86, K65, M160, M466, N35, N36, N49, O42, S81, S128, S153, S165, S193, S194, U75, U109

147 - Soils - Characteristics—microfauna
B19, B20, B109, H95, H96, H97, H99, H100, J85, L20, N35, N36, S196, S197

148 - Soils - Characteristics—microflora
C172, H99, H101, J85, L21, N35, N36

149 - Soils - Characteristics—moisture
D39, D54, F4, H94, H97, H100, J85, K65, K104, M159, M423, M437, N30, N35, N36, N49, P29, S81, S117, S165, S193, T1, U75, U113, U134, U136, U162

150 - Soils - Characteristics—physical
C172, C173, D42, D43, D70, F133, H18, H94, H96, H99, H101, J85, K65, L55, M159, M466, N34, N35, N36, N49, P31, S81, S153, S165, S193, S194, U75, U109, U113, U116, V15

151 - Soils - Characteristics—trace
H18, J18

152 - Soils - Erosion
B19, B20, B153, C195, D40, D42, D43, F46, M3, M125, M184, M399, M466, O42, P29, P31, S81, S134, S165, S193, T67, U75, U93, U113

153 - Soils - General
A92, C68, C172, C173, C174, D40, D41, D44, D75, F46, F74, F84, F133, F162, G40, H4, H99, J7, J84, K65, K93, L55, M3, M156, M157, M158, M160, M161, M384, M437, M466, M487, N34, N35, N36, N49, O42, P31, P66, R42, R105, R106, S165, S177, S193, S194, T67, T88, U14, U36, U61, U75, U93, U94, U109, U113, U120, U348

154 - Soils - General—techniques
H99, J84, K65, M376, M476, M487, N35, N36, S272, T62, T67, U79, U273

155 - Soils - Maps
B121, B124, D70, F109, F111, K65, M156, M157, M161, M345, M384, M399, M466, P66, S165, S193, S194, U75, U92, U109, U113, U120, U127

156 - Soils - Surveys
C51, D44, D70, E42, J22, K65, L55, M184, M376, M426, M466, N35, N36, S165, S194, U14, U75, U92, U109, U113

157 - Soils - Toxic Substances
M376

158 - Soils - History/Benevolence
C51, G40, M466, N35, O42, S165, S193, S194, U75, U109

159 - MINERALS

A38, B132, C5, C56, C80, C114, C116, C151, C152, C190, D5, D44, D60, D94, D102, F46, F162, H33, H80, H81, H82, H86, H87, H116, H239, I14, J7, J13, J14, J15, J17, J18, J19, J20, J21, J22, J23, J24, L14, L16, L38, M177, M178, M258, M355, M404, M477, N32, N45, N60, O1, P32, P33, P74, R42, S1, S127, S128, S135, S228, S290, T23, T61, U9, U21, U28, U36, U41, U44, U76, U109, U265, U268, U294, U295, U348, W134, W143, W145, Z2, Z5

160 - Minerals - Clay
B40, D44, F46, J14, J15, J17, J19, L38, M178, S1, S135, S228, S290, U9, U265, U295, W143

161 - Minerals - Coal
B40, C80, D102, I14, J7, J19, J24, L38, M404, N45, O1, S1, U9, U41, U268, Z5

162 - Minerals - Conversion
B132, C80, C151, D102, I14

163 - Minerals - Deposits
B40, B41, B84, C5, C56, C80, C151, C190, D5, D60, D94, F46, H33, H80, H81, H82, H86, H239, I14, J7, J13, J14, J17, J18, J19, J21, J23, J24, L14, L38, M404, M476, M477, O1, P32, P33, P74, S1, S127, S128, S272, T61, T62, U9, U21, U28, U44, U79, U265, U268, U273, U294, U295, W145, Z2, Z5

164 - Minerals - Extractions
A16, B82, C5, C80, C116, C151, C190, D5, I14, J7, J13, J14, J15, J17, J18, J24, L14, M258, M355, M476, O1, P33, S1, S128, S272, S268

165 - Minerals - Maps
B40, B41, C190, H33, H82, H116, J13, J14, J15, J17, J18, J19, J21, J24, L14, M476, O28, T62, U9, U21, U268, U273

166 - Minerals - Natural Gas
A16, B40, B84, C80, C152, H239, I14, J18, J19, J24, L16, M355, M476, M477, N45, O1, S1, U9, U76, U295, Z5

167 - Minerals - Ownership
L38

168 - Minerals - Petroleum
A16, B40, B82, C80, C151, D5, D60, D94, H239, I14, J15, J18, J19, J24, L16, M355, M404, M476, M477, N45, O1, R42, S1, U9, U76, U268, U295, W134, Z5

170 - Minerals - Uranium
A2, C80, I14, L38, S1, U9, U294

171 - Minerals - Other
B41, C190, H80, H87, J19, L38, M177, N60, P33, S1, T23, U9, U268

172 - LAND TYPES

A29, A38, B8, B13, B121, C5, C7, C189, C195, D27, D126, F26, F46, F111, F137, H4, H50, J15, M155, M157, M345, M357, M466, N36, P85, P86, T19, T45, U23, U75, U79, U92, U93, U94, U101, U265, W145

173 - WATER RESOURCES

174 - ALGAE

175 - Algae - General
A55, A69, B4, B118, B215, E19, F33, G14, G17, G20, G21, G23, H140, H186, H187, H193, H194, H195, H196, H198, H235, I15, K46, K47, K59, K73, L29, M237, M434, M500, N66, P44, P46, P111, P112, P115, P116, P121, R40, R41, R49, S136, S182, S231, T49, V11, V14, W142, W171, Z3, Z6

176 - Algae - Qualitative Surveys
B4, G20, G21, H140, H186, I15, J1, K46, K47, K59, K73, L29, M237, M434, N65, P44, P45, P122, S136, S182, U280, V11, W172, W173, Z3, Z6

177 - Algae - Quantitative Surveys
B4, B215, G20, G21, H235, I15, K46, K47, K59, K73, M433, M434, N65, P45, T49, U280

178 - AQUATIC VASCULAR PLANTS

179 - Aquatic Vascular Plants - Qualitative
C158, K59

180 - Aquatic Vascular Plants - Quantitative
B215

181 - Aquatic Vascular Plants - General
B215, C158, G21, K59, S226, U348

182 - Aquatic Vascular Plants - General—data
C158, K59

185 - FISHES

186 - Fishes - Behaviour
C119, C120, H64, H108, H240, H241, J30, J31, M15, M18, M72, M267, M290, P1, R16, S69, S80, S107, U248, U260, U310, W26, W42, W46, W48, W52

187 - Fishes - Behaviour—movements/migration
B118, B133, C119, C120, H64, H108, J30, M15, M18, M267, M290, S69, S107, U260, W26

188 - Fishes - Behaviour—reproductive
B118, B133, H240, H241, J30, J31, M15, M18, M72, M267, M290, R16, S69, S80, S107, U248, U260, W26, W42, W46, W48, W52

189 - Fishes - Bloodies/Pollution
M294, W142

191 - Fishes - Data
B133, B213, B216, B217, D66, E14, E40, E61, G36, H64, M267, P1, P117, R3, R16, S67, U260, U352, W26, W32, Y5

192 - Fishes - Endangered/Threatened
B32, G46, M264

193 - Fishes - General
C74, C76, C119, D66, E14, E40, E61, F10, F51, F162, G11, G21, G36, G48, G50, H62, H63, H64, H65, H108, H113, H114, H171, H241, J7, J30, J31, K94, L43, M18, M276, M278, M284, M287, M290, M462, M463, M464, P1, P117,

R3 R16, R95, S67, S68, S69, S80, S107, U104, U181, U248, U250, U252, U254, U256, U258, U259, U260, U304, U306, U310, U313, U315, U352, U358, W25, W26, W42, W47, W48, W50, W52, Y5

194 - Fishes - General—data

A74, B5, B118, B133, B213, B215, B216, B217, D86, E14, E40, E61, G36, G50, H63, H65, H114, H171, H241, J30, M18, M275, M276, M287, M290, M463, M464, M465, P1, P117, R4, R16, R34, S67, S80, U181, U248, U250, U252, U254, U258, U259, U304, U306, U310, W25, W26, W42, W47, W48, W52, Y5

195 - Fishes - General—distribution

B5, B118, B133, E14, E61, F10, G11, G21, G36, G48, G50, H62, H63, H64, H113, H171, H241, J7, K94, L43, M275, M284, M287, M290, M463, M464, M465, P76, R16, R34, R95, S67, S68, U254, U256, U258, U259, U260, U306, U310, U313, U315, W26, W48, W50

196 - Fishes - General—life history

B118, B133, C119, H241, J30, J31, R4, R34, S107, U250, W50, W52

197 - Fishes - General—population

B133, E61, F51, G11, G21, H64, H65, H108, H113, H171, H241, J31, M275, M287, M290, R4, R34, U104, U256, U259, U260, U306, U310, W26, Y5

198 - Fishes - General—surveys

B118, B133, G11, H64, H65, H113, J31, M276, M287, M290, M463, M464, M465, P1, R16, U258, U260, U310, U313, U352, W26

199 - Fishes - habitat

B28, B29, B30, B32, B118, B133, C119, C120, G11, G48, H22, H62, H63, H64, H240, H241, J7, J30, M72, M287, M290, M463, M464, M465, R16, S68, S69, S107, S182, U32, U39, U97, U242, U256, U258, U260, W26, W46

200 - Fishes - Heavy Metals

M276

201 - Fishes - Management

B118, B133, C119, C120, E40, E61, F10, F51, G11, H63, H114, H113, H171, M31, M275, M287, M290, M463, M464, M465, N18, P76, P79, R34, S67, S68, S69, U39, U104, U242, U248, U252, U254, U256, U259, U306, U310, U315, W13, W23, W26

202 - Fishes - Mortality/Survival

C119, C141, H64, H65, H241, M234, N27, R16, U248, W142

203 - Fishes - Mortality/Survival—harvests

B133, H65, H241, P76, R16, T3, U254

204 - Fishes - Techniques

H65, M276, P1, R16, S60, W26

205 - Fishes - Techniques—age determination

B118, B133, B213, B217, E40, U254, W26

206 - Fishes - Techniques—census/survey

B118, B133, H65, M276, P1, R16, W26

207 - Fishes - Techniques—sex determination

B133, B213, B216, E40, S80, U188, U197, U206, W26, W175

208 - Fishes - Toxins

P76, R57, T58, U254, W175

210 - HYDROLOGY

211 - Hydrology - Management

B67, B138, C36, C103, C114, C116, C119, C120, C121, C122, C123, C127, C128, C130, C131, C132, C133, C135, C136, C138, C148, C177, D1, D32, D56, D57, D58, D75, D83, D85, E48, E49, F8, F35, F81, F82, F83, F85, F88, F92, F99, F100, F114, F121, F123, H21, H22, H223, H241, H244, J32, J46, K40, L47, M30, M45, M124, M125, M161, M162, M163, M228, M236, M242, M277, M337, M338, M339, M343, M344, M360, M379, M384, M387, M388, M389, M390, M417, M418, M421, M422, M423, M425, M430, M444, M452, M455, M456, N14, N18, O37, P2, P6, P10, P14, P15, P16, P17, P71, P76, P97, S68, S69, S85, S100, S150, S151, S152, S177, S187, S201, S205, S215, S225, S226, S230, S231, S265, T32, T56, U39, U43, U65, U115, U117, U118, U121, U124, U129, U130, U132, U137, U161, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U174, U175, U176, U178, U179, U180, U181, U182, U185, U187, U190, U191, U192, U199, U212, U224, U225, U226, U229, U230, U231, U232, U233, U235, U238, U239, U240, U241, U242, U243, U244, U245, U246,

U247, U250, U262, U269, U271, U275, U279, U281, U312, U343, V17, W18, W19, W20, W32, W33, W65, W71, W92, W122, W148

212 - Hydrology - Management—channelization

F46, F99, H22, M277, M379, M425, M444, U43, U115, U117, U124, U132, U168, U170, U172, U178, U212, U226, U343, W65

213 - Hydrology - Management—erosion

B75, F46, F88, M228, O1, U118, U132, U168, U244, W92

214 - Hydrology - Management—impoundments

A87, B109, B220, C103, C119, C120, C121, C122, C123, C128, C129, C130, C131, C132, C135, C148, C176, C177, E48, F35, F46, F83, F99, F121, F123, H21, H22, H241, J46, M45, M124, M125, M162, M236, M379, M418, M421, M425, M444, N18, O37, P2, P10, P15, S68, S69, S151, S152, S177, S201, S205, S225, S226, S230, S231, S265, T32, U117, U121, U129, U130, U132, U163, U164, U167, U168, U169, U175, U176, U178, U180, U182, U185, U199, U212, U225, U228, U229, U231, U232, U233, U235, U238, U242, U243, U244, U245, U247, U250, U262, U312, U369, V17, W18, W19, W20, W122, W148

215 - Hydrology - Management—irrigation

A90, B138, B196, C36, C129, C130, C131, C132, C135, C138, F35, F92, F99, F100, F101, F102, F103, F123, J43, K40, M242, M337, M338, M345, M379, M387, M388, M389, M421, M425, M430, N14, O29, P15, P71, S150, S166, S177, S205, U115, U117, U129, U130, U137, U168, U212, U213, U224, U226, U228, U230, U231, U232, U238, U240, U241, U244, U247, U357, W122

216 - Hydrology - Management—planning

A3, A90, B28, B29, B30, B31, B32, B76, B77, B109, B155, B156, B180, B220, C36, C116, C121, C122, C127, C128, C129, C130, C132, C133, C135, C136, C138, C148, C155, D32, D56, D57, D75, D83, D84, D85, E48, E49, E50, F8, F35, F81, F82, F83, F85, F86, F99, F102, F103, F121, F244, J32, L47, M30, M45, M161, M162, M163, M228, M236, M242, M337, M338, M339, M343, M344, M360, M384, M422, M423, M425, M444, M452, M455, N14, P2, P6, P10, P14, P15, P16, P17, S85, S100, S152, S177, S187, S201, S215, S230, T56, U43, U117, U118, U121, U132, U161, U164, U165, U166, U168, U169, U170, U171, U174, U176, U178, U179, U181, U182, U185, U187, U190, U191, U192, U212, U224, U225, U226, U228, U231, U233, U235, U238, U240, U241, U244, U245, U246, U250, U269, U271, U272, U281, U343, U369, W32, W33, W71, W92, W122

217 - INVERTEBRATES

218 - Invertebrates - Behaviour

G22, H107, H214, Q4, S225

219 - Invertebrates - Behaviour—foods/feeding

H107, H214, Q4, S225

220 - Invertebrates - Behaviour—movements/migration

H107, S225

221 - Invertebrates - Biocides

M294, R57

222 - Invertebrates - Biocides—Insecticides

M294

224 - Invertebrates - General

E11, E23, E37, E61, F135, G22, G62, H107, H108, H214, K79, K88, L43, N15, N25, N26, N28, N29, P95, P111, Q4, R74, R67, R88, S225, S226, S229, S231, U258, U352, W18, W26, Y5

225 - Invertebrates - General—data

E23, E61, G62, H107, K79, N15, N25, P95, P111, Q4, R74, R87, R88, S225, S226, S229, U258, W18, Y5

226 - Invertebrates - General—distribution

B47, E11, F37, F135, G22, G62, H107, H108, H214, K88, L43, N15, N26, N28, N29, P111, Q4, R74, R87, R88, S225, S226, S231, S258, W18, Y5

227 - Invertebrates - General—life history

B47, H107, Q4, S225, S231, W26

228 - Invertebrates - General—taxonomic keys

B47, B48, B94, B95, G22, H107, H108, H214, Q4, R67, R88

229 - Invertebrates - Habitat

H107, H108, K79, N15, N26, N29, P111, Q4, R74, S225, S227, S231

230 - Invertebrates - Habitat—requirements

N15, N26, Q4, S225, S227, S231

231 - Invertebrates - Management

S225

232 - Invertebrates - Morphology/Physiology

F135, K79, Q4, R87, S225

233 - Invertebrates - Mortality

U110

234 - Invertebrates - Mortality—population control

U273

235 - Invertebrates - Qualitative Surveys

A69, B47, F86, F135, G22, G62, H107, H214, K79, K88, N15, N25, N29, N65, S227, U257, Y5

236 - Invertebrates - Quantitative Surveys

A69, F86, F135, H107, K79, K88, N65, S227, Y5

238 - WATER BUDGET

239 - Water Budget - Effluents/Pollution

A18, B46, B248, C116, C119, C124, C154, D3, D54, D58, E50, E61, F81, F85, F86, F87, F116, F131, G16, G18, G19, G22, G23, G59, G62, H133, H235, I15, J7, K49, K93, M287, M292, M293, M297, M298, M300, M417, M426, M445, M447, M448, M452, M453, M454, M456, M459, M461, N63, N64, O1, P4, R55, R57, S85, S164, S182, S192, S208, S231, T23, T27, T28, T29, T91, U117, U124, U275, U331, U376, W31, W33, W51, W92, W142

240 - Water Budget - Groundwater

A91, B87, B138, B143, B144, B180, C1, C103, D56, F81, F85, G100, H141, K93, M185, M292, M338, M343, M444, M387, M388, M389, M390, M423, M424, M426, M444, M454, N64, P32, P70, P71, R22, R55, S152, S187, S191, S212, S215, T90, U9, U117, U138, U162, U244, U268, U270, U271, U275, U281, U287, U288, U289, U292, U331, W71

241 - Water Budget - Hydrologic Functions

B28, B29, B30, B31, B32, B44, B76, B77, B87, B90, B144, B248, C1, C61, C128, C133, C134, C136, D1, D56, D75, E48, F4, F7, F46, F82, F133, F139, H21, H141, H223, K1, M125, M226, M287, M333, M345, M360, M387, M388, M389, M390, M426, P11, P97, S68, S152, S187, T56, T65, U117, U138, U161, U162, U164, U168, U177, U179, U182, U225, U239, U256, U258, U263, U269, U270, U275, U277, U280, U282, U288, U289, U290, U292, W19, W71, W92

242 - Water Budget - Surface

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243 - Water Budget - Surface—availability

B87, B90, B137, B138, C122, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, D56, D64, D65, D104, E48, F4, F7, F8, F139, G54, H21, J46, K40, M226, M241, M242, M287, M333, M338, M343, M344, M360, M387, M388, M389, M423, M426, M444, N14, N63, N64, P97, S150, S151, S152, S215, T21, T26, T56, T90, T100, U9, U57, U65, U114, U117, U119, U125, U136, U137, U161, U164, U177, U179, U192, U218, U226, U244, U288, U270, U275, U277, U282, U286, U290, W71, W152, W174

244 - Water Budget - Surface—channel stability

B28, B29, B30, B31, B32, B76, D1, D40, D67, H22, M290, P97, U39, U258

245 - Water Budget - Surface—flood

B13, B137, B156, F35, F46, F123, F139, J32, K1, M226, M338, M423, M425, M426, O31, P16, S152, T26, U54, U65, U118, U132, U161, U163, U164, U165, U166, U167, U168, U170, U171, U181, U183, U239, U244, U263, U269, U271, U272, U277, U282, U316

246 - Water Budget - Surface—general

B76, B87, B90, B199, B215, C81, C116, C120, C127, C128, C129, C130, C131, C132, C133, C134, C136, C192, D 64,

D56, D58, D75, D104, E23, E48, E61, F7, F130, G36, H21, H137, H244, J46, J47, L29, M161, M290, M338, M339, M344, M345, M426, M444, N63, N64, O1, P11, P44, S150, S151, T100, U9, U67, U136, U182, U184, U179, U210, U228, U244, U258, U268, U277, U281, U282, U288, U289, U290, U292, W26, W92

247 - Water Budget - Surface—runoff

A2, B46, B77, B90, B137, B138, B155, C134, C136, D1, D40, D42, D43, D56, D104, F4, F104, F139, H21, H223, J32, K1, M241, M246, M267, M298, M423, M461, N65, O31, P44, S100, T26, T100, U9, U39, U65, U97, U110, U132, U136, U161, U162, U164, U165, U167, U168, U177, U179, U181, U192, U231, U239, U275, U288, U290, U343, U363, U364, U365, U366, U367, U368, W32, W51

248 - WATER QUALITY

249 - Water Quality - Biological

A18, A69, B87, C158, D3, D57, D58, D67, E19, E50, F82, F83, F85, F87, F104, F116, F131, G3, G17, G19, G23, G62, G73, H133, H223, H235, I15, J7, K46, K47, K73, L29, M292, M293, M296, M298, M300, M339, M363, M384, M417, M426, M433, M453, M454, M456, M459, N25, N61, N62, N63, N64, N65, O40, P4, P115, P116, R15, R74, S59, S85, S136, S164, S182, S191, S192, S208, S212, S216, S217, S231, S235, T27, T48, T92, U66, U117, U210, U256, U258, U274, U275, U280, U289, U363, U364, U365, U366, U367, U368, V14, W31, W142, Z3

250 - Water Quality - Chemical

B76, C103, C119, D44, D57, D58, D67, E19, E40, E50, F5, F82, F83, F85, F86, F130, F156, G17, G19, G21, G23, G59, G62, H108, H207, H223, H235, I15, J7, K46, K49, K79, L29, M185, M293, M296, M298, M339, M383, M388, M389, M417, M426, M433, M434, M454, M459, N25, N61, N62, N63, N64, N65, P4, P44, P45, P71, P112, P113, P116, R57, R74, S2, S59, S61, S85, S164, S192, S208, S212, S216, S217, S231, S235, T47, T48, T49, T57, U111, U210, U256, U258, U274, U275, U280, U287, U289, U306, U363, U376, V14, W26, W32, W51, W142, Z3

251 - Water Quality - Chemical—groundwater

A91, B143, B144, C103, D67, F83, F85, G19, G100, J7, L37, M185, M386, M389, M426, M454, P4, P71, S206, S212, S216, S217, U66, U275, U287

252 - Water Quality - Chemical—surface

A69, B77, B117, B138, B215, B248, C119, D40, D44, D57, D58, D67, E19, F5, F85, F86, F130, G17, G19, G21, G23, G59, G62, H117, H133, H207, H223, H235, I15, J7, K46, K49, L29, L67, M296, M339, M383, M389, M417, M426, M433, M434, M459, N25, N61, N62, N64, N65, P4, P113, P116, R57, R74, S61, S85, S164, S191, S192, S208, S216, S217, S235, T47, T48, T49, T57, U66, U256, U274, U275, U280, U289, U363, U364, U365, U366, U367, U368, U376, V14, W26, W51, W174

253 - Water Quality - Physical

A1, A18, B44, B75, B76, B77, B87, B117, B199, B215, C119, D40, D57, D58, D67, E19, E40, F82, F85, F86, F88, F156, G17, G19, G21, G23, G59, H108, H223, H235, H244, I15, K47, K49, K79, L29, L37, L67, M293, M296, M298, M339, M383, M388, M417, M426, M434, M455, M459, N30, N61, N62, N63, N64, N65, P4, P44, P113, S61, S85, S101, S164, S191, S216, S217, S235, T47, T49, U39, U210, U256, U268, U274, U275, U280, U288, U289, U291, U292, U308, U363, U364, U365, U366, U367, U368, W19, W20, W26, W32, W33, W51, W142, Z3, Z4

254 - Water Quality - Sediment

A2, A18, B75, B76, B77, D1, D40, D44, D54, D56, D67, E40, F82, F83, F85, F86, F88, G17, G19, G23, G62, H22, H52, H209, H223, J7, L29, M250, M293, M339, M417, M426, M434, M455, M459, N61, N63, N64, N65, O1, P4, P111, P112, P113, S2, S61, S85, S231, S235, S290, U39, U168, U256, U274, U275, U280, U289, W26, W32, W51, W92

255 - VISUAL AND AESTHETIC

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256 - ZOOPLANKTON

C106, E19, G17, G18, G20, G21, G23, M500, N29, P111, R49, S231, T47, V14, W117, Y5, Z3, Z4

257 - SOCIO-ECONOMIC

258 - AESTHETIC RESOURCES

A15, A46, B79, B172, C7, C46, C75, D4, D75, E25, E57, G7, G78, G92, H50, H73, J5, K4, K7, L31, L84, M152, M167, M181, M205, M207, M208, M233, M318, M334, M347,

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259 - CULTURAL RESOURCES

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260 - Cultural Resources - Archaeological

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261 - Cultural Resources - Flathead Indian

A40, A54, A58, A67, A73, B21, B63, B64, B91, B98, B100, B127, B154, B171, B188, B204, B219, B243, C32, C84, C85, C86, C87, C88, C91, C148, C153, C168, C169, C198, C197, C198, D29, D31, D35, D36, D37, D38, D115, D117, D118, E18, E21, E65, F1, F37, F38, F80, F98, F136, F152, F157, F165, F170, G94, G97, H27, H51, H71, H89, H91, H92, H135, H148, H155, H174, H184, H199, H200, H205, H208, H232, H243, J12, J80, K40, K53, K60, K95, K107, K108, K109, K110, L6, L13, L34, L36, L45, L54, L56, L57, L60, M1, M39, M74, M86, M83, M94, M97, M98, M99, M101, M104, M106, M107, M108, M109, M110, M115, M171, M192, M193, M194, M195, M196, M197, M198, M199, M200, M201, M202, M222, M225, M226, M412, O5, O7, O21, O28, O35, P36, P37, P38, P52, P56, P57, P58, P59, P69, P98, P99, P110, P129, R13, R14, R32, R92, R93, R94, R98, R108, S7, S8, S9, S12, S24, S62, S76, S126, S170, S184, S207, S211, S278, S280, T13, T31, T34, T93, U129, U30, W38, W39, W43, W44, W45, W49, W111, W112, W158

262 - Cultural Resources - Kootenai Indian

A58, B12, B21, B91, B96, B97, B104, B126, B136, B145, B154, B218, B236, B243, C48, C82, C84, C86, C91, C168, C169, C170, C197, C198, D2, D30, D37, D113, F16, F77, F170, G15, G94, G95, G97, G98, H35, H51, H91, H92, H135, H176, H199, H243, I5, I12, J6, J12, J36, J80, K40, K97, K98, L3, L6, L11, L36, L45, L59, L61, M1, M96, M97, M98, M99, M104, M107, M108, M109, M110, M111, M112, M113, M114, M168, M169, M170, M471, M496, O21, O22, O23, O24, O25, O26, O30, O34, P36, P39, P57, P69, R14, R92, R108, S25, S26, S27, S29, S62, S63, S76, S126, S170, S171, S211, S213, S290, S261, S280, S291, T31, T34, T72, T97, T98, W38, W39, W108, W110, W111, W112, W113, W116, W120

263 - Cultural Resources - Pend O'Reille Indian

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264 - Cultural Resources - Selkirk Indian

A40, A45, A54, A68, B21, B62, B64, B91, B96, B97, B104, B135, B207, B219, B243, C86, C111, C153, C155, C169, C170, C198, D30, D31, D38, D113, D115, D118, F9, F16, F38, F77, F98, F170, G94, H35, H51, H89, H91, H92, H148, H155, H168, H199, H200, H230, H243, I5, J12, J36, J47, J80, J83, K43, K53, K54, K107, K108, K109, K110, K113, L11, L34, L36, L54, L59, M36, M40, M97, M98, M99, M108, M222, M495, M496, O34, P54, P57, P69, P94, R13, R32,

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273 - Energy - Developments

A16, A23, A72, B44, B196, B220, C44, C80, C99, C114, C115, C122, C123, C130, C131, C132, C135, C136, C148, C150, C151, C152, C176, D32, D66, E54, F35, F83, F117, F118, F119, F121, F124, G54, H21, H27, J10, J14, J7, J33, J46, J48, J76, K114, L10, L44, L63, L67, M45, M81, M162,

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374 - History - General Works

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372 - History - Fur Trade

C52, C66, C166, D45, E16, E65, H169, I8, J44, J75, M215, M216, M429, R8, S28, S173, S203, T34, T35, T36, T37, T38

375 - History - Missions

A64, A65, B16, B17, B160, B239, B249, C62, C155, D38, D76, D107, F2, F36, F48, F154, F161, C98, H29, H56, I1, I3, J79, M64, M84, M88, M121, M187, M188, M193, O22, O23, O24, O25, O26, O30, P34, P35, P106, P107, S4, S5, S6, S198, T2, T3, T4, T16, V2

378 - History - Flathead Reservation (1900-1945 period)

A33, A56, A82, A83, C62, C74, C99, C102, C109, C110, C156, C159, C187, D6, D93, D107, E30, F2, F3, F47, F107, F120, F164, G30, G63, G98, H47, H52, H187, H189, H206, H219, H224, I1, I3, J43, K17, K41, K78, L64, L89, M52, M60, M85, M187, M428, N16, N41, O22, O23, O24, O27, O30, P119, R1, R7, R9, R11, S4, S6, S11, S21, S22, S23, S77, S130, S131, S168, S174, S186, S198, S281, T2, T3, T4, T73, V20, W127, W131

379 - History - Flathead Reservation (Today)

A34, B16, B17, B85, B115, B150, B185, B189, B218, B249, F36, F181, G88, H21, H231, K45, L45, L63, M42, M47, M59, M67, M68, M90, M226, M471, M482, N31, O25, O26, O41, S20, S46, S66, S167, S241, S292, T16, T74, U221, V2, V7, V8, W131, W158

266 - ETHNOGRAPHICAL

A54, B12, B21, B91, B96, B97, B98, B99, B100, B135, B136, B154, B187, B188, B204, C31, C48, C111, C146, C169, C170, C198, D20, D21, D22, D24, D30, D35, D36, D37, D99, D111, D112, D113, D115, E21, E63, E84, E86, F1, F37, F38, F136, F152, F165, F170, F171, G97, H51, H91, H135, H148, H152, H165, H178, H179, H184, H199, H200, H215, H217, H229, H230, I12, J12, J36, J83, K43, K80, K95, L11, L12, L13, L25, L57, L59, L64, M39, M40, M86, M92, M96, M97, M99, M103, M106, M109, M110, M111, M113, M114, M115, M120, M169, M172, M191, M194, M196, M197, M198, M201, M202, M222, M312, O7, O34, O35, P37, P52, P57, P58, P59, P89, P94, P99, P109, R13, R14, R73, R93, R98, S12, S24, S27, S29, S76, S188, S189, S207, S278, T12, T13, T15, T93, T94, T96, T97, U219, U351, U383, V16, W8, W38, W43, W44, W45, W49, W68, W69, W107, W110, W113, W158, Y1

375 - Ethnology - Pre-white Culture

A40, A54, A58, A68, A82, B62, B171, B219, B244, C47, C52, C85, C87, C155, E21, E66, F9, F80, F171, G96, H28, H232, H243, M40, M60, M195, M199, M200, M225, M435, P46, P54, P129, R10, S21, S25, S211, S289, T14, T72, T99, U46, W138

267 - DEMOGRAPHIC

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268 - DISASTER

C104, C105, C106, D105, D106, D107, F123, G32, J32, L91, M64, M90, M259, M336, M399, M421, M425, O31, P124, Q1, S8, S102, S180, S249, S250, S259, U54, U118, U185, U186, U187, U188, U170, U171, U172, U183, U263, U269, U316, W64, W130, W154, W155

269 - Disaster - Flood

B137, B155, F123, J32, L91, M259, M336, M421, M425, O31, U54, U118, U185, U186, U167, U168, U170, U171, U172, U183, U263, U269, U316

270 - Disaster - Earthquake

C104, C105, D105, D106, F163, M259, Q1, S102, S180, S249, S250, S258, W154, W155

271 - Disaster - Wind

L67

272 - ENERGY

C44, C80, C114, C115, C122, C123, C130, C131, C132, C135, C136, C148, C151, C152, C176, D32, D68, D102, E54, F35, F83, F121, F124, G24, G54, H21, H70, I14, J7, J33, J45, J46, J76, K21, K114, L10, L44, L67, M45, M69, M126, M162, M236, M260, M333, M355, M376, M377, M404, M421, M425, M428, M476, N3, N45, O1, O37, P2, P7, P10, P13, P15, P18, P19, P20, P21, R26, R82, S45, S47, S80, S151, S195, S201, S287, U46, U56, U107, U163, U164, U174, U175, U176, U178, U180, U181, U182, U185, U187, U188, U189, U190, U191, U193, U195, U196, U197, U198, U199, U200, U201, U203, U204, U205, U208, U207, U208, U212, U225, U227, U228, U229, U230, U233, U234, U242, U244, U246, U247, U262, U284, U285, U312, U361, U369, W68, W93, W94, W134, W153, W161

273 - Energy - Developments

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274 - Energy - Demands

A23, B132, C80, C122, C123, C151, C152, D102, F35, G24, I14, K21, K78, K114, L67, M126, M236, M260, M333, M376, N3, N45, P2, P7, P10, P15, P18, P19, P20, R26, S201, S287, U188, U189, U190, U191, U193, U198, U197, U199, U201, U205, U206, U208, U361, W68, W93, W94

275 - Energy - Supplies

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275 - HOUSING

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277 - LAND OWNERSHIP

B122, B148, B153, C171, D78, F68, F108, F127, F168, F170, H66, H145, H204, K13, K40, L67, M35, M61, M347, M350, M378, M400, P77, S70, S126, S170, S171, U127, U138, U299, W68

278 - LEGAL/INSTITUTIONAL FRAMEWORK

C30, C31, C108, C116, C127, C147, C148, C171, D30, D66, D75, D78, D83, D85, E46, E49, F1, F17, F56, F79, F85, F91, F93, F94, F95, F97, F121, F149, F157, F170, G6, G54, G85, G100, H19, H21, H145, H204, H226, H230, J3, J7, K9, K12, K16, K22, K40, K69, K85, K86, K114, L10, L27, L39, L47, L67, L73, L78, L77, M1, M68, M163, M205, M230, M231, M251, M254, M255, M268, M269, M271, M272, M291, M297, M308, M319, M321, M338, M341, M347, M351, M352, M353, M354, M359, M366, M367, M374, M378, M381, M386, M392, M393, M396, M400, M414, M415, M416, M417, M420, M422, M423, M426, M496, M498, N24, N53, O1, O4, O35, P12, P13, P18, P57, P69, P77, P83, P93, R20, R27, R28, R29, R37, R44, R46, R96, S45, S47, S56, S87, S126, S168, S170, S171, S184, S201, S205, S213, T20, T40, T46, T54, T66, U6, U7, U8, U17, U50, U88, U141, U146, U148, U147, U148, U152, U157, U160, U185, U209, U216, U218, U219, U220, U244, U266, U269, U347, U372, U382, U385, W6, W7, W15, W72, W92, W106, W137, W157, W164, Z7

279 - Legal/Institutional Framework - Federal

A23, A56, B44, B50, B138, B168, C30, C127, C147, C148, D30, D75, D78, D83, D85, E49, F1, F17, F85, F93, F107,

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280 - Legal/Institutional Framework - State

A23, A53, B138, B161, B174, C108, C116, C127, D63, D85, E49, E56, F85, G54, G100, H107, H226, J3, J7, K9, K89, K114, L10, L47, L73, M67, M163, M231, M254, M269, M271, M272, M291, M297, M308, M319, M321, M338, M341, M347, M353, M354, M359, M367, M374, M381, M386, M392, M393, M396, M400, M414, M415, M416, M420, M422, M423, M426, N53, O1, P12, P13, P18, P77, P93, R28, R37, R44, R46, S184, T40, U141, U152, U299, W15, W92

281 - Legal/Institutional Framework - Reservation

A56, B85, B86, B185, B196, C30, C31, C95, C109, C110, C147, C148, C150, C171, D66, D88, E46, F1, F17, F85, F91, F93, F94, F95, F97, F107, F118, F149, F170, G9, G30, G85, H19, H58, H79, H145, H230, I9, K15, K16, K17, K45, K78, K114, L69, M1, M67, M230, M272, M308, M321, M352, M378, M420, M426, M496, N37, N48, O27, O35, P34, P57, P69, P77, P119, R20, R96, S20, S56, S87, S131, S167, S170, S174, S205, S292, T46, T54, T66, T73, T74, U216, U218, U220, U244, U382, U385, V7, V8, V9, V20, W127

282 - Legal/Institutional Framework - Local

E49, F79, F85, J7, K9, K12, K99, K85, K86, L27, L39, L76, L77, M68, M415, M416, M268, M272, M321, M338, M347, M351, M354, M367, M414, M415, M416, N53, P63, R27, R28, R29, R37, R46, T40, U145, U146, U147, U148, U152, U157, W6, W7, W106

283 - Legal/Institutional Framework - Canadian

A23, B138, H21, J7, M163, M422, M498, O1, S45, S47, T66, U209, W137

377 - Legal/Institutional Framework - Government Relations

A40, A72, A81, B85, B103, B196, C95, C109, C110, C150, D88, F3, F107, F117, F119, F120, F128, G9, G30, G83, H79, H187, H188, H189, H219, H227, I9, K15, K17, K41, K45, K78, L69, M42, M52, M67, N37, N41, N46, O27, P34, P119, R1, S20, S21, S22, S23, S66, S77, S130, S131, S167, S174, S241, S244, S245, S246, S292, T20, T46, T73, U221, V7, V8, V9, V20, W127, W131

284 - ECONOMIC

285 - Economic - Basic Industry

A6, A90, B43, B132, B138, B148, B149, B151, B152, B153, B173, B197, B208, B224, B225, B226, B227, B228, C36, C126, C145, C167, C171, D13, D75, D100, E45, E46, E51, F67, F69, F76, F132, F149, F169, G7, G24, G54, G85, H70, H77, H115, H145, H216, H225, H234, J2, J33, J34, J35, J41, K5, K6, K10, K20, K27, K96, L4, L8, L87, M83, M164, M165, M249, M252, M263, M268, M267, M322, M325, M327, M347, M358, M400, M408, M427, M460, N14, N47, P22, P23, P63, P78, P83, P102, P104, P105, R17, R23, R26, R35, R114, S13, S71, S74, S209, S210, S288, T6, U1, U105, U135, U193, U218, U222, W12, W96

286 - Economic - Cost Benefit

B225, D90, E51, F14, G7, H115, H124, H125, H201, L4, M335, M453, M456, N24, P18, R23, S216, S217, U124, U126, U129, U130, U164, U181, U212, U225, U226, U227, W126

287 - Economic - Derivative Industry

B197, C124, D100, F69, F76, H225, H234, M252, M266, M322, M400, M460, M496, P23, P83, R35, S210, U1, U158, U216

288 - Economic - Econometric

B42, F124, H225, M399, P19

289 - Economic - Employment

B43, B132, B152, B188, B227, C58, C59, C80, C145, D75, E38, E46, E52, F69, F97, G24, G32, G104, H69, H172, H225, H226, H233, J33, J34, J35, J41, K6, K10, K20, L7, L58, L59, M61, M83, M244, M251, M258, M260, M269, M270, M271, M274, M322, M323, M324, M325, M326, M327, M328, M329, M330, M400, M460, M496, O40, P23, P25, P83, P102, P105, R23, R26, R35, S71, S74, S209, S210, S260, S261, S287, S288, U1, U3, U43, U141, U147, U152, U193, V19, W68, W69, Z7

290 - Economic - Fiscal

B227, G102, J33, M166, M251, M268, M306, M340, M373, M396, M415, M416, M426, M496, N14, P77, R35, S216, S217, T22, T25, T26, U2, Z7

291 - Economic Input/Output

H69, L36

292 - Economic - Markets

A6, A90, B42, B43, B132, B151, B152, C171, E45, E46, F169, H77, H115, H124, H125, J34, L4, M31, M83, M267, M327, M480, R26, S74, S268, T9

293 - Economic - Forecasts/Projections

B42, B43, B132, B136, B151, B197, C58, C59, C60, C122, C145, C171, D75, D102, E52, F67, F69, F89, G24, H69, H225, H233, J7, J34, J35, J41, K20, K96, L4, L7, L87, M83, M126, M267, M327, M458, M460, P18, P24, P77, P83, R23, P19, P21, P63, P26, S210, S126, S217, T9, U189, U194, U217

294 - Economic - Growth Rates/Historical Trends

A41, B43, B148, B151, B152, B197, C49, C58, C59, C60, E46, F67, F69, F76, G24, H69, H115, H145, H225, H226, H11, H12, J33, J34, J35, K20, L4, L7, L48, M83, M267, M328, M330, M362, M394, M397, M460, P18, P24, P77, P83, R23, R26, R35, S13, S71, S260, S261, S267, T6, T9, U1, U189, U194, U218, W151

295 - Economic - General—agriculture

B153, B197, B224, B225, B226, C36, C58, C59, C60, C145, D13, D100, E45, E46, E52, F16, F67, F69, F74, F89, F97, F105, F132, G77, G78, H69, H70, H115, H116, H225, H12, J34, J41, K3, K4, K5, K7, K40, K96, L4, L8, L87, M1, M61, M249, M280, M284, M267, M269, M270, M271, M294, M347, M356, M369, M408, M426, M427, M428, M460, N14, P22, P24, P77, P83, R17, R23, R35, R114, S13, S170, S260, S261, S267, T75, U1, U14, U43, U116, U126, U137, U138, U142, U144, U158, U193, U211, U212, U218, U228, V19, W69

297 - Economic - General—finance/insurance/real estate

F69, F73, F74, H69, H117, H225, J33, K8, L73, M260, M323, M480, P63, R23, U1, U142, U146, U158

298 - Economic - General—government

B197, C126, C127, D32, F15, F56, F69, F74, G102, H69, H225, J33, J46, K8, K11, K40, K86, L26, L27, L39, M68, M189, M190, M251, M260, M268, M306, M315, M340, M347, M352, M373, M393, M396, M399, M425, M426, M460, O1, P13, P77, P83, R17, R23, R28, R35, S216, S217, T22, T26, T40, U1, U5, U6, U141, U145, U147, U148, U152, U156, U157, U158, U190, U201, U202, U204, U205, U206, U361, V19, W6, W105

299 - Economic - General—manufacturing

A6, A53, B43, B132, B151, B197, B206, C60, E52, F69, F74, F169, H69, H183, H225, J33, J41, K4, M260, M266, M270, M295, M322, M329, M460, M496, P24, P63, R23, R26, R35, S260, S261, S267, U1, U142, U143, U158, U193, W69, W105

300 - Economic - General—recreation/tourism

B43, B173, C59, C60, C124, C125, C126, C145, C167, E46, E51, F63, H69, H164, H234, J41, K7, K8, L48, M1, M71, M206, M268, M394, M397, M426, M428, M432, M460, O2, P24, P76, P102, R23, S260, S261, S267, T8, U1, U43, U154, U312, U321, V19, W11, W105, W151

301 - Economic - General—timber/wood products

A6, A90, B43, B148, B149, B151, B152, B226, B243, C58, C59, C60, C145, C171, C193, D76, D90, D100, E38, E46, E51, E52, E56, F69, F74, F97, F149, G7, G24, G77, G85, H69, H77, H116, H145, H216, H234, H12, J2, J35, J41, K3, K4, K7, K8, K27, M1, M61, M73, M83, M164, M165, M205, M206, M227, M260, M263, M270, M348, M360, M426, M428, M432, M460, N24, P24, P77, P83, P93, P101, P102, P105, R17, R23, R35, R64, S13, S70, S71, S74, S170, S260, S261, S267, S268, T9, T30, T43, T55, U1, U15, U16, U41, U43, U45, U105, U135, U138, U158, U216, U217, U222, U375, W12, W69, W86, W131

302 - Economics - General—transportation/communications/utilities

B44, B136, B156, C16, D32, D100, D102, F69, F74, G80, G81, G82, H69, H116, H234, H11, J33, K8, K21, K77, M1, M260, M270, M315, M327, M427, M460, O2, P63, R23, R35, R114, T5, T6, U1, U154, U158, U190, U201, U202, U206, U227, U263, V19, W69

303 - Economics - General—wholesale/retail trade

B197, C50, D100, F69, F73, F74, H69, H225, H234, J33, K8, K20, M260, M266, M270, M271, M460, N47, P63, R23, R35, S260, S261, S267, U1, U142, U153, U154, U155, U158, W69, W105

304 - Economics - General—mining

A16, A23, C58, C59, C60, C116, E52, F69, F74, F77, F97, G77, H33, H69, H208, H225, J7, J19, J24, J34, K3, K7, L38, M258, M260, M270, M329, M426, M460, O1, P24, P77, P83, R17, R23, R35, R62, S1, S47, S127, S170, S260, S261, S267, U1, U142, U158, U268, W69

305 - PSYCHOLOGICAL

B96, B97, L11, L47, L59

306 - RECREATIONAL ACTIVITIES

A3, A15, A46, B172, B190, B229, B232, B233, C59, C60, C75, C92, C94, C124, C125, C126, C137, C149, C156, C167, C176, D4, D19, D61, E15, E24, F16, F29, F43, F50, F52, F83, F116, G31, G35, G45, G79, G84, G93, H50, H65, H103, H164, H170, H178, H179, H208, H220, H234, H13, J12, J28, K3, K4, K7, K8, K10, K11, K20, K49, K51, K94, L9, L31, L35, L48, L74, L82, L83, L84, L85, L86, L94, M1, M66, M71, M196, M205, M207, M208, M278, M279, M280, M281, M282, M286, M288, M254, M362, M397, M428, M457, M501, N19, O2, O3, O26, O37, P9, P18, P27, P51, P78, P102, P127, Q3, R36, R58, R59, R60, R61, R69, R78, R92, R110, S10, S86, S126, S133, S134, S148, S168, S178, S204, S232, S274, S276, T41, U62, U242, U254, U304, U312, U321, U332, U337, U344, U345, U346, U353, U354, U355, U356, U371, U373, W11, W38, W92, W141, W151, W157, W170, Y1, Y2

307 - SERVICES

B44, B45, B88, B185, B248, C139, C140, C147, D3, D61, D69, D112, E15, E25, E53, E56, F13, F14, F15, F52, F54, F70, F73, F74, F81, F90, F93, F104, F126, F127, G47, H90, H123, H124, H125, H185, H234, I10, J4, J7, J33, J45, K8, K10, K11, K12, K21, K77, L23, L25, L39, L94, M37, M43, M52, M120, M121, M126, M166, M184, M217, M251, M254, M260, M306, M319, M320, M324, M350, M352, M353, M368, M369, M373, M374, M375, M381, M383, M393, M396, M400, M401, M402, M403, M405, M406, M410, M413, M443, M445, M446, M447, M448, M457, M467, M501, N43, O40, P10, P18, P63, P84, R17, R35, S51, S52, S53, S54, S55, S56, S57, S58, S68, S164, S214, S215, S216, S217, S252, T21, T22, T23, T24, T25, T26, T28, T29, T90, T91, T92, U142, U154, U187, U190, U196, U201, U202, U298, U391, U378, U379, U380, U381, U382, U384, U385, V3, V10, V19, W17, W31, W152, Y4, Z7

308 - Services - Schools

B91, B223, C139, C140, D61, D69, D112, E25, E53, F52, F54, F70, F74, F90, F126, F127, H185, H208, H234, I10, J4, J7, J33, K8, K10, K11, L23, L25, L47, M37, M42, M43, M120, M166, M217, M251, M260, M350, M368, M373, M374, M375, M383, M401, M402, M405, M406, M410, M457, M501, N43, P58, P63, P84, R17, R35, S51, S52, S53, S54, S55, S56, S57, S58, S77, S88, S252, U139, U378, U379, U380, U381, U382, U384, U385, V3, V10, V19, W17

309 - SOCIOLOGICAL

B23, B24, B135, B161, B185, C31, C32, C44, C48, C50, C59, C60, C66, C111, C117, C137, C140, C147, C169, C170, C196, D19, D20, D21, D24, D30, D31, D36, D63, D69, D99, D101, D103, D110, D111, D112, D113, D115, D116, D117, D118, E4, E5, E18, E38, E53, E54, E56, F1, F15, F29, F37, F38, F52, F54, F56, F72, F76, F79, F94, F96, F122, F126, F136, F165, F170, G12, G27, G76, H20, H35, H51, H80, H82, H133, H135, H151, H164, H170, H172, H185, H217, H220, H230, H234, I4, I10, I12, J4, J12, J33, J36, J47, J80, J81, K8, K8, K20, K40, K41, K49, K85, K86, K115, L11, L12, L23, L24, L25, L26, L39, L44, L47, L57, L58, L59, L60, L70, L77, L82, L83, L85, L94, M10, M39, M43, M52, M61, M68, M92, M93, M97, M99, M109, M114, M120, M166, M170, M192, M197, M198, M201, M202, M205, M207, M208, M209, M217, M218, M221, M222, M245, M253, M260, M269, M271, M273, M278, M279, M280, M282, M286, M294, M299, M301, M303, M304, M305, M312, M319, M320, M336, M353, M358, M363, M370, M371, M372, M375, M381, M383, M400, M401, M402, M403, M405, M406, M411, M413, M428, M456, M457, M467, M496, M501, N17, N43, N55, O4, O5, O7, O8, O35, O37, O40, P18, P36, P37, P52, P59, P61, P62, P69, P78, P81, P84, P87, P98, P99, P106, P109, P110, P123, Q3, R2, R13, R14, R17, R33, R62, R91, R98, S12, S24, S27, S29, S30, S45, S48, S49, S51, S52, S53, S54, S55, S56, S57, S58, S70, S75, S76, S86, S148, S183, S189, S207, S216, S232, S243, S252, S274, S278, S291, T13, T15, T22, T24, T29, T59, T64, T70, T71, T93, T95, T96, T97, U62, U168, U173, U312, U326, U344, U350, U378, U379, U380, U381, U382, U383, U384, U385, V4, V10, V19, V21, W5, W6, W7, W11, W38, W39, W43, W72, W95, W106, W170, Y4

310 - Sociological - Attitudes

B3, B21, B44, B96, B97, B98, B99, B188, C32, C44, C50, C86, C111, C167, D19, D20, D89, D101, D112, D116, D118, E54, E56, F54, F126, G12, H20, H51, H135, H151, H164, H170, H241, K85, K86, L11, L12, L23, L24, L25, L47, L59, L60, L77, L83, L85, M39, M43, M47, M61, M80, M114, M120, M205, M207, M208, M209, M217, M218, M336, M402, M406, M411, M413, M425, M428, M496, N17, O4, O37, P18, P52, P61, P62, P69, P78, P84, Q3, R2, R62, S24, S27, S54, S70, S75, S86, S148, S183, S232, S241, T59, T97, U62, U168, U173, U312, U326, U344, U378, U381, V9, W7, W38, W39, W95, W126, W170

311 - Sociological - Community Structures

B21, B97, B100, B187, B188, B190, B209, B243, C137, C140, C198, D24, D76, D101, D116, E56, F52, F72, F126, G12, H90, J12, J33, J47, K8, K86, L11, L26, L39, L59, L77, M61, M97, M109, M120, M121, M273, M406, M413, N55, O35, R14, S24, S30, S45, S52, S243, T13, T15, T74, T97, U378, W7, W38, W39, W106

312 - Sociological - Education

B91, B186, B187, B189, B209, B239, B243, C31, C140, C170, D24, D30, D89, D99, D119, F15, F54, F76, F94, F122, F126, G12, G76, H135, H234, I3, I10, J4, J12, J47, K8, K8, L11, L23, L24, L25, L58, L59, L60, M42, M43, M61, M120, M166, M217, M280, M269, M271, M319, M370, M371, M372, M375, M400, M401, M402, M403, M405, M406, M482, M501, N17, N43, P61, P62, P69, P84, P106, R2, R14, S4, S30, S48, S51, S52, S53, S54, S55, S56, S57, S58, S77, S183, S243, S252, T64, T97, U328, U378, U379, U380, U382, U384, V10, W39, W95, Z2

313 - Sociological - Group Activities

B21, B218, D19, D24, D116, F29, F165, H220, I8, J12, K20, L25, L82, L85, L94, M195, M197, M200, M202, M206, M209, M278, M279, M280, M282, M286, M381, M411, M457, M501, P78, P87, P110, Q3, R14, S24, S30, S56, S243, S274, T13, T96, T97, U383, W11, W38, W39

314 - Sociological - Health

B10, B21, B161, C196, D110, E53, E56, F56, G27, G78, H35, H92, H133, H219, H232, J12, K40, K49, L44, M90, M184, M245, M269, M271, M273, M294, M299, M301, M303, M304, M305, M312, M319, M320, M353, M363, M381, M383, M413, M456, M467, N56, O40, P18, S30, S66, S77, S78, S216, S278, T22, T24, T29, T96, T97, W95, W176, Y4

315 - Sociological - Lifestyle

B12, B21, B97, B98, B99, B104, B154, B186, B187, B189, B190, B210, C31, C44, C59, C60, C66, C140, C169, C196, D2, D21, D24, D66, D103, D111, D115, D116, E4, E5, E38, E56, F37, F38, F77, F94, F126, F165, F170, H51, H92, H135, H172, H208, H230, I4, I12, J12, J36, J47, K115, L11, L25, L45, L70, M39, M84, M93, M114, M120, M170, M187, M192, M201, M205, M273, M356, M411, M413, M496, O7, P18, P52, P58, P59, P61, P123, R14, R91, R92, R96, S24, S25, S28, S60, S76, S186, S243, S289, S291, T13, T15, T70, T71, T95, T96, T97, U4, U350, U383, V21, W38, W39, W86, W138

316 - Sociological - Political

B21, B243, C198, D83, F1, H230, J12, J36, K85, K86, L77, M10, M68, M406, R14, S76, T13, T97, U383, W5, W6, W72

317 - Sociological - Religion

B16, B17, B21, B99, B135, B239, B243, B249, C48, C66, C111, C170, C187, C198, D30, D31, D36, D38, D107, D117, D118, E18, F1, F2, F36, F48, F96, F136, F164, F161, F166, H56, H57, H217, H230, I3, J12, J36, J79, J80, J81, K31, L11, L57, L70, M39, M84, M93, M114, M121, M170, M187, M188, M192, M193, M222, O5, O7, O8, O23, O24, O30, P35, P36, P37, P58, P59, P96, P99, P106, P107, P108, P109, R8, R13, R14, R32, R98, S4, S5, S6, S12, S24, S27, S29, S30, S48, S49, S76, S189, S196, S207, S278, T4, T13, T16, T64, T93, T96, T97, U383, V3, V4, W38, W43

318 - Sociological - Social Relationships

B3, B21, B99, B186, B188, B189, C198, D76, F9, F104, G12, H230, J12, J36, K94, L11, L60, M67, M80, M471, R10, R14, S21, S24, S243, T13, T74, T96, T97, W38, W39

319 - GENERAL

320 - BIBLIOGRAPHIES

A43, A71, A74, B83, B107, B129, B159, B168, B191, C61, C100, C106, C113, C117, C118, C199, D15, D66, D67, F39, F55, H14, H15, H46, H200, I7, J25, J54, J78, L40, M6, M44, M46, M62, M65, M75, M203, M296, M419, M496, N32, N44, N56, O36, P68, P94, P114, P122, R77, S104, S124, S129, S190, T39, U44, U266, U269, U289, U327, U363, V22, W17, W72

321 • DIRECTORIES

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322 • ENVIRONMENTAL IMPACT STUDIES

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323 • ENVIRONMENTAL IMPACT STUDIES

C22, C25, C27, G19, G53, G58, G62, L44, P63, S216, U56, U100, U190, U203, U339, W2, W151

324 • ENVIRONMENTAL INVENTORIES

A1, G53, G62, M157, M283, M334, N48, P86, R106, U74, U375

325 • LAND USE

325 • Land Use - Capabilities

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327 • Land Use - Agriculture

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328 • Land Use - Energy Development

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329 • Land Use - General

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330 • Land Use - History

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15 - Middle Fork of the Flathead River

B4, B5, B155, B240, C45, C178, C177, C178, D54, F50, F116, F133, F142, F156, F159, F180, G56, G61, H44, H65, H150, H191, I12, J20, J30, J32, J56, J59, J76, L83, M15, M18, M130, M132, M155, M300, M391, M463, N48, O31, P44, P90, R60, S10, S84, S156, S225, S227, S228, S231, S265, S279, S284, T80, U26, U54, U61, U80, U84, U87, U162, U233, U235, U250, U263, U277, U299, U316, U319, U358, U359, W18, W26, W161, W162, Z5

16 - North Fork of the Flathead River

A15, A17, A23, A28, A69, A80, A87, B4, B5, B34, B82, B116, B121, B124, B126, B133, B146, B147, B155, B184, B215, C37, C41, C44, C46, C71, C192, D1, D5, D54, D60, D94, E43, E54, F50, F77, F83, F86, F116, F156, F159, F160, G28, H36, H65, H108, H129, H137, I12, J7, J20, J30, J31, J32, J51, J53, J56, J57, J59, J68, K2, K42, K47, K70, K73, K104, K105, L29, L50, L51, L55, L89, M26, M55, M107, M127, M128, M135, M147, M150, M155, M162, M180, M228, M276, M287, M298, M300, M355, M391, M465, N12, N23, N42, N48, N61, O1, O37, P41, P81, R16, R18, R60, R62, R67, S45, S47, S67, S68, S110, S161, S162, S169, S225, S227, S228, S231, S265, S279, S283, T41, T80, U26, U41, U45, U54, U61, U76, U80, U84, U87, U229, U252, U257, U277, U280, U299, U312, U360, W26, W37, W135, W136, Z5

17 - South Fork of the Flathead River

A4, A23, B92, B105, B155, C56, D50, D54, D62, E48, F50, F83, F133, F159, F160, G2, H106, H191, H192, H241, I12, J20, J30, J46, J59, K1, K57, K82, K83, M128, M155, M161, M162, M333, M417, M473, M493, N23, N48, P90, R5, R6, S69, S149, S169, S225, S227, S228, S231, S262, S263, S265, S279, U24, U26, U40, U48, U54, U55, U61, U76, U80, U84, U119, U122, U163, U225, U262, W18, W161, Z5

18 - Stillwater River

A3, B77, C103, F156, I12, J32, L82, M50, M300, M337, M417, M459, N64, S177, S235, U93, U117, U129, U165, U240, U263, U277, W84

19 - Swan River

A99, B75, B199, C38, C45, C189, D50, D80, D86, E61, F50, F57, F137, F139, F155, F156, H78, H139, H234, J10, J32, J49, M33, M34, M300, M339, M371, M372, M432, M459, M466, M484, M485, M486, N25, N64, P130, R90, S262, S263, S280, U14, U71, U94, U133, U263, U277, W37, W51

20 - Whitefish River

H22, I12, M300, M337, M417, M459, N64, S235, U117, U130, U165, W122

30 - Ashley Lake

F155, M275

31 - Flathead Lake

A10, A11, A12, A13, A14, B10, B37, B46, B84, B111, B112, B117, B118, B134, B177, B190, B213, B216, B217, B235, C1, C15, C16, C76, C81, C93, C157, C179, C192, D11, D12, D18, D44, D71, D105, D106, E19, E23, E25, E26, E27, E29, E31, E32, E34, E36, E39, E41, E61, F16, F38, F57, F77, F106, F108, F135, F142, F143, F144, F145, F146, F147, F148, F163, F168, G16, G17, G18, G19, G20, G21, G22, G23, G53, G70, G73, G78, G94, H19, H64, H72, H78, H133, H141, H170, H207, H241, I15, J7, J30, J49, K4, K7, K24, K28, K59, K100, K101, K102, L1, L2, L36, M11, M12, M13, M14, M35, M36, M48, M49, M69, M86, M98, M100, M105, M112, M170, M172, M174, M237, M275, M289, M294,

M311, M362, M377, M428, M433, M502, N27, N29, N56, N57, N64, O20, O28, O36, P1, P22, P25, P41, P68, P88, P96, P111, P112, P113, P114, P115, P116, P117, P121, Q1, R3, R4, R15, R48, R49, R120, S17, S18, S72, S80, S90, S91, S92, S101, S137, S139, S140, S141, S142, S143, S144, S145, S146, S169, S175, S180, S226, S228, S229, S231, S243, S249, S250, S251, S258, S279, S290, T10, T25, T31, T47, T49, T57, T65, T71, U130, U167, U168, U170, U175, U254, U277, U364, U365, V14, W19, W42, W46, W47, W48, W52, W109, W110, W112, W114, W119, W120, W123, W155, W160, W171, Y5, Z6

32 - Hungry Horse Reservoir

C126, C136, E48, F14, F83, G95, H240, L67, M162, M307, M313, M333, N18, N40, P3, R5, S69, S100, S151, S152, S213, S265, U68, U98, U163, U167, U175, U185, U192, U207, U225, U227, U230, U234, U236, U247, U242, U243, U245, U246, U247, U262, U269, U276

33 - Lake Mary Ronan

A18, M293, M417, M456, S182

34 - Lake McDonald

A35, B231, C17, C46, C53, D3, D98, F57, F156, G11, G56, G81, H1, H2, H5, H59, H73, H130, H150, H171, H237, I12, K47, K51, M107, M135, M235, M484, M481, N12, R15, R61, R67, R118, R119, R120, S10, S84, S112, S164, S204, S283, T17, T41, U331, U366, W18, W24, W26, W132

35 - Swan Lake

B163, C43, E34, E61, F111, F135, G38, G53, H78, H127, M447, M466, R12, S138, S139, S142, S143, S202, U41, U83, U367, W155

36 - Tally Lake

A69, H235, K111, S177, U129, U368

37 - Whitefish Lake

F155, T24, U121, U130, U363, W122

50 - Flathead County

A1, A3, A4, A5, A7, A8, A9, A10, A13, A15, A16, A17, A19, A20, A21, A22, A23, A25, A26, A27, A28, A29, A30, A31, A35, A36, A37, A38, A43, A44, A45, A47, A49, A50, A51, A52, A53, A57, A61, A66, A69, A70, A77, A78, A79, A80, A83, A84, A85, A87, A90, A91, A92, B1, B4, B5, B6, B7, B8, B9, B10, B14, B18, B20, B24, B25, B26, B27, B28, B29, B30, B31, B33, B34, B37, B38, B39, B40, B41, B46, B48, B52, B53, B54, B55, B56, B57, B58, B59, B60, B61, B65, B70, B71, B72, B73, B75, B77, B79, B80, B81, B82, B84, B87, B88, B90, B92, B93, B94, B95, B105, B106, B107, B108, B110, B112, B116, B117, B118, B119, B120, B121, B122, B123, B124, B126, B128, B131, B132, B133, B137, B139, B140, B141, B143, B146, B147, B153, B155, B157, B158, B163, B167, B168, B169, B170, B172, B175, B177, B180, B181, B182, B184, B197, B198, B205, B210, B211, B213, B214, B215, B216, B217, B221, B222, B223, B224, B225, B226, B227, B228, B229, B230, B231, B232, B233, B234, B235, B237, B238, B240, B241, B245, B246, B247, C1, C2, C4, C6, C7, C9, C10, C11, C12, C13, C14, C16, C17, C18, C19, C20, C21, C22, C24, C25, C26, C27, C28, C34, C35, C37, C40, C41, C42, C43, C44, C45, C46, C49, C53, C54, C56, C60, C61, C63, C64, C65, C67, C68, C69, C70, C71, C72, C73, C75, C76, C78, C79, C81, C82, C89, C90, C92, C93, C94, C96, C103, C105, C106, C112, C113, C114, C116, C117, C118, C119, C120, C122, C123, C124, C125, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, C137, C138, C139, C140, C142, C156, C157, C158, C160, C161, C162, C163, C164, C165, C167, C169, C173, C174, C176, C177, C178, C179, C186, C188, C191, C192, C193, C195, C199, D1, D3, D4, D5, D9, D10, D12, D13, D14, D15, D16, D17, D19, D25, D26, D28, D33, D34, D39, D40, D41, D42, D43, D44, D46, D47, D50, D52, D53, D54, D55, D56, D58, D59, D60, D61, D62, D63, D64, D65, D66, D67, D68, D69, D71, D72, D73, D74, D75, D77, D81, D82, D83, D87, D94, D98, D101, D103, D104, D106, D110, D120, D121, D122, D123, D124, D125, D126, D127, E1, E2, E5, E6, E7, E8, E9, E10, E11, E13, E15, E19, E22, E27, E34, E36, E37, E38, E39, E40, E42, E43, E47, E48, E49, E50, E52, E53, E54, E55, E56, E57, E59, E60, E62, F4, F5, F7, F11, F12, F13, F14, F15, F16, F18, F19, F20, F21, F22, F26, F27, F28, F29, F30, F31, F32, F33, F34, F39, F41, F45, F49, F51, F53, F57, F58, F59, F60, F61, F62, F63, F64, F65, F66, F67, F68, F69, F70, F71, F72, F73, F74, F75, F76, F78, F79, F81, F82, F86, F87, F88, F89, F90, F104, F105, F106, F108, F109, F110, F111, F112, F113, F114, F115, F116, F122, F123, F124, F125, F126, F127, F129, F131, F132, F133, F134, F139, F140, F141, F142, F143, F144, F145, F147, F151, F155, F156, F158, F159, F160, F167, F172, F173, G1, G2, G3, G4, G5, G6, G7, G8, G11, G12, G14, G16, G19, G20, G21, G22, G23, G27,

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E45, E46, E49, E50, E51, E52, E56, E60, E62, F1, F4, F5, F7, F15, F16, F17, F26, F38, F39, F43, F54, F81, F82, F87, F88, F89, F91, F92, F93, F94, F95, F96, F97, F98, F99, F100, F101, F102, F103, F105, F106, F109, F110, F111, F115, F121, F124, F125, F127, F135, F136, F137, F143, F144, F145, F147, F148, F149, F150, F153, F155, F156, F157, F165, F167, F168, F170, F174, G15, G16, G17, G18, G19, G20, G21, G22, G23, G25, G26, G28, G32, G36, G53, G59, G67, G69, G70, G71, G72, G73, G78, G85, G87, G94, G97, G99, G104, H3, H15, H18, H19, H21, H23, H24, H27, H30, H31, H35, H48, H48, H51, H62, H63, H64, H67, H68, H70, H72, H77, H78, H80, H84, H85, H86, H87, H89, H91, H105, H107, H110, H118, H120, H125, H127, H133, H135, H140, H145, H146, H147, H148, H149, H156, H161, H162, H163, H166, H170, H172, H174, H177, H185, H199, H200, H205, H207, H208, H209, H210, H217, H225, H230, H233, H234, H236, H238, H242, H244, I4, I5, I6, I7, I13, I14, I15, J1, J2, J3, J11, J18, J21, J22, J25, J31, J32, J35, J36, J38, J48, J49, J50, J59, J64, J66, J67, J70, J73, J74, J80, J81, J83, K3, K4, K5, K7, K16, K24, K27, K28, K29, K40, K48, K53, K59, K60, K62, K66, K67, K69, K77, K80, K88, K90, K91, K92, K94, K95, K96, K99, K100, K101, K102, K106, K107, K108, K109, K110, K115, L1, L2, L4, L5, L7, L8, L9, L11, L12, L13, L14, L18, L19, L25, L36, L38, L43, L46, L47, L49, L56, L57, L58, L59, L60, L65, L66, L68, L71, L72, L73, L80, L83, L85, L86, L88, M1, M10, M11, M12, M13, M14, M22, M33, M34, M37, M38, M48, M49, M58, M68, M69, M74, M83, M86, M87, M92, M93, M94, M95, M96, M97, M98, M99, M100, M105, M108, M109, M110, M111, M112, M113, M114, M115, M120, M123, M124, M125, M164, M165, M169, M170, M171, M174, M183, M184, M185, M189, M190, M191, M192, M194, M196, M197, M198, M201, M202, M204, M207, M208, M212, M221, M227, M230, M232, M237, M244, M245, M246, M248, M249, M251, M254, M255, M261, M262, M267, M268, M269, M270, M271, M274, M275, M278, M279, M280, M281, M282, M283, M284, M286, M288, M289, M290, M293, M294, M297, M300, M302, M303, M304, M305, M308, M310, M311, M312, M313, M314, M315, M316, M317, M325, M326, M328, M331, M332, M336, M338, M339, M340, M341, M342, M343, M344, M347, M348, M349, M350, M351, M352, M353, M357, M358, M359, M360, M363, M368, M370, M371, M372, M373, M375, M377, M378, M381, M382, M385, M386, M388, M392, M393, M398, M399, M400, M401, M403, M404, M408, M410, M412, M414, M416, M418, M419, M420, M421, M423, M424, M425, M426, M428, M430, M432, M433, M434, M436, M437, M438, M439, M440, M441, M442, M444, M445, M447, M448, M449, M450, M451, M452, M454, M455, M456, M457, M458, M460, M461, M466, M467, M468, M469, M470, M483, M484, M485, M486, M487, M488, M489, M490, M502, N2, N5, N6, N7, N8, N9, N15, N23, N24, N27, N28, N29, N32, N33, N39, N45, N49, N50, N51, N55, N56, N57, N63, N64, O5, O7, O8, O10, O11, O12, O13, O14, O15, O16, O17, O18, O19, O20, O21, O28, O29, O31, O34, O35, P1, P3, P6, P10, P11, P12, P16, P18, P22, P25, P36, P37, P52, P53, P55, P56, P57, P61, P65, P67, P68, P69, P74, P76, P68, P69, P94, P95, P96, P103, P105, P106, P109, P110, P111, P112, P113, P114, P115, P116, P117, P120, P121, P122, Q4, R3, R4, R12, R13, R14, R15, R20, R22, R23, R27, R28, R29, R31, R34, R35, R37, R42, R45, R48, R49, R57, R76, R86, R88, R90, R91, R92, R93, R94, R97, R98, R99, R103, R105, R106, R108, R112, R115, R120, S1, S12, S17, S18, S19, S24, S29, S48, S49, S50, S51, S52, S54, S56, S57, S60, S62, S70, S71, S72, S76, S80, S82, S83, S85, S87, S88, S89, S90, S91, S92, S93, S94, S95, S96, S101, S102, S104, S105, S125, S136, S137, S138, S139, S140, S141, S142, S143, S144, S145, S146, S150, S153, S169, S171, S175, S176, S180, S182, S187, S188, S189, S193, S194, S195, S199, S202, S205, S208, S213, S223, S226, S227, S228, S229, S231, S243, S247, S249, S250, S251, S260, S262, S263, S269, S270, S273, T7, T9, T10, T11, T12, T13, T15, T27, T28, T30, T31, T39, T43, T45, T47, T49, T52, T54, T60, T62, T64, T65, T67, T81, T83, T84, T85, T86, T89, T93, T94, T95, T96, T97, T100, U1, U9, U10, U14, U19, U20, U21, U22, U26, U29, U30, U33, U37, U38, U43, U44, U47, U50, U51, U52, U53, U59, U60, U62, U64, U67, U68, U69, U70, U71, U75, U76, U82, U83, U86, U90, U91, U92, U94, U96, U104, U109, U113, U116, U120, U123, U124, U125, U131, U135, U136, U137, U138, U139, U140, U150, U151, U158, U164, U173, U174, U175, U176, U177, U178, U181, U182, U192, U194, U196, U198, U203, U207, U209, U211, U212, U213, U214, U216, U217, U218, U220, U222, U224, U226, U229, U231, U232, U236, U241, U244, U248, U249, U251, U253, U254, U255, U259, U260, U261, U263, U266, U268, U269, U271, U273, U275, U276, U278, U279, U281, U282, U286, U288, U289, U290, U291, U367, U364, U365, U379, U380,

U382, U383, U384, U385, V1, V4, V5, V10, V14, V15, V16, V17, V18, W5, W8, W14, W15, W17, W19, W29, W30, W31, W32, W33, W37, W38, W39, W40, W42, W44, W45, W46, W47, W48, W49, W51, W52, W54, W56, W59, W66, W90, W92, W95, W96, W105, W109, W110, W111, W112, W113, W114, W115, W118, W119, W120, W121, W123, W124, W125, W129, W145, W146, W147, W152, W153, S154, W155, W156, W159, W160, W164, W167, W168, W169, W170, W171, W174, Y5, Z1, Z3, Z4, Z5, Z6, Z7, Z8

S2 - Lincoln County

A1, A29, A36, A77, A78, B72, B82, B84, B88, B93, B107, B120, B125, B128, B137, B155, B157, B169, C4, C18, C49, C51, C60, C61, C105, C112, C113, C114, C116, C117, C118, C119, C120, C122, C123, C124, C125, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, C138, C158, C164, C169, C191, C193, C199, D14, D15, D16, D25, D26, D28, D81, D82, D83, D87, E4, E5, E42, E49, E50, E52, E56, E82, F4, F7, F15, F26, F39, F62, F81, F82, F87, F88, F124, F167, G19, G28, G32, G36, G53, G69, G99, G104, H3, H15, H21, H62, H63, H70, H80, H85, H105, H107, H116, H118, H125, H147, H163, H185, H225, H244, I7, I12, I13, I14, J1, J13, J14, J15, J16, J19, J24, J25, J31, J35, J38, K3, K7, K27, K69, K77, K80, K94, K96, L4, L5, L14, L18, L19, L37, L38, L43, L47, L61, M10, M22, M69, M83, M97, M99, M168, M184, M189, M190, M238, M245, M246, M249, M251, M254, M255, M258, M261, M262, M267, M268, M269, M270, M271, M274, M278, M279, M280, M282, M283, M284, M286, M288, M294, M297, M300, M302, M303, M304, M305, M306, M310, M312, M314, M315, M316, M317, M325, M326, M328, M331, M332, M336, M338, M339, M340, M341, M342, M343, M344, M347, M348, M349, M350, M351, M352, M353, M357, M358, M359, M360, M363, M368, M370, M371, M372, M373, M375, M377, M378, M381, M382, M385, M386, M388, M392, M393, M398, M399, M400, M401, M403, M404, M408, M410, M412, M414, M416, M418, M419, M420, M421, M423, M424, M425, M426, M428, M430, M432, M433, M434, M436, M437, M438, M439, M440, M441, M442, M444, M445, M447, M448, M449, M450, M451, M452, M454, M455, M456, M457, M458, M460, M461, M466, M467, M468, M469, M470, M483, M484, M485, M486, M487, M488, M489, M490, M502, N2, N5, N6, N7, N8, N9, N15, N23, N24, N27, N28, N29, N32, N33, N39, N45, N49, N50, N51, N55, N56, N57, N63, N64, O5, O7, O8, O10, O11, O12, O13, O14, O15, O16, O17, O18, O19, O20, O21, O28, O29, O31, O34, O35, P1, P3, P6, P10, P11, P12, P16, P18, P22, P25, P36, P37, P52, P53, P55, P56, P57, P61, P65, P67, P68, P69, P74, P76, P68, P69, P94, P95, P96, P103, P105, P106, P109, P110, P111, P112, P113, P114, P115, P116, P117, P120, P121, P122, Q4, R3, R4, R12, R13, R14, R15, R20, R22, R23, R27, R28, R29, R31, R34, R35, R37, R42, R45, R48, R49, R57, R76, R86, R88, R90, R91, R92, R93, R94, R97, R98, R99, R103, R105, R106, R108, R112, R115, R120, S1, S12, S17, S18, S19, S24, S29, S48, S49, S50, S51, S52, S54, S56, S57, S60, S62, S70, S71, S72, S76, S80, S82, S83, S85, S87, S88, S89, S90, S91, S92, S93, S94, S95, S96, S101, S102, S104, S105, S125, S136, S137, S138, S139, S140, S141, S142, S143, S144, S145, S146, S150, S153, S169, S171, S175, S176, S180, S182, S187, S188, S189, S193, S194, S195, S199, S202, S205, S208, S213, S223, S226, S227, S228, S229, S231, S243, S247, S249, S250, S251, S260, S262, S263, S269, S270, S273, T7, T9, T10, T11, T12, T13, T15, T27, T28, T30, T31, T39, T43, T45, T47, T49, T52, T54, T60, T62, T64, T65, T67, T81, T83, T84, T85, T86, T89, T93, T94, T95, T96, T97, T100, U1, U9, U10, U14, U19, U20, U21, U22, U26, U29, U30, U33, U37, U38, U43, U44, U47, U50, U51, U52, U53, U59, U60, U62, U64, U67, U68, U69, U70, U71, U75, U76, U82, U83, U86, U90, U91, U92, U94, U96, U104, U109, U113, U116, U120, U123, U124, U125, U131, U135, U136, U137, U138, U139, U140, U150, U151, U158, U164, U173, U174, U175, U176, U177, U178, U181, U182, U192, U194, U196, U198, U203, U207, U209, U211, U212, U213, U214, U216, U217, U218, U220, U222, U224, U226, U229, U231, U232, U236, U241, U244, U248, U249, U251, U253, U254, U255, U259, U260, U261, U263, U266, U268, U269, U271, U273, U275, U276, U278, U279, U281, U282, U286, U288, U289, U290, U291, U367, U364, U365, U379, U380,

S3 - Missoula County

A1, A29, A36, A45, A78, A90, B3, B22, B72, B88, B91, B93, B96, B98, B99, B100, B107, B120, B128, B135, B137, B155, B157, B164, B166, B169, B187, B188, B190, B197, B199, B214, C4, C8, C18, C29, C30, C31, C32, C38, C49, C61, C55, C56, C60, C61, C79, C84, C86, C105, C108, C111, C112, C113, C114, C116, C117, C118, C119, C120, C122, C123, C124, C125, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C138, C142, C145, C147, C148, C149, C158, C164, C169, C171, C189, C191, C192, C193, C198, C199, D8, D14, D15, D16, D20, D21, D22, D24, D25, D26, D27, D28, D29, D30, D31, D35, D36, D37, D70, D72, D81, D82, D83, D86, D87, D92, D99, D108, D111, D112, D113, D115, D116, D118, E4, E5, E18, E42, E48, E49, E50, E52, E56, F1, F4, F7, F15, F17, F26, F38, F39, F61, F62, F67, F68, F91, F92, F93, F94, F95, F96, F97, F124, F125, F134, F136, F149, F157, F167, F170, F174, G15, G19, G28, G32, G36, G69, G85, G97, G99, G104, H3, H15, H21, H23, H27, H35, H46, H51, H62, H63, H70, H77, H78, H80, H84, H85, H87, H89, H91, H105, H107, H116, H118, H125, H146, H147, H148, H149, H163, H174, H185, H199, H200, H205, H217, H225, H230, H234, H238, H242, H244, I4, I13, I14, J1, J2, J3, J25, J31, J32, J35, J36, J38, J50, J80, K3, K7, K16, K27, K29, K40, K48, K53, K60, K67, K69, K77, K80, K94, K96, K96, K107, K108, K109, K110, M111, M113, L5, L11, L12, L13, L1

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80 - Arlee

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81 - Bigfork

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82 - Columbia Falls

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83 - Dixon

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84 - Hot Springs

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85 - Kellspell

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86 - Polson

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87 - Ravalli

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88 - Ronan

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89 - St. Ignace

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90 - West Glacier

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91 - Whitefish

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92 - Creston

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93 - Lakeside

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74 - Nirada

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75 - Olney

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76 - Perma

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77 - Somers

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78 - Yellow Bay

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79 - Polebridge

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80 - Bob Marshall Wilderness

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- 2 - *Canachites canadensis* - Spruce Grouse
J60, S268
- 3 - *Canis latrans* - Coyote
M493, R31, S161, S200
- 4 - *Canis lupus* - Gray Wolf
B184, C37, C41, C194, F62, H129, K2, M147, M151, M175,
N42, R18, R19, S159, U30, U360
- 5 - *Carex chondorrhiza* - Sedge
S73
- 6 - *Carex plectocarpa* - Sedge (goose grass)
H131
- 7 - *Castilleja ampliflora* - Indian Paintbrush
R119
- 8 - *Castilleja urelandii* - Indian Paintbrush
R119
- 9 - *Certhia familiaris* - Brown Creeper
M19
- 10 - *Cervus canadensis* - Elk
A39, B105, C33, C144, C175, F134, F173, G2, G61, H30,
H31, H128, K66, K75, L88, M32, M130, M132, M146, M150,
M152, M439, M441, M449, M450, M451, P64, P66, P90,
P103, R66, R90, R97, S149, S156, S163, S176, S263, S264,
T60, U24, U48, U319, W26, W27
- 11 - *Cetraria hepatica* - Lichen
T44
- 12 - *Choristoneura fumiferana* - Spruce Budworm
F23, F25
- 13 - *Choristoneura occidentalis* - Western Spruce Bud-
worm
F19, F24, K91, T82, U20, U25, U29
- 14 - *Chortzagrotus auxillaris* - Lady Bird Beetle
C55
- 15 - *Chrysopsis butleri* - Golden Aster
R120
- 16 - *Citellus columbianus* - Columbian Ground Squirrel
T101
- 17 - *Coccomyces biennis* - Cherry Fungus
A13
- 18 - *Coleophora laricella* - Larch Casebearer
B165, C77, D64, D65, T80
- 19 - *Coleoptera coccinellidae* - Army Cutworm
C55
- 20 - *Coleotechnites* - Pine Needle Miner
T84
- 21 - *Colymbus holboellii* - Holboell Grebe
S138, S142
- 22 - *Coryneum beijernickii* - Coryneum Blight Fungus
A13
- 23 - *Cottus confusus* - Shorthead Sculpin
B5
- 24 - *Cypseloides niger* - Black Swift
H236, H237
- 25 - *Cystopteris montana* - Montana Bladder-fern
R109

- 26 - *Cystopteris montana* - Montana Bladder-fern
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- 27 - *Cystopteris montana* - Montana Bladder-fern
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- 97 - *Cystopteris montana* - Montana Bladder-fern
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- 98 - *Cystopteris montana* - Montana Bladder-fern
R109
- 99 - *Cystopteris montana* - Montana Bladder-fern
R109
- 100 - *Cystopteris montana* - Montana Bladder-fern
R109

D

- 1 - *Danthonia intermedia* - Timber danthonia .
K105
- 2 - *Delphinium* spp. - Larkspur
S19
- 3 - *Dendroctonus monticolae* - Mountain Pine Beetle
E60, T77

- 4 - *Dendroctonus obsesus* - Engelmann Spruce Beetle
H182
- 5 - *Dendroctonus ponderosae* - Mountain Pine Beetle
A47, A48, F18, F141, G33, G34, H36, H44, L50, L51, M26,
M55, M56, M57, T79, U88, U89
- 6 - *Dendroctonus pseudotsugae* - Douglas Fir Beetle
K111
- 7 - *Dendroica auduboni* - Audubon's Warbler
S137, S144
- 8 - *Dendroica townsendi* - Townsend Warbler
S142, S144
- 9 - *Discothemecus gilvipes* - Caddis fly
H107
- 10 - *Dryocopus pileatus* - Pileated Woodpecker
M24, M26

E

- 1 - *Echinodontium tinctorum* - Fungus
L20
- 2 - *Empidonax hammondi* - Hammond's Flycatcher
D18, S137, W85
- 3 - *Empidonax traillii* - Traill's Flycatcher
W87
- 4 - *Epiphragmophora circumcarinata* - Snail
P95
- 5 - *Erethizon dorsatum* - Porcupine
S271
- 6 - *Eutamias amoenus* - Yellow Pine Chipmunk
M9
- 7 - *Eutamias ruficaudus* - Red-tailed Chipmunk
B66, B67, B68, B69, B70

F

- 1 - *Falco mexicanus* - Prairie Falcon
L46
- 2 - *Falco peregrinus* - Peregrine Falcon
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- 3 - *Felis concolor* - Mountain Lion
H190, S161
- 4 - *Festuca idahoensis* - Idaho Fescue
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- 5 - *Festuca scabrella* - Rough Fescue
K105, M438
- 6 - *Fomes fomentarius* - Fungus
L20
- 7 - *Fomitopsis pinicola* - Fungus
L20, S197

G

- Geastrum limbatum - Algae
A86
- 2 - *Gulo gulo* - Wolverine
H191, H192, K83, N23, R6
- 3 - *Gymnorhinus cyanocephalus* - Pinyon Jay
W73

H

- 1 - *Haliaeetus leucocephalus* - Bald Eagle
M15, M17, M18, M27, M28, S107, S111, S112, S202, U106,
U360
- 2 - *Hepaticae* - Liverwort
C89, C90, H180
- 3 - *Heracleum lanatum* - Cow Parsonip
A70
- 4 - *Histrionicus histrionicus* - Harlequin Duck
K112, P41, S16, W22
- 5 - *Hydropsyche placoda* - Caddis Fly
H107
- 6 - *Hypericum perforatum* - Common St. Johnswort
M440
- 7 - *Hypnum mollis* - Moss
C17

I

- 1 - *Iris pseudocarus* - Yellow Flag
P190
- 2 - *Isopoda asellus* - Aquatic Isopod
N26
- 3 - *Ixoreus naevius* - Varied Thrush
S143

L

- 1 - *Lagopus lagopus* - Willow Ptarmigan
S224
- 2 - *Lagopus leucurus* - White-tailed Ptarmigan
C69, C70, C71, C72, E10, J40, S79, W168
- 3 - *Larix laricina* - Subalpine Larch
A75, A77, A80, C18, C23, D34, K80
- 4 - *Larix occidentalis* - Western Larch
A83, B71, B72, B73, B140, B142, B163, B165, C18, C23, C77, D63, D64, E42, F23, F25, H23, H99, K80, K106, L40, P92, P100, R78, R79, R80, R81, R82, R83, R84, R85, S34, S38, S42, S43, S114, S115, S259, T80, T88
- 5 - *Larus delawarensis* - Ring-billed Gull
B112
- 6 - *Lepomis gibbosus* - Pumpkinseed
E40
- 7 - *Lepus americanus* - Snowshoe Hare
A10, A12
- 8 - *Leucosticte tephrocotis* - Gray-crowned Rosy Finch
J39
- 9 - *Lewisia rediviva* - Bitterroot
T94
- 10 - *Lithospermum arvense* - Gromwell
S253, S254
- 11 - *Lobipes lobatus* - Northern Phalarope
J48
- 12 - *Loxia curvirostra* - Red Crossbill
K28
- 13 - *Lupinus candicans* - Lupine
R116
- 14 - *Lupinus pulcherrimus* - Lupine
R118
- 15 - *Lupinus subulatus* - Lupine
R119
- 16 - *Lynx canadensis* - Lynx
B25, K82

M

- 1 - *Macrosiphum euphorbiae* - Potatoe Aphid
A32
- 2 - *Marmota caligata* - Hoary Marmot
S106, T101
- 3 - *Marmota flaviventris* - Yellowbelly Marmot
S106
- 4 - *Martes americana* - Marten
H110, H111, J51, J83, K84, M127, N21, N22, W35, W36
- 5 - *Martes pennanti* - Fisher
H108, W37
- 6 - *Medicago sativa* - Alfalfa
C161, S255
- 7 - *Mergus mercenaria* - Common Merganser
B112
- 8 - *Mesopora hypericorum* - Fungus
M91
- 9 - *Microsanias* spp. - Fly
K33
- 10 - *Microtus montanus* - Mountain Vole
K99, M490, M491, M492
- 11 - *Microtus pennsylvanicus* - Meadow Vole
K99, M490, M491, M492
- 12 - *Mitruia gracilis* - Fungus
M91

- 13 - *Mustela vison* - Mink
L41, L42
- 14 - *Myiarchus cinerascens* - Ash-throated Fly Catcher
W73
- 15 - *Myiochellus caurinus* - Peamouth
R3, R4, S80
- 16 - *Myzus cerasi* - Black Cherry Aphid
E13
- 17 - *Myzus persicae* - Green Peach Aphid
A32

N

- 1 - *Nemoura* spp. - Stonefly
B47
- 2 - *Neophasia menapia* - Pine Butterfly
T83, T85
- 3 - *Neptylis freemani* - Western False Hemlock Looper
D89, M213

O

- 1 - *Ochotona princeps* - Pika
B26, F140, T101
- 2 - *Odocoileus hemionus* - Mule Deer
B200, B201, B202, B203, C33, G38, G89, H221, H222, K86, M32, M132, M148, M149, M152, M174, M183, M441, N7, N8, N9, P67, P103, S82, S83, S156, S263, T52
- 3 - *Odocoileus virginianus* - White-tailed Deer
A19, C33, C37, G38, H127, H139, H150, M32, M135, M183, M484, M485, M486, N6, P67, P103, R86, R90, S108, S163, S263, U83
- 4 - *Odonata* - Dragonfly
B94, B95, N15
- 5 - *Olor columbianus* - Whistling Swan
W24
- 6 - *Oncorhynchus nerka* - Kokanee
B216, H65, M15, M18, M462, S69, S107, S108, T58
- 7 - *Ophioglossum vulgatum* - Adder's tongue
G64
- 8 - *Oreamnos americanus* - Mountain Goat
B23, B24, C34, C38, C40, C43, C45, C46, E2, H120, K86, M32, P28, R51, R52, R53, R86, R89, S156, S157, S263
- 9 - *Oryzopsis pseudotsugata* - Douglas Fir Tussock Moth
K89, K90, K91, T81, T86, T89
- 10 - *Ovis canadensis* - Bighorn Sheep
B6, B7, B235, F142, F143, F144, F145, F146, F147, F148, G87, M32, M123, M174, O20, P68, R86, S90, S91, S92, T10
- 11 - *Oxyria digyna* - Alpine Sorrel
M431

P

- 1 - *Pandion haliaetus* - Osprey
G16, K100, K101, K102, M11, M12, M13, T57
- 2 - *Parapsyche elsie* - Caddisfly
H107
- 3 - *Parus atricapillus* - Black-capped Chickadee
P82
- 4 - *Parus gambeli* - Mountain Chickadee
P82
- 5 - *Parus hudsonicus* - Boreal Chickadee
P82
- 6 - *Parus rufescens* - Chestnut-backed Chickadee
M21, P82
- 7 - *Passerherbulus caudatus* - LeConte's Sparrow
D17
- 8 - *Penstemon wilcoxii* - Wilcox Penstemon
R116
- 9 - *Perca flavescens* - Yellow Perch
R3, R4
- 10 - *Peromyscus maniculatus* - Deer Mouse
C15, D11, M235, P96
- 11 - *Phalacrocorax auritus* - Double-crested Cormorant
B113, B114

- 12 - *Phasianus colchicus* - Ring-necked Pheasant
A89

- 13 - *Physcia dubia* - Lichen
T44
- 14 - *Picea glauca* - Skunk Spruce
H17
- 15 - *Picea engelmanni* - Engelman Spruce
B179, H13, H17, H23, H182, M53, S115
- 16 - *Pinus albicaulis* - Whitebark Pine
B215
- 17 - *Pinus contorta* - Lodgepole Pine
A47, A48, C22, C25, C26, C27, C107, C188, E60, G34, G61, H36, J88, L50, L51, M57, T77, T79
- 18 - *Pinus monticola* - Western White Pine
C22, C27
- 19 - *Pinus ponderosa* - Ponderosa Pine
C173, C174, G61, H211, J38, K29, L89, L90, L93, S271, T84
- 20 - *Piranga ludoviciana* - Louisiana Tanager
S142
- 21 - *Pissodes strobi* - Terminal Weevil
M53
- 22 - *Plecoptera* - Stonefly
S225, S227
- 23 - *Priscma serrata* - Beetle
E7
- 24 - *Proscoplum coulteri* - Pygmy Whitefish
T58
- 25 - *Proscoplum williamsi* - Mountain Whitefish
G36
- 26 - *Protostrongylus rushi* - Lungworm
S90
- 27 - *Protostrongylus stilesi* - Lungworm
F148, S90
- 28 - *Psuedotsuga menziesii* - Douglas Fir
B140, B246, C22, C27, D62, D69, G61, H24, H99, K89, K90, K111, L20, L40, P92, P100, R30, R79, R80, R81, R83, R84, R85, R121, S37, S115, S196, S233, S259, T89
- 29 - *Ptychocheilus oregonensis* - Northern Squawfish
R3, R4
- 30 - *Puccinia striiformis* - Stripe Rust
S256
- 31 - *Pyramidula elrodi* - Snail
E35, P95
- 32 - *Pyramidula strigosa* - Snail
E36

Q

- 1 - *Quamasia quamash* - Cames
T94

R

- 1 - *Radiigera fuscooglebe* - Algae
A86
- 2 - *Rangifer caribou* - Caribou
E55, M220
- 3 - *Ranunculus hellebori* - Buttercup
R117
- 4 - *Recurvirostra americana* - American Avocet
H48
- 5 - *Regulus calendula* - Ruby-crowned Kinglet
S142
- 6 - *Rhagoletis fausta* - Black-bodied Cherry Fruit Fly
E13
- 7 - *Richardsonius balteatus* - Redside Shiner
W47, W48

S

- 1 - *Salmo clarki* - Cutthroat Trout
B32, B215, B217, G48, H62, H63, H65, H240, J30, J31, R34, R95,
- 2 - *Salmo gairdneri* - Rainbow Trout
R34, W42

3 - *Salvelinus confluentus* - Dolly Varden
H108

4 - *Salvelinus fontinalis* - Brook Trout
D86

5 - *Salvelinus malma* - Dolly Varden
A74, H65, R3, R4, W26

6 - *Sialia mexicana* - Western Bluebird
W86

7 - *Sitta canadensis* - Red-breasted Nuthatch
W82

8 - *Solidago glaucophylla* - Goldenrod
R120

9 - *Sorex nanus* - Dwarf Shrew
H160

10 - *Sorex obscurus* - Dusky Shrew
C93, H121

11 - *Sorex pacificus* - Shrew
H121

12 - *Sorex palustris* - Northern Water Shrew
C141, C142

13 - *Sorex Vagrans* - Vagrant Shrew
C93, H121, H122, H160

14 - *Spizella breweri* - Brewer's Sparrow
B15

15 - *Spizella pusilla* - Field Sparrow
W84

16 - *Steganopus tricolor* - Wilson's Phalarope
F42, J48, N33

17 - *Stelgidopteryx ruficollis* - Rough-winged Swallow
W80

18 - *Strix occidentalis* - Spotted Owl
W73

19 - *Strix varia* - Barred Owl
S109

20 - *Symphitopsyche cockerelli* - Caddisfly
H107

21 - *Symphitopsyche osleri* - Caddisfly
H107

22 - *Synaptomys borealis* - Northern Bog Lemming
W165

T

1 - *Tamiasciurus hudsonicus* - Red Squirrel
E41

2 - *Thuja plicata* - Western Red Cedar
H7, J29

3 - *Tilletia caries* - Common Bunt
P128

4 - *Tilletia controversa* - Dwarf Bunt
P128

5 - *Tilletia foetida* - Common Bunt
P128

6 - *Triticum aestivum* - Wheat
M76, M77, M78, M79, S253, S254, S256, W54

7 - *Tsuga heterophylla* - Western Hemlock
H7, L20

8 - *Tsuga mertensiana* - Mountain Hemlock
H3

U

1 - *Ursus americanus* - Black Bear
C28, G61, J52, J53, J55, M2, M4, M129, M148, M210, S29,
S31, S269, T51, U318, U325, U326, W21

2 - *Ursus arctos* - Grizzly Bear
A70, B2, B158, B240, C28, C35, C55, C186, D33, F49, G86,
H134, J3, J54, J55, J57, J58, J59, J61, J62, J64, J65, J66,
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U325, U326, U360, W21, W128, Z1

V

1 - *Vaccinium globulare* - Huckleberry
M128

2 - *Vaccinium membranaceum* - Whortleberry
M128, S31

3 - *Vaccinium* spp. - Huckleberry
P60

4 - *Vermivora peregrina* - Tennessee Warbler
S143

W

1 - *Webera carinata* - Moss
C17

Z

1 - *Zonotrichia albicollis* - White-throated Sparrow
W73

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