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Procedure for Storing Tissue Data in the STORET Water Quality File with Selected Retrievals and Analyses

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PROCEDURE FOR STORING TISSUE DATA IN THE
STORED WATER QUALITY FILE WITH
SELECTED RETRIEVALS AND ANALYSES

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INTRODUCTION

A methodology for storing tissue data in the STORET water quality file was developed in the summer of 1978. This approach was designed to allow EPA, its toxics program contractors, and the STORET user community to store and retrieve tissue data including species, tissue type, length, weight, sex, percent-fat and number of individuals. This procedure allows for a more meaningful use and analysis of data, and provides the capability of a mass transfer of this data into BIOSTORET at a later time.

At the present time, there are more than 3,000 tissue sampling locations in STORET, covering 529 pollution parameters, including 75 for metals, 321 for organics and 133 for pesticides. These sampling locations are situated in most of the country's inland waters, as well as in coastal and offshore areas. More than 530 species of fishes and aquatic invertebrates have been sampled and 107 types of tissue can be analyzed using the coding and storage procedure presented here.

This documentation assumes that the reader has a good working knowledge of STORET water quality storage and only needs information specific to tissue data storage. Instructions are provided for the DIP Ø2 and WQGSTOR Ø4 formats. The Ø3 format is not applicable since it is designed for use when date, time and depth are identical for a series of stations. These identifiers (date, time, and depth) for tissue storage are used to uniquely identify samples.

I. DATA REQUIREMENTS

The following parameter codes are available; optional parameters are indicated by an asterisk, but should be stored when available:

84005 - Species Code (Alpha)⁺

74990 - Species Code (Numeric)⁺

81614 - Number of Individuals in the Sample

84007 - Tissue Code (Alpha)⁺

74995 - Tissue Code (Numeric)⁺

*00024 - Length (in inches)[#]

*00023 - Weight (in pounds)[#]

*81615 - Number of species in sample (for use in a composite of species)

*39105 - % L lipid

*84008 - Life cycle/Habitat⁺

*84014 - Sex (MALE or FEMALE)⁺

See Appendix A for details.

See Appendix B for information regarding the changes made in the Species Lists and Anatomy Lists.

[#] During retrieval and analysis, metric units can be used by application of STORET keywords PARU and PARF.

⁺ Retrieval selections can be made for individual species, tissue type, life cycle/habitat, or sex by use of PRV, PLV, and PHV STORET retrieval keywords.

II. DATA DIFFERENTIATION

Tissue data entry procedures differ from other types of parametric data entry in the following ways:

- The time field that is attached to the date describes the specific type of tissue which was analyzed. Multiple tissue analyses are allowed for each species if necessary.
- The depth field is used to indicate the species and uniquely identify the analysis. All of the species analyzed for one collection date can be stored.
- Several other parametric fields exist that aid in accurate descriptions of both the species and the specific type of tissue analysis done in a sample. These codes are listed in Data Requirements.

III. SPECIFICS FOR DATA CODING AND STORAGE

DIP Ø2 FORMAT SPECIFICATIONS

The "P" card does not differ from other standard parametric "P" cards. The depth field must be used so the letter "D" occupies the sixth field and is immediately followed, without separation of comma, by the first parameter code. It should be noted that this procedure is not different than the procedure used to store depth values for water data, however, for tissue data storage, the depth field is used uniquely to indicate the species type, as will be explained later.

The format of the "D" cards is the same as that for water data. The only difference is that the time and depth fields are used in a special way to make each sample unique.

Time Field--

The time field is used to indicate the tissue type. The codes for the various tissue types can be found in the Anatomy List.

Depth Field--

The depth field is used to indicate the species analyzed, and a counter is added to provide for uniqueness of the sample. The first two or three digits (depending on the length of the species code) on the left side of the depth value come from the numeric code for a species (from the species list). For example, the numeric code for a carp is 12, and 12 would be the first digits as a counter. This is accomplished by placing a 1 behind the numeric species code. If more than one fish of the same species was collected from the same station on the same date and the same tissue type was analyzed, it is necessary to increment the counter by 1 for each fish. The tenth fish is indicated by incrementing the counter from 9 to Ø. If more than 10 fish were analyzed, it is necessary to start the count again at 1 and increment the date by one day (do not increment the first digits of the depth as this will change the species code). It is only necessary to continue incrementing the depth when the station, date, species, and tissue type remain constant. If any of these factors change, the counter should be returned to 1. It should be noted that the depth units must be specified as feet (which is the default value) on the "A" card.

Composite Samples

Frequently, more than one fish of the same species are composed and analyzed as one sample. The number of individuals in the sample can be stored using parameter number 81614. This parameter should be used even if the value is one (single fish analysis), but for composites, the use of this parameter provides valuable information on the type of sample and its use is highly recommended. If a composite sample consists of more than one

species, the use of parameter 81615 (number of species in the sample) should be used in conjunction with parameter 81614 (number of individuals in the sample). When such a sample exists, the correct value for parameter 84005 (alpha species code) is "MIX". The correct value for parameter 74990 (numeric species code), and also for the first digits of the depth, is 64.

Example

As an example, the following data is shown in DIP Ø2 format:

Agency is 1118TOX (a retrieval example of this data is on pages C-1 and C-2)

Station	Date	Species (#)	Tissue	Weight (lbs)	Length (in)	Hg (ppm)
004	05/18/78	Carp (1)	Fillet	6.94	21.14	0.20
004	05/18/78	Channel Catfish (1)	Fillet	2.12	17.86	0.14
004	05/18/78	Channel Catfish (1)	Fillet	5.50	21.22	0.08
004	05/18/78	Channel Catfish (1)	Fillet	3.37	19.03	0.16
004	05/18/78	Channel Catfish (1)	Fillet	1.37	14.82	0.08
004	05/18/78	Channel Catfish (1)	Fillet	1.00	13.06	0.08
004	05/18/78	Channel Catfish (1)	Fillet	0.69	11.58	0.07
004	05/18/78	Channel Catfish (1)	Fillet	0.94	13.18	0.10
004	05/18/78	Channel Catfish (1)	Fillet	0.75	12.09	0.13
004	05/18/78	Goldeye (1)	Fillet	0.12	13.53	0.16
004	05/18/78	Goldeye (1)	Fillet	0.87	12.34	0.12
004	05/18/78	Goldeye (1)	Fillet	0.50	10.65	0.10
004	05/18/78	Goldeye (1)	Fillet	0.87	11.89	0.09
004	05/18/78	Goldeye (1)	Fillet	1.12	13.73	0.28
004	05/18/78	Goldeye (1)	Fillet	1.00	14.74	0.19
004	05/18/78	Goldeye (1)	Fillet	0.94	13.10	0.21
004	05/18/78	Goldeye (1)	Fillet	0.50	10.57	0.11
004	05/18/78	Goldeye (1)	Fillet	0.50	10.53	0.07
004	05/18/78	Goldeye (1)	Fillet	5.50	10.14	0.13
004	05/18/78	Northern Pike (1)	Fillet	6.94	27.49	0.34
004	05/18/78	Walleye (1)	Fillet	1.12	13.34	0.11

The "P" card would be as follows:

'P', D840057499081614840088400774995000230002471930.

The order of parameters is not important and this order is shown simply as an example. Once an order is chosen, however, that order must be followed to the end of the data or until a new 'P' card is encountered.

The data would be coded as follows:

'D', '004', 7805180126, 121, 'C', 12, 1, '0500', 'FILET', 86, 6.94,
21.14, 0.20,

'D', '004', 7805180126, 161, 'CHC', 16, 1, '0500', 'FILET', 86, 2.12,
17.86, 0.14,

'D', '004', 7805180126, 162, 'CHC', 16, 1, '0500', 'FILET', 86, 5.5,
21.22, 0.08,

'D', '004', 7805180126, 163, 'CHC', 16, 1, '0500', 'FILET', 86, 3.37,
19.03, 0.16,

'D', '004', 7805180126, 164, 'CHC', 16, 1, '0500', 'FILET', 86, 1.37,
14.82, 0.08,

'D', '004', 7805180126, 165, 'CHC', 16, 1, '0500', 'FILET', 86, 1.00,
13.06, 0.08,

'D', '004', 7805180126, 166, 'CHC', 16, 1, '0500', 'FILET', 86, 0.69,
11.58, 0.07,

'D', '004', 7805180126, 167, 'CHC', 16, 1, '0500', 'FILET', 86, 0.94,
13.18, 0.10,

'D', '004', 7805180126, 168, 'CHC', 16, 1, '0500', 'FILET', 86, 0.75,
12.09, 0.13,

'D', '004', 7805180126, 231, 'GE', 23, 1, '0500', 'FILET', 86, 1.12,
13.53, 0.16,

'D', '004', 7805180126, 232, 'GE', 23, 1, '0500', 'FILET', 86, 0.87,
12.34, 0.12,

'D', '004', 7805180126, 233, 'GE', 23, 1, '0500', 'FILET', 86, 0.50,
10.65, 0.10,

'D', '004', 7805180126, 234, 'GE', 23, 1, '0500', 'FILET', 86, 0.87,
11.89, 0.09,

'D', '004', 7805180126, 235, 'GE', 23, 1, '0500', 'FILET', 86, 1.12,
13.73, 0.28,

'D', '004', 7805180126, 236, 'GE', 23, 1, '0500', 'FILET', 86, 1.00,
14.74, 0.19,

'D', '004', 7805180126, 237, 'GE', 23, 1, '0500', 'FILET', 86, 0.94,
13.10, 0.21,

'D', '004', 7805180126, 238, 'GE', 23, 1, '0500', 'FILET', 86, 0.50,
10.57, 0.11,

'D', '004', 7805180126, 239, 'GE', 23, 1, '0500', 'FILET', 86, 0.50,
10.53, 0.07,

'D', '004', 7805180126, 230, 'GE', 23, 1, '0500', 'FILET', 86, 5.50,
10.14, 0.13,

'D', '004', 7805180126, 361, 'NP', 36, 1, '0500', 'FILET', 86, 6.94,
27.49, 0.34,

'D', '004', 7805180126, 551, 'WE', 55, 1, '0500', 'FILET', 86, 1.12,
13.34, 0.11,

Notes--

1. Depth incremented by one from 1 to 0, then back to 1 with an increase of 1 day on the date when station, date, tissue type, and species remain constant.
2. A new tissue type or date sets the counter back to 1.
3. A new species type resets the counter to 1.
4. All values for parameter codes in the 84000 series must be enclosed with apostrophes (in this case 84005, 84007, 84008 and 84014).
5. The only acceptable values for sex (parameter 84014) are MALE and FEMALE. Parameter 75000 has been discontinued for this use.
6. The length must be in inches and the weight must be in pounds.
7. The time code, tissue alpha code (84007), and tissue numeric code (74995) are found in the Anatomy List.
8. The first digits of the depth, the species alpha code (84005), and the species numeric code (74990) can be found in the Species Code Lists.
9. The life cycle/habitat codes (84008) can be found in the Life Cycle/Habitat List.
10. The value for number of individuals (parameter 81614) indicates the number of fish that were composited for a single sample and analysis.

WQGSTOR Ø4 FORMAT SPECIFICATIONS

The special uses of the time and depth fields explained above apply to the Ø4 format for tissue data storage. The following example is the first three samples coded in Ø4 format.

Example

SC,004,7805180126,D121,P84005,C,P74990,12,P81614,1,P84008,
0500,P84007,FILET,P74995,86,P00023,6.94,P00024,21.14,P71930,
0.20,

SC,004,7805180126,D161,P84005,CHC,P74990,16,P81614,1,P84008,
0500,P84007,FILET,P74995,86,P00023,2.12,P00024,17.86,P71930,
0.14,

SC,004,7805180126,D162,P84005,CHC,P74990,16,P81614,1,P84008,
0500,P84007,FILET,P74995,86,P00023,5.50,P00024,21.22,P71930,
0.08,

Notes--

1. There are no changes to the Ø4 format, only the modifications of the time and depth fields.
2. Apostrophes are not required for values of the 84000 series parameters.
3. To add, change, or delete records of parameter values using the Ø4 format, it is necessary to utilize the station number, date, time, and depth of the sample of interest.
4. Although not shown here, remark codes follow the values in the Ø4 format, which is the opposite of the Ø2 format (remark codes precede values in Ø2 format).

IV. RETRIEVAL AND ANALYSES

In Appendix C are examples of how tissue data can be retrieved from STORET for varying types of studies and analyses.

EXAMPLE 1

A STORET retrieval (PGM=RET) showing the result of the coding and storage procedures discussed on pages 5 to 7. This completes the picture of tissue coding from raw data received to its retrieval from STORET.

EXAMPLE 2

As part of the MDSD Back Data Project, tissue data from a large number of tissue studies were coded and entered into STORET using the preceding section. This is an example of a generalized summary of Wisconsin DNR tissue monitoring data.

EXAMPLES 3 AND 4

These examples concern data for lake trout in Lake Michigan which was collected by two monitoring programs. A selected data report is shown in Example 3 using STORET retrieval program (PGM=RET). Example 4 shows the retrieval program (PGM=REG) with regression results for mercury, PCB, weight and length.

EXAMPLE 5

This is a composite summary for cadmium, mercury and PCB for the United States using all data in STORET which covers 2,688 monitoring locations.

All of the examples used here are included only as examples of STORET retrievals, analyses and mapping and are not intended to be used for reporting results or conclusions.

APPENDIX A. MASTER FILES - STORET.HELP.

For this procedure of storage, as well as utilization of stored tissue data, several data sets have been created.

Species Codes (84005 and 74990)

STORET.HELP.SPECIES.CODE

Master Listing

STORET.HELP.SPECIES.COMMON.FISHES

STORET.HELP.SPECIES.COMMON.INVERT

Alphabetical listing of fishes or aquatic invertebrates by common name.

STORET.HELP.SPECIES.SCIENCE.FISHES

STORET.HELP.SPECIES.SCIENCE.INVERT

Alphabetical listing of fishes or aquatic invertebrates by scientific name.

STORET.HELP.SPECIES.NUMERIC

Numeric listing of species by STORET numeric codes (74990).

STORET.HELP.SPECIES.ALPHA

Alphabetical listing of species by STORET alpha codes (84005).

STORET.HELP.SPECIES.BIOSTOR

Numeric listing of species by BIOSTORET codes

STORET.HELP.ANATOMY

Listing of STORET and BIOSTORET tissue codes (84007 and 74995).

STORET.HELP.HABITAT

Listing of STORET life cycle/habitat codes (84008).

Historically, some tissue data has been stored using the shellfish alpha species code parameter (84009). While this parameter is no longer used for storage; some shellfish can still be retrieved with it.

Included here are the file listings for SPECIES.CODE (the outdated one, as well as the current), ANATOMY, HABITAT, and SPECIES.BIOSTOR. The last file listing shows species relationships by its taxonomic BIOSTORET code.

COMMON NAME	SCIENTIFIC NAME	STORE CODE (84005)	ALPHA CODE	STORE CODE (74990)	Numeric CODE (74990)	BIDSTORE CODE	ENTERED DATE
ALLIGATOR GAR	LEPISOSTEUS SPATULUS	AG	01	3206060201001005	780717		
ARCTIC GRAYLING	THYMALLUS ARCTICUS	AGR	02	3206060901007001	780717		
BIGMOUTH BUFFALO	ICHTYLABUS CYPRINELLUS	BBU	03	32061103007002	780717		
BLACK BULLHEAD	ICHTALURUS MELUS	BKB	04	32061201001005	780717		
BLACK CRAPPIE	POMOXIS NIGROMACULATUS	BKS	05	32062305009002	780717		
BLOATER	CUREGENUS HUYI	BLO	06	32060901001005	780717		
BLUE CATFISH	ICHTALURUS FURCATUS	BLC	07	32061201001003	780717		
BLUEGILL SUNFISH	LEPODOTHIS MACROCHIRUS	BGS	08	32062305007006	780717		
BOWFIN	IA CALVA	BF	09	32060301001001	780717		
BRIDGECLIP SUCKER	CATOSTOMUS COLUMBIANUS	BSU	10	32061103002004	780717		
BROWN BULLHEAD	ICHTALURUS NEBULOSUS	BRO	11	32061201001007	780717		
BROWN TROUT	SEALMO TRUTTA	BT	12	32060901004001	780717		
CARP	CYPRINUS CARPIO	CP	13	32061102001001	780717		
CHAIN PICKEREL	ACROCHEILUS PUNICEUS	CIP	14	32060907001004	780717		
CHISELMOUTH	ICHTALURUS PUNICEUS	CM	15	32061102001001	780717		
CHANNEL CATFISH	CLARIUS FUSCUS	CHC	16	32061201001010	780717		
CHINESE CATFISH	LIMIA VITATA	CL	17	32061202001002	780726		
CUBAN LIMIA	CATOSTOMUS LATIPINNIS	FSU	18	32061805007001	780726		
FLANNELMOUTH SUCKER	SYLWIDIUS D. IVARIS	FWD	19	32061103002009	780717		
FLATHEAD CATFISH	APLODINOTUS GRUNNIENS	FWD	20	32061201003001	780717		
FRESHWATER DRUM	DICROSTEGIA CEPEODIANUM	GSH	21	32062322001001	780717		
GIZZARD SHAD	NOTEMIGONUS CRYsoleuca	GSN	22	32060701004001	780717		
GOLDEN SHINER	Hiodon ALBOSIDES	GF	23	32061102026001	780717		
GOLDEYE	CARASSIUS ARIATUS	GA	24	32061102004001	780717		
GOLDFISH (1)	LEPODOTHIS CYANELLUS	GC	25	32062305007002	780717		
GREEN SUNFISH	CATOSTOMUS SNOVERI	KG	26	32061103002018	780717		
KLAMATH LARGESCALE SUCKER	ERYTHRON SUCETTA	LG	27	32061103005002	780717		
LAKE CHUB SUCKER	SALVELINUS NAMAYCUS	LM	28	32060901005004	780717		
LAKE TROUT	COREgonus CLupeaformis	LMB	29	32060901001004	780717		
LAKE WHITEFISH	MICROPTERUS SALMOIDES	LMB	30	32062305008005	780717		
LARGEMOUTH BASS	CATOSTOMUS MACROCHEILUS	CSU	31	32061103002011	780717		
LARGESCALE (=COARSE SCA.) SUCKER	LEPOMIS MEGALOTIS	LSF	32	32062305007008	780717		
LUNGEAR SUNFISH	LEPISOSTEUS OSSEUS	LSU	33	32060201001002	780717		
LONGNOSE GAR	CATOSTOMUS CATOSTOMUS	LX	34	32061103002002	780717		
MIXED SPOTTIES	PROSOPium WILLIAMSONI	MIX	35	32060801001002	780717		
MUDNEYE	ESOX LUCIUS	MNH	36	32060901003006	780717		
MOUNTAIN WHITEFISH	PTYCHOCEILUS OREGONENSIS	NSQ	37	32061102034003	780717		
NORTHERN PIKE	MICROCEILUS CAURIUS	PEA	38	32061102023001	780717		
NORTHERN SQUAWFISH	LEPOMIS GIBbosus	SF	39	32062305007003	780717		
PEAMOUTH	CARPOIDES CYPRINUS	QUB	40	32061103001002	780726		
PUMPKINSEED	SALMO GAIROENI	KBY	41	32060901004003	780717		
QUILLBACK	LEPOMIS AURITIS	RBS	42	32062305007001	780717		
RAINBOW TROUT	LEPOMIS MICROLophus	RES	43	32062305007009	780717		
REDBREAST SUNFISH	MOXOstoma ERYTHKURUS	RSU	44	32061103010008	780717		
REDEAR SUNFISH	CARPOIDES CARPIO	KCS	45	32061103001001	780726		
REDHORN SUCKER	NOCOMIS MICROPOGON	RC	46	32061102025005	780717		
RIVER CARPSUCKER (=CARPSKIN)	AMBLOPLITES RUPESIRIS	RKB	47	32062305002002	780717		
RIVER CHUB	PROSOPium CYLINDRACEUM	RMI	48	32040901003003	780717		
ROCK BASS	OKTHODON MICROLEP 101US	SCB	49	32062306005001	780717		
ROUND WHITEFISH	STIUSTEDION CANADENSE	SAG	50	32040701001003	780717		
SACRAMENTO BLACKFISH	ALOSA CHrysosChloris	H		32062305008002	780717		
SAUGIR	MICROPTERUS DOLOMIEU	SMB		32062305008004	780717		
SKIPJACK (=MERRING)	MICROPTERUS PUNCTULatus	SPB		32060201001001	780717		
SMALLMOUTH BASS	LEPISOSTEUS OCULATUS						
SPOTTED BASS							
SPOTTED GAR							

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32062302001001
 32062335000001
 320623290005002
 320623060005002
 32062305007001
 32062302001002
 32061201001002
 32062305009001
 32062302001001
 32061103002005
 32061201001006
 320623040003001
 32060701001005
 32060501001001
 32061102027012
 32060902003001
 32062321001001
 32062371009008

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MORONE SAXATILIS	STB	52
HUGI CEPHALUS	SHU	53
TILAPIA (MOZAMBIQUE MTHBRD)	TIL	54
SILURIDON VITREUM	WE	55
LEPOMIS GIUDOSUS	W	56
MORONE CHRYOPS	WIB	57
ICHLURUS CAJUS	WHC	58
POMOXIS ANNULARIS	WHS	59
MORONE AMERICANA	WP	60
CATOSTOMUS COMMERSINI	WSU	61
LUCIULURUS NATALIS	YEB	62
ICHLURUS FLAVE SCENS	YP	63
OSSA PSEUDOHARENGUS	AW	75
ANGUILLA RUSTRATA	AHE	76
MOTROPIA ATHERINOIDES	ESI	77
DISHERUS MORRAX	RSM	80
ARCHOSAUS OBTAEOCEPHALUS	SSH	78
COTTUS GINAI	SLS	79
UNKNOWN FISH	UNK	65
CHINOOK SALMON	CHD	81
BURBOT	BUR	82
CHINOOK SALMON	CHN	83
MUSKELLUNGE	HL	84
CISCO (LAKE HERRING)	CIS	85
AMERICAN BROOK LAMPREY	ABL	86
BLUNTNOSE MINNOW	BLH	87
BROOK SILVERSIDE	BS	88
CROOM SHINER	CS	89
GREEK CHUB	CK	90
GRASS PICKEREL	GP	91
STEELCOLOR SHINER	SS	92
YELLOW BASS	YL	93
NORTHERN HOG SUCKER	NHO	94
BASS (UNKNOWN SPECIES)	BAS	95
BROOK TROUT	BKT	96
CHAPPIE (UNKNOWN SPECIES)	CPT	97
KIYI	KIY	98
LAKE STURGEON	LST	99
MINNOWS (UNKNOWN SPECIES)	HIN	100
SHORTHEAD REDHORSE	SRD	101
SNOWELDNE STURGEON	SVN	102
SMALLMOUTH BUFFALO	SHF	103
SUCKER (UNKNOWN SPECIES)	SUK	104
BLACK BUFFALO	BLB	105
PADDLE FISH	PF	106
SWORDNOSE GAR	SGA	107
LONGNOSE DACE	LND	108
JOHNNY DARTER	JD	109
AMBER JACK	ABJ	110
BARRACUDA	BAR	111
BAT FISH	BTF	112
BLACK EARED BASS	BEB	113
COLONIAL TUNICATE	CT	114
CRACKER	CRK	115
CUTLASS FISH	CUF	116
DUSKY FLOUNDER	DSF	117
FEL	FEL	118
SHOAL FLOUNDER	FL	119
FLYING FISH	FF	120
JACK	JAC	121
KING MACKERAL		

LARGESCAFF LIZARDFISH

MOREY EEL
NASSAU GROOPER
OCEAN TRIGGER FISH
PANCAKE BAIFISH
PARROT FISH
RED SNAPPER
RIBON FISH
SAND DIVER
SAND TROUT
SASH FLOUNDER
SEA CATFISH
SKATE
SLENDER SEA ROBIN
SPADE FISH
SPOTTED SEA TROUT
SQUIRREL FISH
STINGRAY
TIGER GROOPER
LITTLE TUNNY TUNA
WHITE GROUT
WHITE TIP SHARK
YELLOWFIN GROUPER
YELLOWMOUTH GROUPER
YELLOW TAILED SNAPPER
SMELL (SPECIES UNKNOWN)

SMOOTH DOGFISH

SPINY DOGFISH

WHITE HAKE

RED (SQUIFFEL) HAKE

WINTER FLounder

YELLOWTAIL FLounder

WINDOWPANE FLounder

SIUR TNOSE STURGEON

ATLANTIC STURGEON

BLUEBACK HERRING

HICKORY SHAD

AMERICAN SHAD

ATLANTIC MENHADEN

BAY ANCHOVY

ATLANTIC SALMON

RED IN PICKEREL

SILVER REDHORSE

ATLANTIC COD

AMERICAN BURBOT

SILVER HAKE

ATLANTIC TOMCOD

ATLANTIC SILEVERSIDE

SWAMP DARTER

LONGHEAD DARTER

BLUFISH

SCUP

WEAKFISH

SPOT

TAUOG

SUMMER FLounder/FLUKE

NORTHERN PUFFER

NORTHERN

GAR

LNL

32061002001001

SAURIDA BRASILIENSIS
(GENUS) MURAENA
PINNEPHIUS STRIATUS
CANTHIDERMIS SUFFLAHEN
HALICHORES ACULEATUS
TRACHINOTUS CAROLINUS
BALISTES VEJOLLA
LUTJANUS CAMPECHANUS
EQUES ST. LANCEOLATUS
SYNOCTION INTERMEDIUS
NOCTOCYSTIS NOTHUS
ACHIOPSETTA VENIRALIS
XIUS FELIS
ARCHARHINUS FALCIFORMIS
RAJA TEXANA
PERISIEDA
MURICELE
(GENUS) RHETTERUS
CYNOSCIUS
(GENUS) OLOC
DASYATIS
HYCSTEROPERM
LIGERIS
EUTHYNNUS ALLETTERATUS
HAEMULON PLUMIERI
CARCHARHINUS LONGIMANUS
HYCSTEROPERA VENENOSA
HYCSTEROPERA INTERSTITIALIS
OCYURUS CHRYSURUS
(FAMILY) OSMERIDAE
MUSIELUS CANIS
SP.
SQUALUS ACANTHIAS
UROPHYCIS TENUIS
UROPHYCIS CHIUS
PSEUDOLEURONECTES AMERICANUS
LIMANDA FERKGUINEA
SCOPHTHALMUS AQUOSUS
ACIPENSER BREVIROSTRUM
ACIPENSER DYRHYNCHUS
ALOSA AESTIVALIS
ALOSA MEDIODRIS
ALOSA SAPIDISSIMA
BREVOORTIA TYRANNUS
ANCHIA MITCHELLI
SALMO SALAR
FODA AMERICANUS AMERICANUS
MOXOSTOMA ANI SURKUM
GADUS MORHUA
LOTIA LOTA LACUSTRIS
HERLUCCIUS BILINEARIS
MICROGADUS TOMCOOD
HEINTZIA HENIDIA
ETHEOSTOMA FUSIFORME FUSIFORME
PERCINA MACROCEPHALA
POMATOMUS SALTA TRIK
STENOTOMUS CHRYSOPS
CYNOCYSTIS REGALIS
LEIOSTOMUS XANTHURUS
TAUOG
PARALICHTHYS DENTATUS
SPHUEROIDES MACULATUS
NPF

781122

ME
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YGR
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SP
WH
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WF
YTF
MPF
SHS
ATS
BBH
HS
HS
AMS
ATH
PAY
ASL
RFP
SRH
AC
AMH
SVH
AF
ASS
LHD
BLU
SCP
WKF
SPT
TAU
SFF
NPF

December, 1979

GOOSEFISH	LOPHIUS AMERICANUS
BLUEFIN TUNA	THunnus thynnus
ATLANTIC HACKEREL	Scomber scombrus
LING/HAKE	Urophycis spp.
SPLAKE	Salvelinus fontinalis c. namaycush
RHORHINE SPLEENACE	Hoxocephalus spp.
CUTTHROAT TROUT	Lepidotrichia mollispinis
DOLLY VARDEN	Salmo clarkii
REDSIDE SHINER	Richardsonius balteatus
SHORTNOSE SCULPIN	Nycticephalus scorpius
HYBRID STRIPER (BASS)	Muraenax saxatilis & Chrysops
BLACK DRUM	Fundulus cruentus
GAFF-TOPSAIL CAIFISH	Harengula heterogramma
SOUTHERN FLUNDER	Paralichthys lethostigma
DRUM	Cynoscion nebulosus
GULF KING WHITING	Menticirrhus undulatus
BLACKTIP SHARK	Carcharhinus limbatus
SILVER MULLET	Mugil curema
OCEAN PERCH	Sebastodes mentalis
PINFISH	Lagodon rhomboides
FALLFISH	Serranillus corporalis
BANDDED KILLIFISH	Fundulus diaphanus
MUMMICHOG	Fundulus heteroclitus
FOUR SPINE STICKLEBACK	Apeltes quadratus
ANGEL SHARK	Squatina dumetella
LITTLE SKATE	Raja erinacea
HORNY SKATE	Raja radiata
WINTER SKATE	Raja binoculata
ATLANTIC HERRING	Clupea harengus harengus
ROUND HERRING	Trachurus teres
HAODUCK	Brama brama
ATLANTIC POLLACK	Melanogrammus aeglefinus
FAWN CUSK EEL	Pollachius virens
OCEAN POUT	Leptophidium cervinum
BEARDFISH	Macrozoarces americanus
BALLYHOO	Polyprionoxygeneios lowei
BLACK SEA BASS	Hexagrammos brasiliensis
DAUBED SHANNY	Centropristes striata
ATLANTIC WOLFHISH	Lumpenus maculatus
WHITE MARLIN	Anarhichas lupus
BUTTERFISH	Tetrapturus albidus
BLACKBELLY ROSEFISH	Pepites triacanthus
NORTHERN SEAROBIN	Helicolenus dactylopterus
REDFISH	Prionotus carolinus
STRIPED SEAROBIN	Sebastodes marinus
LONGHORN SCULPIN	Prionotus evolans
MARLED SCULPIN	Hydrocephalus octocepescens
WLF STREAM FLOUNDER	Inosus triglops
OURSPOT FLOUNDER	Nybelinia citharichthys
FLUKE	Archifrons arcifrons
WATCH FLOUNDER	Paralichthys oblongus
PEARL DACE	Paralichthys dentatus
CHESTNUT LAMPREY	Glyptocephalus cynoglossus
SOUTHERN BROOK LAMPREY	Semotilus marginatus
STURGEON	Ichthyomyzon castaneus
SHAD	Ichthyomyzon fossor
CENTRAL MUDMINNOW	Scaphirhynchus albus
JONEBOILER	Dorosoma petenense
UMRA LIMI	Campostoma anomalum

December, 1979

GRASS CARP	DIONDA NUBILA
OZARK MINNOW	HYBognathus HAYI
CYPRESS MINNOW	HYBognathus MUCHALIS
SILVERY MINNOW	HYBognathus PLACIUS
PLAINS MINNOW	HYBOPsis AESTIVALIS
SPCKLED CHUB	HYBOPsis AMALOPS
BIGEYE CHUB	HYBOPsis DISSIMILIS
SIREANLINE CHUB	HYBOPsis GRACILIS
FLATHEAD CHUB	HYBOPsis STURERIANA
SILVER CHUB	X-PUNCTATA
GRAVEL CHUB	HYCOMIS ASPER
REDSPOT CHUB	NOCHONIS BIGUTTATUS
HORNYHEAD CHUB	NOTROPIS ANHIS
PALLID SHINER	NOTROPIS BARIOLI
RED RIVER SHINER	NOTROPIS BOOGANUS
RIVER SHINER	NOTROPIS BOONI
GHOST SHINER	NOTROPIS CARPES
BLUNIFACE SHINER	NOTROPIS CYBAEUS
IRONCOLOR SHINER	NOTROPIS CYCLOCEPHALA
STRIPED SHINER	NOTROPIS EMINIAE
PUGNOSE MINNOW	NOTROPIS FUREUS
ROBBINS SHINER	NOTROPIS GALACTURUS
WHITE TAIL SHINER	NOTROPIS GIRARDI
ARKANSAS RIVER SHINER	NOTROPIS GREENEI
RED SHINER	NOTROPIS LUTRENSIS
TAILLIGHT SHINER	NOTROPIS MACULATUS
KIAMICHI SHINER	NOTROPIS ORTEMBURGERI
OZARK SHINER	NOTROPIS OZARCANUS
PLAINS SHINER	NOTROPIS ATERINOIDES
COLDRIDGE'S SHINER	NOTROPIS PERKALLIDIUS
DUSKY STRIPE SHINER	NOTROPIS PILSBRYI
ROSYFACE SHINER	NOTROPIS RUBELLUS
SABINE SHINER	NOTROPIS SABINAE
SILVERBAND SHINER	NOTROPIS SHUMARDI
SPOTFIN SHINER	NOTROPIS SPILUPTERUS
TELESCOPE SHINER	NOTROPIS TELESCOPUS
HEED SHINER	NOTROPIS TEXANUS
REDFIN SHINER	NOTROPIS UBRATILIS
BLACKTAIL SHINER	NOTROPIS VENUSTUS
HIMIC SHINER	NOTROPIS VOLUCELLUS
BLEEDING SHINER	NOTROPIS ZONATUS
SUCKERMOUTH MINNOW	PHENACOBIAUS MIRABILIS
SOUTHERN REDBELLY DACE	PHOXINUS ERYTHROGASTER
FATHEAD MINNOW	PIMEPHALES PROMELAS
SLIM MINNOW	PIMEPHALES TENELLUS
BULLHEAD MINNOW	PIMEPHALES VIGILAX
HIGHFIN CARP SUCKER	CARPIO JUDES VELIFER
BLUE SUCKER	CYCLEPTUS ELONGATUS
GREEK CHUB SUCKER	ERIMYZON OBlongus
RIVER REDHORSE	MOKOSTOMA CARINATUM
BLACK REDHORSE	MOKOSTOMA DUQUESNEI
GOLDEN REDHORSE	MOKOSTOMA ERYTHRORUM
BLACKTAIL REDHORSE	MOKOSTOMA PUECILURUM
OZARK MADtom	NOTURUS ALBATIR
MOUNTAIN MADtom	NOTURUS ELEUTHERUS
SLENDER MADtom	NOTURUS EXILIS
CHICKERED MADtom	NOTURUS FLAVATER

337	GRC	32061102006003
338	UZM	32061102015002
339	CYH	32061102015003
340	SYH	32061102015004
PLH	341	32061102015004
SPC	342	32061102016001
BEC	343	32061102016002
SLC	344	32061102016005
FLC	345	32061102016007
SYC	346	32061102016015
GCH	347	32061102016016
RSC	348	32061102025001
HHC	349	32061102025002
PLS	350	32061102027005
RRS	351	32061102027015
RSH	352	32061102027018
BEIS	353	32061102027019
GHS	354	32061102027022
BFS	355	32061102027027
ICS	356	32061102027029
SRS	357	32061102027035
PWH	358	32061102027041
RIS	359	32061102027044
HLS	360	32061102027045
ARS	361	32061102027046
WHS	362	32061102027047
WHS	363	32061102027060
WHS	364	32061102027061
WHS	365	32061102027063
WHS	366	32061102027065
WHS	367	32061102027067
CDS	368	32061102027066
DSS	369	32061102027069
RFS	370	32061102027075
SBS	371	32061102027077
SYS	372	32061102027081
SPS	373	32061102027085
ICS	374	32061102027088
WS	375	32061102027089
RSR	376	32061102027092
BLS	377	32061102027094
MCS	378	32061102027095
BDS	379	32061102027100
SMH	380	32061102029003
RBD	381	32061102030002
FHM	382	32061102031002
SLH	383	32061102031003
BHM	384	32061102031004
HFC	385	32061103001003
BLS	386	32061103004001
CCS	387	32061103005001
KRH	388	32061103010004
BRH	389	32061103010007
GKH	390	32061103010008
BTH	391	32061103010014
DZH	392	32061201002001
HTH	393	32061201002004
SLH	394	32061201002005
CHH	395	32061201002006

December, 1979

QUACHITA MADTOM
 BRINDLED MADTOM
 FRECKLED MADTOM
 BROWN MADTOM
 NORTHERN STUDFISH
 GOLDEN TOPMINNOW
 BLACKS TIPEE TOPMINNOW
 STARIE AD TOPMINNOW
 BLACK SPOTTED TOPMINNOW
 MOSQUITOFISH
 OZARK CAVEFISH
 SOUTHERN CAVEFISH
 PIRATE PERCH
 MISSISSIPPI SILVERSIDE
 FLIER
 ORANGE SPOTTED SUNFISH
 DOLLAR SUNFISH
 SPOTTED SUNFISH
 BANTAH SUNFISH
 REDYE BASS
 BANDED PYGMY SUNFISH
 CRYSTAL DARTER
 WESTERN SAND DARTER
 SCALY SAND DARTER
 MUD DARTER
 GREENSIDE DARTER
 RAINBOW DARTER
 BLUNTNOSE DARTER
 CREOLE DARTER
 ARKANSAS SADDLED DARTER
 FANTAIL DARTER
 SLOUGH DARTER
 HARLEQUIN DARTER
 YOKE DARTER
 LEAST DARTER
 YELLOWCHEEK DARTER
 PALE BACK DARTER
 GULD STRIPE DARTER
 CYPRESS DARTER
 STIPPLED DARTER
 ORANGE BELLY DARTER
 ORANGE THROAT DARTER
 SPECKLED DARTER
 REDFIN DARTER
 BANDED DARTER
 LOGPERCH
 CHANNEL DARTER
 GILT DARTER
 BLACKSIDE DARTER
 LONGNOSE DARTER
 LEOPARD DARTER
 SLENDERHEAD DARTER
 DUSKY DARTER
 RIVER DARTER
 STARGAZING DARTER
 MOTTLED SCULPIN
 BANDED SCULPIN
 SILVER LAMPREY
 EAST BROOK LAMPREY
 MARINA

NOTURUS LACHNERI
 NOTURUS HIURUS
 NOTURUS NOCTURNUS
 NOTURUS PHAEUS
 FUNDULUS CATENATUS
 FUNDULUS CHRYSOCEPHALUS
 FUNDULUS NOTATUS
 FUNDULUS NOTI
 FUNDULUS OLIVACEUS
 CYMBUSIO AFFINIS
 CYLLOPSIS ROSAE
 CYPHILICHTHYS SUBTERRANEUS
 CYPHREDUDECUS SAYANUS
 CYRINDIA AUDENS
 CENTRARCHUS MACROPTerus
 LEPODUMIS JAHNI
 LEPODUMIS ARGENTATUS
 LEPODUMIS UNCIUS
 LEPODUMIS YMECUS
 HICKORYTOPHICHIOSAEC
 ELASSOMA ZONATUM
 AMMOCRYPTIA ASPRELLA
 AMMOCRYPTIA CLARA
 AMMOCRYPTIA VIVAX
 ETHEOSTOMA ASPRIGENE
 ETHEOSTOMA BLENNIIDES
 ETHEOSTOMA CHLOROSOMUM
 ETHEOSTOMA CAERULEUM
 ETHEOSTOMA COLLETTEI
 ETHEOSTOMA FUZONUM
 ETHEOSTOMA FLABELLARE
 ETHEOSTOMA GRACILE
 ETHEOSTOMA HISTRIO
 ETHEOSTOMA JULIAE
 ETHEOSTOMA MICROPERCA
 ETHEOSTOMA MOOREI
 ETHEOSTOMA PALLIDIORSUM
 ETHEOSTOMA PARVIPINNE
 ETHEOSTOMA PROELJARE
 ETHEOSTOMA PUNCTULatum
 ETHEOSTOMA RADIOSUM
 ETHEOSTOMA SPECIABILE
 ETHEOSTOMA STIGMAEUM
 ETHEOSTOMA WHIPPLEI
 ETHEOSTOMA ZONALE
 PERCINA CAPRODES
 PERCINA COPELANDI
 PERCINA EVIDES
 PERCINA MACULATA
 PERCINA MASUJA
 PERCINA PANTHERINA
 PERCINA PHOXOCEPHALA
 PERCINA SCIERA
 PERCINA SHUMARDI
 PERCINA URANIDEA
 COITUS BAIRDII
 COITUS CAROLINAE
 ICHTHYPOXYZON UNICUSPIS
 LAMPETRA AEPYPTERA

December, 1979

SURGEON CHUB
 STICKLEFIN CHUB
 BLACKSPOT SHINER
 SAND SHINER
 LEAST HADJIM
 NEOSHO MAPTOM
 PLAINS KILLIFISH
 PLAINS TOPMINNOW
 KANSAS DARTER
 CADDIE HADJIM
 BLUE WRASSE
 CONVICT TANG
 CONVICT TANG
 SHORIFIN HAKO SHARK
 TIRESHER SHARK
 SWORDFISH
 SCALLOPED HAMMERHEAD
 LONGNOSE LANCEFILEFISH
 DOLFISSH
 DUSKY SHARK
 BLUE SHARK
 PLANEHEAD FILEFISH
 AMERICAN DAB

HYDROPSIS CELIDA
 HYDROPSIS MEEKI
 NOTROPIS ATROCAUDALIS
 NUNI KUPIS STRAMINEUS
 NOTURUS HILDEBRANDI
 NOTURUS PLACIDUS
 FUNDULUS KANSAE
 FUNDULUS SCIADICUS
 THEOSTOMA CRAGINI
 NOTURUS TAYUOKI
 THLOSSOMA D'PERRERYI
 Acanthurus sandwichensis
 Acanthurus tristis
 Acanthurus oxyrinchus
 Opias vulcanus
 Phipias gloria
 Spiyrna latus
 Alepisaurus ferus
 Ruvetus tetios
 Caranx ignobilis
 Priacanthus glauca
 Monacanthus hispidus

HYGROPHUM HYGOMI
 ANTIMORA ROSTRAJA
 NEMATONURUS ARHAETUS
 HALOSAURUPSI MACROCHIR
 SYNAPIUBRANCHUS KAUPI
 GUNNOSTOMA ELONGATUM
 CIRATOSCOPELUS MADERENSIS
 CHALIDODUS SLDANI
 GILA SP.
 ONCOKHYNCHUS NERKA
 HYBRID
 CATONSMUS ARDENSI
 GILA ARDENSI
 BAIRDIELLA CHRYSURA
 ELOPS SAURUS
 EUCARISTOMUS SP.
 ICHTHYURUS BRUNNEUS
 ICHTHYURUS PLATYCEPHALUS
 MORONE SP.
 NOCDOMIS LEPTOCEPHALUS
 NOTRUPIS CUMMINGSAE
 NOTRUPIS LUTIPINNIS
 NOTRUPIS NIVEUS
 NOTRUPIS PETERSONI
 NOTRUPIS SCEPTECUS
 NOTRUPIS SP.
 SCOMBEROMORUS MACULATUS
 UHBRIA PYGMAEA
 N/A
 PAROPHYRY VETULUS
 MICROSTOMUS PACIFICUS
 SEBASTES MALLIGER
 SEBASTES CAURINUS
 HYDROLAGUS COLLEI
 EMBIDIOCA LAERALIS
 LEPIDOPSETTA BILINEATA

SIC
 SFC
 BPS
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 PKF
 PTM
 AD
 COM
 BWR
 CVT
 LNT
 ISOX
 ALVU
 XIGL
 SPLK
 AFFE
 RUPE
 FABR
 PRGL
 MOHI
 ADD
 NYHY
 ANRD
 NEAH
 SOS
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 SBH
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 DSH
 YSH
 HSH
 FOSH
 SOSH
 SHI
 SPM
 EMM
 CGH
 ELS
 DVS
 RKQ
 RKC
 RAT
 SSP
 RKS
 32061102016006
 32061102016012
 32061102027013
 32061102027087
 32061201002013
 32061201002021
 32061804006010
 32061804006020
 32062306002014
 320612

December, 1979

TIGER PACIFIC COD
 REX SOLE
 SAND SOLE
 ARROW TOOTH FLOUNDER
 PILE PERCH
 PRICKLEBACK
 FLATHEAD SOLE
 STARRY FLOUNDER
 CAIFISH (UNKNOWN SPECIES)
 MOUNTAIN SUCKER
 SUNFISH (UNKNOWN SPECIES)
 HOGCHOKER
 CUNNER (BERGALLA)
 GRUBBY
 ATLANTIC BUNNIO
 STRIPED KILLFISH
 PORGY
 TOADFLISH
 BROWN SHARK (SANDBAR)
 MARSH KILLIFISH
 WRASSE
 STRIPED ANCHOVY
 BRIDLE SHINER
 COMMON SCULPIN
 SAND EEL
 STICKLEBACK
 GRUNT
 ROSESIDE DACE
 RAINWATER KILLIFISH
 BLOWFISH
 - SUNDIAL

December, 1979

V
 O
 OPSANUS
 CARCHARHINUS
 FUNDOULUS
 HALICHODERES
 ANCHIDA
 NOTROPIS
 COTIUS SP.
 AMMODYTES
 AMERICANUS
 GASTEROSTEUS SP.
 HAEHULON SP.
 CLINOSTOMUS
 FUNDULOIDES
 LUCANIA PARVA

- 9 ***** SHELL FISH *****

***** LIST AND CODES *****

ROCK CRAB
 SEA SCALLOP
 CHANNELLED WELK
 BLUE MUSSEL
 CALIFORNIA MUSSEL
 EASTERN OYSTER
 JAPANESE OYSTER
 PACIFIC OYSTER
 OLYMPIA OYSTER
 RIBBED MUSSEL
 NORTHERN HOKKE MUSSEL
 HARD CLAW
 SOFT CLAW
 ASIATIC CLAM (FRESH WATER)
 BLUE CLAW CLAM
 NORTHERN OYSTER
 BKJN SHRIMP
 SURF CLAM
 CRAYFISH
 WHITE SHRIMP
 PINK SHRIMP
 BROWN SHRIMP
 FRI SHWATER CLAM
 SHRIMP UNKNOWN
 SQUID
 GREAT GREEN ANEMONE
 GOOSE NECK BARNACLE

CANCER IRRORATUS
 PLACOPECTEN MAGELLANICUS
 BUSYCON CANALICULATUM
 MYTILUS EDULIS
 MYTILUS CALIFORNIANUS
 GRASSOSTREA VIRGINICA
 OSTREA EQUISTRIS
 GRASSOSTREA GIGAS
 OSTREA LURIDA
 MODIOLUS DEMISSUS
 MODIOLUS MODIOLUS
 MERCENARIA MERCENARIA
 HYA ARENARIA
 CORbicula FLUMinea
 NICHARIUS AMERICANUS
 CAMBARUS BARTONI
 PENAEUS SITIFERUS
 PENAEUS DUOREUM
 PENAEUS AZETECUS
 ARANGEUS SP.
 PENAEUS SP.
 ILIX ILICEBROSUS
 ANTHOPLLEURA XANTHOGRAMMICA
 POLICIPES PHYLLOPS

***** LIST AND CODES *****

PCC	510	18010327001002	790409
REX	512	1905030504001	790409
SNS	513	19050303007001	790409
AIF	514	19050304001002	780727
PIL	515	19050304001002	780727
PRB	516	19050303005001	780727
FHS	517	19050303005001	780727
STF	518	19050303005001	780727
CFH	519	19050303005001	780727
HSK	520	19050303005001	780727
CSN	521	19050303005001	780727
HGC	522	19050303005001	780727
CUN	523	19050303005001	780727
GRU	524	19050303005001	780727
ATB	525	19050303005001	780727
SKF	526	19050303005001	780727
PDR	527	19050303005001	780727
TQD	528	19050303005001	780727
BRK	529	19050303005001	780727
MKF	530	19050303005001	780727
MRS	531	19050303005001	780727
STA	532	19050303005001	780727
BSR	533	19050303005001	780727
SCU	534	19050303005001	780727
SEEL	535	19050303005001	780727
STK	536	19050303005001	780727
GRU	537	19050303005001	780727
RSD	538	19050303005001	780727
RFK	539	19050303005001	780727
BLW	540	19050303005001	780727
SUP	541	19050303005001	780727

SEA URCHIN 240 SUR
 SEA URCHIN 241 SU
 SEA URCHIN 242 SEU
 SEA PANSY 243 SP
 RED CRAB 244 REDC
 FAN WORM 245 FW
 PANDALOID SHRIMP 246 PANS
 CALIFORNIA CRAB 247 EUPH
 CLAMS 248 ERB
 CLAMS 249 CLM1
 CLAMS 250 CLM2
 CLAMS 251 CLM3
 MOON SNAIL 252 HODN
 BARNACLES 253 BRN
 HEART COCKLE 254 HRT
 HOKE CLAM 255 HRC
 CUCUMBER (DEEP) 256 EUC
 SPOON WORM 257 SPW
 OCTOPUS 258 OCT
 CRAB (DUNGENESS) 259 DCR
 SHRIMP 260 SHR1
 SHRIMP 261 SHR2
 SHRIMP 262 SHR3
 SHRIMP 263 SHR4
 STARFISH 264 SF1
 STARFISH 265 SF2
 PURPLE SHORE CRAB 266 PSC
 RED ROCK CRAB 267 RKC
 SNAIL 268 SNL
 EBONY-SHELL MUSSEL 269 ESH
 TIGER-RIDGE MUSSEL 270 TRH
 WHITE MARTYBACK MUSSEL 271 NWH
 PINK MARTYBACK MUSSEL 272 PHH
 WASIBOARD MUSSEL 273 HH
 ELEPHANT'S EAR MUSSEL 274 EEH
 MAPLE-LEAF MUSSEL 275 HLH
 OHIO PIGEON MUSSEL 276 DPH
 HEELSPATTER MUSSEL 277 HH
 WABASH PIGEON MUSSEL 278 NPH
 MONKEYFACE MUSSEL 279 NFN
 SAND SHRIMP 280 FDR
 CALICO CRAB 281 SAS
 FIDDLER CRAB 282 CAB
 GREEN CRAB 283 FDC
 MUD CRAB 284 GRCB
 SPIDER CRAB 285 HOD
 CHOWDER CLAM 286 SPIC
 LITTLE NECK CLAM 287 CHOW
 GRASS SHRIMP 288 LNC
 BLOOD ARK MOLLUSK 289 GRSP
 GASTROPODS (CLASS) 290 BAH
 GAS

241 SUR
 242 SU
 243 SEU
 244 SP
 245 REDC
 246 FW
 247 PANS
 248 EUPH
 249 ERB
 250 CLM1
 251 CLM2
 252 CLM3
 253 HODN
 254 BRN
 255 HRT
 256 HRC
 257 EUC
 258 SPW
 259 OCT
 260 DCR
 261 SHR1
 262 SHR2
 263 SHR3
 264 SHR4
 265 SF1
 266 SF2
 267 PSC
 268 RKC
 269 SNL
 270 ESH
 271 TRH
 272 NWH
 273 PHH
 274 HH
 275 EEH
 276 HLH
 277 DPH
 278 HH
 279 NPH
 280 FDR
 281 SAS
 282 CAB
 283 FDC
 284 GRCB
 285 HOD
 286 SPIC
 287 CHOW
 288 LNC
 289 GRSP
 290 BAH
 291 GAS

A - 10

December, 1979

140305 (NOT FISH)

18010327001003

18010332003001

19050429003005

19050429001002

19050429005007

19050429010001

19050429009001

19050429011006

19050429005008

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19050429037001

19050429003007

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19050429003005

19050429001002

19050429005007

19050429010001

19050429009001

19050429011006

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THIS DATA SET FILE (STORET.HELP.SPECIES.CODE) IS A SPECIES LIST FOR USE IN STORET. THE LIST IS DIVIDED INTO TWO SECTIONS - FRESH AND SALTWATER FISHES AND AQUATIC INVERTEBRATES. INCLUDED IN EACH SECTION ARE THE COMMON NAME, SCIENTIFIC NAME, ALPHA CODE (84005), NUMERIC CODE (74990) AND THE BIOSTORET CODE. THIS LIST WAS LAST UPDATED APRIL 1981.

THE BOSTORET CODE IS A DIGITIZED ENTRY OF THE TAXONOMIC CODE FOR A PARTICULAR SPECIES AS FOLLOWS:

PHYLUM	1
CLASS	11
ORDER	1122
FAMILY	112233
GENUS	112233445555
SPECIES	1122334455556666
VARIATION	1122334455556666

ONLY A FEW HAVE 16 DIGITS
MUST CODES ARE EXTENDED THE FULL 14 DIGITS FOR THE SPECIES - OTHER CASES THE SPECIES OR GENUS MAY NOT BE KNOWN AND THE TAXONOMIC
FOR VARIATION. HOWEVER, IN OTHER CASES THE SPECIES OR GENUS MAY NOT BE KNOWN AND THE TAXONOMIC
CODE IS CARRIED OUT ONLY AS FAR AS IT IS KNOWN.

THE PHYSICAL AND MAJOR GLASSES USED ARE *

CHORDATA		(STORET. HELP. SPECIES. CODE)
OSTEICHTHYES (BONY FISHES)	32	
AGNATHA (JAWLESS FISHES)	3206	
CHONDRICHTHYES (CARTILAGINOUS FISHES)	3204	
CHONDRICHTHYES (CARTILAGINOUS FISHES)	1205	
MOLLUSCA		19
BIVALVIA (PELLECYPODA)	1905	
GASTROPODA	1903	

**ARTHROPODA
CRUSTACEA**

CNIDARIA (COE)

ECHINODERMATA

AN EASIER SEARCH THE ALPHABETICAL LISTINGS BY COMMON OR SCIENTIFIC NAMES MAY BE USED.
STORET, HELP, SPECIES, COMMON, FISHES AND STORET, HELP, SPECIES, COMMON, INVERT
STOREI, HELP, SPECIES, SCIENCE, FISHES AND STOREI, HELP, SPECIES, SCIENCE, INVERT

COMMON NAME	SCIENTIFIC NAME	STORET ALPHA CODE (84005)	STORET NUMERIC CODE (74990)	BIOSTORET CODE	DATE ENTERED
ALLIGATOR GAR	<i>LEPISOSTEUS SPATULA</i>	AG	01	32060201001005	780717
ARCTIC GRAYLING	<i>THYMOALLUS ARCTICUS</i>	AGR	02	32060901007001	780717
BIGMOUTH BUFFALO	<i>ICTIOPUS CYPRINELLUS</i>	BBU	03	32061103007002	780717
BLACK BULLHEAD	<i>ICTALURUS MELLIUS</i>	BK9	04	32061201001005	780717
BLACK CRAPPIE	<i>POMOXIS NIGROMACULATUS</i>	BK9	05	32062305009002	780717
BLAFTER	<i>COREGONUS HOYI</i>	BLO	06	32060901001005	780717
BLUE CATFISH	<i>ICTALURUS FURCATUS</i>	BLC	67	32061201001003	780717
BLUEGILL SUNFISH	<i>LEPOMIS MACROCHIRUS</i>	BGS	08	32062305009006	780717
BOWFIN	<i>AMIA CALVA</i>	BF	68	32060301001001	780717
BRIDGEGLIP SUCKER	<i>CATOSTOMUS COLUMBIANUS</i>	BSU	09	32061103002004	780717

BROWN BULLHEAD	ICHTYUS NEAVOLUS	9T	32061201001007
BROWN TROUT	SALMO TRUTTA	11	32060901004006
CARP	CYPRINUS CARPIO	12	32061102007001
CARPSUCKER	CARPOIDES SP.	13	320611030001
CHAIN PICKEREL	ACROCHEILUS ALUTACEUS	14	32060907001004
CHISELMOUTH	ICTALURUS PUNCTATUS	15	32061102001001
CHANNEL CATFISH	CLARIUS FUSCUS	16	32061201001010
CHINESE CAIFISH	LIMIA VITTATA	17	32061202001002
CUBAN LIMIA	CATOSTOMUS LATIPINNIS	18	32061805007001
FLANNELMOUTH SUCKER	PYLODICTIS OLIVARIS	19	32061201003001
FLATHEAD CATFISH	APLODINOTUS GRUNNIENS	20	32062122001001
FRESHWATER DRUM	DOROSOMA CEPIDANIUM	21	32060701004001
GIZZARD SHAD	NOTEIGONUS CRYsoleUCAS	22	32061102026001
GOLDEN SHINER	HIDDON AL.OSOIDES	23	32060801001001
GOLDEYE	CARASSIUS AURATUS	24	32061102004001
GOLDFISH	LEPOMIS CYANELLUS	25	32062305007002
GREEN SUNFISH	CATOSTOMUS BNYDERI	27	32061103002016
KLAMATH LARGESCALE SUCKER	ERIMYZON SUCETTA	28	32061103005002
LAKE TROUT	BALVELINUS NAMAYCUGH	29	32060901005004
LAKE WHITEFISH	COREGONUS CLUPEAFORMIS	30	32060901001004
LARGE MOUTH BASS	MICROPTERUS SALMOIDES	31	32062305008005
LARGESCALE (COARSE SCALE) SUCKER	CATOSTOMUS MACROCHEILUS	31	32061103002011
LONGEAR SUNFISH	LEPOMIS MEGALOTIS	35	32062305007006
LONGNOSE GAR	LEPISosteUS OSSEUS	32	32060201001002
LONGNOSE SUCKER	CATOSTOMUS CATOSTOMUS	33	32061103002002
MIXED SPECIES	N/A	34	N/A
MOONEYE	HIDDON TERGIUS	34	32060801001002
MOUNTAIN WHITEFISH	PROSOPium WILLIAMSONI	35	32060901001006
NORTHERN PIKE	ESOX LUCIUS	36	32060907001002
NORTHERN SQUAWFISH	PTYCHOcheilus OREGONensis	37	32061102034003
PEMPGUTH	HYLOCHEILUS CAURinus	38	32061102023001
PUMPKINSEED	LEPOMIS GIBBOBOSUS	39	32062305007003
QUILLBACK	CARPOIDES CYPRINUS	39	32060901004003
RAINBOW TROUT	SALMO GAIRDRNERI	39	32060901004003
REDBREAST SUNFISH	LEPOMIS auritis	40	32062305007001
REDEAR SUNFISH	LEPOMIS MICROLOPHUS	40	32061103010009
REDHORSE SUCKER	HOXTOSTOMA EHYTHRURUM	41	32061103001001
RIVER CARPSUCKER (CARPSUCKER)	CARPOIDES CARPIO	42	320611030025005
RIVER CHUB	NCODOMIS MICROPOGON	73	32062305007009
ROCK BASS	AMIAPLITES RUPESTRIS	43	32060901003002
ROUND WHITEFISH	PROSOPium CYLINDRACEUM	44	32061102028001
SACRAMENTO BLACKFISH	ORTHODON MICROLEPIDOTUS	45	32062306005001
SAUGER	STIZOSTEDION CANADENSE	46	32060701001003
SKIPJACK (HERRING)	ALOIA CHRYSOCHLORIS	46	32062305006002
SMALLMOUTH BASS	MICROPTERUS DOLOMIEU	47	32061103007001
SPOTTED BASS	ICTIOBUS BUBALUS	48	32062305008004
SPOTTED GAR	MICROPTERUS PUNCTULATUS	49	32060201001001
SPOTTED SUCKER	LEPISosteUS OCULATUS	50	32061103009001
STRIPED BASS	MINTREMA MELANOPS	51	32062302001001
STRIPED MULLET	MORONE SAXATILIS	52	32062305007004
MOZAMBIQUE MOUTHBREEDER	MUGIL CEPHALUS	53	32062305002001
WALLEYE	TILAPIA MOSSAMBICA	54	32062329005002
WARMOUTH	STIZOSTEDION VITREUM	55	32062306005002
WHITE BASS	LEPOMIS GULOGUS	56	32062305007004
WHITE CATFISH	MORONE CHRYSOPS	57	32062302001002
WHITE CRAPPIE	ICTALURUS CATUS	58	32061201001002
WHITE PERCH	POMOXIS ANULARIS	59	32062305009001
WHITE SUCKER	MORONE AMERICANA	60	32062302001001
YELLOW BULLHEAD	CATOSTOMUS COMMERSONI	61	32061103002005
	ICTALURUS NATALIS	62	32061201001006

YELLOW PERCH	YP	PERCA FLAVESCENS	320623060003001
ALEWIFE	AW	ALBA PSEUDOHARENGUS	3206070100005
AMERICAN EEL	AME	ANGUILLA ROSTRATA	3206050100001
EMERALD SHINER	ESH	NOTROPIS AATHERINOIDES	32061102027012
RAINBOW SMELT	RSM	OSMERUS MORDAX	32060902003001
SHEEPSHEAD	SSH	ARCHOSARGUS PROBATOCEPHALUS	3206232100001
SLIMEY SCULPIN	SLS	COTTUS COGNATUS	32062371009008
UNKNOWN FISH	N/A	N/A	N/A
COHO SALMON	CHO	ONCORHYNCHUS KISUTCH	32060901002003
BURBOT	BUR	LOTA LOTA	32061702007001
CHINOOK SALMON	CHN	ONCORHYNCHUS Tshawytscha	32060901002005
MUSKELLUNGE	ML	EBOX MASQUINONGY	320609070701003
CISCO (LAKE HERRING)	CIS	COREGONUS ARTEDII	32060901001002
AMERICAN BROOK LAMPREY	ABL	LAMPETRA LAMOTTEI	32040201003004
BLUNTNOSE MINNOW	BLM	PIMEPHALES NOTATUS	32061102031001
BROOK SILVERSIDE	BS	LABIDESTHES SICULUS	780727
COMMON SHINER	CSH	NOTROPIS CORNUCUS	32061102027037
CREEK CHUB	CCK	BEMOTILUS ATROMACULATUS	780727
GRASS PICKEREL	GPK	ESOX AMERICANUS VERNICULATUS	32060907070100101
STEELCOLOR SHINER	SS	NOTROPIS WHIPPLEI	780727
YELLOW BASS	VLB	MORONE MISSISSIPPIENSIS	32062302001003
NORTHERN HOG SUCKER	NHO	HYPENTELIUM NIGRICANS	780728
BASS (UNKNOWN SPECIES)	BAS	MICROPTERUS SPP.	780803
BROOK TROUT	BKT	SALVELINUS FONTINALIS	780803
CRAPPIE (UNKNOWN SPECIES)	CPY	POMOXIS SPP.	780803
KIVI	KIV	COREGONUS KIVI	780803
LAKE STURGEON	LST	ACIPENSER FULVESCENS	780803
MINNOWS (UNKNOWN SPECIES)	MIN	(FAMILY) CYPRINIDAE	780803
SHORTHEAD REDHORSE	SRO	MOXOSTOMA MACROLEPIDOTUM	780803
SHOVELNOSE STURGEON	SVN	SCAPHIRYNCHUS PLATORYNCHUS	780803
SMALLMOUTH BUFFALO	IND	ICTIOPHYLLUS BUBALUS	780803
SUCKER (UNKNOWN SP)	SNF	CATOSTOMUS SPP.	780803
BLACK BUFFALO	SUK	ICTIOPHYSUS NIGER	780803
PADDLEFISH	BLB	POLYODON SPATHULA	780821
SHORTNOSE GAR	PF	LEPIOSTEUS PLATOSTOMUS	780821
LONGNOSE DACE	SGA	RHINICHTHYS CATARACTAE	780821
JOHNNY DARTER	IND	ETHEOSTOMA NIGRUM	780821
AMBER JACK	JD	SERIOLA Dumerilli	780821
BARRACUDA	ABJ	SPHYRAENA BARRACUDA	780821
BAT FISH	BAR	(FAMILY) OGOCEPHALIDAE	780821
BLACK-EARED BASS	BTF	SERRANUS ATROBRANCHUS	781122
COLONIAL TUNICATE	BER	(FAMILY) OGOCEPHALIDAE	781122
CROAKER	CT	MICROPOGON UNDULATUS	781122
CUTLASS FISH	CRK	BENTHODESMUS SIMONYE	781122
DUSKY FLOUNDER	CUF	SYACUM PAPILLOSUM	781122
EEL	CF	(ORDER) ANGUILIFORMES	781122
SHOAL FLOUNDER	EEL	SYACUM ANGUILLIFORMES	781122
FLYING FISH	FL	MURAENA SPP.	781122
JACK	FF	(FAMILY) EXOCETIDAE	781122
KING MACKEREL	JAC	THUNNUS ATLANTICUS	781122
LARGE SCALE LIZZARDFISH	KH	SCOMBEROMORUS CAVALLA	781122
MOREY EEL	LNL	Saurida brasiliensis	781122
NASSAU Grouper	ME	MURAENA SPP.	781122
OCEAN TRIGGER FISH	NGR	EPINEPHELUS STRIATUS	781122
PANCAKE BATFISH	OTF	CANTHIDERMIS SUFFLAMEN	781122
PARROT FISH	OTF	HALIEUTICHTHYS ACULEATUS	781122
POMPANO	PRF	HALichoeres RADIAJUS	781122
QUEEN TRIGGER FISH	POM	TRACHINOTUS CAROLINUS	781122
RED SNAPPER	OTF	BALISTES VETULA	781122
RIBON FISH	RS	LUTJANUS CAMPECHANUS	781122
SAND DIVER	RF	EGLESTUS LANCEOLATUS	781122
	SD	SYNODUS INTERMEDIA	32061002003002

SAND TROUT	CYNOSCIUS ROTHTUS	SRL	135	32062401014001	781122
BASH FLOUNDER	TRICHOPSETTA VENTRALIS	SFC	136	32061203001001	781122
SEA CATFISH	ARIUS FELIS	SDF	136	32050407002003	781122
SILKY SHARK	CARCHARHINUS FALCIFORMES	SHK	136	32050504001020	781122
SKATE	RAJA TEXANA	SKT	139	32062368002002	781122
SLENDER SEA ROBIN	PERISTEDION GRACILE	SSR	140	32062326001	781122
SPADE FISH	CHAETODON TERUS SP.	SDF	141	32062322004002	781122
SPOTTED SEA TROUT	CYNOGLOSSUS NEBULOSUS	SST	142	32061902002	781122
SQUIRREL FISH	HOLOCENTRUS SP.	SQF	143	32050505001004	781122
STINGRAY	DASYATIS SABINA	STR	144	32062303011006	781122
TIGER GROUPER	HISTEROPORECA TIGRIS	TGR	145	32062361004002	781122
LITTLE TUNNY TUNA	EUTHYNNUS ALLETTERATUS	TUN	146	3206230003010	781122
WHITE GRUNT	HAEMULON PLUMIERI	HG	147	32050407002006	781122
WHITE TIP SHARK	CARCHARHINUS LONGIMANUS	WTB	148	32062303011007	781122
YELLOWFIN GROUPER	HISTEROPORECA VENENOSA	YGR	149	32062303011002	781122
YELLOWMOUTH GROUPER	HISTEROPORECA INTERSTITIALIS	YMG	150	32062317004001	781122
YELLOWTAILED SNAPPER	OXYURUS CHRYSURUS	YTB	151	32060902	781128
SMELT (SPECIES UNKNOWN)	(FAMILY) OSMERIDAE	SMT	152	32050407005002	781128
SMOOTH DOGFISH	MUSTELUS CANIS	SMG	153	32050409005001	781205
SPINY DOGFISH	SGUALUS ACANTHIAS	SPD	154	32061702015006	781205
WHITE HAKE	UROPHYCIS TENUIS	WH	155	32061702015001	781205
RED (SQUIRREL) HAKE	UROPHYCIS CHUBBS	RH	156	32062402019001	781205
WINTER FLOUNDER	PSEUDOPLERONECTES AMERICANUS	WF	157	32062402010002	781205
WHITE TIP SHARK	LINHANDA FERRUGinea	YTF	158	32062401012001	781205
YELLOWTAIL FLOUNDER	SCOPHTHALMUS AQUOSUS	WPF	159	3206101001001	781227
WINDOWPANE FLOUNDER	ACIPENSER BREVIROSTRUM	SHS	160	32060101001004	781227
SHORTNOSE STURGEON	ACIPENSER OXYRHYNCHUS	ATB	161	32060701001001	781227
ATLANTIC STURGEON	ALOSA AESTIVALIS	BBH	162	32060701001004	781227
BLUEBACK HERRING	ALOSA MEDIOCRIS	HS	163	32060701001004	781227
HICKORY SHAD	ALOSA SAPIDISSIMA	AHS	164	32060701001006	781227
AMERICAN SHAD	BREVOORTIA TYRANNUS	ATH	165	32060702001004	781227
ATLANTIC MENHADEN	ANCHOA MITCHILLI	AY	166	32060702001009	781227
ATLANTIC STURGEON	SALMO SALAR	ASL	167	32060901004005	781227
BAY ANCHOVY	EBOX AMERICANUS AMERICANUS	RFP	168	3206090700100100	781227
ATLANTIC SALMON	MOXOSTOMA ANISURUM	BRH	170	32061103010001	781227
REDFIN PICKEREL	GADUS MORHUA	AC	171	32061702006002	781227
SILVER REDHORSE	LOTA LOTA LACUSTRIS	AMB	172	32061702007001	781227
ATLANTIC COD	HERLUCCIUS BILINEARIS	SVH	173	32061702009001	781227
AMERICAN BURBOT	HICROGADUS TOMCOD	AT	174	32061702010002	781227
SILVER HAKE	MENIDIA MENIDIA	ASB	175	32061806008005	781227
ATLANTIC TOMCOD	ETHEOSTOMA FUSIFORME	SBD	176	32062306002024	781227
ATLANTIC SILVERSIDE	PERCINA MACROCEPHALA	LHD	177	32062306004010	781227
SHAMP DARTER	POMATOMUS SALTATRIX	BLU	178	32062310001001	781227
LONGHEAD DARTER	STENOTOMUS CHrysops	SCP	179	32062321006002	781227
BLUEFISH	WKF	180	32062322004006	781227	
SCUP	CYNOSCIUS REGALIS	SPT	181	32062322008001	781227
MEAKFISH	LEIOSTOMUS XANTHURUS	TAU	182	320623301001	781227
SPOT	TAUTOGA ONITIS	SFF	183	32062401011003	781227
TAUTOG	PAHALICHTHYS DENTATUS	NPF	184	32062504003003	781227
SUMMER FLOUNDER (FLUKE)	SPHEROIDES MACULATUS	SSK	185	32050407007001	781227
NORTHERN PUFFER	PRIONACE GLAUCA	GOF	187	32061601001001	781227
BLUE SHARK	LOPHIUS AMERICANUS	TU2	188	32062361008005	781227
GOOSEFISH	THUNNUS THynnus	AMK	189	32062361006002	781227
BLUEFIN TUNA	SCOMBER SCOMBRUS	L/H	190	32061702015	781228
ATLANTIC MACKEREL	UROPHYCIS spp.	SPL	191	32060901005	781228
LING/HAKE	SALVELINUS spp.	RHS	192	32061102019003	790206
GOOSEFISH	MOXOSTOMA spp.	VIR	193	3206091004002	790206
BLUEFIN TUNA	LEPIDOMEDA MOLLISPINIS	CUT	194	32060901005003	790206
ATLANTIC HAKEREL	SCALMO CLARKKI	DOL	195	32061102037001	790206
LING/HAKE	SALVELINUS MALMA	RBS	196	32062371025008	790216
GOOSEFISH	RICHARDSONIUS BALTEATUS	SHH	197		
REDHORSE	HYOCEPHALUS SCORPIUS				
VIRGIN SPINEDACE					
CUTTHROAT TROUT					
DOLLY VARDEN					
REDSIDE SHINER					
SHORTNORN SCULPIN					

HYBRID STRIPEH (BASS)	MORONE SAXATILIS & CHRYSEOPS
BLACK DRUM	POGONIAS CROMIS
GAFTOPSAIL CATFISH	BAGRE MARINUS
SOUTHERN FLOUNDER	PARALICHTHYS LETHOSTIGMA
RED DRUM	SCIENOPHS OCCELLATUS
GULF KING WHITTING	MENTICIRRUS LITORALIS
BLACKTIP SHARK	CARCHARRINUS LIMBATUS
SILVER MULLET	MUGIL CUREMA
OCEAN PERCH	SEBASTES MARINUS
PINFISH	LAGODON RHOMBOIDES
FALLFISH	SEMOTILUS CORPORALIS
BANDED KILLIFISH	FLINDOUIS DIAPHANUS
MUMMICHOG	FUNDULUS HETEROCLITUS
FOURSPINE STICKLEBACK	APELLES QUADRACUS
ANGEL SHARK	SQUATINA DUMERILI
LITTLE SKATE	RAJA ERINACEA
THORNY SKATE	RAJA RADIATA
WINTER SKATE	RAJA BINOCULATA
ATLANTIC HERRING	CLUPEA HARENGUS HARENUS
ROUND HERRING	ETRUMEUS TERES
CUSK	BROOME BROSME
HADDOCK	MELANOGRAMMUS AEGLEFINUS
ATLANTIC POLLACK	POLLACHIUS VIRENS
FAWN CUSK EEL	LEPOPHIDIUM CERVINUM
OCEAN POUT	MACKROARCES AMERICANUS
BEARDFISH	POLYMYXIA LOWEI
BALLYHOO	HEMIRAMPHUS BRASILIENSIS
BLACK SEA BASS	CENTROPRISTS STRIATA
DAUBED SHANNY	LUMPIENUS MACULATUS
ATLANTIC WOLFISH	ANARHICHAS LUPUS
WHITE MARLIN	TETRAPTERUS ALBIDUS
BUTTERFISH	PEPRILLUS TRIACANTHUS
BLACKBELLY ROSEFISH	HELICOLENUS DACTYLOPTERUS
NORTHERN SEAROBIN	PRIONOTUS CAROLINUS
REDFISH	SEBASTES MARINUS
STRIPED SEAROBIN	PRIONOTUS EVOLANS
LONGHORN SCULPIN	MYOXOCEPHALUS OCTODECEMSPINOS
MARLED SCULPIN	TRIGLOPS NYBELINI
GULF STREAM FLOUNDER	CITHARICHTHYS ARCTIFRONS
FOURSPOT FLOUNDER	PARALICHTHYS OHLONGIUS
FLUKE	PARALICHTHYS DENTATUS
WATCH FLOUNDER	GLYPTOCEPHALUS CYNOGLOSSUS
PEARL DACE	SEMOTILUS MARGARITATA
CHESTNUT LAMPREY	ICHTHYOMYZON CASTANEUS
SOUTHERN BROOK LAMPREY	ICHTHYOMYZON FOSSOR
PALLID STURGEON	SCAPHIRHYNCHUS ALBUS
THREADFIN SHAD	DOROBOMA PETENENSE
CENTRAL MUDDINOW	UMBRA LIMI
STONEROLLER	CAMPOSTOMA ANOMALUM
LARGE SCALE STONEROLLER	CAMPOSTOMA OXYOLEPIS
GRASS CARP	CTENOPHARYNGDON IDELLUS
OZARK MINNOW	DIONDA NUBLA
CYPRESS MINNOW	HYOGNATHUS HAYI
SILVERY MINNOW	HYOGNATHUS NUHALIS
PLAINS MINNOW	HYOGNATHUS PLACITUS
SPACKLED CHUB	HYOGNATHUS AESTIVITALIS
BIGEYE CHUB	HYOGNATHUS AMOLOPS
STREAMLINE CHUB	HYOGNATHUS DISIMILIS
FLATHEAD CHUB	HYOGNATHUS GRACILIS
SILVER CHUB	HYOGNATHUS STOREIRIANA
GRAVEL CHUB	HYOGNATHUS X-PUNCTATA

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202	32062322014001	790319
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251	32061102016015	790502

REDSPOT CHUB
 HORNYHEAD CHUB
 PALLID SHINER
 RED RIVER SHINER
 RIVER SHINER
 BIGEYE SHINER
 GHOST SHINER
 BLUNTFACE SHINER
 IRONCOLOR SHINER
 STRIPED SHINER
 PUGNOSE MINNOW
 RIBBON SHINER
 WHITETAIL SHINER
 ARKANSAS RIVER SHINER
 WEDGESPOT SHINER
 RED SHINER
 TAILLIGHT SHINER
 KIAMICHI SHINER
 PLAINS SHINER
 COLORLESS SHINER
 DUSKY STRIPE SHINER
 ROSYFACE SHINER
 SABINE SHINER
 SILVERBAND SHINER
 SPOTFIN SHINER
 TELESCOPE SHINER
 WEED SHINER
 REDFIN SHINER
 BLACKTAIL SHINER
 MIMIC SHINER
 BLEEDING SHINER
 SUCKERMOUTH MINNOW
 SOUTHERN REDBELLY DACE
 FATHEAD MINNOW
 SLIM MINNOW
 BULLHEAD MINNOW
 HIGHFIN CARPSUCKER
 BLUE SUCKER
 CREEK CHUBSUCKER
 RIVER REDHORSE
 BLACK REDHORSE
 GOLDEN REDHORSE
 BLACKTAIL REDHORSE
 OZARK MADTOM
 MOUNTAIN MADJOM
 BLENDER MADTOM
 CHECKERED MADTOM
 STONE CAT
 TADPOLE MADTOM
 QUACHITA MADTOM
 BRINDLED MADTOM
 FRECKLED MADTOM
 BROWN MADTOM
 NORTHERN STUDFISH
 GOLDEN TOPMINNOW
 BLACK STRIPE TOPMINNOW
 STARHEAD TOPMINNOW
 BLACKSPOTTED TOPMINNOW
 MOSQUITO FISH
 OZARK CAVEFISH

NOCOMIS ASPER
 NOCOMIS BICUTTATUM
 NOTROPIS AMNIS
 NOTROPIS BAIRDII
 NOTROPIS BLENNIUS
 NOTROPIS BOOPS
 NOTROPIS BUCHANANI
 NOTROPIS CAMURUS
 NOTROPIS CHALYBAEUS
 NOTROPIS CHRYSOCOPHALUS
 NOTROPIS CHRYSAEAE
 NOTROPIS CLEMIAE
 NOTROPIS FUMEUS
 NOTROPIS GALACTURUS
 NOTROPIS GIRARDI
 NOTROPIS GREENEI
 NOTROPIS LUTRENSIS
 NOTROPIS MACULATUS
 NOTROPIS ORTENBURGERI
 NOTROPIS OZARCANUS
 NOTROPIS AETHERINOIDES
 NOTROPIS PERPALLIDIUS
 NOTROPIS PILSBRYI
 NOTROPIS RUBELLUS
 NOTROPIS SABINAEE
 NOTROPIS SHUMARDI
 NOTROPIS SPILOPTERUS
 NOTROPIS TELESCOPUS
 NOTROPIS TEXANUS
 NOTROPIS UMBRATILIS
 NOTROPIS VENUSTUS
 NOTROPIS VOLUCELLUS
 NOTROPIS ZONATUS
 PHENACOBIAUS MIRABILIS
 PHOXINUS ERYTHROGASTER
 PIMEPHALES PROMELAS
 PIMEPHALES TENELLUS
 PIMEPHALES VIGILAX
 CARPOIDES VELIFERUS
 CYCLEPTUS ELONGATUS
 ERIMYZON OBLONGUS
 MOXOSTOMA CARINALYN
 MOXOSTOMA DUQUESENEI
 MOXOSTOMA ERYTHRURUM
 MOXOSTOMA POECILURUM
 NOTURUS ALBATRUS
 NOTURUS ELEUTHERUS
 NOTURUS EXILIS
 NOTURUS FLAVATER
 NOTURUS FLAVUS
 NOTURUS GYRINUS
 NOTURUS LACHNERI
 NOTURUS NIJURUS
 NOTURUS NOCTURNUS
 NOTURUS PHAEUS
 FUNDULUS CATENATUS
 FUNDULUS CHrysotus
 FUNDULUS NOTATUS
 FUNDULUS NOTTI
 FUNDULUS CATENATUS
 FUNDULUS CHrysotus
 FUNDULUS NOTATUS
 FUNDULUS NOTTI
 FUNDULUS OLIVACEUS
 GAMBUSSIA AFFINIS
 AMBLOPSYSS ROSAE

SOUTHERN CAVEFISH	TYPHLOCHITTHYS SUBTERANEUS
PIRATE PERCH	APREDODERUS BAYANUS
MISSISSIPPI SILVERSIDE	MENIDIA AUDENS
FLIER	CENTRARCHUS MACROPTERUS
ORANGE-SPOOTTED SUNFISH	LEPOMIS HUMILIS
DOLLAR SUNFISH	LEPOMIS MARGINATUS
SPOTTED SUNFISH	LEPOMIS PUNCTATUS
BANTAH SUNFISH	LEPOMIS SYMMETRICUS
REDEYE BASS	HICROPTERUS COOSAE
BANDED PYGMY SUNFISH	ELASSOMA ZONATUM
CRYSTAL DARTER	AMMOCRYPTA ASPRELLA
WESTERN SAND DARTER	AMMOCRYPTA CLARA
SCUDY SAND DARTER	AMMOCRYPTA VIVAX
MUD DARTER	Etheostoma ASTRIGENE
GREENSIDE DARTER	Etheostoma ALENNIOIDES
RAINBOW DARTER	Etheostoma CAERULEUM
BLUNTNOSE DARTER	Etheostoma CHLOROBROMUM
CREOLE DARTER	Etheostoma COLLETTEI
KANSAS SADDLED DARTER	Etheostoma EUZONUM
FANTAIL DARTER	Etheostoma FLABELLARE
SLOUGH DARTER	Etheostoma GRACILE
HARLEQUIN DARTER	Etheostoma HISTRIO
YODE DARTER	Etheostoma JULIAE
LEAST DARTER	Etheostoma MICROPERCA
YELLOWCHEEK DARTER	Etheostoma MOOREI
PALE BACK DARTER	Etheostoma PALLIDIORBUM
GOLD STRIPE DARTER	Etheostoma PARVIPINNE
CYPRESS DARTER	Etheostoma PROELIARE
STIPPLED DARTER	Etheostoma PUNCTULATUM
ORANGEBELLY DARTER	Etheostoma RADIOSUM
ORANGETHROAT DARTER	Etheostoma SPECTABILE
SPACKLED DARTER	Etheostoma STIGMAEUM
REDFIN DARTER	Etheostoma WHIPPLEI
BANDED DARTER	Etheostoma ZONALE
LOGPERCH	PERCINA CAPRODES
CHANNEL DARTER	PERCINA COPELANDI
GILT DARTER	PERCINA EVIDES
BLACKSIDE DARTER	PERCINA MACULATA
LONGNOSE DARTER	PERCINA NABUTA
LEOPARD DARTER	PERCINA PANTHERINA
SLENDERHEAD DARTER	PERCINA PHOXOCEPHALIA
DUBBY DARTER	PERCINA SCIERA
RIVER DARTER	PERCINA SHUMARDI
STARAZING DARTER	PERCINA URANIDEA
MOTTLED SCULPIN	COTTUS BAIRDII
BANDED SCULPIN	COTTUS CAROLINAE
SILVER LAMPREY	ICHTHYOMYZON UNICUSPIS
LEAST BROOK LAMPREY	LAMPETRA AEPYPTERA
ALABAMA SHAD	ALOSA ALABAMAE
SILVERJAN MINNOW	ERICYMBIA GUCCATA
STURGEON CHUB	HYdropsis GELIDA
STICKLEFIN CHUB	HYdropsis MEEKII
BLACKSPOT SHINER	NOTROPIS ATROCAUDALIS
SAND SHINER	NOTROPIS STRAMINEUS
LEAST MADTOM	NOTURUS HILDEBRANDI
NEOSHOP MADTOM	NOTURUS PLACIDUS
PLAINS KILLIFISH	FUNDULUS KANAE
PLAINS TOPMINNOW	FUNDULUS SCIATICUS
ARKANSAS DARTER	Etheostoma CRAGINUM
CADDIO MADTOM	NOTURUS TAYLORI
BLUE WRAASSE	THALASSOMA DUPERREYI

409	32061301001001	790503
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455	32061804006010	790503
456	32061804006020	790503
457	32062306002014	790503
458	320612	790503
	32062331012002	790601

CONVICT TANG	ACANTHURUS SANDVICENSIS	CNT	461	32062358001
SHORTFIN MAKO SHARK	ACANTHURUS TRISTEGUS	180X	462	32050405003001
THRESHER SHARK	IURUS OXYRINCHUS	ALVI	463	32050404001002
SCALLOPED HAMMERHEAD	ALPIASAURUS FEROX	XIGL	464	32062362001001
LONGNOSE LANCEFISH	RUVETTUS PRETTIOSUS	SPLX	465	32050406001001
OILFISH	CARCHARHINUS OBSCURUS	ALFE	466	3206104001002
DUSKY SHARK	PRIONACE GLAUCA	RUPE	467	32062359003001
BLUE SHARK	MONACANTHUS HISPIDUS	CAOB	468	32050407002009
PLANEHEAD FILEFISH	HIPPOGLOSSOIDES PLATESSOIDES	PRGL	469	32050407007001
AMERICAN DAB (PLAICE)	AD	MOLI	470	320625020027002
LANTERNFISH	HYGONOPHORUS HYGOMI	HYHY	471	32062402005002
BLUE HAKE (ANTIMORA)	ANTIMORA ROSTRATA	ANRO	473	3206107010001
GRENadier	NEHATONURUS ARMATUS	NEAR	474	32061706002001
HALO AURID EEL	HALOSAUROPSIS MACROCHIR	HAMA	475	32060602001001
CUTTHROAT EEL	SYNAPHOBRANCHUS KAUPI	SYKA	476	32060510001001
LONGTOOTH ANGLEMOUTH	GONOSTOMA ELONGATUM	GOEL	477	320606901004
HORNED LANTERNFISH	CERATOSCOPELUS MADERENSIS	CEMA	478	320610701002
VIPERFISH	CHAULiodus SLOANI	CHSL	479	32060910001002
COMMON CHUB	GILA 8P.	CCB	480	32061102012
SOCKEYE SALMON	ONCORHYNCHUS NEHLKA	SOP	481	32060901002004
CUTTHROAT/RAINBOW TROUT	SMOKE 8PP.	CKT	482	32060901004
LONGFIN SHINER	CATOSTOMUS ARDENIS	UTS	483	32061103002001
MOJARRA	GILA ARDENIS	UTC	484	32061102012001
SNAIL BULLHEAD	ICHTALURUS PLATYCEPHALUS	FBH	489	32061201001008
FLATHEAD BULLHEAD	NORONE 8PP.	HYB	490	32062302001
HYBRID BASS (WHITE/STRIPED)	NOTROPIS LEPTOCEPHALUS	BHC	491	32061102025004
BLUEHEAD CHUB	NOCOMIS LEPTOCEPHALUS	DHH	492	32061102027038
DUSKY SHINER	NOTROPIS CUMMINGBAE	YSH	493	32061102027059
YELLOWFIN SHINER	NOTROPIS LUTIPINNIS	W8H	494	32061102027062
WHITEFIN SHINER	NOTROPIS NIJEVUS	COSH	495	32061102027067
COASTAL SHINER	NOTROPIS PETERSONI	S8H	496	32061102027079
SANDBAR SHINER	NOTROPIS ACEPTICUS	SHI	497	32061102027
SHINER (COMPOSITE)	NOTROPIS 8PP.	SPH	498	32062361007003
SPANISH MACKEREL	SCOMBERONUS MACULATUS	EMH	499	32060906003002
EASTERN HUOMINNOW	UMBRA PYGMAEA	CGH	500	32061102
CARP/GOLDFISH (HYBRID)	(FAMILY) CYPRINIDAE	ELS	501	32062402014001
ENGLISH BOLE	PAPROPHRYS VETULUS	DVS	502	32062402013001
DOVER SOLE	MICROSTOMUS PACIFICUS	RKS	507	32062402009001
ROCK FISH (QUILLBACK)	SEBastes MALIGER	RKQ	503	32062367006030
ROCK FISH (COPPER)	SEBastes CAURINUS	RKC	504	32062367006010
RAT FISH	HYDROLAGUS COLLIEI	RAT	505	3205061001001
STRIPED SURFPERCH	EMBIOTOCA LAERALIS	88P	506	32062330004002
ROCK SOLE	LEPIDOPSETTA BILINEATA	AKS	507	32062402009001
SLENDER SOLE	LYOPETTA EXILIS	SLE	508	32062402012001
POLLOCK	ATHERAGRAS HALCOGRAMMA	PLK	509	32061702014001
TRUE OR PACIFIC COD	GADUS MACROCEPHALUS	PCC	510	32062402004002
REX SOLE	CRYPTOCEPHALUS ZACHIRUS	REX	512	32062402004002
SAND SOLE	SNE	513	32062402016001	
ARROWTOOTH FLOUNDER	PSETTIICHTHYS MELANOSTICTUS	ATF	514	32062402001002
PILE PERCH	ATHERESTHSA STOMIAS	PIL	515	32062330010002
SNAKE PRICKLEBACK	RHACOCHILUS VACCA	PRA	516	32062346012005
FLATHEAD SOLE	LUM彭US SAGITTA	FHS	517	32062402005001
STARRY FLOUNDER	HIPPOGLOSSOIDES CLASSODON	STF	518	32062402015001
CATFISH (UNKNOWN SPECIES)	PLATICHTHYS STELLATUS	CFH	519	320612010001
MOUNTAIN BUCKER	ICTALURUS 8PP.	MSK	520	3206103002014
SUNFISH (UNKNOWN SPECIES)	CATOSTOMUS PLATYRHYNCHUS	CAN	521	32062305007

HOGCHOKER
 CUNNER (BERGALL)
 GRUBBY
 ATLANTIC BONITO
 STRIPED KILLIFISH
 PORGY
 TOADFISH
 BROWN SHARK (SANDBAR)
 MARSH KILLIFISH
 WRASSE
 STRIPED ANCHOVY
 BRIDLE SHINER
 COMMON SCULPIN
 SAND EEL (LANCE)
 STICKLEBACK
 GRUNT
 ROSEYSIDE DACE
 RAINWATER KILLIFISH
 BLOWFISH (PUFFER)
 KLAMATH SMALLSCALE SUCKER
 SACRAMENTO SQUAWFISH
 SACRAMENTO SUCKER
 PRICKLY SCULPIN
 BLACKNOSE DACE
 CUTLIPS MINNOW
 DACE
 BATINFIN SHINER
 TAHOE SUCKER

TRINECTES & MACULATUS	CUN	523
TAUTOGOLABRUS ANGERSUS	GRU	524
MYOXOCEPHALUS AENEUS	ATB	525
SARDA SARDA	SKF	526
FUNDULUS MAJALIS	POR	527
CALAMUS SP.	TOAD	528
OPSANUS SP.	BARK	529
CARCHARRHINUS MILBERTI	MKF	530
FUNDULUS CONFLUENTUS	HRS	531
HALICOERES SPP.	STA	532
ANCHOA HEPSITUS	88R	533
NOTROPIS VIPERINATUS	SCU	534
COTTUS SP.	SEEL	535
AMMODYTES AMERICANUS	STK	536
GASTERosteus SP.	GRT	537
HAEMULON SP.	RSP	538
CLINOSTOMUS FUNDULOIDES	RFK	539
LUCANIA PARYA	BLOW	540
(FAMILY) TETRADONTIDAE	KSS	552
CATOSTOMUS RIMICULUS	SASQ	553
PTYCHOCHЕILUS GRANDIS	SASU	554
CATOSTOMUS OCCIDENTALIS	PRB	555
COTTUS ASPER	BLL	556
RHINICHTHYS ATRATULUS	CLM	557
EXOGLOSSUM MAXILLINGUA	DACE	558
RHINICHTHYS SPP.	SFB	559
NOTROPIS ANALOGIANUS	TAS	560
CATOSTOMUS TAHOENOTIS		

* 04/81 ***** AQUATIC INVERTEBRATE SPECIES LIST AND CODES *****

COMMON NAME	SCIENTIFIC NAME	STORET ALPHA CODE (84005)	STORET NUMERIC CODE (74990)	BIOSTORET CODE	DATE ENTERED
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SUNDIAL	SUD	541	19030211002001	791114
ROCK CRAB	RCR	212	18010327001002	790409
SEA SCALLOP	SSC	213	19050305004001	790409
CHANNELLED WELK	CHW	214	19030304001001	790409
BLUE MUSSEL	MED	215	19050303007001	780727
CALIFORNIA MUSSEL	MCA	216	19050303007	780727
EASTERN OYSTER	CRY	217	19050304001002	780727
JAPANESE OYSTER	EQO	218	19050304002002	780727
PACIFIC OYSTER	CGIG	219	19050304001001	781024
OYMPIA OYSTER	OLUR	220	19050304002	781024
RIBBED MUSSEL	MOD	221	19050303005001	781024
NORTHERN HORSE MUSSEL	MH	222	19050303005007	781024
HARD CLAM	MEKC	223	19050414001002	781024
SOFT CLAM	HYAA	224	19050423001001	781024
ASIATIC CLAM (FRESH WATER)	CORF	225	19050404001002	781024
BLUE CLAW CRAB	BCC	226	18010328003002	781227
NORTHERN LOBSTER	NLOB	227	180103137001001	781227
BRINE SHRIMP	BRB	228	18010101	781227
SURF CLAM	SFCL	229	19050416004	781227
CRAYFISH	CRAY	231	18010320001003	790402
WHITE SHRIMP	SHH	232	18010304002003	790402
PINK SHRIMP	SHP	233	18010304002002	790402
BROWN SHRIMP	SHB	234	18010304002001	790402
FRESHWATER CLAM	FCL	235	REQUESTED	790402
SHRIMP (UNKNOWN SP.)	SUN	236	18010304002	790402

SQUID	ILLEX ILLECEPHOSUS	19060101001001
GREAT GREEN ANEMONE	ANTHOPLERA XANTHOGRAMMICA	07030714001001
GOOSE NECK BARNACLE	POLICIPES POLYHERUS	790427
SEA URCHIN	CENTRICHINUS PAUCISPINUS	790601
SEA URCHIN	TRIPEUSTES GRATILLA	2003
SEA PANZY	DIADEMA PAUCISPINUM	790601
RED CRAB	RENILLA spp.	07030501001
FAN WORM	GERYON QUINQUEDENS	180120
PANDALUS SHRIMP	BABELLA spp.	2003
SHRIMP-LIKE CRUSTACEAN	PANDALUS DANAE	2441
CALIFORNIA CRAB	EUPHAUSTIA spp.	2442
CLAM (SMOOTH WASHINGTON)	PACHYGRAPSUS CHASSIPIES	2443
CLAM (PACIFIC LITTLENECK)	SAXIDOMUS GIGANTEUS	2444
MOON SNAIL	MACOMA IRIS	2445
BARNACLE	PROTOTHACA STAMINEA	2446
HEART COCKLE	LUNATIA LEWISI	2447
HORSE CLAM	BALANUS CARIOGUS	2448
CUCUMBER (DEEP)	CLINOCARDIUM NUTTALLII	2449
SPONW WORM	TRESUS CAPAX	250
OCTOPUS	MOLPADIA INTERMEDIA	251
CRAB (DUNGENESS)	NELLIOBIA EUBOMA	252
SHRIMP	OCTOPUS LEPTODERMA	253
SHRIMP	CANCER MAGISTER	254
SHRIMP	PASIPHAEA PACIFICA	255
SHRIMP	PANDALUS JORDANI	256
SHRIMP	PANDALUS PLATYCYCROS	257
SHRIMP	PANDALUS DISPAR	258
STARFISH	MEGASTER AEQUALIS	259
RED ROCK CRAB	HIPPASTARIA SPINOSA	260
PURPLE SHORE CRAB	HIMIAGRAPSUS HEDUS	261
WHITE WARTYBACK MUSSEL	CANCER PRODUCTUS	262
PINK WARTYBACK MUSSEL	THAIS LAMELOBA	263
WASHBOARD MUSSEL	FUSCONAIAS EBENA	264
ELEPHANT'S EAR MUSSEL	AMBLEMA PLICATA	265
MAPLE-LEAF MUSSEL	QUADRULA PUSTULUSA	266
WHITE WARTYBACK MUSSEL	CYCLONAIAS TUBERCULATA	267
PINK WARTYBACK MUSSEL	MEGALONAIAS GIGANTEA	268
HEELSPLITTER MUSSEL	ELLIPTIO GRASSIDENS	269
WABASH PIGTOE MUSSEL	QUADRULA QUADRULA	270
MONKEYFACE MUSSEL	PLEUROBEMA CORDATUM	271
FRESH WATER BIVALVE	PROPTERA ALATA	272
SAND SHRIMP	FUSCONAIAS FLAVA	273
CALICO CRAB	QUADRULA METANEVRA	274
FIDDLER CRAB	CORBICULA MANILLENSIS	275
GREEN CRAB	CRANGON VULGARIS	276
MUD CRAB	(ORDER) DECAPODA	277
SPIDER CRAB	WABASH PIGTOE MUSSEL	278
CHOWDER CLAM (HARD SHELL)	ELEPHANT'S EAR MUSSEL	279
LITTLE NECK CLAM	MAPLE-LEAF MUSSEL	280
GRASS SHRIMP	OHIO PIGTOE MUSSEL	281
BLOOD ARK CLAM	HEELSPLITTER MUSSEL	282
GASTROPODS	WABASH PIGTOE MUSSEL	283
CADDIS FLY	MONKEYFACE MUSSEL	284
DRAGON FLY	FRESH WATER BIVALVE	285
BLACK FLY	SAND SHRIMP	286
WORM (SEDIMENT)	CALICO CRAB	287
WEDGE CLAM	SPIDER CRAB	288
WEDGE CLAM	CHOWDER CLAM (HARD SHELL)	289
(FAMILY) HYDROPSYCHIDAE	LITTLE NECK CLAM	290
(FAMILY) LIBELLULIDAE	GRASS SHRIMP	291
BIMULUM VITATUM	BLOOD ARK CLAM	292
(CLASS) OLIGOCHAETA	GASTROPODS	293
PROCAMBARUS CLARKII	CADDIS FLY	294
RANGIA CINERIA	DRAGON FLY	295

***** ANATOMY LIST AND CODES *****

ANATOMY	BIOSTORET & STORET CODE (74995)	STORET TIME CODE	STORET ALPHA CODE (84007)
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ALIMENTARY	01	0001	ALIM
MOUTH	02	0002	MOUTH
TEETH	03	0003	TEETH
ESOPHAGUS	04	0004	ESOPH
STOMACH	05	0005	STOM
LIVER	06	0006	LIVER
INTESTINE	07	0007	INTST
GALL BLADDER	08	0008	GLBDR
ANUS	09	0009	ANUS
CARDIO-VASCULAR	10	0010	CARDY
HEART	11	0011	HEART
HEART/VENTRICLE	12	0012	HVENT
HEART/BULB ART	13	0013	HBART
HEART/AURICLE	14	0014	HAUR
HEART/CONUS ART	15	0015	CONUS
ARTERIES	16	0016	ARTS
VEINS	17	0017	VEINS
ENDOCRINE	18	0018	ENDCN
CYCLIC CHANGE	19	0019	CYCC4
PITUITARY	20	0020	PITY
RENAL BODY	21	0021	RNBY
ADRENAL	22	0022	ADRNL
SUPRARENAL	23	0023	SPRNL
ULTIMABRAN BODY	25	0025	ULTMA
PSEUDOBRANCH	26	0026	PSBR
CORP OF STAN	27	0027	COS
THYROID	28	0028	THYRD
PANCREAS	29	0029	PANCR
SAC VASCULE	30	0030	SACVS
EXCRETORY	31	0031	EXCRT
KIDNEY	32	0032	KIDNY
KIDNY/GLOM	33	0033	KGLM
KIDNEY/AGLOM	34	0034	KAGLM
KIDNEY/URIN TUB	35	0035	KURTB
KIDNEY/COLL TUB	36	0036	KCOLL
BLADDER	37	0037	BLADR
URETERS	38	0038	URTRS
URINARY PORE	39	0039	UPORE
HEMOPOIETIC	40	0040	HEMOP
HEAD KIDNEY	41	0041	HKID
THYMUS	42	0042	THYMS
SPLEEN	43	0043	SPLN
LYMPHOCYTES	44	0044	LYMPH
NUCLEATED RBS'S	45	0045	NCRBC
THROMBOCYTES	46	0046	THRMB
EOSINOPHILES	47	0047	EOSIN
HETEROPHILES	48	0048	HTRPL
GRANULOCYTES	49	0049	GRNLO
MUSCO-SKEL	50	0050	MSKEL
MUSCLE/SOMATIC	51	0051	MSOM
MUSCLE/VISCERAL	52	0052	MVIS
BONE/CELLULAR	53	0053	BCEL
BONE/ACELLULAR	54	0054	BACEL
CARTILAGE	55	0055	CART

CONN TISSUE	56	0056	CNTSU
SCALES	57	0057	SCALE
SKIN	58	0058	SKIN
WHOLE ORGANISM	59	0059	WHORG
NERVOUS	60	0100	NERVS
BRAIN	61	0101	BRAIN
SPINAL CORD	62	0102	SPINE
GANGLIONS	63	0103	GANG
NEURONS	64	0104	NEURN
NERVE FIBERS	65	0105	NVFIR
REPRODUCTIVE	66	0106	REPRO
REPRO CYC CHAN	67	0107	RCC
MALE	68	0108	MALE
FEMALE	69	0109	FMALE
OVARY	70	0110	OVARY
RESPIRATORY	71	0111	RESP
GILLS	72	0112	GILLS
RESP EPITHELIUM	73	0113	REPI
CHLORIDE CELLS	74	0114	CHLOR
SECRETORY CELLS	75	0115	SECCL
GILL RAKERS	76	0116	GLRK
SENSORY	77	0117	SENS
LATERAL LINE	78	0118	LATLN
NASAL PASSAGES	79	0119	NASAL
TENTACLES	80	0120	TENT
EYES	81	0121	EYES
EARs	82	0122	EARs
NEUROEPITHELIUM	83	0123	NROEP
SWIM BLADDER	84	0124	SWBLD
LYMPH SYSTEM	85	0125	LYMPH
FILET	86	0126	FILET
EDIBLE PORTION	87	0127	EAT
HEADLESS WHOLE FISH	88	0128	HOLS
EVISERATED WH FISH	89	0129	EVISC
VISCIERA FISH	90	0130	VISC
LIPID TISSUE	91	0131	LIPID
FRY	92	0132	FRY
EGGS	93	0133	EGGS
UNKNOWN	94	0134	UNK
NO HEAD OR VISC	95	0135	NOHV
NO SKIN,HD,VISC	96	0136	NOHVS
EXOSKELETON	97	0137	EXSKL
LIPS	98	0138	LIPS
PHARYNX	99	0139	PHARY
CAECA	100	0140	CAECA
CAPILLARIES	101	0141	CAP
CENTRAL NERVOUS SYS.	102	0142	CNS
TESTES	103	0143	TEST
GILL LAMELLAE	104	0144	GILLA
GILL FILAMENTS	105	0145	GILFI
NEUROMASTS	106	0146	NEUR
PIT ORGAN	107	0147	PITOR
TASTE BUDS	108	0148	TASBU
HYPOPHYYSIS	109	0149	HYPHY
SACCUS VASCULOSUS	110	0150	SACVA
UROPHYSIS	111	0151	URPH
PINEAL GLAND	112	0152	PINGL
CHOROID GLAND	113	0153	CHOGL
PLASMA	114	0154	PLASM
LARVAE	115	0155	LARVA
CARCASS	116	0156	CARCS

* * * * * L I F E C Y C L E / H A B I T A T L I S T A N D C O D E S * *

CODE	HABITAT	STORED PARAMETER (84008)	LIFE CYCLE
CODE		CODE	
00	UNKNOWN	00	NO VALUE
01	ANADRAMOUS	01	MARINE STAGE
02	CATADROMUS	02	FRESHWATER STAGE
03	CHANGING	03	ESTUARINE
04	ESTUARINE	04	PREDATOR
05	FRESH WATER	05	HERBACEOUS
06	MARINE	06	FILTER FEEDER
07	SPAWN	07	MUTUALISTIC
		08	COMMENSALISTIC
		09	DETritivore
		10	SCAVENGER
		11	PARASITE
		12	OMNIVOROUS
		13	AUFWAUCHS
		14	BENTHIC
		15	PLANKTONIC
		16	NEUSTONIC
		17	PHYTOPLANKTONIC
		18	ZOOPLANKTONIC
		19	NEKTONIC
		20	PELAGIC/LIMNETIC
		21	LITTORAL
		22	SEDIMENT
		23	NERITIC
		24	MESCOPELAGIC
		25	ABYSSOPELAGIC
		26	TROPHOGENIC
		27	PROFOUNDAL
		28	LAKE
		29	LOTIC(RUNNING WATER)
		30	MARSH/SWAMP
		31	CANAL
		32	EFFLUENT
		33	RESERVOIR
		34	TIDAL CREEK
		35	MATURE
		36	RIPE
		37	IMMATURE
		38	NOT RIPE
		40	SPENT

THE BIOSSTORE CODE IS A DIGITIZED ENTRY OF THE TAXANOMIC CODE FOR A PARTICULAR SPECIES AS FOLLOWS:

PHYLUM	11
CLASS	1122
ORDER	112213
FAMILY	11223344
GENUS	1122334455
SPECIES	11223344556666
VARIATION	1122334455666600

MOST CODES ARE EXTENDED THE FULL 14 DIGITS FOR THE SPECIES - ONLY A FEW HAVE 16 DIGITS FOR VARIATION. HOWEVER, IN OTHER CASES THE SPECIES OR GENUS MAY NOT BE KNOWN AND THE TAXANOMIC CODE IS CARRIED OUT ONLY AS FAR AS IT IS KNOWN.

THE PHyla AND MAJOR CLASSES USED ARE -

CHORDATA	32
osteichthyes (bony fishes)	3206
agnatha (jawless fishes)	3204
chondrichthyes (cartilaginous fishes)	3205
MOLLUSCA	19
bivalvia (pelecypoda)	1905
gastropoda	1903
ARTHROPODA	18
crustacea	1801
CNIDARIA (COELENTERATA)	07
ECHINODERMATA	20

COMMON NAME	SCIENTIFIC NAME	STORET ALPHA CODE (84005)	STORET NUMERIC CODE (74990)	BIOSTORE CODE	DATE ENTERED
MIXED SPECIES	N/A	MIX	64	N/A	780717
UNKNOWN FISH	N/A	UNK	65	N/A	780718
FRESHWATER CLAM	ARANGEUS SP.	FCL	235	REQUESTED	790402
SPoon WORM	NELLODIA EUSOMA	SPW	257	REQUESTED	790913
SEA PANSY	RENILLA SPP.	SP	243	07030501001	781122
GREAT GREEN ANEMONE	ANTHOBLEURA XANTHOGRAMMICA	GGA	236	07030714001001	790427
Worm (sediment)	(CLASS) OLIGUCHAETA	WORM	295	1701	801222
FAN WORM	SABELLA SP.	FW	245	17031301006	790601
BRINE SHRIMP	(ORDER) DECAPODA	BRs	228	180103	781227
CALICO CRAB	(ORDER) DECAPODA	CAB	282	180103	791120
CRAYFISH	CAMBARUS BARTONI	CRAY	231	18010302001003	790129
SHRIMP	PROCAMBARUS CLARKII	CRAF	230	18010302002033	801222
BROWN SHRIMP	PENAEUS SP.	SUN	236	180103040002	790402
PINK SHRIMP	PENAEUS AZETECUS	SHB	234	18010304002001	790402
WHITE SHRIMP	PENAEUS DUOREUM	SHP	233	18010304002002	790402
SHRIMP (UNKNOWN SP.)	PENAEUS SITTIFERUS	SHW	232	18010304002003	790402
GRASS SHRIMP	PASIPHAEA PACIFICA	PAPA	260	180103060001	790913
SHRIMP	HIPPOLYTE SP.	CRSP	289	180103090004	791120
SHRIMP	PANDALUS PLATYCYCROS	PAPL	262	180103100002	790913
SHRIMP	PANDALUS JORDANI	PAJO	261	180103100002	790913
SHRIMP	PANDALUS DISPAR	PADI	263	180103100002	790913

SAND SHRIMP	CRANGON VULGARIS	1801031101	791108
SPIDER CRAB	MACHIUS SCORPIO	18010325	791120
MUD CRAB	EUPANOEPUS SP.	18010327	791120
RED ROCK CRAB	CANCER PRODUCTUS	18010327001	790913
ROCK CRAB	CANCER TIRRORATUS	18010327001002	790409
CRAB (DUNGENESS)	CANCER MAGISTER	18010327001003	790913
BLUE CLAW CRAB	CALLINICTES SAPIDUS	18010328003002	781227
GREEN CRAB	CARCINIDES MOENUS	18010328004001	791120
RED CRAB	GERYON QUINQUEDENS	1801033001001	790710
CALIFORNIA CRAB	PACHYGRAPSUS CRASSIPES	18010332	790716
PURPLE SHORE CRAB	HIMIAGRAPSUS NUDUS	18010332003001	790913
FIDDLER CRAB	UCA SP.	18010333002	791120
NORTHERN LOBSTER	HOMARUS AMERICANUS	18010337001001	781227
GOOSE NECK BARNACLE	POLICIPES POLYMERUS	1801120	790427
BARNACLE	BALANUS CARIOSUS	180112003001	790913
SHRIMP-LIKE CRUSTACEAN	EUPHAUSIA spp.	18012501001	790712
DRAGON FLY	(FAMILY) LIBELLULIDAE	18020405	801222
CADDIS FLY	(FAMILY) HYDROPSYCHIDAE	18021101001002	801222
BLACK FLY	SIMULIUM VITATUM	1903	791120
GASTROPODS	(CLASS) GASTROPODA	19030211002001	791114
SUNDIAL	ARCHITECTONICA NOBILIS	19030228007	790913
MOON SNAIL	LUNATIA LEWISII	19030301005	790913
SNAIL (WRINKLED PURPLE)	THAIS LAMELLOSA	19030304001001	790409
CHANNELLED WELK	BUSYCON CANALICULATUM	19050303007	780727
BLOOD ARK CLAM	ANADARA OVALIS	19050303007001	780727
RIBBED MUSSEL	MODIOLUS DEMISSUS	19050303005001	781024
NORTHERN HORSE MUSSEL	MODIOLUS MODIOLUS	19050303005007	781024
CALIFORNIA MUSSEL	MYTILUS CALIFORNIANUS	19050404001001	781024
BLUE MUSSEL	MYTILUS EDULIS	19050404001002	781024
PACIFIC OYSTER	CRASSOSTREA GIGAS	19050404001002	781024
EASTERN OYSTER	CRASSOSTREA VIRGINICA	19050404001002	781024
OLYMPIA OYSTER	OSTREA LURIDA	19050404002	781024
JAPANESE OYSTER	OSTREA EQUISTRIS	19050404002002	780727
SEA SCALLOP	PLACOPECTEN MAGELLANICUS	190505040001	790409
FRESH WATER BIVALVE	CORBICULA MANILLENSIS	190505040001	790927
ASIANIC CLAM (FRESH WATER)	CORBICULA FLUMINEA	190505040002	781024
HEART COCKLE	CLINOCARDIUM NUTTALLII	19050413002	790913
CLAM (PACIFIC LITTLENECK)	PROTOTHACA STAMINEA	19050414	790913
LITTLE NECK CLAM	VENUS MERCENARIA	19050414	791120
CLAM (SMOOTH WASHINGTON)	SAXIDOMUS GIGANTEUS	19050414	790913
HARD CLAM	MERCENARIA MERCENARIA	19050414003002	781024
CHODDER CLAM (HARD SHELL)	MERCENARIA MERCENARIA	19050414003002	791120
HORSE CLAM	TRESUS CAPAX	19050416	790913
WEDGE CLAM	RANGIA CUNEATA	19050416003001	810421
SURF CLAM	SPISULA SP.	19050416004	761227
CLAM (MACOMA)	MACOMA IRUS	19050418001	790913
SOFT CLAM	MYA ARENARIA	19050423001001	781024
THREE-RIDGE MUSSEL	AMBLEMA PLICATA	19050429001002	790927
EBONY-SHELL MUSSEL	FUSCONIA EBENA	19050429003005	790927
HABASH PIGTOE MUSSEL	FUSCONIA FLAVA	19050429005005	790927
MONKEYFACE MUSSEL	QUADRULA METANEVRA	19050429005007	790927
WHITE MARTYBACK MUSSEL	QUADRULA PUSTULOSA	19050429005008	790927
MAPLE-LEAF MUSSEL	QUADRULA QUADRULA	19050429009001	790927
WASHBOARD MUSSEL	MEGALONAIA GIGANTEA	19050429009001	790927
PINK MARTYBACK MUSSEL	CYCLONAIAS TUBERCULATA	19050429010001	790927
ELEPHANT'S EAR MUSSEL	ELLIPTIO CRASSIDENS	19050429011006	790927
OHIO PIGTOE MUSSEL	PLEUROBEMA CORDATUM	19050429015007	790927
HEELSPLITTER MUSSEL	PROPTERA ALATA	1905061010001	790424
SGUIDO	OCTOPUS LEIODERMA	19060302002	790913
OCTOPUS	OCTOPUS LEIODERMA	19060302002	790913

SEA URCHIN	DIADEMA PAUCISPINUM	9EÜ	2003
SEA URCHIN	TRIPEUSTES GRATILLA	SU	241
CUCUMBER (DEEP)	MOLPADIA INTERMEDIA	CUC	256
STARFISH	HIPPASTERIA SPINOSA	HIPS	265
CHESTNUT LAMPREY	MEDASTER AEQUALIS	MEDA	264
SOUTHERN BROOK LAMPREY	ICHTHYOMYZON CASTANEUS	CHL	330
SILVER LAMPREY	ICHTHYOMYZON FOSSOR	SBL	331
LEAST BROOK LAMPREY	ICHTHYOMYZON UNICUSPIIS	SVL	445
THREASHER SHARK	LAMPETRA AEPYPTERA	LBL	446
AMERICAN BROOK LAMPREY	LAMPETRA LAMOTTEI	ABL	86
BLACKTIP SHARK	ALOPIAS VULPINUS	ALVU	463
WHITE TIP SHARK	TSURUS OXYRINCHUS	ISOX	462
BROWN SHARK (SANDBAR)	CARCHARHINUS FALCIFORMES	SHK	138
DUSKY SHARK	CARCHARHINUS LIMBATUS	BTS	204
SMOOTH DOGFISH	CARCHARHINUS LONGIMANUS	WTS	148
BLUE SHARK	CARCHARHINUS MILBERTI	BRK	529
SPINY DOGFISH	CARCHARHINUS OBSCURUS	CAOB	468
ANGEL SHARK	MUSTELUS CANIS	SMD	153
WINTER SKATE	PRIONACE GLÄUCA	BSK	185
LITTLE SKATE	PRIONACE GLÄUCA	PRGL	469
THORNY SKATE	SPHYRNA LEWINI	SPLE	465
SKATE	SQUALUS ACANTHIAS	SPD	154
STINGRAY	SQUATINA QUMERILLI	ASH	304
RAT FISH	RAJA BINOCULATA	MSK	302
AMBER JACK	RAJA ERINACEA	LSK	303
SHORTNOSE STURGEON	RAJA RADIATA	TSK	139
LAKE STURGEON	RAJA TEXANA	SKT	144
ATLANTIC STURGEON	DASYATIS SAGINA	STR	505
PALLID STURGEON	HYDROLAGUS COLLEI	RAT	110
SHOVELNOSE STURGEON	SERIOLA DUERILLI	ABJ	110
PADDLEFISH	ACIPENSER BREVIROSTRUM	SHS	160
SPOTTED GAR	ACIPENSER FULVESCENTS	LST	99
LONGNOSE GAR	ACIPENSER OXYRHYNCHUS	ATS	161
SHORTNOSE GAR	SCAPHIRHYNCHUS ALBUS	PST	332
ALLIGATOR GAR	SCAPHIRHYNCHUS PLATIRHYNCHUS	SVN	102
BOWFIN	POLYODON SPATHULA	PF	106
LADY FISH	LEPIOSTEUS OCULATUS	SG	50
EEL	LEPIOSTEUS OSSEUS	LG	32
MORAY EEL	LEPIOSTEUS PLATOSTOMUS	SGA	107
CUTTHROAT EEL	LEPIOSTEUS SPATULA	AG	01
HALOSAURID EEL	ANIA CALVA	BF	68
BLUEBACK HERRING	ELOPS SAURUS	LF	486
ALABAMA SHAD	(ORDER) ANGUILIFORMES	EEL	118
SKIPJACK ("HERRING")	ANGUILLA ROSSTRATA	AME	76
HICKORY SHAD	MURAENA SP.	ME	124
ALEWIFE	SYNAPOBRACTHUS KAUPI	SYKA	476
AMERICAN SHAD	HALOSAUROPSIS MACROCHIR	HAMA	475
ATLANTIC MENHADEN	ALUSA AESTIVALIS	BBH	162
GIZZARD SHAD	ALUSA ALABAMAE	ABS	447
THREADFIN SHAD	ALUSA CHRYSUCHLORIS	H	26
ROUND HERRING	ALUSA MEDIOCIRIS	H9	163
STRIPED ANCHOVY	ALUSA PSEUDOHARENGUS	AM	75
BAY ANCHOVY	ALUSA SAPIOISSIMA	ATW	164
	BREVIOPTERA TYRANNUS	ATH	165
	CLUPEA HARENGUS HARENGUS	ATH	305
	DOROSOMA CEPDIANUM	GSH	21
	DOROSOMA PETENENSE	TFS	333
	ETRUMUS TERES	ROH	306
	ANCHOA HEPSSETUS	STA	532
	ANCHOA MITCHILLIA	BAY	166

MOONEYE	HIOON TERGUS	32060801001002
LONGTOOTH ANGLEMOUTH	GONOSTOMA ELONGATUM	780717
CISCO (LAKE HERRING)	COREGONUS ARTEDII	790712
LAKE WHITEFISH	COREGONUS CLUPEIFORMIS	780726
BLOATER	COREGONUS HOVI	780717
KIYI	COREGONUS KIYI	780717
COHO SALMON	ONCORHYNCHUS KISUTCHI	780717
CHINOOK SALMON	ONCORHYNCHUS NERKA	780803
ROUND WHITEFISH	ONCORHYNCHUS TSHAWYTSCHA	780726
MOUNTAIN WHITEFISH	PROSOPITUM CYLINDRACEUM	780717
CUTTHROAT/RAINBOW TROUT	PROSOPITUM WILLIAMSONI	780717
CUTTHROAT TROUT	SALMO SPP.	780806
RAINBOW TROUT	SALMO CLARKI	790206
ATLANTIC SALMON	SALMO GAIRDNERI	790206
BROWN TROUT	SALMO SALAR	780717
SPLAKE (HYBRID)	SALMO TRUTTA	780717
BROOK TROUT	SALVELINUS SPP.	781227
DOLLY VARDEN	SALVELINUS FONTINALIS	780717
LAKE TROUT	SALVELINUS MALHA	780717
ARTIC GRAYLING	SALVELINUS NAMAYCUSH	780717
SMELT (SPECIES UNKNOWN)	THYMALLUS ARCTICUS	780717
RAINBOW SMELT	(FAMILY) OSMERIDAE	781128
CENTRAL MUDMINNOW	OSMERUS MORDAX	780718
EASTERN MUDMINNOW	UMBRA LIMI	790502
REDFIN PICKEREL	UMBRA PYGMAEA	790905
GRASS PICKEREL	ESOX AMERICANUS	781227
NORTHERN PIKE	ESOX AMERICANUS VERMICULATUS	780727
MUSKELLUNGE	ESOX LUCIUS	780726
CHAIN PICKEREL	ESOX MASQUINONGY	780717
VIPERFISH	ESOX NIGER	780717
LARGESCALE LIZZARDFISH	CHAULIODUS SLOANI	790712
SAND DIVER	SAURIDA BRASILIENSIS	781122
LONGNOSE LANCEFISH	SYNOUDUS INTERMEDIUS	781122
HORNED LANTERNFISH	ALEPIOSAURUS FEROX	790710
CARP/GOLDFISH (HYBRID)	CERATOSCOPELUS MADEIRENSIS	790712
MINNOWS (UNKNOWN SPECIES)	(FAMILY) CYPRINIDAE	790913
CHISELMOUTH	BAURIDA BRASILIENSIS	780803
LARGE SCALE STONEROLLER	ACROCHEILUS ALUTACEUS	780717
STONEROLLER	CAMPOSTOMA OLIGOLEPIS	790502
GOLDFISH	CAMPOSTOMA ANOMALUM	790502
ROSEYSIDE DACE	CARASSIUS AURATUS	780717
CARP	CLINOSTOMUS FUNDULOIDES	790503
OZARK MINNOW	CYPRINUS CARPIO	780717
SILVERJAW MINNOW	DIONDA NUBILA	790502
CUTLIPS MINNOW	ERICYMBIA BUCCATA	790503
COMMON CHUB	EXOGLOSSUM MAXILLINGUA	810406
UTAH CHUB	GILA SP.	790726
CYPRESS MINNOW	GILA ARDENSI	790824
SILVERY MINNOW	HYOGNATHUS HAYI	790502
PLAIN MINNOW	HYOGNATHUS NUCHALIS	790502
SPICKLED CHUB	HYOGNATHUS PLACITUS	790502
BIGEYE CHUB	HYPOPSIS AESTIVALIS	790502
STREAMLINE CHUB	HYPOPSIS AMBLOPS	790502
STURGEON CHUB	HYPOPSIS DISSEMILIS	790502
FLATHEAD CHUB	HYPOPSIS GELIDA	790503
STICKLEFIN CHUB	HYPOPSIS GRACILIS	790502
SILVER CHUB	HYPOPSIS MEeki	790503
GRAVEL CHUB	HYPOPSIS STOREIANA	790502
VIRGIN SPINEDACE	HYPOPSIS X-PUNCTATA	790502
PFAMOUTH	LEPIDOMEDA MOLLISPINIS	790206
		790206

REDSPOT CHUB	32061102025001	790502
HORNYHEAD CHUB	32061102025002	790502
BLUEHEAD CHUB	32061102025004	790905
RIVER CHUB	32061102025005	780717
GOLDEN SHINER	32061102026001	780717
SHINER (COMPOSITE)	32061102027005	790502
PALLID SHINER	32061102027007	610406
SATINFIN SHINER	32061102027012	790502
PLAINS SHINER	32061102027016	790716
EMERALD SHINER	32061102027019	790502
BLACKSPOT SHINER	32061102027013	790503
RED RIVER SHINER	32061102027015	790502
BRIDLE SHINER	32061102027017	791114
RIVER SHINER	32061102027018	790502
BIGEYE SHINER	32061102027022	790502
BLACKSPOT SHINER	32061102027027	790502
HOST SHINER	32061102027029	790502
BLUNTFACE SHINER	32061102027035	790502
IRONCOLOR SHINER	32061102027035	790502
STRIPED SHINER	32061102027037	780727
COMMON SHINER	32061102027037	780727
STEELCOLOR SHINER	32061102027038	790905
DUSKY SHINER	32061102027041	790502
PUGNOSE MINNOW	32061102027044	790502
RIBBON SHINER	32061102027045	790502
WHITE TAIL SHINER	32061102027046	790502
ARKANSAS RIVER SHINER	32061102027047	790502
WEDGE SPOT SHINER	32061102027047	790502
YELLOWFIN SHINER	32061102027059	790905
RED SHINER	32061102027060	790502
TAILLIGHT SHINER	32061102027061	790502
WHITEFIN SHINER	32061102027062	790905
KIAMICHI SHINER	32061102027063	790502
OZARK SHINER	32061102027065	790502
COLORLESS SHINER	32061102027066	790502
COASTAL SHINER	32061102027067	790905
DUSKY STRIPE SHINER	32061102027069	790502
ROSYFACE SHINER	32061102027075	790502
SABINE SHINER	32061102027077	790502
SANDBAR SHINER	32061102027079	790905
SILVERBAND SHINER	32061102027081	790502
SPOTFIN SHINER	32061102027085	790502
SAND SHINER	32061102027087	790503
TELESCOPE SHINER	32061102027100	790502
MEED SHINER	32061102028001	780717
REDFIN SHINER	32061102029003	790502
BLACKTAIL SHINER	32061102027092	790502
MIMIC SHINER	32061102030002	790502
BLEEDING SHINER	32061102031001	801222
SACRAMENTO BLACKFISH	32061102031002	780717
SUCKERMOUTH MINNOW	32061102031003	790502
SOUTHERN REDBELLY DACE	32061102031004	790502
BLUNTNOSE MINNOW	32061102034001	553
FATHEAD MINNOW	32061102034003	553
SLIM MINNOW	32061102031015	810406
BULLHEAD MINNOW	32061102035001	108
SACRAMENTO SQUAMFISH	32061102035001	810406
NORTHERN SQUAMFISH	32061102035001	810406
DACE	32061102035001	810406
BLACKNOSE DACE	32061102035001	810406
LONGNOSE DACE	32061102035001	810406

CREEK CHUB	SEMOTILUS ATROMACULATUS	CKC	90
FALLFISH	SEMOTILUS CORPORALIS	FFH	208
PEARL DACE	SEMOTILUS MARGARITA	PD	329
GRASS CARP	CTENOPHARYNGODON IDELLUS	GRC	790419
RIVER CARPSUCKER	CARPOIDES SP.	CPS	790502
QUILLBACK	CARPOIDES CARPIO	RCS	42
HIGHFIN CARPSUCKER	CARPOIDES CYPRINUS	QUB	74
SUCKER (UNKNOWN SP.)	CARPOIDES VELIFER	HFC	365
UTAH SUCKER	CATOSTOMUS 3PP*	SUK	104
LONGNOSE SUCKER	CATOSTOMUS ARDENSI	UTS	483
BRIDGECLIP SUCKER	CATOSTOMUS CATOSTOMUS	LSU	33
WHITE SUCKER	CATOSTOMUS COLUMBIANUS	BSU	09
FLANNELMOUTH SUCKER	CATOSTOMUS COMMERSI	FSU	61
LARGE SCALE (=COARSE SCL.) SUCKER	CATOSTOMUS LATIPINNIS	CSU	15
SACRAMENTO SUCKER	CATOSTOMUS MACROCHEILUS	SASU	554
MOUNTAIN SUCKER	CATOSTOMUS OCCIDENTALIS	MSK	520
KLAMATH SMALLSCALE SUCKER	CATOSTOMUS PLATYRHYNCHUS	KSS	552
LAKE CHUBBUCKER	CATOSTOMUS RIMICULUS	KSU	27
TAHOE SUCKER	CATOSTOMUS SNYDERI	TAS	560
BLUE SUCKER	CYCLOLEPTUS ELONGATUS	BLSU	386
CREEK CHUBBUCKER	ERIMYZON OBlongus	CCS	307
LAKE CHUBBUCKER	ERIMYZON SUCEITA	LC	28
NORTHERN HOG SUCKER	HYPENTELIUM NIGRICANS	NHO	94
SMALLMOUTH BUFFALO	ICTIOBUS BUBALUS	SBU	48
SMALLMOUTH BUFFALO	ICTIOBUS BUBALUS	SMF	103
BIGMOUTH BUFFALO	ICTIOBUS CYPRINELLUS	BBU	03
BLACK BUFFALO	ICTIOBUS NIGER	BLB	105
SPOTTED SUCKER	MINYTREMA HELANDOPS	SSU	51
REDHORSE	MOXOSTOMA 3PP*	RHS	192
SILVER REDHORSE	MOXOSTOMA ANISURUM	SRH	170
RIVER REDHORSE	MOXOSTOMA CARINATUM	RRH	388
BLACK REDHORSE	MOXOSTOMA DUQUE SNE I	BRH	389
GOLDEN REDHORSE	MOXOSTOMA ERYTHRURUM	GRH	390
REDHORSE SUCKER	MOXOSTOMA ERYTHRURUM	RSH	41
SHORTHEAD REDHORSE	MOXOSTOMA MACROLEPIDOTUM	SRD	101
BLACKTAIL REDHORSE	MOXOSTOMA MACROLEPIDOTUM	BTM	391
CADDY MADTOM	NOTURUS POECILURUM	CDM	458
CATFISH (UNKNOWN SPECIES)	NOTURUS TAYLORI	CPH	519
SNAIL BULLHEAD	ICTALURUS BRUNNEUS	SBH	488
WHITE CATFISH	ICTALURUS CATUS	WHC	58
BLUE CATFISH	ICTALURUS FURCATUS	BLC	67
BLACK BULLHEAD	ICTALURUS MELUS	BKB	04
YELLOW BULLHEAD	ICTALURUS NATALIS	YEB	62
BROWN BULLHEAD	ICTALURUS NEBULOSUS	BRB	10
FLATHEAD BULLHEAD	ICTALURUS PLATYCEPHALUS	FBH	489
CHANNEL CATFISH	NOTURUS PUNCTATUS	CBC	16
OZARK MADTOM	NOTURUS ALBATR	OZMA	392
MOUNTAIN MADTOM	NOTURUS NATALIS	MTM	393
LEAST MADTOM	NOTURUS NEBULOSUS	SLMA	394
SLENDER MADTOM	NOTURUS EXILIS	CHM	395
CHEEKED MADTOM	NOTURUS FLAVATER	SCT	396
STONE CAT	NOTURUS FLAVUS	TPM	397
TADPOLE MADTOM	NOTURUS GYRINUS	LMT	453
MOUNTAIN MADTOM	NOTURUS HILDEBRANDI	OTM	398
LEAST MADTOM	NOTURUS LACHNERI	BRM	399
OUACHITA MADTOM	NOTURUS MIURUS	FRM	400
BRINDLED MADTOM	NOTURUS NOCTURNUS	BOM	401
FRECKLED MADTOM	NOTURUS PHAEUS	NMT	454
BROWN MADTOM	NOTURUS PLACIDUS	FHC	19
NEOSHIO MADTOM	PYLODICTIS OLIVARIUS		
FLATHEAD CATFISH			

SEA CATFISH	ARIUS FELIS	136	32061203001001	761122	
GAFFTOPSAIL CATFISH	DAGRE MARINUS	200	32061203002001	790319	
OZARK CAVEFISH	AMBL. YOPSIA ROSAE	408	32061301001001	790503	
SOUTHERN CAVEFISH	TYPHLICHTHYS SUBTERRANEUS	30C	32061301003001	790503	
PIRATE PERCH	APHREDODERUS SAYANUS	409	32061302001001	790503	
TOADFISH	OPHSANGUS SP.	PP	320614010001	791114	
GOOSEFISH	TOAD	52B	32061601001001	761227	
COLONIAL TUNICATE	GOF	167	32061700000001	761227	
BAT FISH	CT	114	32061603	761122	
PANCAKE BAIFISH	BTF	112	32061603	761122	
CUSK	PBF	127	32061603001001	761122	
ATLANTIC COD	CU	307	32061702003001	790418	
AMERICAN BURBOT	AC	171	32061702004002	761227	
BURBOT	AMB	172	32061702007001	761227	
HADDOCK	BUR	62	32061702007001	760726	
SILVER HAKE	HAD	308	32061702008001	790418	
ATLANTIC TOMCOD	SVH	173	32061702009001	761227	
ATLANTIC POLLACK	AT	174	32061702010002	761227	
POLLOCK	ATP	309	32061702012001	790418	
LING/HAKE	PLK	509	32061702014001	790913	
RED (SQUIRREL) HAKE	L/H	190	32061702015	761228	
WHITE HAKE	RH	156	32061702015001	761205	
FAWN CUSK EEL	HH	155	32061702015006	761205	
OCEAN POUT	FCE	310	32061703004001	790418	
GRENADEIER	OP	311	32061705009001	790712	
BLUE HAKE (ANTIMORA)	NEAR	474	320617060092001	790712	
FLYING FISH	ANRO	473	32061707001001	790712	
BALLYLOO	FF	120	32061801	761122	
NORTHERN STUDEFISH	BL	313	32061801006002	790418	
GOLDEN TOPMINNOW	NGF	402	32061804006002	790503	
MARSH KILLIFISH	GTM	403	32061804006003	790503	
BANDED KILLIFISH	MKF	530	32061804006005	791114	
HUMMICHOOG	BKF	209	32061804006006	790329	
PLAIN'S KILLIFISH	HUN	210	32061804006008	790329	
STRIPED KILLIFISH	PKF	455	32061804006010	790503	
BLACK STRIPE TOPMINNOW	SKF	526	32061804006013	791114	
STARHEAD TOPMINNOW	BTM	404	32061804006014	790503	
BLACK & SPOTTED TOPMINNOW	STM	405	32061804006015	790503	
PLAIN'S TOPMINNOW	FUNDULUS NOTATUS	406	32061804006016	790503	
RAINFATER KILLIFISH	FUNDULUS OLIVACEUS	456	32061804006020	790503	
MOSQUITOFISH	FUNDULUS SCIATICUS	459	32061804009002	791114	
CUBAN LIMA	LUCANIA PARVA	407	32061805002001	790503	
BROOK SILVERSIDE	GAMBUSIO AFFINIS	CL	17	32061805007001	780726
MISSISSIPPI SILVERSIDE	LIMIA VITTATA	68	32061806005001	780727	
ATLANTIC SILVERSIDE	LABIDESTHES SICCULUS	893	32061806008001	790503	
BEARDFISH	MENIDIA AUDENS	M93	32061806008005	761227	
SQUIRREL FISH	MENIDIA MENIDIA	A93	32061806009002	790418	
FOURSPINE STICKLEBACK	POLYMYXIA LOWEI	BDF	320619010001	790905	
STICKLEBACK	HOLOCENTRUS SP.	SQF	320619020002	761122	
HYBRID BASS (WHITE/STRIPED)	APELTES QUADRACUS	FSS	320622010004	790329	
HYBRID BASS (WHITE/STRIPED)	GASTERosteus SP.	STK	320623020001	780717	
WHITE PERCH	MORONE SAXATILIS & CHRYSOPHS	HYB	320623020001	790227	
WHITE BASS	MORONE AMERICANA	NP	32062302001001	780717	
YELLOW BASS	MORONE CHRYSOPHS	WMB	32062302001002	780717	
STRIPED BASS	MORONE SAXATILIS	YLB	32062302001003	780727	
BLACK SEA BASS	CENTROPRISTIS STRIATA	STB	32062302001004	780717	
NASSAU GROUPER	EPINEPHELUS STRIATUS	B8B	32062303003004	790418	
YELLOWMOUTH GROUPER	MYCTEROPTERA INTERSTITIALIS	NGR	32062303006011	781122	
TIGER GROUPER	MYCTEROPTERA TIGRIS	YMG	32062303011002	781122	
YELLOWFIN GROUPER	MYCTEROPTERA VENENOSA	TGR	32062303011007	781122	

ROCK BASS	AMBLOPLITES RUPESTRIS	RKB	43	32062305002002
FLIER	CENTRARCHUS MACROPTERUS	FR	412	32062305004001
SUNFISH (UNKNOWN SPECIES)	LEPOMIS spp.	CSN	521	32062305005007
REDBREAST SUNFISH	LEPOMIS AURITIS	RBS	70	32062305007001
GREEN SUNFISH	LEPOMIS CYANELLUS	OSF	25	32062305007002
PUMPKINSEED	LEPOMIS GIBBOSUS	SF	38	32062305007003
WARMOUTH	LEPOMIS GULCOSUS	W	56	32062305007004
ORANGE-SOTTED SUNFISH	LEPOMIS HUMILIS	OSS	413	32062305007005
BLUEGILL SUNFISH	LEPOMIS MACROCHIRUS	BGS	66	32062305007006
DOLLAR SUNFISH	LEPOMIS MARGINATUS	DOS	414	32062305007007
LONGEAR SUNFISH	LEPOMIS MEGALOTIS	LBF	72	32062305007008
REDEAR SUNFISH	LEPOMIS MICROLOPHUS	RES	40	32062305007009
SPOTTED SUNFISH	LEPOMIS PUNCTATUS	SSF	415	32062305007010
BANTAM SUNFISH	LEPOMIS SYMMETRICUS	BSF	416	32062305007011
BASS (UNKNOWN SPECIES)	MICROPTERUS spp.	BAS	95	32062305008006
redeye bass	MICROPTERUS COOSAE	REB	417	32062305008001
smallmouth bass	MICROPTERUS DOLOMIEUI	SMB	47	32062305008002
spotted bass	MICROPTERUS PUNCTULATUS	SPB	49	32062305008004
LARGEMOUTH BASS	MICROPTERUS SALMOIDES	LMB	31	32062305008005
CRAPPIE (UNKNOWN SPECIES)	POMOXIS spp.	CPY	97	32062305009009
WHITE CRAPPIE	POMOXIS ANNULARIS	WHS	59	32062305009001
BLACK CRAPPIE	POMOXIS NIGROMACULATUS	BKS	05	32062305009002
BANDED PYGMY SUNFISH	ELASOMA ZONATUM	BPS	418	32062305055003
CRYSTAL DARTER	AMMOCRYPTA ASPRELLA	CYD	419	3206230601001
WESTERN SAND DARTER	AMMOCRYPTA CLARA	WSD	542	3206230601003
SCALY SAND DARTER	AMMOCRYPTA VIVAX	SSD	543	3206230601005
MUD DARTER	ETHEOSTOMA APRIGENE	MD	544	3206230602002
GREENSIDE DARTER	ETHEOSTOMA BLENNIOIDES	GAD	545	3206230602005
RAINBOW DARTER	ETHEOSTOMA CAERULEUM	RAD	546	3206230602007
BLUNTNOSE DARTER	ETHEOSTOMA CHLOROBODIUM	BND	547	3206230602009
CREOLE DARTER	ETHEOSTOMA COLETTEI	CD	548	3206230602011
ARKANSAS DARTER	ETHEOSTOMA CRAGINI	AD	457	3206230602014
GREENSIDE DARTER	ETHEOSTOMA EUZONUM	ASD	549	3206230602019
FANTAIL DARTER	ETHEOSTOMA FLABELLAIRE	FTD	550	3206230602021
SHAMP DARTER	ETHEOSTOMA FUSIFORME	SMD	176	3206230602024
SLOUGH DARTER	ETHEOSTOMA GRACILE	SLD	551	3206230602025
HARLEQUIN DARTER	ETHEOSTOMA HISTRIO	HD	420	3206230602027
YOKE DARTER	ETHEOSTOMA JULIAE	YD	421	3206230602032
LEAST DARTER	ETHEOSTOMA MICROPERCA	LD	422	3206230602041
YELLOWCHEEK DARTER	ETHEOSTOMA MOOREI	YCD	423	3206230602042
JOHNNY DARTER	ETHEOSTOMA NIGRUM	JD	109	3206230602044
PALE BACK DARTER	ETHEOSTOMA PALLIDORSUM	PBD	424	3206230602050
GOLDSTRIPE DARTER	ETHEOSTOMA PARVIPINNE	GSD	425	3206230602051
CYPRESS DARTER	ETHEOSTOMA PROELIARE	CRD	426	3206230602054
STIPPLED DARTER	ETHEOSTOMA PUNCTULATUM	STD	427	3206230602055
ORANGEBELLY DARTER	ETHEOSTOMA RADIOSUM	OBD	428	3206230602056
ORANGE THROAT DARTER	ETHEOSTOMA SPECTABILE	OID	429	3206230602065
SPACKLED DARTER	ETHEOSTOMA STIGMAEUM	SKD	430	3206230602067
REDFIN DARTER	ETHEOSTOMA WHIPPLEI	RFD	431	3206230602078
BANDED DARTER	ETHEOSTOMA ZONALE	BD	432	3206230602079
YELLOW PERCH	PERCA FLAVESCENS	YP	63	3206230603001
LOGPERCH	PERCINA CAPRODES	LP	433	3206230604004
CHANNEL DARTER	PERCINA COPELANDI	CHD	434	3206230604005
GILT DARTER	PERCINA EVICES	GD	435	3206230604012
LONGHEAD DARTER	PERCINA MACROCEPHALA	LHD	177	3206230604017
BLACKSIDE DARTER	PERCINA MACULATA	BSD	436	3206230604019
LONGNOSE DARTER	PERCINA NASUTA	LGD	437	3206230604021
LEOPARD DARTER	PERCINA PANTHERINA	LPD	438	32062306040217
SLENDERHEAD DARTER	PERCINA PHOXOCEPHALA	SHD	439	3206230604021
DUSKY DARTER	PERCINA SCIERA	DD	440	3206230604021

PERCINA URANIDEA	SGD	442	32062306004024
STIZOSTEDION CANADENSE	SAC	46	32062306005001
STIZOSTEDION VITREUM	WE	55	32062306005002
POMATOMUS SALTATRIX	BLU	176	32062310001001
TRACHINOTUS CAROLINUS	POM	129	32062313012001
LUTJANUS CAMPECHANUS	RS	131	3206231703004
OCYURUS CHRYSURUS	YTS	151	32062317040001
EUCINOSTOMUS spp.	MOJ	407	32062319002
GRUNT	GRT	537	32062320003
WHITE GRUNT	KG	147	3206232003010
SHEEPSHEAD	SSH	76	32062321001001
PORGY	POR	527	32062321002
MOJARRA	PNF	207	32062321004001
PINFISH	GRT	179	32062321006002
SCUP	BCP	180	3206232201001
FRESHWATER DRUM	FWD	20	3206232205002
SILVER PERCH	SVP	405	3206232206002
SPOTTED SEA TROUT	SST	142	3206232204002
CALAMUS spp.	ST	134	3206232204004
LAGODON RHOMBOIDES	MKF	180	3206232204006
STENOTOMUS CHRYSEOPS	RF	132	780718
APLODINOTUS GRUNNIENS	FWD	20	780718
BAIRDIELLA CHRYSEURA	SVP	405	790905
CYNOSCIUS NEBULOSUS	SST	142	780718
CYNOSCIUS NOTHUS	ST	134	790905
CYNOSCIUS REGALIS	MKF	180	780718
EQUES STUS LANCEOLATUS	RF	161	790905
LEIOSTOMUS XANTHURUS	SPT	203	780718
MENTICIRRUS LITTORALIS	GKM	115	790905
MICROPOGON UNDULATUS	CRK	115	780718
POGUNIAS CROMIS	BDR	199	780718
SCIAENOPS OCELLATA	RDR	202	780718
CHAETODIPTERUS spp.	SDF	141	780718
TILAPIA MOSSAMBICA	TIL	54	780718
EMBIOTOCA LAERALIS	SSP	506	3206233004002
RHACHOCHILUS VACCA	PIL	515	3206233001002
HALICOERES spp.	WRS	531	32062333005
HALICOERES RADIATUS	PRF	126	3206233305009
TAUTOG ONITIS	TAU	162	3206233301001
TAUTOGOLABRUS ADSPERSUS	CUN	523	32062333011001
THALASSOMA DUPERREYI	BMR	459	32062333012002
MUGIL CEPHALUS	SMU	53	32062335002001
MUGIL CUREMA	AGH	205	32062335002002
SPHYRAENA BARRACUDA	BAR	111	32062336001002
LUMPFENUS MACULATUS	DS	315	32062346012003
LUMPFENUS SAGITTA	PRB	516	32062346012005
ANARHICHAS LUPUS	ATH	316	32062348011002
ANHUYOTES AMERICANUS	SEFL	535	32062353001001
ACANTHURUS TRISTEGUS	CNT	461	32062356001
ACANTHURUS SANDVICENSIS	CVT	460	32062358001
RUVETTUS PRETIOSUS	RUPE	467	32062359003001
BENTHOESMUS SIMONYE	CUF	116	32062360004001
EUTHYNNUS ALLETTERATUS	TUN	146	32062361004002
SARDA GARDA	ATB	525	32062361005003
DAUBED SHANNY	AMK	189	32062361006002
SNAKE PRICKLEBACK	KM	122	32062361007001
ATLANTIC WOLFISH	SPM	496	32062361007003
SAND EEL (LANCE)	JAC	121	32062361008003
CONVICT TANG	TU2	188	32062361008005
CONVICT TANG	XIGL	464	32062362001001
OILFISH	WHM	317	32062364003001
CUTLASS FISH	BUF	316	32062365007004
LITTLE TUNNY TUNA	BR	319	32062367001001
ATLANTIC BONITO	RKC	504	32062367006010
ATLANTIC MACKEREL	RKA	503	32062367006031
KING MACKEREL	RED	321	32062367006031
SPANISH MACKEREL	OPC	32062367006031	790905
JACK	BUF	316	790905
BLUEFIN TUNA	BR	319	790905
SWORDFISH	RKC	504	790905
WHITE MARLIN	RKA	503	790905
BLACKBELLY ROSEFISH	RED	321	790905
ROCK FISH (COPPER)	OPC	32062367006031	790905
ROCK FISH (QUILLBACK)	OPC	32062367006031	790905
REDGILL	OPC	32062367006031	790905
OCEAN PERCH	OPC	32062367006031	790905

NORTHERN SEAROBIN	PRIONOTUS CAROLINUS	NS	320	32062368003002	790418
STRIPED SEAROBIN	PRIONOTUS EVOLANS	STS	322	32062368003003	790418
COMMON SCULPIN	COTTUS SP.	SCU	534	32062371009	791114
PRICKLY SCULPIN	COTTUS ASPER	PRS	555	32062371009002	801222
MOTTLED SCULPIN	COTTUS BAIRDII	MDS	443	32062371009005	790503
BANDED SCULPIN	COTTUS CAROLINAE	BSC	444	32062371009007	790503
SLIMEY SCULPIN	COTTUS COGNATUS	SLG	79	32062371009008	780718
GRUBBY	MYOXOCEPHALUS AENEUS	GRU	524	32062371025001	791114
LONGHORN SCULPIN	MYOXOCEPHALUS OCTODECEMSPINOSUS	LOS	323	32062371025004	790418
SHORTHORN SCULPIN	MYOXOCEPHALUS SCORPIUS	GHH	197	32062371025008	790216
MARLED SCULPIN	TRIGLOPS NYBELINI	MS	324	32062371037004	790418
GULF STREAM FLOUNDER	CITHARICHTHYS ARCTIFRONS	GFL	325	32062401004001	790418
FLUKE	PARALICHTHYS DENTATUS	FLU	327	32062401011003	790418
SUMMER FLOUNDER (FLUKE)	PARALICHTHYS LETHOSTIGMA	SOF	201	32062401011004	790319
SOUTHERN FLOUNDER	PARALICHTHYS OBLONGUS	F9F	326	32062401011005	790418
FOURSPOT FLOUNDER	SCOPHTHALMUS AQUOSUS	HPF	159	32062401012001	781205
WINDOWPANE FLOUNDER	SYACIUM GUNTERI	FL	119	32062401013001	781122
SHADAL FLOUNDER	SYACIUM PAPILLOSUM	DSF	117	32062401013003	781122
DUSKY FLOUNDER	TRICHOPSETTA VENTRALIS	SFL	135	32062401014001	781122
SASH FLOUNDER	ATHERESTHSA STOMIAS	ATF	514	32062402001002	790913
ARROWTOOTH FLOUNDER	GLYPTOCEPHALUS CYNOGLOSSUS	MFL	326	32062402004001	790418
HATCH FLOUNDER	GLYPTOCEPHALUS ZACHIRUS	REX	512	32062402004002	790913
REX SOLE	GADUS MACROCEPHALUS	PCC	510	32062402004002	790913
TRUE OR PACIFIC COD	HIPPOGLOSSOIDES ELASSODON	FHS	517	32062402005001	790913
FLATHEAD SOLE	HIPPOGLOSSOIDES PLATESSOIDES	ADD	471	32062402005002	790712
AMERICAN DAB (PLAICE)	LEPIDOPSETTA BILINEATA	RKS	507	32062402009001	790913
ROCK SOLE	LIMANDA FERRUGinea	YTF	158	32062402010002	781205
YELLOWTAIL FLOUNDER	LYOPSETTA EXILIS	SLE	508	32062402012001	790913
SLENDER SOLE	MICROSTOMUS PACIFICUS	DVS	502	32062402013001	790913
DOVER SOLE	PAPUOPHRYS VETULUS	ELS	501	32062402014001	790913
ENGLISH SOLE	PLATICHTHYS STELLATUS	STF	516	32062402015001	790913
STARRY FLOUNDER	PSETTICHTHYS MELANOSTICTUS	SN9	513	32062402016001	790913
SAND SOLE	PSEUDOPLEURONECTES AMERICANUS	WF	157	32062402019001	781205
WINTER FLOUNDER	TRINECTES MACULATUS	HGC	522	32062403003002	791114
HOGCHOKER	BALISTES VETULA	QTF	130	32062502002003	781122
QUEEN TRIGGER FISH	CANTHIDERMIUS SUFFLAMENT	OTF	126	32062502005002	781122
OCEAN TRIGGER FISH	MONACANTHUS HISPIDUS	MHI	470	32062502007002	790710
PLANEHEAD FILEFISH	(FAMILY) TETRADONTIDAE	BLOW	540	32062504	791114
BLOWFISH (PUFFER)	SPHOEROIDES MACULATUS	NPF	184	32062504003003	761227
NORTHERN PUFFER					

APPENDIX B. CHANGES IN SPECIES FILES

In order to perfect the Species Code Data Set, some changes have been made to eliminate the duplicate entries. These corrections went into effect December 1980.

Please note the changes so that the old codes will not be used in the future.

Alpha Species Code (84005)

<u>Common Name</u>	<u>Old Alpha</u>	<u>(Unchanged) Numeric</u>	<u>New Alpha</u>
Grunt	GRU	537	GRT
Banded Sculpin	BDS	444	BSC
Blue Sucker	BLS	386	BLSU
Black Spot Shiner	BPS	451	BLSS
Ozark Madtom	OZM	392	OZMA
Slender Madtom	SLM	394	SLMA
Clam	CLM1	249	SAXG
Clam	CLM2	250	MACI
Clam	CLM3	251	PROS
Shrimp	SHR1	260	PAPA
Shrimp	SHR2	261	PAJO
Shrimp	SHR3	262	PAPL
Shrimp	SHR4	263	PADI
Starfish	SF1	264	MEDA
Starfish	SF2	265	HIPS

Both Alpha (84005) and Numeric (74990 Species Codes)

<u>Common Name</u>	<u>Old Alpha</u>	<u>Old Numeric</u>	<u>New Alpha</u>	<u>New Numeric</u>
Greenside Darter	GSD	413	GRD	545
Rainbow Darter	RBD	414	RAD	546

Numeric Species Code (74990)

<u>Common Name</u>	<u>Old Numeric</u>	<u>(Unchanged) Alpha</u>	<u>New Numeric</u>
Western Sand Darter	410	WSD	542
Scaly Sand Darter	411	SSD	543
Mud Darter	412	MD	544
Bluntnose Darter	415	BND	547
Creole Darter	416	CD	548
Arkansas Saddled Darter	417	ASD	549
Fantail Darter	418	FTD	550
Slough Darter	419	SLD	551

In addition to these changes, there is duplication of common name for several species. While both will remain in the system, it is preferred that as of December 1980, the species indicated by an asterisk be used.

MOXOSTOMA ERYTHRUM			
*Redhorse Sucker	41	RSU	
Golden Redhorse	390	GRH	
SEBASTES MARINUS			
*Ocean Perch	206	OPC	
Redfish	321	RED	
MORONE SPP.			
*Hybrid Striper (Bass)	198	HYS	
Hybrid Bass (White/Striped)	490	HYB	
MERCENARIA MERCENARIA			
*Hard Clam	223	MERC	
Chowder Clam	287	CHOW	
NOTROPIS ANTERINOIDES			
*Emerald Shiner	77	ESH	
Plains Shiner	367	PNS	
ICTIOPUS BUBALUS			
*Smallmouth Buffalo	48	SBU	
Smallmouth Buffalo	103	SMF	

APPENDIX C
(EXAMPLE 1)

DATA RETRIEVAL OF CODING EXAMPLES

PGM=RET,PURP=307A/SCS,A=1118TQX,S=004,
P=84005,P=74990,P=81614,P=84008,P=84007,P=74995,P=00023,P=00024,
P=71930,SD=780518,ED=780519,

STORED RETRIEVAL DATE 80/12/23

/RESERV/TYP/AHBN						DATE	TIME	DEPTH	FISH SPECIES	NO. INDV.	LIFE SPECIES	84008	84007	ANATOMY	74995	00023	WEIGHT	00024	LENGTH	71930	MERCURY
	FROM TO	OF DAY	FEET	F & W	SAMPLE										CODE	CODE	POUNDS	INCHES		TISMG/KG	WET WT
78/05/18	01 26	0121	C		12					1	0500	FILET	86	6.94			21.14	0.20			
	01 26	0161	CHC		16					1	0500	FILET	86	2.12			17.86	0.14			
	01 26	0162	CHC		16					1	0500	FILET	86	5.50			21.22	0.08			
	01 26	0163	CHC		16					1	0500	FILET	86	3.37			19.03	0.16			
	01 26	0164	CHC		16					1	0500	FILET	86	1.37			14.82	0.08			
	01 26	0165	CHC		16					1	0500	FILET	86	1.00			13.06	0.08			
	01 26	0166	CHC		16					1	0500	FILET	86	0.69			11.58	0.07			
	01 26	0167	CHC		16					1	0500	FILET	86	0.94			13.18	0.10			
	01 26	0168	CHC		16					1	0500	FILET	86	0.75			12.09	0.13			
	01 26	0230	GE		23					1	0500	FILET	86	5.50			10.14	0.13			
	01 26	0231	GE		23					1	0500	FILET	86	1.12			13.53	0.16			
	01 26	0232	GE		23					1	0500	FILET	86	0.87			12.34	0.12			
	01 26	0233	GE		23					1	0500	FILET	86	0.50			10.65	0.10			
	01 26	0234	GE		23					1	0500	FILET	86	0.87			11.89	0.09			
	01 26	0235	GE		23					1	0500	FILET	86	1.12			13.73	0.28			
	01 26	0236	GE		23					1	0500	FILET	86	1.00			14.74	0.19			
	01 26	0237	GE		23					1	0500	FILET	86	0.94			13.10	0.21			
	01 26	0238	GE		23					1	0500	FILET	86	0.50			10.57	0.11			
	01 26	0239	GE		23					1	0500	FILET	86	0.50			10.53	0.07			
	01 26	0361	NP		36					1	0500	FILET	86	6.94			27.49	0.34			
	01 26	0551	WE		55					1	0500	FILET	86	1.12			13.34	0.11			
	01 26	0552	WE		55					1	0500	FILET	86	1.50			18.94	0.10			
	01 26	0553	WE		55					1	0500	FILET	86	1.75			15.60	0.27			
	01 26	0554	WE		55					1	0500	FILET	86	0.62			11.89	0.12			
	01 26	0555	WE		55					1	0500	FILET	86	0.87			13.06	0.19			
	01 26	0556	WE		55					1	0500	FILET	86	1.50			15.68	0.14			
	01 26	0557	WE		55					1	0500	FILET	86	0.75			12.28	0.10			
	01 26	0558	WE		55					1	0500	FILET	86	1.25			14.31	0.11			
	01 26	0559	WE		55					1	0500	FILET	86	1.25			14.04	0.11			
78/05/19	01 26	0551	WE		55					1	0500	FILET	86	0.87			12.79	0.08			

APPENDIX C
(EXAMPLE 2)

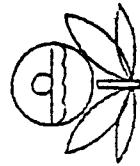
Wisconsin Department of Natural Resources
Data From Fish Monitoring Programs

Environmental Analysis Section
Water Quality Analysis Branch
Monitoring and Data Support Division

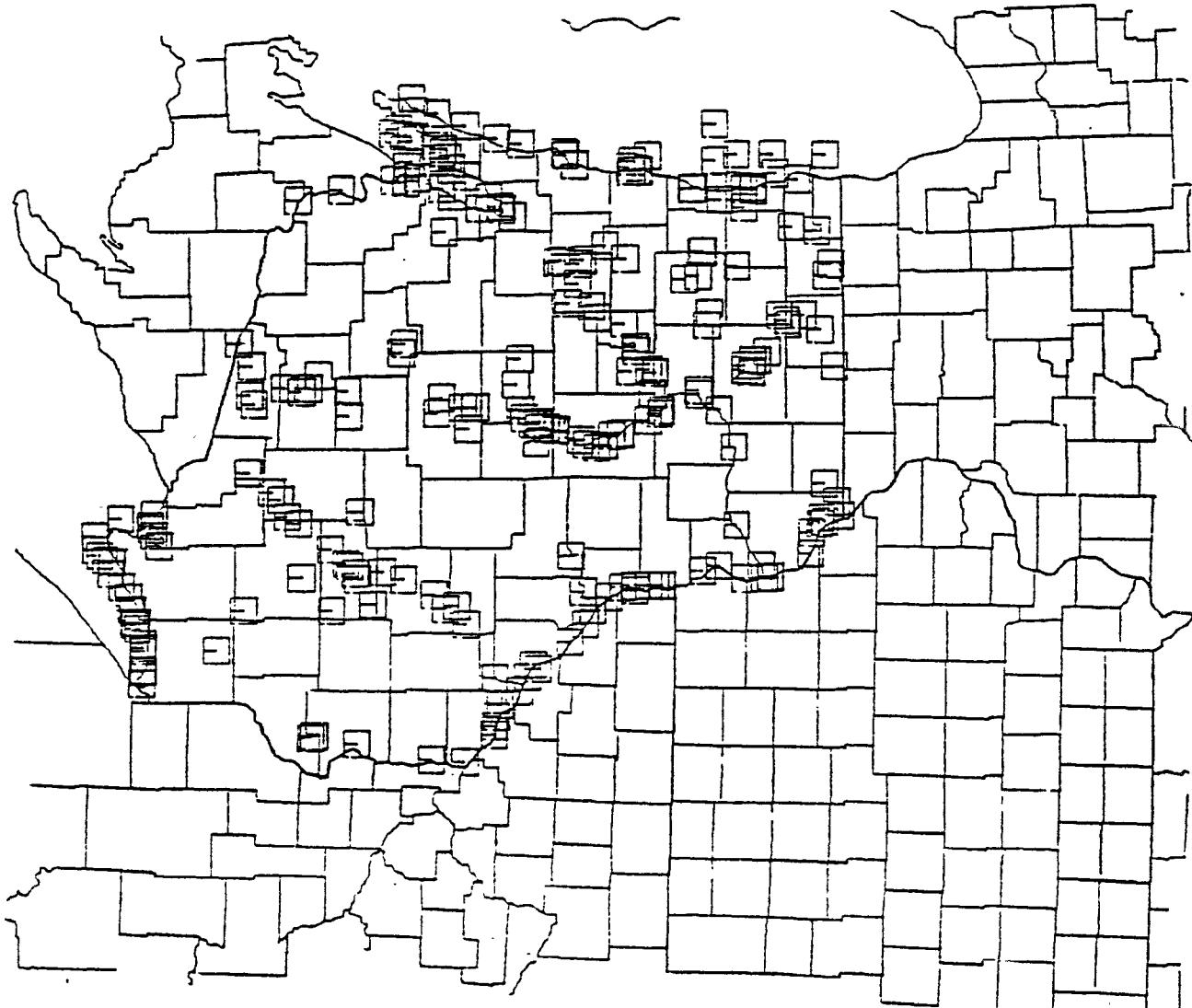
September 15, 1978

Request to Produce Map

PGH=LOC,PURP=307A/SCS,SCALE=.40C0300,NOPLPLT,CS17F,.005,.4-.21MIDNW,.44P,
S=ABAAA,5=9999,L=1000,T=L=4200,L=4200,L=4200,L=4200,L=4200,L=4200,L=4200,
L=4200,HTAO=WISCONSIN DNR STATIONS.



ENVIRONMENTAL PROTECTION AGENCY
STORET SYSTEM
WISCONSIN DNR STATIONS
[E] OBSERVATIONS



LAT.E=1 TO 5000000 OR 79.91 MILE/G TINCH

List of Stations

21W10NR 001	0 MISSISSIPPI RIVER AT PRESCO CITY	55C93
21W10NR 002	0 MISSISSIPPI RIVER AT BAY CITY	55C93
21W10NR 003	0 MISSISSIPPI RIVER AT MAIDEN ROCK	55C93
21W10NR 004	0 MISSISSIPPI RIVER AT LAKE PEPIN	55C91
21W10NR 005	0 MISSISSIPPI RIVER AT LAKE PEPIN	55C93
21W10NR 006	0 MISSISSIPPI RIVER AT NELSON	55C11
21W10NR 007	0 MISSISSIPPI RIVER AT ALFA	55C11
21W10NR 008	0 MISS. RIVER AT FOUNTAIN CITY	55011
21W10NR 009	0 MISS. P. AT TRIPLELAKE	55121
21W10NR 010	0 MISSISSIPPI RIVER AT TPEMP. #IVE	55C11
21W10NR 011	0 MISSISSIPPI RIVER AT LACROSSE	55C63
21W10NR 012	0 MISSISSIPPI RIVER AT STCNDAR	55123
21W10NR 013	0 MISSISSIPPI RIVER AT GEMDA	55123
21W10NR 014	0 MISSISSIPPI RIVER AT PEPRVILLE	55023
21W10NR 015	0 MISSISSIPPI RIVER AT LYNAVILLE	55C23
21W10NR 016	0 MISS. RIVER BELOW WISC. RIVER	55C43
21W10NR 017	0 MISSISSIPPI RIVER AT CASSVILLE	55043
21W10NR 018	0 MISSISSIPPI RIVER DURDUE	55043
21W10NR 019	0 MISSISSIPPI RIVER AT WISC. LINE	55043
21W10NR 020	0 MISSISSIPPI RIVER NEAR MANIOWIC HAN	55998
21W10NR 021	0 LAKE MICHIGAN NEAR SHIPOYGAN	55029
21W10NR 022	0 LAKE MICHIGAN NEAR SUG. RAY	55061
21W10NR 023	0 LAKE MICHIGAN NEAR ALCONA	55061
21W10NR 024	0 LAKE MICHIGAN NEAR KEWALINEE	55C61
21W10NR 027	0 LAKE MICHIGAN-TWO RIVER HARBOUR	55C71
21W10NR 028	0 LAKE MICHIGAN-TWO RIVERS	55C71
21W10NR 029	0 LAKE MICHIGAN NEAR MANIOWIC HAN	55071
21W10NR 030	0 LAKE MICHIGAN NEAR SHIPOYGAN	55998
21W10NR 031	0 LAKE MICHIGAN NEAR SUG. RAY	55117
21W10NR 032	0 LAKE MICHIGAN NEAR ALCONA	55117
21W10NR 033	0 LAKE MICHIGAN NEAR KEWALINEE	55098
21W10NR 034	0 LAKE MICHIGAN NEAR SHIPOYGAN HARRUK	55998
21W10NR 035	0 LAKE MICHIGAN-SHERUYGAN HARRUK	55998
21W10NR 036	0 LAKE MICHIGAN S OF SHERUYGAN	55998
21W10NR 037	0 LAKE MICHIGAN NEAR PURT WASH. SHOKE	55C09
21W10NR 038	0 LAKE MICHIGAN -PURT WASH. HARBOUR	55098
21W10NR 039	0 LAKE MICHIGAN NEAR PURT WASH. REACH	55098
21W10NR 040	0 LAKE MICHIGAN GRID #1803	55998
21W10NR 041	0 LAKE MICHIGAN GRID PIERS	55998
21W10NR 042	0 LAKE MICHIGAN AT WHIFFISH BAY	55C29
21W10NR 043	0 LAKE MICHIGAN-MILWAUKEE GRID1901	55C29
21W10NR 044	0 LAKE MICHIGAN GRID #2203	55998
21W10NR 045	0 LAKE MICHIGAN -MILWAUKEE REEL	55029
21W10NR 046	0 LAKE MICHIGAN-STRAWPTKRY CREEK	55029
21W10NR 047	0 LAKE MICHIGAN GRID #1903	55998
21W10NR 048	0 LAKE MICHIGAN GRID #2603	55998
21W10NR 049	0 LAKE MICHIGAN GRID #2002	55998
21W10NR 050	0 GREEN BAY NEAR SAND BAY	55029
21W10NR 051	0 GREEN BAY NEAR SNAKE ISLAND	55029
21W10NR 052	0 GREEN BAY NEAR CHAMBERS ISLAND	55C29
21W10NR 053	0 GREEN BAY S. MILLS-LIAMMERS ISLAND	55C29
21W10NR 054	0 GREEN BAY SHAMROCK ISLAND	55C29
21W10NR 055	0 GREEN BAY NEAR STURGEON RAY	55029
21W10NR 056	0 GREEN BAY GRID #1014	55009
21W10NR 057	0 GREEN BAY GRID #OH04	55029
21W10NR 058	0 GREEN BAY GRID #OH04	55029
21W10NR 059	0 GREEN BAY GRID #0704	55C79
21W10NR 060	0 GREEN BAY ISON R#4t S16	55075
21W10NR 061	0 GREEN BAY NEAR WIL ARROW PAPN	55029
21W10NR 062	0 GREEN BAY NEAR WIL ARROW PAPN	55998

21WIDMP	063	39	00.0	4	0 GREEN BAY NEAR ELM MARSH	55C29	
21WIDMP	064	49	15.0	0M7	0 MEDIUM ICE R ABOVE MARINETTE	55075	
21WIDMP	065	65	10	30.0	0 CB7	0 FOX RIVER BELOW DUPERE	55009
21WIDMP	065	45	28	00.0	0 BB6	0 FOX RIVER NEAR NEENAH	55139
21WIDMP	066	45	11	00.0	0 BB8	0 FOX RIVER	55139
21WIDMP	067	45	12	30.0	0 RB8	0 WOLF CREEK AT RIVETE DES MORTS	55139
21WIDMP	068	45	05	00.0	0 RB8	0 FOX RIVER NEAR LAKE WINNEBAGO	55139
21WIDMP	269	44	03	00.0	0 BB8	0 LAKE WINNEBAGO AT CALUMET HARBOR	55139
21WIDMP	070	43	55	00.0	0 DRB	0 LAKE WINNEBAGO AT THE EUREKA DAY	55139
21WIDMP	071	44	00	10.0	0 BB8	0 FOX RIVER AT LAKE PUCKAWAY	55077
21WIDMP	072	43	45	00.0	0 BB9	0 FOX RIVER OR RIVER LICK	55077
21WIDMP	073	43	44	30.0	0 CR9	0 FOX RIVER AT BUFFALO LAKE	55077
21WIDMP	074	43	46	30.0	0 CB9	0 FOR P AS COUNTY TRUNK 8 BRIDGE	55077
21WIDMP	075	43	40	00.0	0 BB9	0 FOR R AS COUNTY 11 TRUNK RD	55C21
21WIDMP	076	43	37	50.0	0 CB9	0 FOX RIVER AT TIGRAN LAKE	55101
21WIDMP	077	42	48	00.0	0 BB8	0 FOX RIVER NEAR BERLIN POND	55047
21WIDMP	078	43	58	15.0	0 RB8	0 HEENAH CREEK AT PRIGGSVILLE DAM	55071
21WIDMP	079	43	39	00.0	0 BB9	0 RUCK RIVER	55C27
21WIDMP	080	43	20	30.0	0 BB8	0 ROCK RIVER AT LAKE KUSHKORONG	55105
21WIDMP	081	42	50	10.0	0 BB8	0 ROCK RIVER AT LAKE KOSHKORONG	55055
21WIDMP	082	42	52	30.0	0 DRB	0 ROCK RIVER BELOW LAKE KUSHKORONG	55105
21WIDMP	083	42	49	30.0	0 BB9	0 PLACK RIVER AT COUNCIL HAY	55121
21WIDMP	084	44	03	00.0	0 BB9	0 PLACK RIVER NEAR MISSISSIPPI RIVER	55C11
21WIDMP	085	46	21	10.0	0 BB9	0 BUFFALO RIVER 122N R22N S26	55C21
21WIDMP	086	43	19	00.0	0 BB9	0 CHIPPWA RIVER AT HORLICH DAM	55091
21WIDMP	087	44	35	40.0	0 BB9	0 CHIPPWA LAKE MI501A	55017
21WIDMP	088	45	57	00.0	0 BB9	0 LACROSSE T17N R6W S34	55C63
21WIDMP	089	43	54	10.0	0 BB9	0 LACROSSE T17N R7W S32	55063
21WIDMP	090	43	49	15.0	0 BB9	0 PLATTE R. NEAR CONFLUENT OF MIS	55043
21WIDMP	091	42	37	45.0	0 DRB	0 PLATTE R. NEAR CONFLUENT OF MIS	55101
21WIDMP	092	42	45	15.0	0 BB7	0 ROCK RIVER AT HORLICH DAM	55065
21WIDMP	093	42	33	00.0	0 BB9	0 SUGAR RIVER	55109
21WIDMP	094	44	57	00.0	0 BB9	0 ST. CROIX 122N R22N S36	55025
21WIDMP	095	42	57	30.0	0 BB9	0 YAHARA RIVER AT LAKE REGOUSA	55025
21WIDMP	096	43	01	00.0	0 BB9	0 YAHARA RIVER-LAKE WAURESA	55031
21WIDMP	097	46	42	10.0	0 BB9	0 ST. LOUIS RIVER MOUTH	55031
21WIDMP	098	46	41	30.0	0 BB9	0 MEDEJI RIVER MOUTH	55031
21WIDMP	099	45	42	00.0	0 BB9	0 LAKE SUPERIOR SOUTHERN ENTRY	55446
21WIDMP	100	46	41	15.0	0 BB9	0 LAKE SUPERIOR N.W. PRULE RIVER	55796
21WIDMP	101	46	42	00.0	0 BB9	0 LAKE SUPERIOR N.W. PRULE RIVER	55796
21WIDMP	102	46	44	00.0	0 BB9	0 LAKE SUPERIOR 3 MI W PRULE RIVER	55996
21WIDMP	103	46	44	35.0	0 BB9	0 LAKE SUPERIOR W. OF PRULE RIVER	55996
21WIDMP	104	46	45	45.0	0 BB9	0 LAKE SUPERIOR NORTH BANK POINT	55996
21WIDMP	105	46	45	00.0	0 BB9	0 LAKE SUPERIOR MOUTH PRULE RIVER	55996
21WIDMP	106	46	45	54.0	0 BB9	0 LAKE SUPERIOR EAST OF SQUIN RAY	55996
21WIDMP	107	46	46	30.0	0 BB9	0 LAKE SUPERIOR N.W. OF IRON RIVER	55996
21WIDMP	108	46	47	30.0	0 BB9	0 LAKE SUPERIOR N.W. OF PURI WING	55996
21WIDMP	109	46	50	00.0	0 BB9	0 LAKE SUPERIOR W. OF HEMISTER	55996
21WIDMP	110	46	54	00.0	0 BB9	0 LAKE SUPERIOR N.W. OF MADFLINE IS	55996
21WIDMP	111	46	43	30.0	0 BB9	0 LAKE SUPERIOR EAST OF MAD RIVER	55C03
21WIDMP	112	46	39	40.0	0 BB9	0 LAKE SUPERIOR AT CHI-U-RAY	55003
21WIDMP	113	46	54	30.0	0 BB9	0 WISCONSIN RIVER NEAR KAKAON SLAU.	55003
21WIDMP	114	46	59	45.0	0 BB9	0 WISCONSIN RIVER AT LAKE MAUSAU	55073
21WIDMP	114	44	42	40.0	0 BB9	0 LAKE DURAY 126N #7E S20	55073
21WIDMP	115	46	20	30.0	0 BB9	0 WISCONSIN RIVER 17N HSF S10	55141
21WIDMP	115	44	19	00.0	0 BB9	0 WISCONSIN RIVER AT FISH LAKE	55C57
21WIDMP	116	44	13	50.0	0 BB9	0 WISCONSIN RIVER AT LK. OF FIFEWELL	55C01
21WIDMP	117	44	04	62.0	0 BB9	0 WISCONSIN RIVER AT LK. OF FIFEWELL	55C01

21WIDNR	123	44 02 45.0	090 01 20.0	0 WISCONSIN R. AT CASTLE ROCK LAKE	55001
21WIDNR	124	44 53 30.0	089 56 15.0	0 WISCONSIN R. NEAR CASTLE ROCK	55001
21WIDNR	125	43 56 15.0	090 01 45.0	0 WISCONSIN RIVER NEAR CASTLE ROCK	55001
21WIDNR	126	43 36 05.0	089 15 50.0	0 WISCONSIN RIVER NEAR DELL'S DAM	55011
21WIDNR	127	43 22 30.0	089 34 00.0	0 WISCONSIN RIVER AT LAKE WISCH.	55021
21WIDNR	128	44 45 45.0	089 53 00.0	0 BIG FAU PLIE RESEVOIR	55073
21WIDNR	129	43 48 45.0	089 00 00.0	0 BIG GREEN LAKE	55047
21WIDNR	130	42 35 30.0	088 37 00.0	0 DELEYAN LAKE	55127
21WIDNR	131	44 08 00.0	090 49 00.0	0 WHITE CREEK AT DOUGLAS POND	55053
21WIDNR	132	43 07 45.0	088 31 32.0	0 LARELLA AT LAKE LAC LARELLE	55133
21WIDNR	133	44 08 30.0	CRB 49 00.0	0 LAKE PUYON	55139
21WICNR	134	45 19 15.0	091 23 00.0	0 POTAUDE LAKE	55107
21WIDNR	135	45 39 20.0	092 34 15.0	0 ROUND LAKE	55013
21WIDNR	136	45 40 30.0	092 35 30.0	0 TRADE LAKE	55013
21WIDNR	137	43 18 00.0	088 55 00.0	0 CRAWFISH RIVER	55027
21WIDNR	138	45 48 45.0	091 25 00.0	0 LAKE ALTONNA	55035
21WIDNR	139	45 24 00.0	090 36 20.0	0 SOUTH FORK OF JUMPING RIVER	55099
21WIDNR	140	45 05 10.0	087 21 00.0	0 S. CHAMBERS IS -GREEN BAY	55998
21WIDNR	141	44 52 30.0	087 33 30.0	0 GREEN BAY. STURGEON BAY	55998
21WIDNR	142	44 43 50.0	091 35 30.0	0 BRULE R-T-9N.RIOW.S10	55031
21WIDNR	143	46 03 45.0	0H9 34 45.0	0 ESCANADA LAKE	55129
21WIDNR	144	46 02 06.0	089 39 30.0	0 TROUT LAKE	55125
21WIDNR	145	46 04 20.0	090 15 30.0	0 FLAMBREAU RIVER FLOW	55051
21WIDNR	146	45 34 40.0	090 56 30.0	0 FLAMBREAU RIVER AT PARK FALLS	55099
21WIDNR	147	45 29 45.0	090 26 50.0	0 FLAMBREAU RIVER PARK FALLS	55099
21WIDNR	148	45 52 30.0	090 29 45.0	0 FLAMBREAU RIVER AT CROWLEY FLOW	55C99
21WIDNR	149	45 50 00.0	090 39 00.0	0 PICKEREL LAKE	55113
21WIDNR	150	45 46 10.0	090 42 30.0	0 FLAMBREAU R-BIG FALLS FLOWAGE	55107
21WIDNR	151	45 34 15.0	090 48 30.0	0 FLAMBREAU R ABOVE LAOSMITH	55107
21WIDNR	152	45 34 45.0	091 04 00.0	0 FLAMBREAU R BELOW LADYSMITH	55107
21WIDNR	153	45 25 45.0	091 09 00.0	0 CHIPPEWA RIVER FLOWAGE	55113
21WIDNR	154	45 45 00.0	091 11 20.0	0 CHIPPEWA RIVER BELOW CORNELL	55017
21WIDNR	155	45 08 15.0	091 12 00.0	0 CHIPPEWA R-HOLCOMBE FLOWAGE	55017
21WIDNR	156	45 16 00.0	091 08 45.0	0 CHIPPEWA R-RIFLOW LAKE MISSOURIA	55C17
21WIDNR	157	45 34 40.0	090 56 30.0	0 CHIPPEWA R. BELOW EAU CLAIRE	55035
21WIDNR	158	45 29 45.0	091 04 00.0	0 MURPHY FLOWAGE	55107
21WIDNR	159	45 34 00.0	091 26 20.0	0 KANGAROO LAKE	55029
21WIDNR	160	45 34 00.0	087 09 05.0	0 FOND DU LAC RIVER MOUTH	55039
21WIDNR	161	45 02 00.0	087 09 05.0	0 LAKE WINNEBAGO-A-SYLUM BAY	55139
21WIDNR	162	43 67 45.0	090 26 45.0	0 FOX RIVER MOUTH- GREEN BAY	55009
21WIDNR	163	43 67 45.0	090 27 00.0	0 GREEN HAY E OFF FOX RIVER MOUTH	55139
21WIDNR	164	44 04 45.0	088 29 00.0	0 GREEN BAY EAST OF OCONIO	55083
21WIDNR	165	44 31 50.0	088 00 30.0	0 PEWAUKEE LAKE	55127
21WIDNR	166	43 04 40.0	088 02 20.0	0 LAKE GENEVA	55101
21WIDNR	167	42 33 40.0	088 31 30.0	0 FOX RIVER BELOW AURINGTON	55064
21WIDNR	168	42 38 30.0	088 14 50.0	0 CALERA RIVER-TZN. #16-527	55009
21WIDNR	169	42 36 50.0	090 21 10.0	0 LAKE SUPERIOR-OAK POINT	55003
21WIDNR	170	44 32 35.0	087 59 00.0	0 LAKE SUPERIOR OFF AMICON RIVER	55031
21WIDNR	171	44 53 00.0	087 48 50.0	0 GREEN BAY A-SYLUM BAY	55075
21WIDNR	172	44 28 30.0	091 00 30.0	0 MENDOMEE R FLOW HWY A BRIDGE	55075
21WIDNR	173	44 17 00.0	090 30 00.0	0 MENDOMEE R BLDN HWY K BRIDGE	55C75
21WIDNR	174	44 36 30.0	090 54 45.0	0 MENDOMEE R IN MARINETTE	55075
21WIDNR	175	44 39 30.0	090 46 00.0	0 MENDOMEE RIVER AT MUNIN	55075
21WIDNR	176	44 41 45.0	091 51 00.0	0 MILWAUKEE R AT THIENSVILLE	55C89
21WIDNR	177	44 45 00.0	087 53 00.0	0 MILWAUKEE R ABOVE N SI. IN MILWK	55079
21WIDNR	178	44 29 20.0	087 48 15.0	0 MILWAUKEE R AT MILWAUKEE HARBOR	55079
21WIDNR	179	44 05 25.0	087 37 30.0	0 PIVER MILE 7BS TO 1B6 PISS R	55093
21WIDNR	180	44 05 25.0	087 35 20.0	0 WICKERSHAW R ACTUAL +ADDITIONAL	55075
21WIDNR	181	44 13 30.0	087 58 30.0		
21WIDNR	182	44 06 30.0	0H7 53 30.0		
21WIDNR	183	44 01 05.0	0H7 24 00.0		
21WIDNR	184	44 34 45.0	092 31 30.0		
21WIDNR	185	44 34 45.0	092 31 30.0		
21WIDNR	186	44 34 45.0	092 31 30.0		
21WIDNR	187	44 34 45.0	092 31 30.0		
21WIDNR	188	44 34 45.0	092 31 30.0		
21WIDNR	189	44 34 45.0	092 31 30.0		

21W1DNR	191	43 37	12.0	0.91	11	00.0	4	MISSISSIPPI R DELLU MILE 636 TO 638	55123	
21W1DNR	192	43 05	30.0	0.91	09	10.0	4	MISSISSIPPI R-RIVER MILE 627-628	55023	
21W1DNR	193	42 56	15.0	0.91	08	15.0	4	MISSISSIPPI R-RIVER MILE 598-600	55043	
21W1DNR	194	42 41	15.0	0.91	16	00.0	4	MISSISSIPPI R-RIVER MILE 583	55043	
21W1DNR	195	42 38	30.0	0.90	01	30.0	4	MISSISSIPPI R-RIVER MILE 580-5H2	55043	
21W1DNR	196	42 36	15.0	0.90	02	25.0	4	OCONTO RIVER ABOVE OCONIO FALLS	55083	
21W1DNR	197	44 52	30.0	0.88	11	15.0	4	PESHTIGO RIVER ABOVE PESHTIGO	55073	
21W1DNR	198	45 06	0.6	0.0	07	15	4	PESHTIGO RIVER BELOW PESHTIGO	55075	
21W1DNR	199	45 01	55.0	0.87	13	00.0	4	RUBICON RIVER BELOW MARIFORD	55131	
21W1DNR	200	43 19	4.0	0.0	08	24	00.0	4	SHENOGAN RIVER AT SALMON TRAPS	55117
21W1DNR	201	41 44	30.0	0.87	62	30.0	4	TWIN RIVERS AT SALMON TRAPS	55021	
21W1DNR	202	44 08	0.0	0.0	34	00.0	4	SINNISIPI LAKE	55027	
21W1DNR	203	43 21	50.0	0.87	36	10.0	4	ROCK RIVER AT HORICON	55027	
21W1DNR	204	43 26	30.0	0.88	37	15.0	4	LAKE MENOMA	55025	
21W1DNR	206	43 05	60.0	0.89	24	00.0	4	YAHARA R BELOW LK MENOMA	55025	
21W1DNR	207	43 05	20.0	0.89	21	15.0	4	LAKE MONONA	55025	
21W1DNR	208	43 04	00.0	0.89	21	30.0	4	YAHARA RIVER BELOW LAK MONOMA	55025	
21W1DNR	209	43 02	35.0	0.89	19	15.0	4	STARKEYNEATH CREEK AT MOUTH	55025	
21W1DNR	210	43 02	30.0	0.89	18	50.0	4	LAKE WINGRA	55025	
21W1DNR	211	43 03	00.0	0.89	25	00.0	4	ROCK RIVER BELOW JANESVILLE	55105	
21W1DNR	212	42 38	30.0	0.89	03	65.0	4	SPAULDING POND	55105	
21W1DNR	213	42 43	23.7	0.88	56	31.6	4	ST. CROIX R- GURDON FLOWAGE	55031	
21W1DNR	214	46 15	0.0	0.91	50	00.0	4	NELSON LAKE	55113	
21W1DNR	215	46 05	30.0	0.91	28	30.0	4	SI CROIX RIVER BELOW ST CROIX FALLS	55092	
21W1DNR	216	45 24	0.0	0.92	37	45.0	4	LAC VIEUX DESERT	55125	
21W1DNR	217	46 07	20.0	0.89	07	05.0	4	WISCONSIN R-RAINBOW LAKE	55085	
21W1DNR	218	45 51	55.0	0.89	31	00.0	4	WISCONSIN R ABOVE MCNAULTON	55085	
21W1DNR	219	45 45	00.0	0.89	33	00.0	4	WISCONSIN RIVER-LAKE ALICE	55069	
21W1DNR	220	45 28	40.0	0.89	33	00.0	4	WISCONSIN RIVER BELOW MENAUGION	55085	
21W1DNR	221	45 38	50.0	0.89	24	30.0	4	WISCONSIN RIVER-DUW LAKE	55069	
21W1DNR	222	45 2B	10.0	0.89	65	35.0	4	WISCONSIN R-LAKE MOHAWKIN	55073	
21W1DNR	223	44 56	15.0	0.89	44	55.0	4	PIG RIB RIVER	55073	
21W1DNR	224	44 52	40.0	0.89	31	00.0	4	WISCONSIN R-BELOW MOSINEE DAM	55073	
21W1DNR	225	44 47	0.0	0.89	42	00.0	4	WISCONSIN RIVER ABOVE AIRON DAH	55111	
21W1DNR	226	44 26	30.0	0.89	43	50.0	4	WISCONSIN RIVER BELOW AIRON DAH	55111	
21W1DNR	227	44 25	10.0	0.89	67	10.0	4	NEPED LAKE	55111	
21W1DNR	228	44 20	0.0	0.89	49	10.0	4	WISCONSIN R ABOVE CENIPALIA DAM	55111	
21W1DNR	229	44 22	15.0	0.89	50	45.0	4	WISCONSIN R ARIOTI HYANDOUE CREE	55111	
21W1DNR	230	44 21	10.0	0.89	51	10.0	4	WISCONSIN R BELOW HYANDOUE CR	55111	
21W1DNR	231	44 20	0.0	0.89	50	50.0	4	WISCONSIN R AT MUCASSIN CR MOUIN	55111	
21W1DNR	232	44 19	50.0	0.89	53	00.0	4	WISCONSIN R HELM NEMOOSA DAM	55111	
21W1DNR	233	44 17	0.0	0.89	52	45.0	4	WISCONSIN R-UPPER PEIWEILL	55111	
21W1DNR	234	44 15	00.-1	0.89	53	10.0	4	FOX R- CASTLE ROCK - DUCKHORN PR.	55057	
21W1DNR	235	43 56	00.0	0.90	02	00.0	4	WISCONSIN R HELM CASTLE ROCK DM	55057	
21W1DNR	236	43 50	20.0	0.89	55	30.0	4	WISCONSIN RIVER ABOVE DELLS DAM	55057	
21W1DNR	237	43 40	30.0	0.89	49	00.0	4	WISCONSIN R HELM DELLS CREEK	55057	
21W1DNR	238	43 35	20.0	0.89	44	00.0	4	WISCONSIN R-CLARE RACKLEY TNSHP	55125	
21W1DNR	239	43 22	00.0	0.89	36	10.0	4	SPRING BROOK AT INTIGO	55067	
21W1DNR	240	43 15	00.-1	0.89	44	00.0	4	CLIFFLIE PLIVER RIVER-PLUVEN TNSHIP	55097	
21W1DNR	241	43 09	35.0	0.90	02	35.0	4	YELLUM RIVER ABOVE BULLMING RIVER	55157	
21W1DNR	242	43 08	35.0	0.90	62	30.0	4	FLAMBEAU R-MUNKAPPIT FLUMAG-	55107	
21W1DNR	243	42 39	45.0	0.91	03	00.0	4	FLAMBEAU RIVER ABOVE PFA DAM	55107	
21W1DNR	244	46 03	00.0	0.89	19	10.0	4	STONY LAKE	55125	
21W1DNR	245	45 09	00.0	0.89	13	30.0	4	CITY OF CLAIRE RACKLEY TNSHP	55021	
21W1DNR	246	45 08	00.0	0.89	04	00.0	4	WISCONSIN R-CLIFFLIE PLIVER RIVER	55067	
21W1DNR	247	44 27	24.0	0.89	30	10.0	4	YELLUM RIVER ABOVE BULLMING RIVER	55157	
21W1DNR	248	44 26	30.0	0.89	17	15.0	4	FLAMBEAU R-MUNKAPPIT FLUMAG-	55107	
21W1DNR	249	43 39	00.0	0.90	03	05.0	4	FLAMBEAU RIVER ABOVE PFA DAM	55107	
21W1DNR	250	44 24	40.0	0.91	12	00.0	4	FLAMBEAU R-MUNKAPPIT FLUMAG-	55107	
21W1DNR	251	45 27	45.0	0.91	05	15.0	4	FLAMBEAU RIVER ABOVE PFA DAM	55107	

ZINICHR 252
LAT. MAX. 47° 29' 59.9"
LAT. MIN. 41° 30' 0.0"
LONG. MAX. 93° 35' 59.9"
LONG. MIN. 90° 24' 0.0"

44 21 00.0 090 00 30.0 4

O BRAZEAU MARSH

55141 WISCONSIN

Request to Produce Inventory

PGH=INVENT,PUKPP=3074/SCS,A=21WIDVR,B=P,S=AAAAAA,E=999999999.

STORE# DATE 78/09/19

GROSS

PARAMETER	WEIGHT	LENGTH	AGENCY	POUNDS	MEAN	VARIANCE	STAN DEV	COEF VAR	STAND ER	MAXIMUM	MINIMUM	REG DATE	END DATE
00022	15.8140	35.46055	15.8140	2	0.00000	.0000000	0.00000	0.00000	0.00000	0.00000	0.00000	74/08/08	74/08/08
00024	0.00000	0.00000	CONE	2116	15.8140	.516703	.377326	.093008	.69.0000	1.00000	0.00000	70/04/05	78/04/21
00026	0.00000	0.00000	ANALYZE	2276	0.00000	.0000000	.000000	.000000	.000000	0.00000	0.00000	70/04/05	76/09/08
01004	0.00000	0.00000	ARSENIC	156	.105769	.003310	.057530	.543923	.004606	.3800000	.0300000	7C/04/23	74/09/13
01069	0.00000	0.00000	NICKEL	63	.110476	.001662	.013383	.392669	.005466	.4000000	.1000000	74/07/11	74/09/13
01149	0.00000	0.00000	SELENIUM	63	.383332	.018278	.135196	.352686	.017033	.8200000	.1500000	74/07/11	74/09/13
34682	0.00000	0.00000	COAHUEY	50	.033400	.000292	.017096	.511670	.002418	.0500000	.0100000	74/07/11	74/09/13
39105	0.00000	0.00000	PERCENT	1662	5.71952	.30.4990	.55.52259	.965569	.134657	.42.9000	.1000000	7C/07/01	78/04/21
- 19302	0.00000	0.00000	HEY EXTR	62	.034169	.001163	.036109	.9982446	.004332	.2250000	.0020000	74/07/11	74/09/13
39312	0.00000	0.00000	P,P,OCT	62	.034997	.004378	.066166	.1.006557	.008403	.3600000	.0010000	74/07/11	74/09/13
39332	0.00000	0.00000	P,P,OCD	62	.059137	.004108	.064093	.1.00380	.001440	.4000000	.0043500	74/07/11	74/09/13
39404	0.00000	0.00000	DIELDGIN	62	.003369	.00021	.004619	.00587	.031000	.0005000	.0005000	74/07/11	74/09/13
39515	0.00000	0.00000	F,CBS	1744	5.13582	.73.0350	.65.56605	.1.466101	.204641	.90.00000	.0000000	74/07/11	74/09/13
39765	0.00000	0.00000	GPHC-115	62	.001121	.5628-06	.000750	.669363	.00095	.0050000	.0005000	74/07/11	74/09/13
71930	0.00000	0.00000	LINDANE	2537	.456045	.357130	.597603	.1.31040	.011865	.16.00000	.0100000	70/04/05	76/11/09
71936	0.00000	0.00000	MERCURY	178	.220730	.1.77711	.421558	.1.90984	.031597	.6.31000	.0000000	70/04/23	74/09/13
71937	0.00000	0.00000	LEAD	63	.418612	.1P317P	.427993	.1.02290	.053922	.3.40000	.1500000	74/07/11	74/09/13
71938	0.00000	0.00000	COPPER	159	9.57230	.49.1743	.7.01244	.732576	.556123	.39.00000	.2.70000	7C/04/22	74/09/13
71939	0.00000	0.00000	ZINC	158	.070190	.002677	.051740	.737144	.004116	.4200000	.0300000	70/04/23	74/09/13
71940	0.00000	0.00000	CP-FISH	163	.047939	.000468	.021644	.451187	.001695	.2300000	.0100000	7C/04/23	74/09/13
74990	0.00000	0.00000	ADMUM	4265	40.1801	.672.300	.25.9287	.6.45313	.397029	.104.000	.3.00000	70/04/05	78/04/21
74995	0.00000	0.00000	ANATOMY	42K5	83.6405	.60.8655	.7.8029	.0.9329	.115481	.07.0000	.59.00000	70/04/05	78/04/21
81614	0.00000	0.00000	NO. INV.	4252	1.85113	.6.28706	.2.07052	.1.11052	.0.31753	.46.00000	.0000000	70/04/05	78/04/21
81644	0.00000	0.00000	FISH WEL	62	.002115	.000001	.001053	.491079	.000134	.0100000	.0100000	74/07/11	74/09/13
84005	0.00000	0.00000	MIXCHLOR	4265	.604E+20	.239E+40	.488E+20	.748F+16	.143E+02	.99E+20	.70/04/05	70/04/21	
84007	0.00000	0.00000	SPECIES	4265	.912E+9	.829E+39	.287E+20	.315E+01	.440E+18	.794E+06	.999E+20	70/04/C5	78/04/21
84008	0.00000	0.00000	ALPHA	1265	.999E+20	.104E+36	.323E+10	.323E-02	.495E+16	.799E+20	.999E+20	70/04/05	78/04/21
84028	0.00000	0.00000	ANALYZE	4061	.841E+09	.257E+19	.160E+10	.190E+01	.251E+08	.124E+02	.390E+10	7C/04/05	78/04/21

STORE# DATE 76/09/19 CROSSES

	SIA FRC	SIA END	# OF ONS # CF SAMPLE	SIA END-PERIOD OF REC'D IN YRS
<1950	0	0	0	0
1950	0	0	0	0
1951	0	0	0	0
1952	0	0	0	0
1953	0	0	0	0
1954	0	0	0	0
1955	0	0	0	0
1956	0	0	0	0
1957	0	0	0	0
1958	0	0	0	0
1959	0	0	0	0
1960	0	0	0	0
1961	0	0	0	0
1962	0	0	0	0
1963	0	0	0	0
1964	0	0	0	0
1965	0	0	0	0
1966	0	0	0	0
1967	0	0	0	0
1968	0	0	0	0
1969	0	0	0	0
1970	140	95	19936	1594
1971	3	5	2734	268
1972	3	1	1998	201
1973	0	6	3138	314
1974	10	9	5427	450
1975	19	26	2586	260
1976	49	62	3977	600
1977	18	38	3624	363
TOTAL	242	242	43420	4270
			0	180
				14
				46

STORED RETRIEVAL DATE 78/09/13

220
45 42 40.0 089 31 00.0 4
WISCONSIN RIVER BELOW MCNAUGHTON
55085 WISCONSIN
UPPER MISSISSIPPI RIVER 0707
WISCONSIN RIVER
21N DNR 780810
9999 FEET DEPTH CLASS 00

/TYPE/AHBNT/STREAM

DESCRIPTION

DATA FROM WISCONSIN DEPARTMENT OF NATURAL RESOURCES FISH SAMPLING
PROGRAMS FOR MERCURY, PCB'S, AND PESTICIDES
SAMPLE TAKEN FROM WISCONSIN RIVER BELOW MCNAUGHTON

EXAMPLE OF STATION

EXAMPLE OF STATION FROM INVENTORY

STORE 1 DATE 7/9/00 7/19

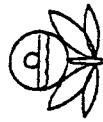
098
46 41 30.0 092 01 50.0 4
NEMOJI RIVER MOUTH
55031 WISCONSIN
LAKE SUPERIOR
WISC + MINN DRAINAGE
21WIDNP 780803
0999 CLASS 00

/TYPE/AMOUNT/STREAM

PARAMETER	DEPTH	LENGTH	THICKNESS	STANDEV	CREEF	VAR	STANG	ER	MAXIMUM	MINIMUM	BEG DATE	END DATE	
00024	INCHES	TISMG/KG	WFT WGT	17	17.6529	64.9629	8.05996	-451464	1.55483	27.0000	6.50000	7/4/07/11	7/4/07/11
0104 ARSENIC	PPM	TISMG/KG	WFT WGT	17	4.93529	0.005949	.077132	-824661	.0118707	.029000	.030000	7/4/07/11	7/4/07/11
01069 NICKEL	PPM	TISMG/KG	WFT WGT	17	11.15294	0.001227	.035022	-303759	.006494	.200000	.100000	7/4/07/11	7/4/07/11
01149 SELENIUM	PPM	TISMG/KG	WFT WGT	17	33.00000	0.003000	.056772	-1.65777	.013284	.300000	.240000	7/4/07/11	7/4/07/11
34682 CRANEWEET	TECHMET	TISMG/KG	WFT WGT	17	01.88889	0.000011	.003354	-0.60190	.001111	.050000	.000000	7/4/07/11	7/4/07/11
39105 PPLCLNT	FAT	HFX EXP	WFT WGT	17	3.54646	8.55235	2.92273	-824125	.707866	11.0000	.510000	7/4/07/11	7/4/07/11
39302 PP*001	TISMG/KG	WFT WGT	17	042176	0.0007146	.0027309	-647493	.006623	.115000	.010000	7/4/07/11	7/4/07/11	
39312 PP*000	TISMG/KG	WFT WGT	17	072117	0.0000948	.0089889	1.24781	.021825	.360000	.010000	7/4/07/11	7/4/07/11	
39322 PP*00E	TISMG/KG	WFT WGT	17	055529	0.000557	.055945	1.07611	.014466	.235000	.013000	7/4/07/11	7/4/07/11	
39404 CILFLOR1.	TISMG/KG	WFT WGT	17	001776	0.000003	.001682	*9466661	.006460	.006500	.001000	7/4/07/11	7/4/07/11	
39515 PCRS	FISH	MG/KG	WFT WGT	17	4.01117	1.19309	.345006	-0.002661	.002677	1.340000	.020000	7/4/07/11	7/4/07/11
39704 GRHC-TJS	LINDANE	HEMKG/KG	WFT WGT	17	000971	1.67E-07	.0000121	-124553	.001000	.000500	.000500	7/4/07/11	7/4/07/11
71930 4FCUFY	TISMG/KG	WFT WGT	17	147353	0.001200	.064811	-439835	.015719	.280000	.050000	7/4/07/11	7/4/07/11	
71934 LEAD	TISMG/KG	WFT WGT	17	025294	0.000101	-0.10073	*398246	.002443	.050000	.020000	7/4/07/11	7/4/07/11	
71937 COPPER	TISMG/KG	WFT WGT	17	2.65294	0.01227	.110574	*416779	.020818	.650000	.150000	7/4/07/11	7/4/07/11	
71938 ZINC	TISMG/KG	WFT WGT	17	16.8235	35.050	*.95021	*353684	1.44314	.26.0000	.900000	.050000	7/4/07/11	7/4/07/11
71939 CF~FISH	UG/G	HFG HT	WFT WGT	17	0.71176	.000674	.021761	*305733	.002278	.110000	.010000	7/4/07/11	7/4/07/11
71940 CADMIUM	TISMG/KG	WFT WGT	17	028176	0.000245	.015641	*555125	.003794	.069000	.013000	7/4/07/11	7/4/07/11	
74990 FISH	NUMERIC SPECIES	NUMERIC CODE	NUMERIC	17	37.2353	4.64317	21.5480	.5788699	.5-22616	.63.0000	.12.0000	7/4/07/11	7/4/07/11
74995 ANATOMY	IN THE SAMPLE	IN THE FISH	WFT WGT	17	86.00000	'0000000	'0000000	*916294	.86.0000	.86.0000	.86.0000	7/4/07/11	7/4/07/11
81614 NT.INDIV.	SPECIES	CCDF	CCDF	17	2.05082	3.55883	1.68669	*557540	.8.00000	1.00000	.002000	7/4/07/11	7/4/07/11
81644 MATCHLGR	ALPHA	CCDF	CCDF	17	0.002118	*2351-06	.000085	*224062	.000118	.002000	.002000	7/4/07/11	7/4/07/11
84005 FISH	ANATOMY	STYLES/AGENCY	STYLES/AGENCY	17	-6.67E+20	.242E+60	.492E+20-.761E+00	.110E+20-	.022E+04-.999E+20	.74/07/11	.74/07/11	7/4/07/11	7/4/07/11
84007 LIFE	ANATOMY			17	-1.12E+08-.167E+02	.000000	.000000	-1.13E+08-	.132E+08	.000000	.000000	7/4/07/11	7/4/07/11
84021 ANALYZE				17	-999E+20-.519E+34	.000000	.000000	.000000	.999E+20-.999E+20	.74/07/11	.74/07/11	7/4/07/11	7/4/07/11
				17	-3.90E+10-.164E+14	.000000	.000000	.000000	.390E+10-.390E+10	.74/07/11	.74/07/11	7/4/07/11	7/4/07/11

REQUEST TO PRODUCE THE FOLLOWING MAP

```
PGH-WSP,QUALMAP,URP=307A/SC5,  
A=21W IDNR,B=P,S=AAAAA,S=99999,  
L=MORET,L=4200,L=8700,L=4200,  
L=9300,L=4700,L=9300,L=4700,  
L=8700,  
SCALE=3500000,PRT=NO,NOPOLPLT,  
CSIZE=.05,  
HEAD=WISCONSIN DEPARTMENT,  
HEAD=OF NATURAL RESOURCES,  
P=39312,P=39315,P=71930,  
HSPARMS=HODDELL,MAX=A,MEAN=B,  
XTILE50T=C,GROUPS0,NOL1 ST,  
GRAPHNO=0/2/3/11,SYTHSIZE=.15/.15/.15,  
PLOT C,LEFT1,STAT=3,LABEL=P 000 IN TISSUE PPM,  
PLOT C,LEFT2,STAT=3,LABEL=PCBS IN TISSUE PPM,  
STOPH SP,
```



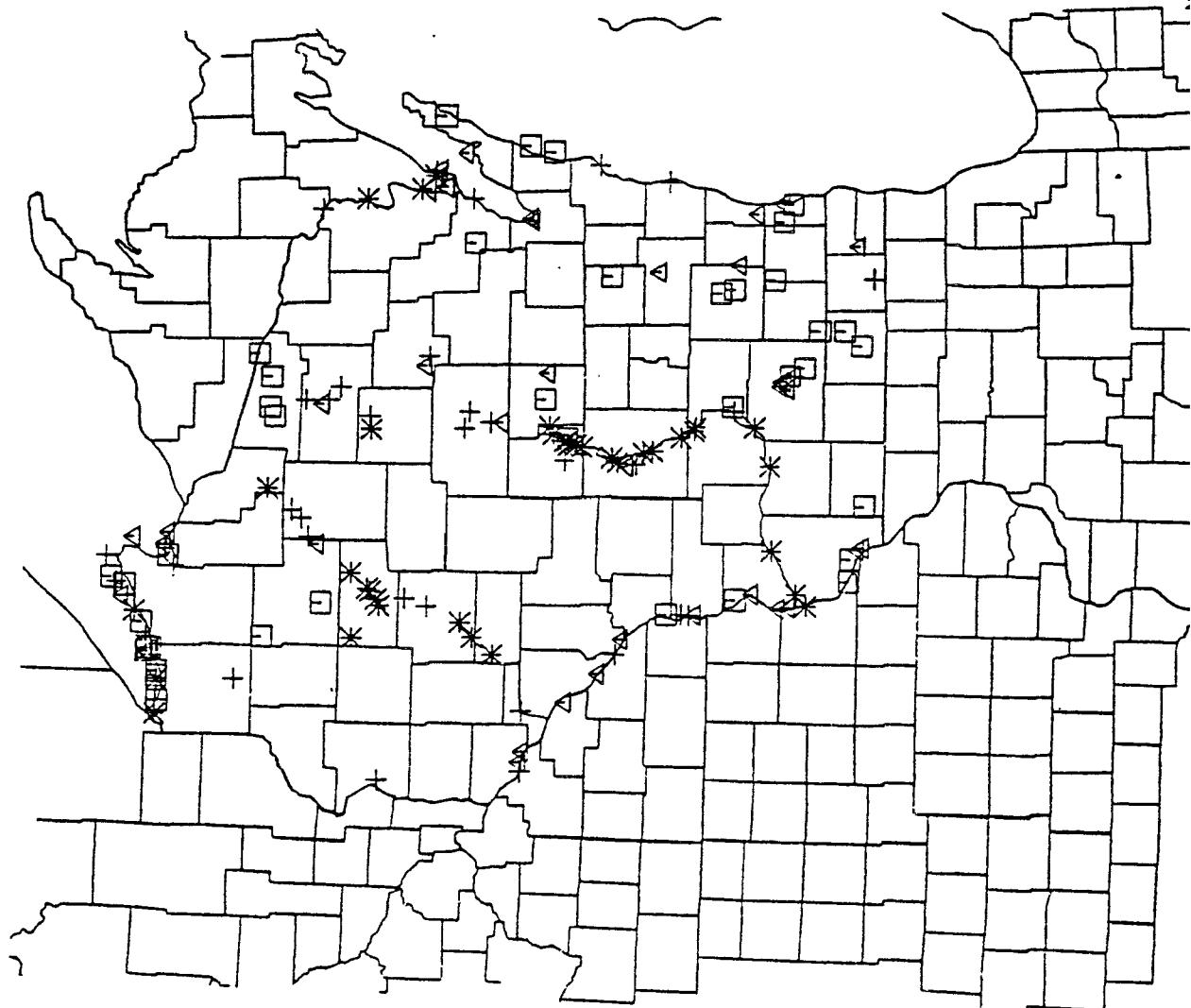
ENVIRONMENTAL PROTECTION AGENCY

STORET SYSTEM

WISCONSIN DEPARTMENT
OF NATURAL RESOURCES
MERCURY IN TISSUE PPM
50TH PERCENTILES

□	<=	0.1600
△	0.1600 TO	0.2500
+	0.2500 TO	0.4000
*	>	0.4000

SCALE=1 TO 3500000 OR 55.24 MILES/INCH



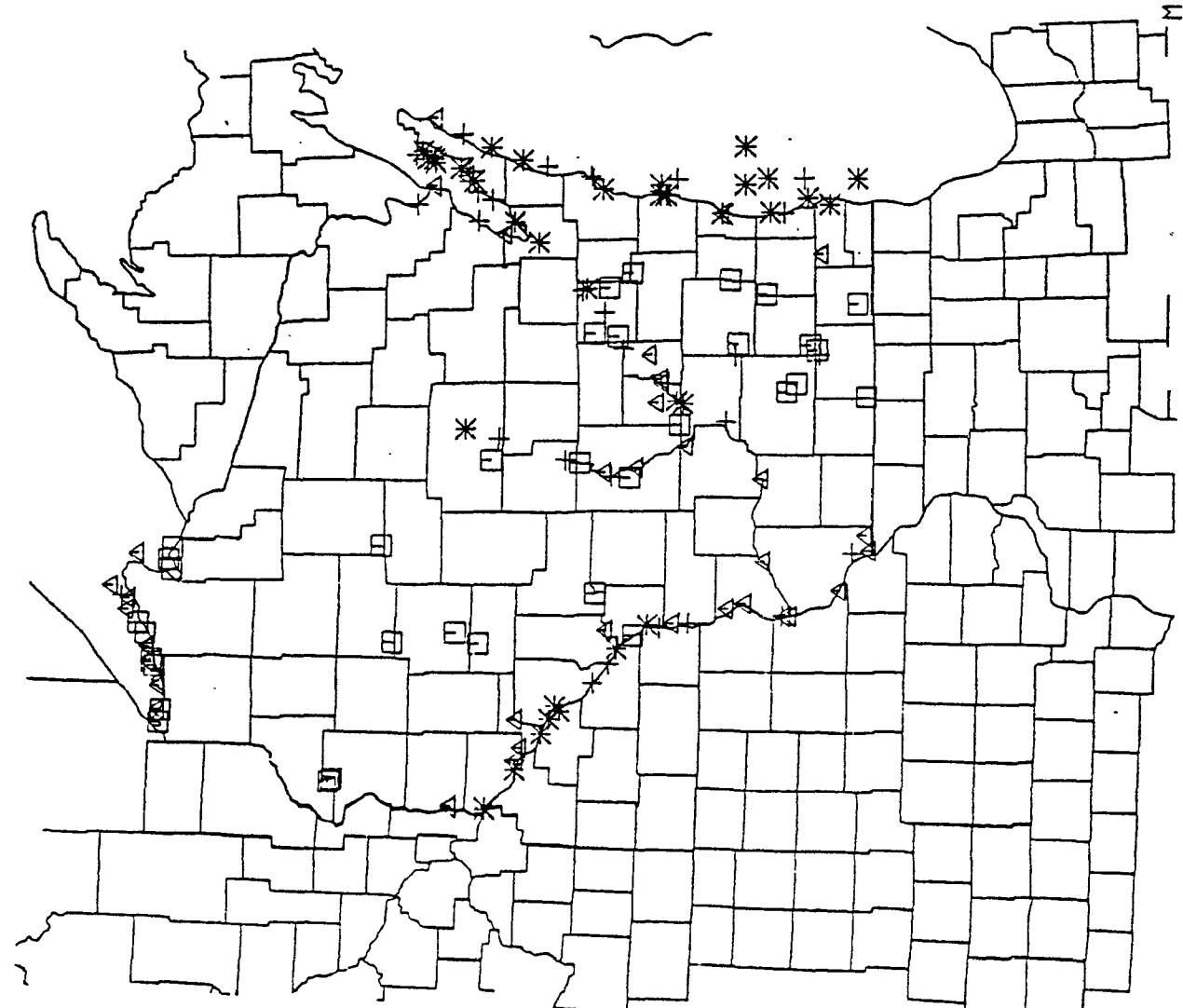


ENVIRONMENTAL PROTECTION AGENCY
STORET SYSTEM

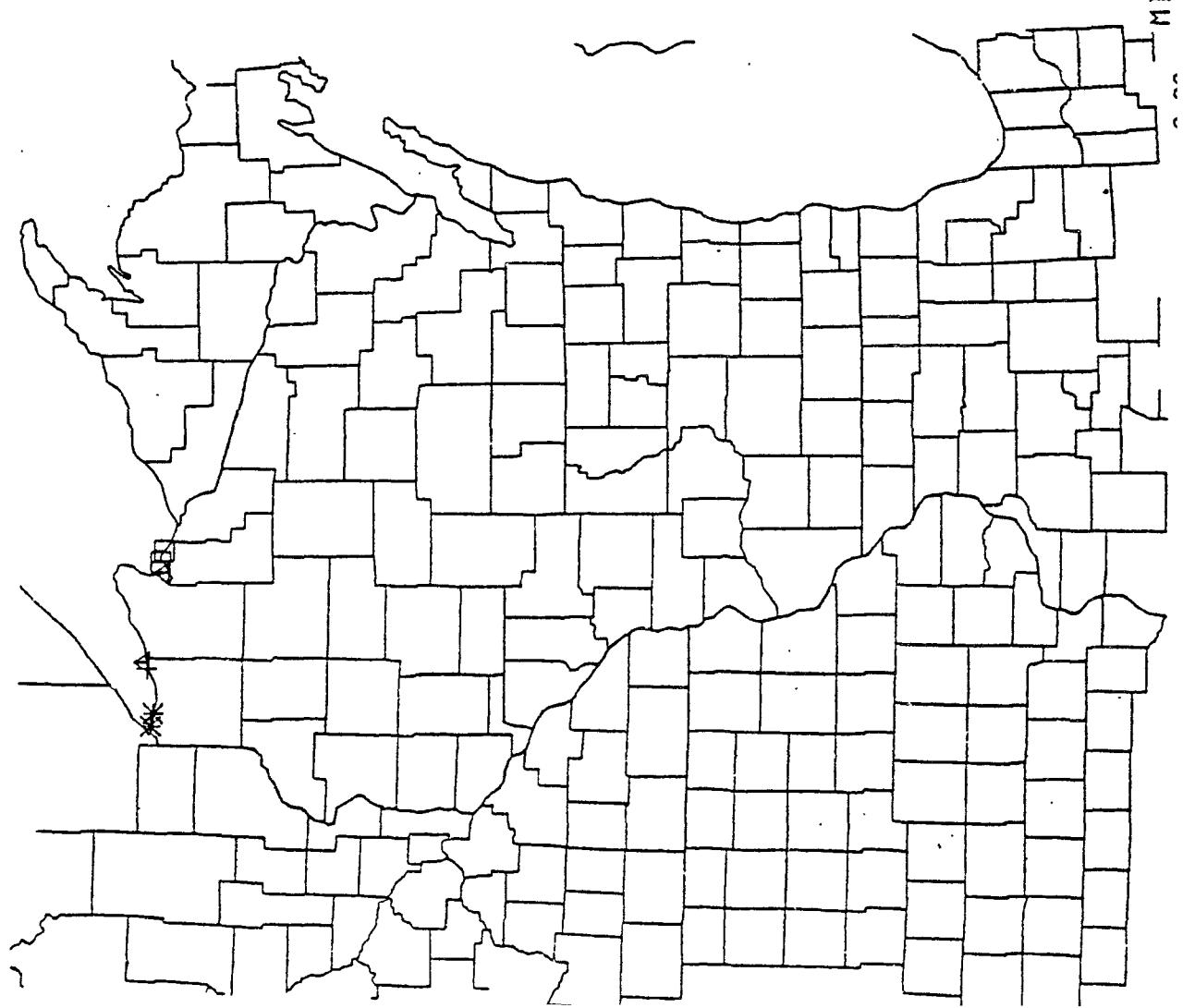
WISCONSIN DEPARTMENT
OF NATURAL RESOURCES
PCBS IN TISSUE PPM
50TH PERCENTILES

□	\leq	0.5000
△	0.5000 TO	1.5000
+	1.5000 TO	3.9000
*	>	3.9000

SCALE=1 TO 35000000 OR 55.24 MILES/INCH



ENVIRONMENTAL PROTECTION AGENCY
STORET SYSTEM
WISCONSIN DEPARTMENT
OF NATURAL RESOURCES
P P DDD IN TISSUE PPM
50TH PERCENTILES
 \leq 0.0020
□ 0.0020 to 0.0150
△ 0.0150 to 0.0180
+ 0.0180
* > 0.0180
SCALE=1 TO 3500000 OR 55.24 MILES/INCH



APPENDIX C
(EXAMPLE 3)

SELECTED DATA REPORT ON LAKE MICHIGAN LAKE TROUT

PGM=FET,PURP=307/EPA,
A=21MICH,S=610348,S=530127,A=21INDNR,S=001,
PRV=74990,PLV=29,PHV=29,PRV=74995,PLV=86,PHV=86,
P=84005,P=84007,P=39105,P=23,P=24,P=71930,
P=34690,P=39376,

STORED RETRIEVAL DATE 00/11/14

/TYPE/AMBN/T/LAKE		DATE	TIME	DEPTH OF FROM TO	FISH SPECIES F	ANATOMY ALPHA CODE	PERCENT FAT	39105	00023	00024	71930	MERCURY TISMC/KG	PCB-1254 TISMC/KG	DDT SUM WET WGT	39376	0.26
								WEIGHT	WEIGHT	INCHES	WET WGT	WET WGT	WET WGT	WET WGT	0.45	
								POUNDS	INCHES						0.90	
74/07/16	01	26	0291	LJ	FILET	1.20	15.60	0.07	0.780	0.780	0.13	1.170	0.013	0.45		
	01	26	0292	LJ	FILET	1.10	15.20	0.13	1.050	1.050	0.14	1.050	0.050	0.90		
	01	26	0293	LJ	FILET	1.10	15.60	0.16	1.050	1.050	0.16	1.050	0.050	0.79		
	01	26	0294	LJ	FILET	1.20	15.80	0.16	1.050	1.050	0.14	1.050	0.050	0.91		
	01	26	0295	LJ	FILET	1.20	15.50	0.22	5.770	5.770	0.22	5.770	1.669	1.669		
	01	26	0296	LJ	FILET	1.40	15.70	0.22	5.770	5.770	0.22	5.770	1.669	1.669		
	01	26	0297	LJ	FILET	1.10	15.60	0.15	2.960	2.960	0.15	2.960	0.96	0.96		
	01	26	0298	LJ	FILET	1.10	15.50	0.09	1.070	1.070	0.09	1.070	0.035	0.35		
	01	26	0299	LJ	FILET	5.40	24.40	0.48	29.410	29.410	0.48	29.410	15.27	15.27		
74/07/17	01	26	0291	LJ	FILET	15.3	9.90	28.50	0.43	14.260	0.43	14.260	7.00	7.00	7.00	
	01	26	0292	LJ	FILET	6.8	6.90	26.80	0.39	10.080	0.39	10.080	5.00	5.00	5.00	
	01	26	0293	LJ	FILET	7.5	7.80	26.90	0.53	16.660	0.53	16.660	8.37	8.37	8.37	
	01	26	0294	LJ	FILET	7.5	9.40	28.70	0.52	16.660	0.52	16.660	8.29	8.29	8.29	
	01	26	0295	LJ	FILET	10.5	9.60	28.50	0.44	7.640	0.44	7.640	3.79	3.79	3.79	
	01	26	0296	LJ	FILET	18.2	10.40	29.70	0.37	14.700	0.37	14.700	5.84	5.84	5.84	
	01	26	0297	LJ	FILET	6.8	6.50	25.20	0.38	9.410	0.38	9.410	3.96	3.96	3.96	
	01	26	0298	LJ	FILET	5.4	5.80	24.70	0.34	1.370	0.34	1.370	0.58	0.58	0.58	
	01	26	0299	LJ	FILET	5.1	5.00	24.00	0.39	6.870	0.39	6.870	3.30	3.30	3.30	
74/07/18	01	26	0290	LJ	FILET	8.7	12.00	31.70	0.55	16.250	0.55	16.250	8.03	8.03	8.03	
	01	26	0291	LJ	FILET	7.1	7.50	26.20	0.43	7.500	0.43	7.500	3.53	3.53	3.53	
	01	26	0292	LJ	FILET	4.4	3.90	22.20	0.43	8.120	0.43	8.120	3.50	3.50	3.50	
	01	26	0293	LJ	FILET	4.0	4.20	22.80	0.30	3.750	0.30	3.750	1.78	1.78	1.78	
	01	26	0294	LJ	FILET	6.0	4.80	22.80	0.49	8.750	0.49	8.750	4.27	4.27	4.27	
	01	26	0295	LJ	FILET	6.1	4.90	24.50	0.38	2.120	0.38	2.120	3.43	3.43	3.43	
	01	26	0296	LJ	FILET	9.8	5.90	24.70	0.44	10.620	0.44	10.620	4.36	4.36	4.36	
	01	26	0297	LJ	FILET	9.6	5.00	24.40	0.34	8.100	0.34	8.100	4.32	4.32	4.32	
74/11/14	01	26	0291	LJ	FILET	1.20	15.10	0.21	3.700	3.700	0.21	3.700	1.32	1.32	1.32	
76/10/23	01	26	0291	LJ	FILET	13.4	1.56	16.30	0.15	1.660	0.15	1.660	0.97	0.97	0.97	
	01	26	0292	LJ	FILET	15.7	2.06	17.50	0.12	1.220	0.12	1.220	0.81	0.81	0.81	
	01	26	0293	LJ	FILET	7.1	3.62	21.10	0.31	7.650	0.31	7.650	4.08	4.08	4.08	
	01	26	0294	LJ	FILET	4.4	3.90	21.40	0.34	8.100	0.34	8.100	4.32	4.32	4.32	
	01	26	0295	LJ	FILET	9.7	5.88	23.20	0.43	10.350	0.43	10.350	6.17	6.17	6.17	
	01	26	0296	LJ	FILET	7.3	7.37	27.90	0.56	5.890	0.56	5.890	5.13	5.13	5.13	
	01	26	0297	LJ	FILET	10.9	12.25	32.10	0.54	9.450	0.54	9.450	9.37	9.37	9.37	
	01	26	0298	LJ	FILET	14.7	2.25	20.40	0.29	10.420	0.29	10.420	6.55	6.55	6.55	
	01	26	0299	LJ	FILET	8.3	3.50	22.40	0.30	6.110	0.30	6.110	3.76	3.76	3.76	
77/09/30	01	26	0291	LJ	FILET	10.3	4.00	23.40	0.52	7.500	0.52	7.500	5.93	5.93	5.93	

STORED RETRIEVAL DATE 00/11/14

/TYPE/AMBN/T/LAKE		DATE	TIME	DEPTH	FISH SPECIES	ANATOMY ALPHA CODE	39007 PERCENT FAT	00023 WEIGHT POUNDS	00024 LENGTH INCHES	71930 MERCURY TISMG/KG WFT WGT	34690 PCB-1254 TISMG/KG MET WGT	39376 DDT SUM TISSUE UG/G	CLASS	00
74/06/23	01	26	0291	L1	FILET	9.80	30.20	0.61	15.510	9.45				
	01	26	0292	L1	FILET	6.60	25.00	0.76	4.440	1.74				
	01	26	0293	L1	FILET	9.50	28.90	0.47	8.320	4.93				
	01	26	0294	L1	FILET	10.10	29.70	0.53	7.180	3.85				
74/06/24	01	26	0295	L1	FILET	8.60	29.30	0.64	8.150	2.88				
	01	26	0291	L1	FILET	7.50	26.60	0.56	6.120	3.25				
	01	26	0292	L1	FILET	9.00	28.60	0.62	12.500	5.42				
	01	26	0293	L1	FILET	10.80	29.50	0.66	12.220	5.58				
	01	26	0294	L1	FILET	5.7	9.20	29.30	0.43	7.530	3.25			
	01	26	0295	L1	FILET	5.0	2.00	18.30	0.15	2.380	1.20			
	01	26	0296	L1	FILET	5.1	1.90	16.10	0.24	3.500	1.35			
	01	26	0297	L1	FILET	5.5	1.90	16.00	0.21	3.000	0.99			
	01	26	0298	L1	FILET	5.7	1.90	18.00	0.17	4.440	1.85			
74/06/25	01	26	0299	L1	FILET	5.4	2.00	16.10	0.14	2.540	0.99			
	01	26	0290	L1	FILET	4.9	1.90	17.50	0.21	2.920	1.18			
	01	26	0291	L1	FILET	5.8	2.00	16.60	0.19	2.870	1.02			
	01	26	0292	L1	FILET	3.3	2.10	18.50	0.17	3.030	0.95			
	01	26	0293	L1	FILET	4.1	1.60	17.50	0.16	1.500	0.27			
	01	26	0294	L1	FILET	1.30	16.00	0.07	1.290	0.60				
	01	26	0295	L1	FILET	1.20	16.00	0.06	0.600	0.39				
	01	26	0296	L1	FILET	1.20	15.60	0.08	0.910	0.33				
	01	26	0297	L1	FILET	1.20	15.70	0.06	0.910	0.43				
	01	26	0298	L1	FILET	1.20	15.50	0.07	1.720	0.64				
	01	26	0299	L1	FILET	1.30	16.30	0.06	0.860	0.41				
74/06/26	01	26	0290	L1	FILET	1.30	16.80	0.13	1.030	0.60				
	01	26	0291	L1	FILET	1.20	16.90	0.16	1.550	0.50				
	01	26	0292	L1	FILET	1.10	15.90	0.10	0.770	0.32				
	01	26	0293	L1	FILET	5.5	3.10	20.50	0.31	2.770	1.65			
	01	26	0294	L1	FILET	10.6	5.00	24.10	0.28	5.550	2.85			
	01	26	0293	L1	FILET	7.1	2.40	19.00	0.19	3.500	1.56			
	01	26	0294	L1	FILET	9.5	2.90	21.00	0.15	2.460	1.79			
	01	26	0295	L1	FILET	9.0	8.10	28.00	0.45	12.280	5.82			
	01	26	0296	L1	FILET	11.9	6.10	25.50	0.41	10.270	4.51			
	01	26	0297	L1	FILET	11.3	7.70	26.50	0.47	6.060	5.61			
	01	26	0298	L1	FILET	6.9	9.20	28.80	0.76	10.120	6.39			
	01	26	0299	L1	FILET	9.9	7.00	26.30	0.57	11.070	7.56			

STORED RETRIEVAL DATE 80/11/14

/TYPE/AMBIENT/LAKE				FISH SPECIES	ANATOMY CODE	PERCENT FAI	39105	00023	00024	71930	34690	39376
DATE FROM TO	TIME OF DAY	DEPTH IN FEET	FEET					WEIGHT POUNDS	LENGTH INCHES	MERCURY TISSUE	PCB-1254 TISSUE	DDT SUM TISSUE
77/09/30	01 26	0294	LI	FILET	6.2	4.00	28.00	0.59	15.840	16.04		
	01 26	0295	LI	FILET	6.1	6.00	27.70	0.42	7.080	6.20		
	01 26	0296	LI	FILET	12.1	8.50	30.10	0.44	5.000	5.54		
78/10/09	01 26	0297	LI	FILET	9.4	10.50	29.50	0.52	9.170	8.73		
	01 26	0290	LI	FILET	6.8	4.65	25.20	0.21	3.270	2.01		
	01 26	0291	LI	FILET	8.1	7.75	27.90	0.45	5.460	4.57		
	01 26	0292	LI	FILET	5.2	6.21	26.10	0.25	3.070	1.81		
79/04/10	01 26	0293	LI	FILET	6.0	11.59	17.60	0.25	3.280	1.97		
	01 26	0290	LI	FILET	9.4	12.10	30.30	0.58	10.500	8.86		
	01 26	0291	LI	FILET	14.1	9.90	28.20	0.23	5.420	3.69		
	01 26	0292	LI	FILET	16.6	9.90	29.40	0.34	10.370	7.25		
	01 26	0293	LI	FILET	16.8	6.60	25.80	0.27	7.500	4.93		
	01 26	0294	LI	FILET	10.2	6.60	25.60	0.28	7.870	4.68		
79/05/01	01 26	0295	LI	FILET	13.1	5.50	24.50	0.16	5.120	3.22		
	01 26	0290	LI	FILET	7.8	3.00	17.30	0.09	2.000	1.39		
	01 26	0291	LI	FILET	13.9	7.00	24.80	0.11	3.370	2.15		
	01 26	0292	LI	FILET	7.7	3.00	21.40	0.14	2.690	1.75		
	01 26	0293	LI	FILET	6.6	2.00	18.50	0.07	1.120	0.64		
	01 26	0294	LI	FILET	5.9	2.38	19.00	0.09	1.620	0.85		
	01 26	0295	LI	FILET	8.6	2.40	18.60	0.10	0.750	0.62		
	01 26	0296	LI	FILET	14.0	4.84	23.60	0.19	3.460	2.25		
	01 26	0297	LI	FILET	11.2	4.12	22.70	0.16	2.500	1.54		
	01 26	0298	LI	FILET	9.4	4.16	22.70	0.18	3.750	2.20		
79/05/02	01 26	0299	LI	FILET	13.9	3.92	22.00	0.14	3.120	2.01		
	01 26	0290	LI	FILET	15.7	13.00	30.20	0.27	5.620	4.62		
	01 26	0291	LI	FILET	14.3	7.00	24.80	0.21	5.370	4.00		
	01 26	0292	LI	FILET	13.8	11.00	30.40	0.32	8.120	6.54		

SIDRET RETRIEVAL DATE 80/11/14

610346 MH-7
 43 13 00 .0 086 49 00 .0 3
 LK MICHIGAN,MH-7,MUSKECON
 26998 MICHIGAN
 MAJ BASIN: LAKE MICHIGAN 087501
 OPEN WATERS
 21MICH 780815

/TYP/A/AMBIENT/LAKE

	DATE	TIME	DEPTH	FISH SPECIES	ANATOMY ALPHA CODE	39105 PERCENT FAT	00023 WEIGHT	00024 LENGTH	71930 MERCURY TISMKG/KG	34690 PCB-1254 TISMKG/KG	39376 DDT SUM TISSUE
	FROM 10	OF DAY	FEET	F EWL	HEX EXTR	POUNDS	INCHES	WEI WT	WEI WT	WEI WT	WEI WT
77/09/30	01	26	0294	LT	FILET	6.2	4.00	28.00	0.59	15.840	16.04
	01	26	0295	LT	FILET	6.1	6.00	27.70	0.42	7.080	6.20
	01	26	0296	LT	FILET	12.1	8.50	30.10	0.44	5.000	5.54
	01	26	0297	LT	FILET	9.4	10.50	29.50	0.52	9.170	8.73
78/10/09	01	26	0290	LT	FILET	6.8	4.65	25.20	0.21	3.270	2.01
	01	26	0291	LT	FILET	8.1	7.75	27.90	0.45	5.460	4.57
	01	26	0292	LT	FILET	5.2	6.21	26.10	0.25	3.070	1.81
	01	26	0293	LT	FILET	6.0	1.59	17.60	0.25	3.280	1.97
79/04/10	01	26	0290	LT	FILET	9.4	12.10	30.30	0.58	10.500	8.86
	01	26	0291	LT	FILET	14.1	9.90	28.20	0.23	5.620	3.69
	01	26	0292	LT	FILET	16.6	9.90	29.40	0.34	10.370	7.25
	01	26	0293	LT	FILET	16.8	6.60	25.80	0.27	7.500	4.93
	01	26	0294	LT	FILET	10.2	6.60	25.60	0.28	7.870	4.68
	01	26	0295	LT	FILET	13.1	5.50	24.50	0.16	5.120	3.22
79/05/01	01	26	0290	LT	FILET	7.8	3.00	17.30	0.09	2.000	1.39
	01	26	0291	LT	FILET	13.9	7.00	24.80	0.11	3.370	2.15
	01	26	0292	LT	FILET	7.7	3.00	21.40	0.14	2.690	1.75
	01	26	0293	LT	FILET	6.6	2.00	18.50	0.07	1.120	0.64
	01	26	0294	LT	FILET	5.9	2.38	19.00	0.09	1.620	0.85
	01	26	0295	LT	FILET	8.6	2.40	18.60	0.10	0.750	0.62
	01	26	0296	LT	FILET	14.0	4.84	23.60	0.19	3.460	2.25
	01	26	0297	LT	FILET	11.2	4.12	22.70	0.16	2.500	1.54
	01	26	0298	LT	FILET	9.4	4.16	22.70	0.18	3.750	2.20
79/05/02	01	26	0290	LT	FILET	13.9	3.92	22.00	0.14	3.120	2.01
	01	26	0291	LT	FILET	15.7	13.00	30.20	0.27	5.620	4.62
	01	26	0292	LT	FILET	14.3	7.00	24.80	0.21	5.370	4.00
					FILET	13.8	11.00	30.40	0.32	8.120	6.54

STORIT RETRIEVAL DATE 80/11/14

/TYPE/AMBIENT/LAKE				FISH SPECIES	ANATOMY ALPHA CODE	PERCENT FAT	WEIGHT POUNDS	INCHES	00023 LENGTH	MERCURY TISSUE/KG	PCB-1254 TISSUE/WGT	DDT SUM WGT	39376
DATE FROM 10	TIME OF DAY	DEPTH FEET	FILET	FILET	FILET	FILET	FILET	FILET	71930	34690	15.510	9.45	
74/06/23	01 26	0291	FILET	FILET	FILET	FILET	FILET	FILET	25.00	0.76	4.440	1.74	
	01 26	0292	FILET	FILET	FILET	FILET	FILET	FILET	28.90	0.47	8.320	4.93	
	01 26	0293	FILET	FILET	FILET	FILET	FILET	FILET	29.70	0.53	7.180	3.85	
	01 26	0294	FILET	FILET	FILET	FILET	FILET	FILET	29.30	0.64	8.150	2.88	
74/06/24	01 26	0295	FILET	FILET	FILET	FILET	FILET	FILET	26.60	0.56	6.120	3.25	
	01 26	0291	FILET	FILET	FILET	FILET	FILET	FILET	28.60	0.62	12.500	5.42	
	01 26	0292	FILET	FILET	FILET	FILET	FILET	FILET	29.50	0.66	12.220	5.58	
	01 26	0293	FILET	FILET	FILET	FILET	FILET	FILET	29.30	0.43	7.530	3.25	
	01 26	0294	FILET	FILET	FILET	FILET	FILET	FILET	18.30	0.15	2.380	1.20	
	01 26	0295	FILET	FILET	FILET	FILET	FILET	FILET	18.10	0.24	3.500	1.35	
	01 26	0296	FILET	FILET	FILET	FILET	FILET	FILET	18.00	0.21	3.000	0.99	
	01 26	0297	FILET	FILET	FILET	FILET	FILET	FILET	18.00	0.17	4.440	1.85	
	01 26	0298	FILET	FILET	FILET	FILET	FILET	FILET	18.10	0.14	2.540	0.99	
	01 26	0299	FILET	FILET	FILET	FILET	FILET	FILET	17.50	0.21	2.920	1.18	
74/06/25	01 26	0290	FILET	FILET	FILET	FILET	FILET	FILET	18.60	0.19	2.870	1.02	
	01 26	0291	FILET	FILET	FILET	FILET	FILET	FILET	18.50	0.17	3.030	0.95	
	01 26	0292	FILET	FILET	FILET	FILET	FILET	FILET	17.50	0.16	1.500	0.27	
	01 26	0293	FILET	FILET	FILET	FILET	FILET	FILET	16.00	0.07	1.290	0.60	
	01 26	0294	FILET	FILET	FILET	FILET	FILET	FILET	16.30	0.06	0.660	0.41	
	01 26	0295	FILET	FILET	FILET	FILET	FILET	FILET	16.00	0.08	0.800	0.39	
	01 26	0296	FILET	FILET	FILET	FILET	FILET	FILET	15.60	0.08	0.910	0.33	
	01 26	0297	FILET	FILET	FILET	FILET	FILET	FILET	15.70	0.06	0.910	0.43	
	01 26	0298	FILET	FILET	FILET	FILET	FILET	FILET	15.50	0.07	1.720	0.64	
	01 26	0299	FILET	FILET	FILET	FILET	FILET	FILET	16.30	0.06	0.550	0.28	
74/06/26	01 26	0290	FILET	FILET	FILET	FILET	FILET	FILET	16.80	0.13	1.030	0.60	
	01 26	0291	FILET	FILET	FILET	FILET	FILET	FILET	16.90	0.16	1.550	0.50	
	01 26	0292	FILET	FILET	FILET	FILET	FILET	FILET	15.90	0.10	0.770	0.32	
	01 26	0293	FILET	FILET	FILET	FILET	FILET	FILET	20.50	0.31	2.770	1.65	
	01 26	0294	FILET	FILET	FILET	FILET	FILET	FILET	24.10	0.28	5.550	2.85	
	01 26	0295	FILET	FILET	FILET	FILET	FILET	FILET	19.00	0.19	3.500	1.56	
	01 26	0296	FILET	FILET	FILET	FILET	FILET	FILET	21.00	0.15	2.460	1.79	
	01 26	0297	FILET	FILET	FILET	FILET	FILET	FILET	28.00	0.45	12.280	5.82	
	01 26	0298	FILET	FILET	FILET	FILET	FILET	FILET	25.50	0.41	10.270	4.51	
	01 26	0299	FILET	FILET	FILET	FILET	FILET	FILET	26.50	0.47	8.060	5.61	
	01 26	0290	FILET	FILET	FILET	FILET	FILET	FILET	28.80	0.76	10.120	6.39	
	01 26	0291	FILET	FILET	FILET	FILET	FILET	FILET	26.30	0.57	11.070	7.56	
	01 26	0292	FILET	FILET	FILET	FILET	FILET	FILET	28.90	0.49	11.070	7.56	
	01 26	0293	FILET	FILET	FILET	FILET	FILET	FILET	27.70	0.41	10.270	4.51	
	01 26	0294	FILET	FILET	FILET	FILET	FILET	FILET	27.70	0.47	8.060	5.61	
	01 26	0295	FILET	FILET	FILET	FILET	FILET	FILET	28.80	0.76	10.120	6.39	
	01 26	0296	FILET	FILET	FILET	FILET	FILET	FILET	26.30	0.57	11.070	7.56	

SIGHTS RETRIEVAL DATE 80/11/14

/ TYPE / AMOUNT / LAKE										0999 FEET DEPTH CLASS 00									
DATE	TIME	DEPTH	PERCENT	WEIGHT	LNGTH	MERCURY	PCTB-1254	DDI SUM	TISSUE	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT
FROM TOH 10	OF DAY	FEET	ALPHA CODE	FAT	INCHES	INCHES	TISSUE/KG	TISSUE/KG	ISSUE	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT
74/11/07	01	26	0290	LT	FILET	12.9	3.90	22.80	0.33	8.500	3.9376								
	01	26	0291	LT	FILET	10.7	4.90	24.20	0.23	4.000	2.01								
	01	26	0292	LT	FILET	11.0	5.00	24.10	0.22	4.500	2.21								
	01	26	0293	LT	FILET	7.4	4.10	22.70	0.56	10.000	6.24								
	01	26	0294	LT	FILET	7.6	6.00	24.50	0.78	12.500	8.73								
	01	26	0295	LT	FILET	9.1	4.20	22.50	0.32	5.050	2.38								
	01	26	0296	LT	FILET	14.2	6.30	26.20	0.54	14.430	7.57								
	01	26	0297	LT	FILET	14.3	5.80	25.30	0.40	10.000	4.95								
	01	26	0298	LT	FILET	8.1	8.50	27.90	0.58	10.620	4.87								
	01	26	0299	LT	FILET	8.8	7.10	26.70	0.46	5.130	3.00								
	01	26	0290	LT	FILET	3.8	2.40	19.70	0.27	1.050	0.63								
	01	26	0291	LT	FILET	4.1	2.40	19.40	0.24	2.220	0.89								
	01	26	0292	LT	FILET	5.0	2.00	18.10	0.38	1.750	0.72								
	01	26	0293	LT	FILET	6.3	2.40	19.20	0.16	2.080	0.93								
	01	26	0294	LT	FILET	8.3	5.00	23.50	0.33	5.550	2.60								
	01	26	0295	LT	FILET	4.2	3.00	17.70	0.17	1.000	0.45								
	01	26	0296	LT	FILET	8.3	3.00	20.10	0.19	2.500	1.31								
	01	26	0297	LT	FILET	10.9	2.80	19.70	0.17	3.420	1.85								
	01	26	0291	LT	FILET	6.3	2.60	20.60	0.18	2.790	1.39								
	01	26	0292	LT	FILET	15.6	9.10	28.70	0.56	20.850	13.55								
	01	26	0293	LT	FILET	5.0	3.40	21.00	0.20	9.550	5.31								
	01	26	0294	LT	FILET	5.4	2.70	19.10	0.22	7.820	3.72								
	01	26	0295	LT	FILET	9.7	9.90	29.60	0.34	18.240	12.14								
	01	26	0296	LT	FILET	9.4	11.00	28.90	0.53	27.800	25.77								
	01	26	0297	LT	FILET	6.5	3.00	20.00	0.16	3.560	1.73								
	01	26	0298	LT	FILET	5.6	1.50	17.40	0.11	2.250	1.36								
	01	26	0299	LT	FILET	6.4	1.80	17.60	0.12	2.430	1.33								
	01	26	0290	LT	FILET	10.63	30.75			10.520	12.10								
	01	26	0291	LT	FILET	7.7	6.00	26.00		4.530	5.09								
	01	26	0292	LT	FILET	9.4	10.25	30.00		7.470	9.17								
	01	26	0293	LT	FILET	6.7	10.25	29.50		8.400	12.53								
	01	26	0294	LT	FILET	15.5	13.13	31.00		14.600	16.88								
	01	26	0295	LT	FILET	8.4	14.00	31.50		9.870	13.50								
	01	26	0296	LT	FILET	8.3	9.63	30.25		7.200	7.29								
	01	26	0297	LT	FILET	4.2	7.38			6.130	6.00								

STATION RETRIEVAL DATE 06/11/14

/TYPE/AMENT/LAKE							001	4143	00.0	086	55	00.0	4
DATE FROM TO	TIME OF DAY	DEPTH IN FEET	FISH SPECIES	ANATOMY ALPHA CODE	PERCENT FAT	WEIGHT POUNDS	00024	71930	34690	39376			
						INCHES	WT LENGTH	MISCELL	PCB-1254	001 SLM			
						WT	WT	WT	11SMG/KG	1 ISSUE			
								WT	WT	WT	WT/G		
76/04/06	01	26	0291	L1	FILET		26.00	0.50				0.80	
76/04/29	01	26	0291	L1	FILET		30.00	0.44				1.90	
				L1	FILET			0.50				3.10	
76/05/12	01	26	0291	L1	FILET		28.00	0.45				0.10K	
76/06/10	01	26	0290	L1	FILET								
				L1	FILET			0.24				0.70	
				L1	FILET			0.17				0.90	
				L1	FILET			0.16				0.54	
				L1	FILET			0.19				0.26	
				L1	FILET			0.26				0.53	
				L1	FILET		24.00	0.29					
				L1	FILET		26.00	0.40					
				L1	FILET		26.00	0.38					
				L1	FILET		28.00	0.38					
				L1	FILET		30.00	0.52					
				L1	FILET		30.00	0.52					
				L1	FILET		32.00	0.66					
				L1	FILET		16.00	0.16					
				L1	FILET		30.00	0.45					
				L1	FILET		22.00	0.24					
				L1	FILET		22.00	0.20				0.45	
				L1	FILET		24.00	0.26				12.30	
				L1	FILET		24.00	0.24				3.63	
				L1	FILET		26.00	0.35					
				L1	FILET		26.00	0.33				7.74	
				L1	FILET		26.00	0.36				3.44	
				L1	FILET		28.00	0.36				7.30	
				L1	FILET		28.00	0.47				5.22	
				L1	FILET		30.00	0.46				14.56	
				L1	FILET		32.00	0.45				23.80	
				L1	FILET		21.5	0.45				18.40	
				L1	FILET		32.00	0.47				16.84	
				L1	FILET			0.60				7.41	
				L1	FILET			0.47				13.60	
				L1	FILET			0.42				6.80	
				L1	FILET			0.34				6.90	

STORE1 REVERIFVAL DATE 06/11/14

/TYPE/AMENT/LAKE										001										
DATE FROM 10	TIME OF DAY	DEPTH F.EWL	FISH SPECIES	ANATOMY ALPHA CODE	PERCENT FAT	39105	00023	MEIGHI	LENGTH	MERCURY TISMC/KG	34690	R/CB-1254	001	001	001	001	001	001	001	
7/7/10/26	01	26	0297	FILET		17.0					0.44		7.14							
	01	26	0298	FILET		16.2					0.39		9.60							
	01	26	0299	FILET		15.0					0.54		16.10							
	01	26	0291	FILET		16.0					0.50		20.80							
	01	26	0292	FILET		10.5					0.67		13.26							
	01	26	0293	FILET							0.40		15.40							
	01	26	0294	FILET							0.31		9.33							

APPENDIX C
(EXAMPLE 4)

CORRELATION AND REGRESSION ANALYSIS PROGRAM
FOR LAKE TROUT IN LAKE MICHIGAN

```
PGM=REG,PURP=307/EPA,  
A=21MICH,S=610348,S=530127,A=2IINDNR,S=001,  
PRV=74990,PLV=29,PHV=29,PRV=74995,PLV=86,PHV=86,  
P=23,P=24,P=71930,P=34690,P=39376,  
REGPARMS  
PLOT,S=610348,P=4,P=5,  
PLOT,S=610348,P=2,P=4,  
PLOT,S=610348,P=3,P=4,  
PLOT,S=530127,P=3,P=4,  
PLOT,S=001,P=3,P=4,  
STOPREG,
```

SUMMARY PAGE

CORRELATION & REGRESSION ANALYSIS TWO QUALITY PARAMETERS SAME SITE.

STATION: 001 LAKE MICHIGAN OFF KIENTZEL DITC
LATITUDE & LONGITUDE: 41 43 00.0 086 55 00.0 4

ABSCISSA PARAMETER: 00024 LENGTH INCHES
ORDINATE PARAMETER: 71930 MERCURY TISMG/KG WET WGT

REQUESTED
ANALYSIS FROM: 1976/ 4 TO: 1977/10

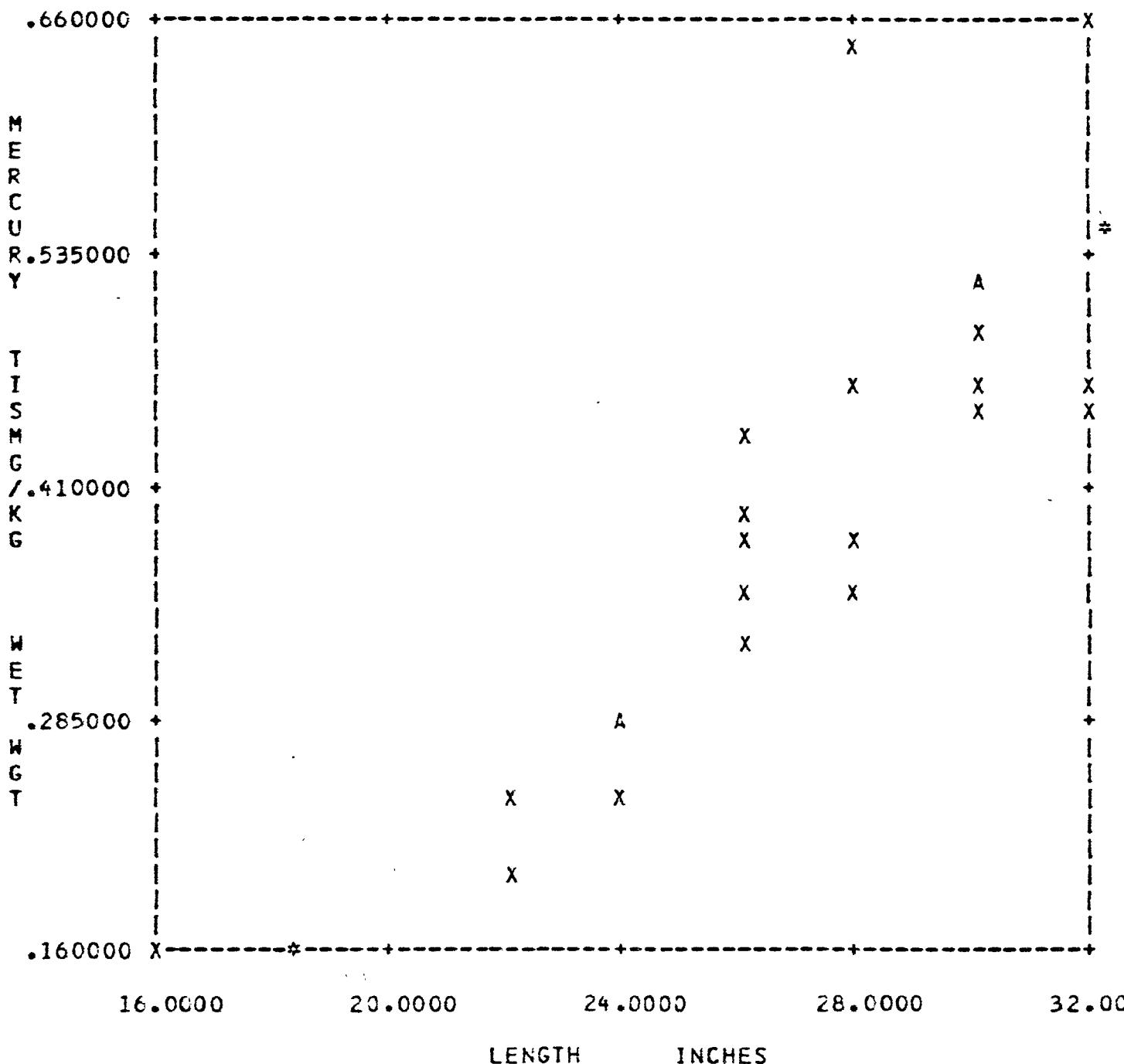
RECEIVED
ANALYSIS FROM: 1976/ 4/ 6 TO: 1977/10/27

REGRESSION LINE: $\hat{Y} = -0.360 + 0.02820X$
ORIGIN IS 0.0

CORRELATION COEFFICIENT: 0.83
COEFFICIENT OF DETERMINATION: 0.70

```
* **** * STANDARD ERROR OF ESTIMATE: 0.07368 *
* STANDARD ERROR OF INTERCEPT: 0.10852 *
* STANDARD ERROR OF SLOPE: 0.00399 *
* T VALUE FOR INTERCEPT: 3.31890 *
* T VALUE FOR SLOPE: 7.07616 *
* **** *
```

NUMBER OF SAMPLE POINTS: 23



SUMMARY PAGE

CORRELATION & REGRESSION ANALYSIS TWO QUALITY PARAMETERS SAME SITE.

STATION: 610348 LK MICHIGAN, MM-7, MUSKEGON
LATITUDE & LONGITUDE: 43 13 00.0 086 49 00.0 3

ABSCISSA PARAMETER:	00024	LENGTH	INCHES
ORDINATE PARAMETER:	71930	MERCURY	TISMG/KG WET WGT

REQUESTED
ANALYSIS FROM: 1974/ 7 TO: 1979/ 5

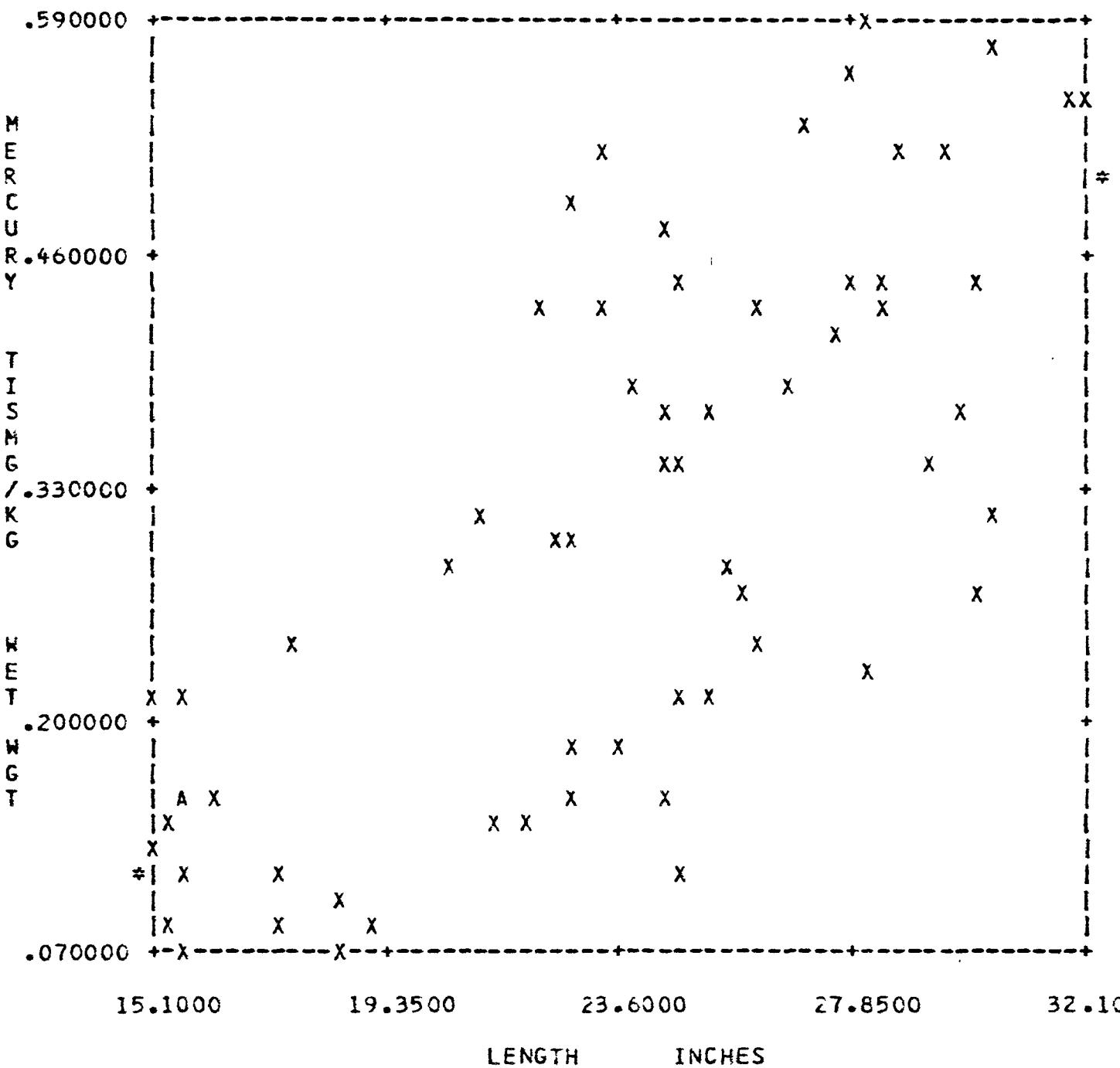
RECEIVED
ANALYSIS FROM: 1974/ 7/16 TO: 1979/ 5/ 2

REGRESSION LINE: Y= -0.234 + 0.02290X
ORIGIN IS 0.0

CORRELATION COEFFICIENT: 0.73
COEFFICIENT OF DETERMINATION: 0.53

* STANDARD ERROR OF ESTIMATE: 0.10644 *
* STANDARD ERROR OF INTERCEPT: 0.06548 *
* STANDARD ERROR OF SLOPE: 0.00272 *
* T VALUE FOR INTERCEPT: 3.57958 *
* T VALUE FOR SLOPE: 8.40979 *

NUMBER OF SAMPLE POINTS: 63



SUMMARY PAGE

CORRELATION & REGRESSION ANALYSIS TWO QUALITY PARAMETERS SAME SITE.

STATION: 610348 LK MICHIGAN, MM-7, MUSKEGON
LATITUDE & LONGITUDE: 43 13 00.0 086 49 00.0 3

AESCISSA PARAMETER:	00023	WEIGHT	POUNDS
ORDINATE PARAMETER:	71930	MERCURY	TISMG/KG WET WGT

REQUESTED
ANALYSIS FROM: 1974/ 7 TO: 1979/ 5

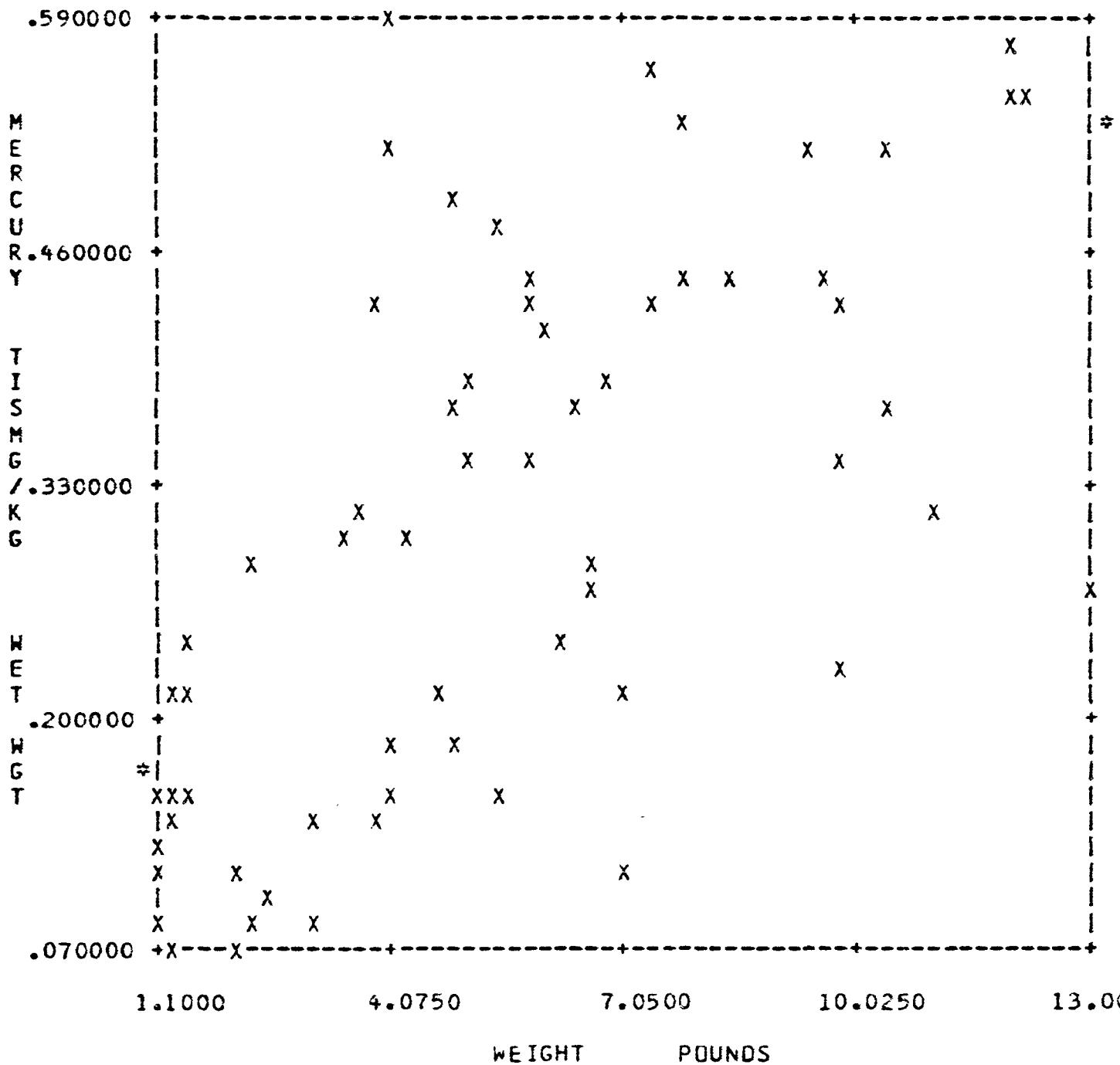
RECEIVED
ANALYSIS FROM: 1974/ 7/16 TO: 1979/ 5/ 2

REGRESSION LINE: Y= 0.142 + 0.02963X
ORIGIN IS 0.0

CORRELATION COEFFICIENT: 0.64
COEFFICIENT OF DETERMINATION: 0.41

* STANDARD ERROR OF ESTIMATE: 0.11996 *
* STANDARD ERROR OF INTERCEPT: 0.02916 *
* STANDARD ERROR OF SLOPE: 0.00455 *
* T VALUE FOR INTERCEPT: 4.87140 *
* T VALUE FOR SLOPE: 6.51657 *

NUMBER OF SAMPLE POINTS: 63



SUMMARY PAGE

CORRELATION & REGRESSION ANALYSIS TWO QUALITY PARAMETERS SAME SITE.

STATION: 610348 LK MICHIGAN, MM-7, MUSKEGON
LATITUDE & LONGITUDE: 43 13 00.0 086 49 00.0 3

ABSCISSA PARAMETER: 71930 MERCURY TISMG/KG WET WGT
ORDINATE PARAMETER: 34690 PCB-1254 TISMG/KG WET WGT

REQUESTED
ANALYSIS FROM: 1974/ 7 TO: 1979/ 5

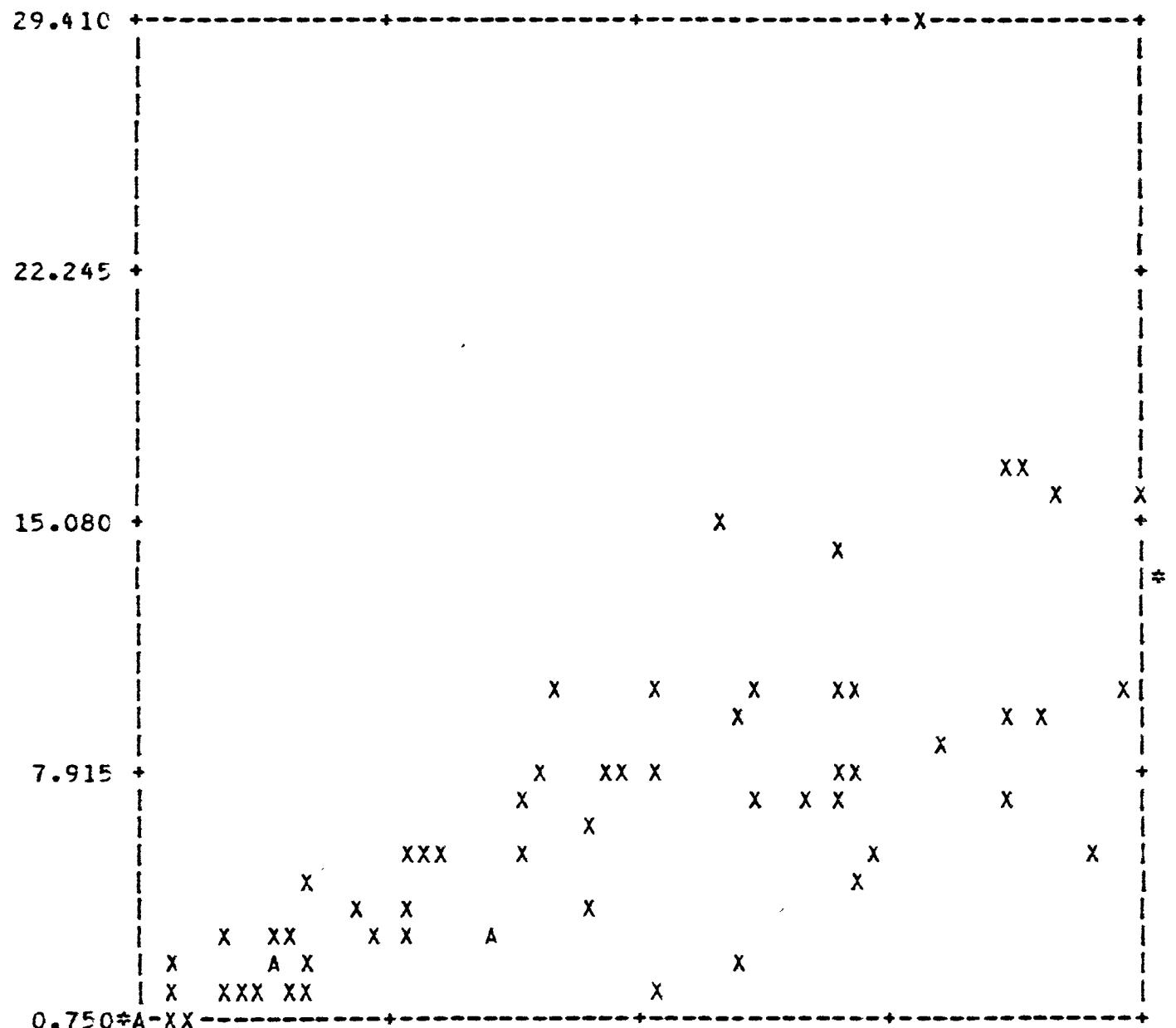
RECEIVED
ANALYSIS FROM: 1974/ 7/16 TO: 1979/ 5/ 2

REGRESSION LINE: Y= -0.837 + 24.46172X
ORIGIN IS 0.0

CORRELATION COEFFICIENT: 0.73
COEFFICIENT OF DETERMINATION: 0.53

* STANDARD ERROR OF ESTIMATE: 3.58416 *
* STANDARD ERROR OF INTERCEPT: 0.99835 *
* STANDARD ERROR OF SLOPE: 2.92312 *
* T VALUE FOR INTERCEPT: 0.83884 *
* T VALUE FOR SLOPE: 8.36835 *

NUMBER OF SAMPLE POINTS: 63



MERCURY TISMG/KG WET WGT

SUMMARY PAGE

CORRELATION & REGRESSION ANALYSIS TWO QUALITY PARAMETERS SAME SITE.

STATION: 530127 LK MICHIGAN, MM-6, LUDINGTON
LATITUDE & LONGITUDE: 44 03 00.0 086 47 00.0 3

ABSCISSA PARAMETER:	00024	LENGTH	INCHES
ORDINATE PARAMETER:	71930	MERCURY	TISMG/KG WET WGT

REQUESTED
ANALYSIS FROM: 1974/ 6 TO: 1979/ 8

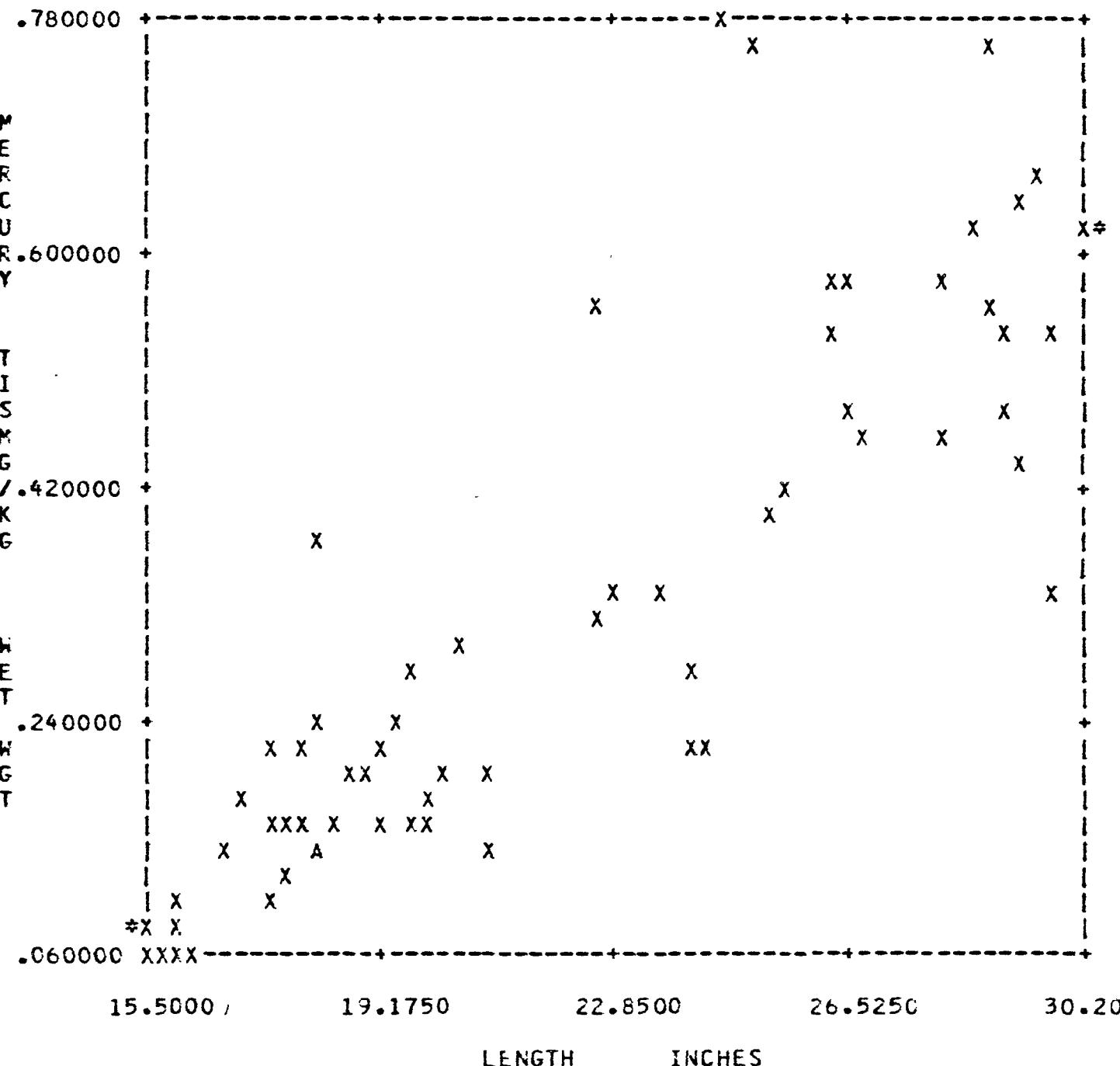
RECEIVED
ANALYSIS FROM: 1974/ 6/23 TO: 1979/ 8/ 9

REGRESSION LINE: Y= -0.486 + 0.03647X
ORIGIN IS 0.0

CORRELATION COEFFICIENT: 0.86
COEFFICIENT OF DETERMINATION: 0.73

* STANDARD ERROR OF ESTIMATE: 0.10506 *
* STANDARD ERROR OF INTERCEPT: 0.06304 *
* STANDARD ERROR OF SLOPE: 0.00279 *
* T VALUE FOR INTERCEPT: 7.70909 *
* T VALUE FOR SLOPE: 13.06415 *

NUMBER OF SAMPLE POINTS: 63



APPENDIX C.

(EXAMPLE 5)

BACK DATA COLLECTION PROJECT

FISH TISSUE DATA

FOR

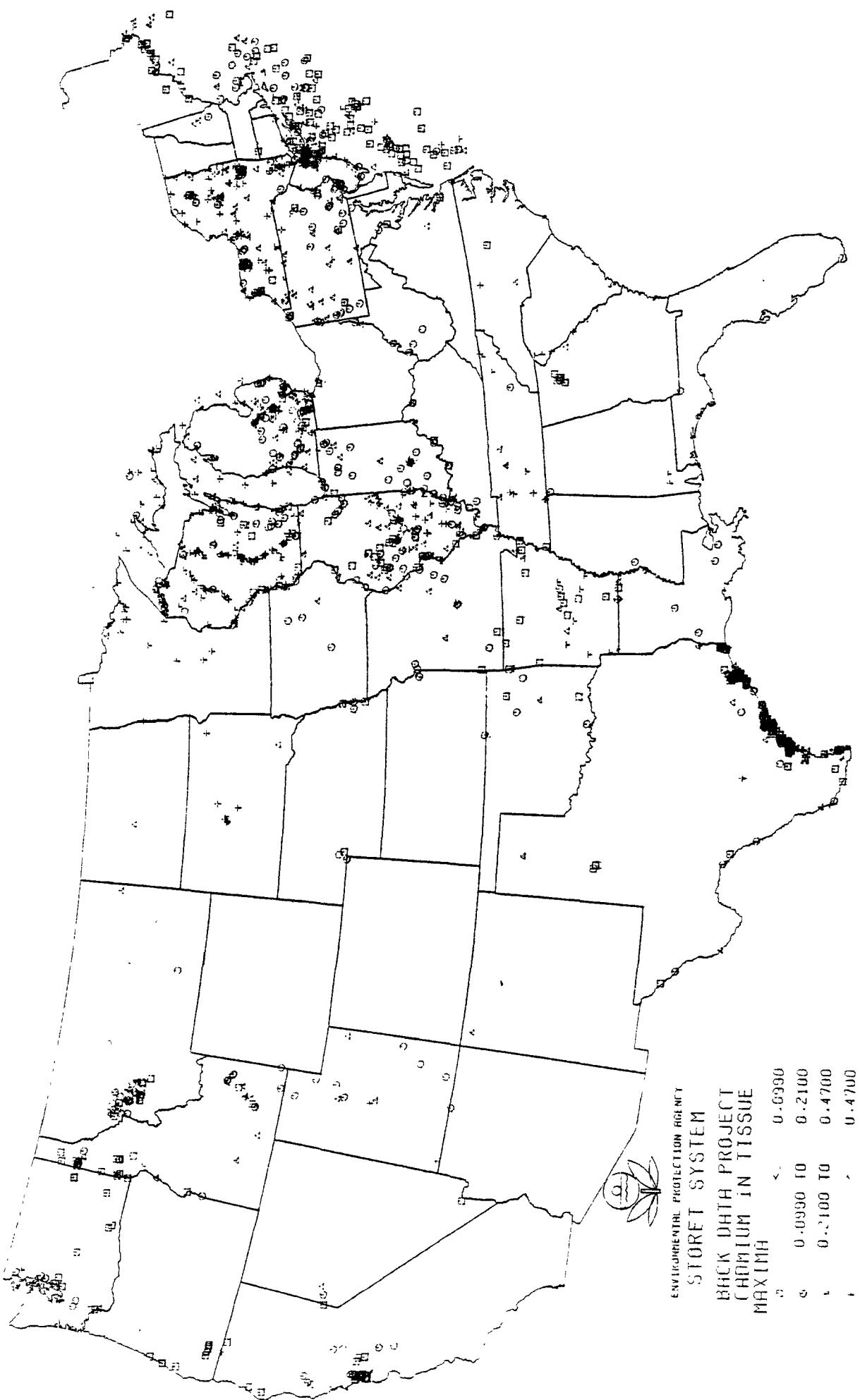
CADMIUM, MERCURY, & PCB's

Summary Tables & Pollutant maps
covering 2,688 monitoring locations

SUMMARY BY MONITORING LOCATION *

<u>POLLUTANT</u>	<u>NO. OF LOCATIONS</u>	<u>QUARTILE</u>	<u>TISSUE CONCENTRATION mg/kg (85th percentile)</u>
Cadmium	389	lower 25%	<0.099
	398	25-50%	0.099-0.21
	395	50-75%	0.21-0.47
	396	upper 25%	>0.47
Mercury	273	lower 25%	0
	247	25-50%	0-0.075
	257	50-75%	0.075-0.70
	247	upper 25%	>0.70
PCB's	387	lower 25%	<0.06
	386	25-50%	0.06-1.34
	390	50-75%	1.34-8.30
	388	upper 25%	>8.30

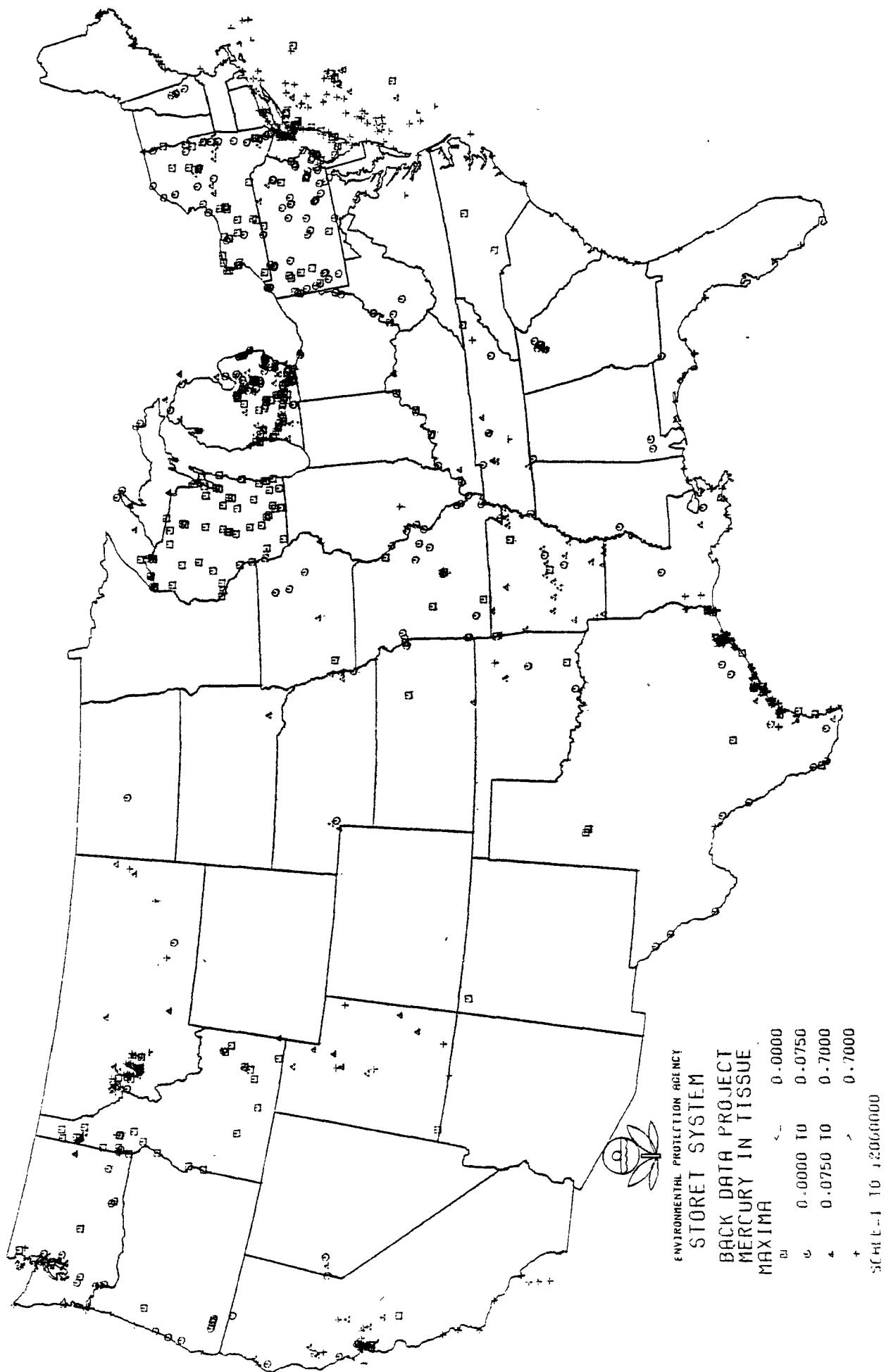
*Monitoring data for each station values set to zero when remark present and 85th percentiles computed.



ENVIRONMENTAL PROTECTION AGENCY
STORET SYSTEM
BRICK DETH PROJECT
CADMIUM IN TISSUE
MAXIMUM

0	<	0.6990	
0	0.0990	10	0.2100
0	0.2100	10	0.4700
+	>	0.4700	

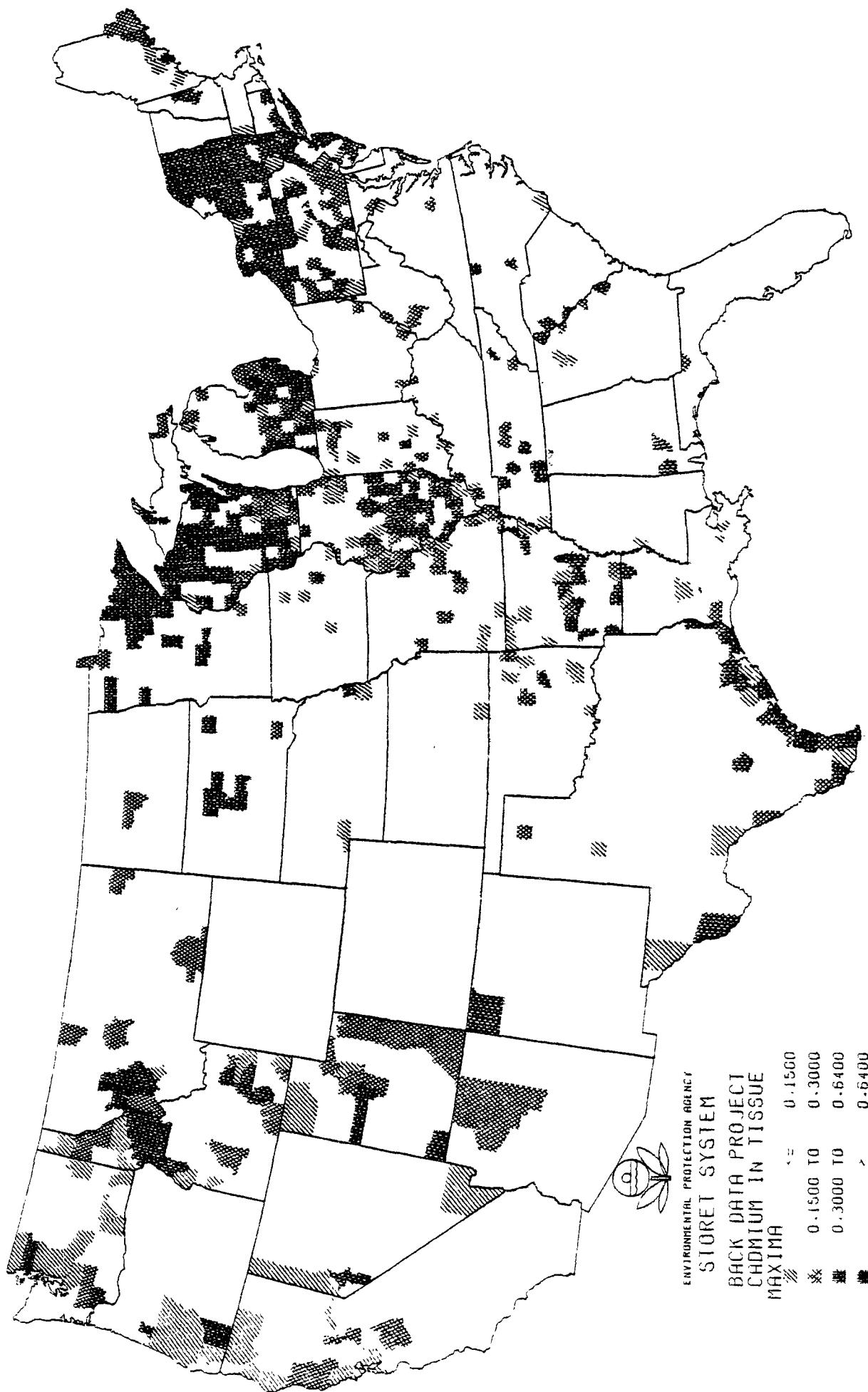
SCL F-1 10 120000000

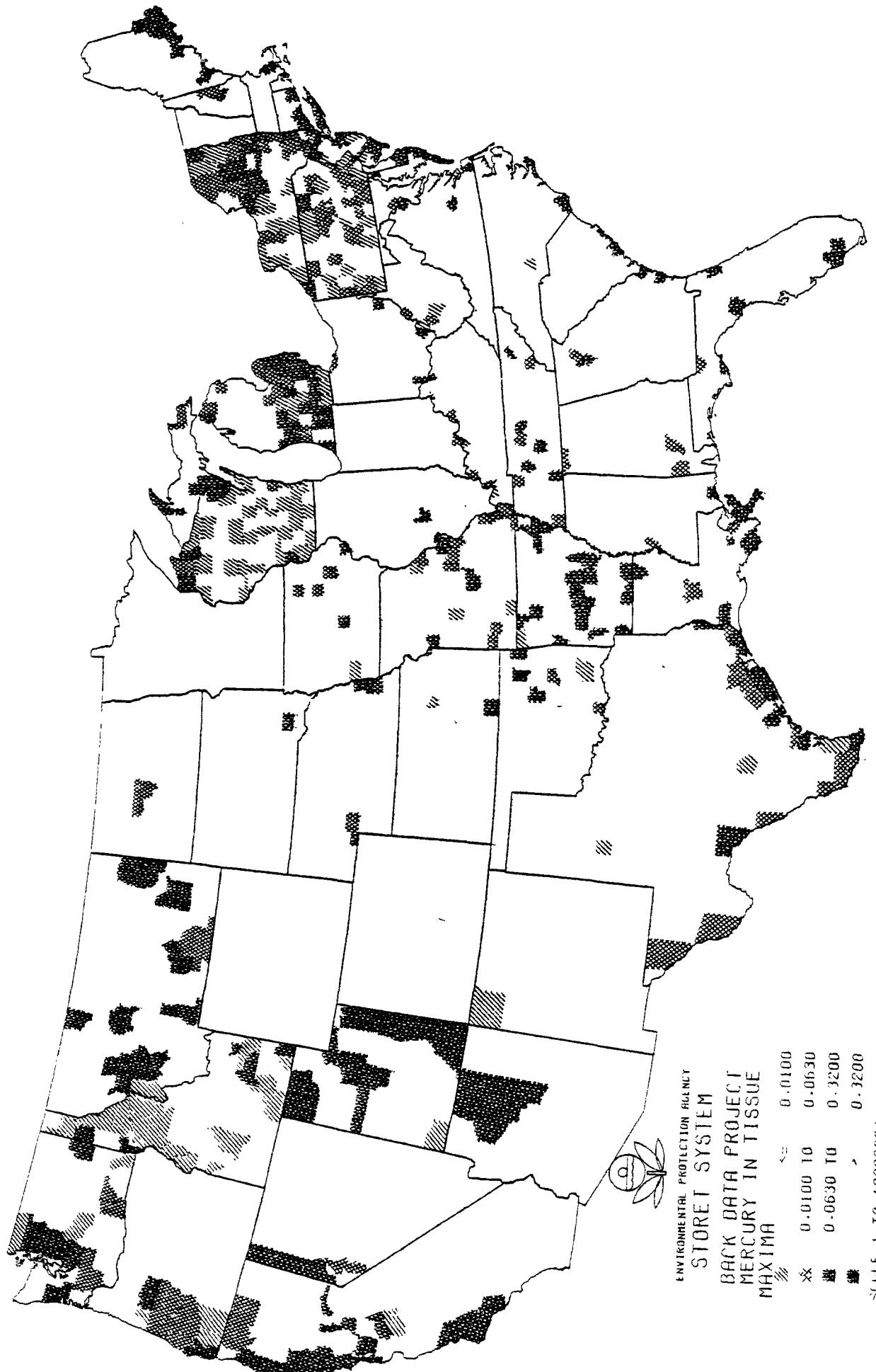


SUMMARY BY COUNTY*

<u>POLLUTANT</u>	<u>NO. OF COUNTIES</u>	<u>QUARTILE</u>	<u>TISSUE CONCENTRATION-mg/kg (85th percentile)</u>
Cadmium	133	lower 25%	<0.15
	134	25-50%	0.15-0.30
	131	50-75%	0.30-0.64
	138	upper 25%	>0.64
Mercury	108	lower 25%	<0.01
	102	25-50%	0.01-0.063
	111	50-75%	0.063-0.32
	112	upper 25%	>0.32
PCB's	149	lower 25%	<0.19
	151	25-50%	0.19-2.48
	152	50-75%	2.48-10.5
	154	upper 25%	>10.5

* Monitoring data aggregated by county, remarked data set to zero and 85th percentiles computed. Coastal data not included in county aggregate.





ACKNOWLEDGEMENTS

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This report is an enhancement of "Procedure for Storing Fish and Shellfish Tissue Data in the STORET Water Quality File," July 1979, prepared under EPA Contract No. 68-01-4679, and is regarded as a second, and updated, edition of STORET tissue storage procedures.

The individuals listed below, as well as the STORET User Assistance Group, were instrumental in the preparation of this document.

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