

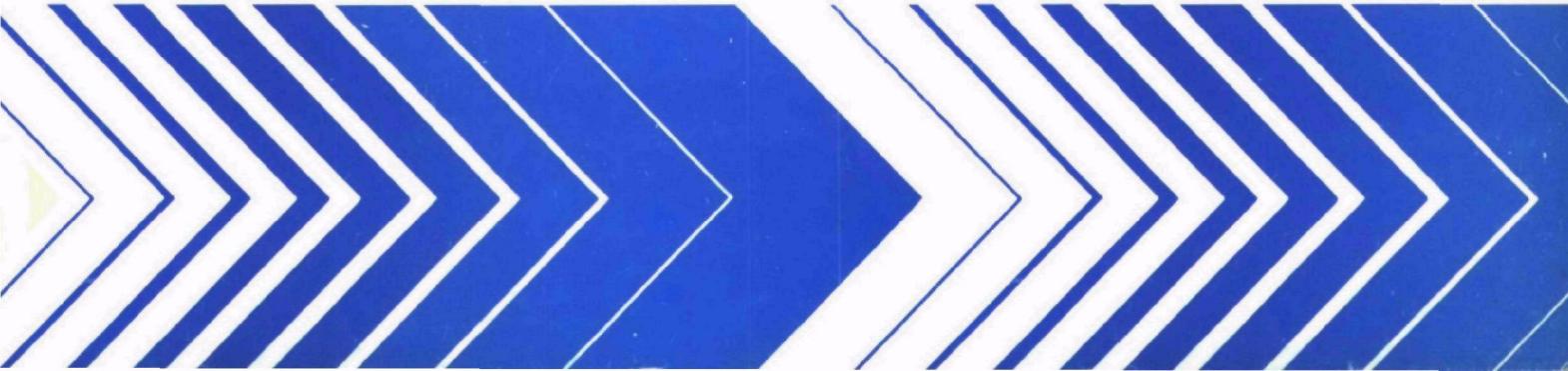
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# Distribution of Phytoplankton in South Dakota Lakes

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DISTRIBUTION OF PHYTOPLANKTON IN SOUTH DAKOTA LAKES

by

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## **DISCLAIMER**

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## FOREWORD

The National Eutrophication Survey was initiated in 1972 in response to an Administration commitment to investigate the nationwide threat of accelerated eutrophication to freshwater lakes and reservoirs. The Survey was designed to develop, in conjunction with State environmental agencies, information on nutrient sources, concentrations, and impact on selected freshwater lakes as a basis for formulating comprehensive and coordinated national, regional, and State management practices relating to point source discharge reduction and nonpoint source pollution abatement in lake watershed.

The Survey collected physical, chemical, and biological data from 815 lakes and reservoirs throughout the contiguous United States. To date, the Survey has yielded more than two million data points. In-depth analyses are being made to advance the rationale and data base for refinement of nutrient water quality criteria for the Nation's freshwater lakes.

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## INTRODUCTION

The collection and analysis of phytoplankton data were included in the National Eutrophication Survey in an effort to determine relationships between algal characteristics and trophic status of individual lakes.

During spring, summer, and fall of 1974, the Survey sampled 179 lakes in 10 States. Over 700 algal species and varieties were identified and enumerated from the 573 water samples examined.

This report presents the species and abundance of phytoplankton in the 31 lakes sampled in the State of South Dakota (Table 1). The Nygaard's Trophic State (Nygaard 1949), Palmer's Organic Pollution (Palmer 1969), and species diversity and abundance indices are also included.

TABLE 1. LAKES SAMPLED IN THE STATE OF SOUTH DAKOTA

STORET No.	Lake Name	County
4601	Lake Albert	Kingsbury, Hamlin
4602	Alvin Lake	Lincoln
4603	Angostura Reservoir	Fall River
4604	Brant Lake	Lake
4605	Lake Bryon	Beadle
4606	Clear Lake	Marshall
4607	Clear Lake	Minnehaha
4608	Cochrane	Deuel
4609	Cottonwood Lake	Spink
4610	Deerfield Reservoir	Pennington
4611	Enemy Swim Lake	Day
4612	Lake Herman	Lake

(Continued)

TABLE 1. LAKES SAMPLED IN THE STATE OF SOUTH DAKOTA (Continued)

STORET No.	Lake Name	County
4613	John Lake	Hamlin
4614	Lake Kampeska	Codington
4615	Madison Lake	Lake
4616	Lake Mitchell	Davison
4617	Lake Norden	Hamlin
4618	Oakwood Lake East	Brookings
4619	Oakwood Lake West	Brookings
4620	Pactola Reservoir	Pennington
4621	Pickerel Lake	Day
4622	Lake Poinsett	Hamlin, Brookings
4623	Lake Red Iron South	Marshall
4624	Richmond Lake	Brown
4625	Roy Lake	Marshall
4626	Sand Lake	Brown
4627	Sheridan Lake	Pennington
4628	Stockade Lake	Custer
4629	East Vermillion Lake	McCook
4630	Wall Lake	Minnehaha
4631	Waubay Lake North	Day

## MATERIALS AND METHODS

### LAKE AND SITE SELECTION

Lakes and reservoirs included in the Survey were selected through discussions with State water pollution agency personnel and U.S. Environmental Protection Agency Regional Offices (U.S. Environmental Protection Agency 1975). Screening and selection strongly emphasized lakes with actual or potential accelerated eutrophication problems. As a result, the selection was limited to lakes:

- (1) impacted by one or more municipal sewage treatment plant outfalls either directly into the lake or by discharge to an inlet tributary within approximately 40 kilometers of the lake;
- (2) 40 hectares or larger in size; and
- (3) with a mean hydraulic retention time of at least 30 days.

Specific selection criteria were waived for some lakes of particular State interest.

Sampling sites for a lake were selected based on available information on lake morphometry, potential major sources of nutrient input, and on-site judgment of the field limnologist (U.S. Environmental Protection Agency 1975). Primary sampling sites were chosen to reflect the deepest portion of each major basin in a test lake. Where many basins were present, selection was guided by nutrient source information on hand. At each sampling site, a depth-integrated phytoplankton sample was taken. Depth-integrated samples were uniform mixtures of water from the surface to a depth of 15 feet (4.6 meters) or from the surface to the lower limit of the photic zone representing 1 percent of the incident light, whichever was greater. If the depth at the sampling site was less than 15 feet (4.6 meters), the sample was taken from just off the bottom to the surface. Normally, a lake was sampled three times in 1 year, providing information on spring, summer, and fall conditions.

### SAMPLE PREPARATION

To preserve the sample 4 milliliters (ml) of Acid-Lugol's solution (Prescott 1970) were added to each 130-ml sample from each site at the time of collection. The samples were shipped to the Environmental Monitoring and Support Laboratory, Las Vegas, Nevada, where equal volumes from each site

were mixed to form two 130-ml composite samples for a given lake. One composite sample was put into storage and the other was used for the examination.

Prior to examination, the composite samples were concentrated by the settling method. Solids were allowed to settle for at least 24 hours prior to siphoning off the supernate. The volume of the removed supernate and the volume of the remaining concentrate were measured and concentrations determined. A small (8-ml) library subsample of the concentrate was then taken. The remaining concentrate was gently agitated to resuspend the plankton and poured into a capped, graduated test tube. If a preliminary examination of a sample indicated the need for a more concentrated sample, the contents of the test tube were further concentrated by repeating the settling method. Final concentrations varied from 15 to 40 times the original.

Permanent slides were prepared from concentrated samples after analysis was complete. A ring of clear Karo® corn syrup with phenol (a few crystals of phenol were added to each 100 ml of syrup) was placed on a glass slide. A drop of superconcentrate from the bottom of the test tube was placed in the ring. This solution was thoroughly mixed and topped with a coverglass. After the syrup at the edges of the coverglass had hardened, the excess was scraped away and the mount was sealed with clear fingernail polish. Permanent diatom slides were prepared by drying sample material on a coverglass, heating in a muffle furnace at 400° C for 45 minutes, and mounting in Hyrax®. Finally, the mounts were sealed with clear fingernail polish.

Backup samples, library samples, permanent sample slides, and Hyrax®-mounted diatom slides are being stored and maintained at the Environmental Monitoring and Support Laboratory-Las Vegas.

## EXAMINATION

The phytoplankton samples were examined with the aid of binocular compound microscopes. A preliminary examination was performed to precisely identify and list all forms encountered. The length of this examination varied depending on the complexity of the sample. An attempt was made to find and identify all of the forms present in each sample. Often forms were observed which could not be identified to species or to genus. Abbreviated descriptions were used to keep a record of these forms (e.g., lunate cell, blue-green filament, Navicula #1). Diatom slides were examined using a standard light microscope. If greater resolution was essential to accurately identify the diatoms, a phase-contrast microscope was used.

After the species list was compiled, phytoplankton were enumerated using a Neubauer Counting Chamber with a 40X objective lens and a 10X ocular lens. All forms within each field were counted. The count was continued until a minimum of 100 fields had been viewed, or until the dominant form had been observed a minimum of 100 times.

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## QUALITY CONTROL

Project phycologists performed internal quality control intercomparisons regularly on 7 percent of the species identification and counts. Although an individual had primary responsibility for analyzing a sample, taxonomic problems were discussed among the phycologists.

Additional quality control checks were performed on the Survey samples by Dr. G. W. Prescott of the University of Montana at the rate of 5 percent. Quality control checks were made on 75 percent of these samples to verify species identifications while checks were made on the remaining 25 percent of the samples to verify genus counts. Presently, the agreement between quality control checks for species identification and genus enumerations is satisfactory.

## RESULTS

A phytoplankton species list for the State is presented in Appendix A. Appendix B summarizes all of the phytoplankton data collected from the State by the Survey. The latter is organized by lake, and includes an alphabetical phytoplankton species list with concentrations for individual species given by sampling date. Results from the application of several indices are presented (Nygaard's Trophic State, Palmer's Organic Pollution, and species diversity and abundance). Each lake has been assigned a four-digit STORET number. (STORET (STOrage and RETrieval) is the U.S. Environmental Protection Agency's computer system which processes and maintains water quality data.) The first two digits of the STORET number identify the State; the last two digits identify the lake.

### NYGAARD'S TROPHIC STATE INDICES

Five indices devised by Nygaard (1949) were proposed under the assumption that certain algal groups are indicative of levels of nutrient enrichment. These indices were calculated in order to aid in determining the surveyed lakes' trophic status. As a general rule, Cyanophyta, Euglenophyta, centric diatoms, and members of the Chlorococcales are found in waters that are eutrophic (rich in nutrients), while desmids and many pinnate diatoms generally cannot tolerate high nutrient levels and so are found in oligotrophic waters (poor in nutrients).

In applying the indices to the Survey data, the number of taxa in each major group was determined from the species list for each sample. The ratios of these groups give numerical values which can be used as a biological index of water richness. The five indices and the ranges of values established for Danish lakes by Nygaard for each trophic state are presented in Table 2. The appropriate symbol, (E) eutrophic and (O) oligotrophic, follows each calculated value in the tables in Appendix B. A question mark (?) following a calculated value in these tables was entered when that value was within the range of both classifications.

### PALMER'S ORGANIC POLLUTION INDICES

Palmer (1969) analyzed reports from 165 authors and developed algal pollution indices for use in rating water samples with high organic pollution. Two lists of organic-pollution-tolerant forms were prepared, one containing 20 genera, the other, 20 species (Tables 3 and 4). Each form was assigned a pollution index number ranging from 1 for moderately tolerant forms to 6 for

TABLE 2. NYGAARD'S TROPHIC STATE INDICES ADAPTED FROM HUTCHINSON (1967)

Index	Calculation	Oligotrophic	Eutrophic
Myxophycean	<u>Myxophyceae</u> Desmideae	0.0-0.4	0.1-3.0
Chlorophycean	<u>Chlorococcales</u> Desmideae	0.0-0.7	0.2-9.0
Diatom	<u>Centric Diatoms</u> Pennate Diatoms	0.0-0.3	0.0-1.75
Euglenophyte	<u>Euglenophyta</u> Myxophyceae + Chlorococcales	0.0-0.2	0.0-1.0
Compound	<u>Myxophyceae + Chlorococcales +</u> <u>Centric Diatoms + Euglenophyta</u> Desmideae	0.0-1.0	1.2-25

TABLE 3. ALGAL GENUS POLLUTION INDEX  
(Palmer 1969)

Genus	Pollution Index
<u>Anacystis</u>	1
<u>Ankistrodesmus</u>	2
<u>Chlamydomonas</u>	4
<u>Chlorella</u>	3
<u>Closterium</u>	1
<u>Cyclotella</u>	1
<u>Euglena</u>	5
<u>Gomphonema</u>	1
<u>Lepocinclis</u>	1
<u>Melosira</u>	1
<u>Micractinium</u>	1
<u>Navicula</u>	3
<u>Nitzschia</u>	3
<u>Oscillatoria</u>	5
<u>Pandorina</u>	1
<u>Phacus</u>	2
<u>Phormidium</u>	1
<u>Scenedesmus</u>	4
<u>Stigeoclonium</u>	2
<u>Synedra</u>	2

TABLE 4. ALGAL SPECIES POLLUTION INDEX (Palmer 1969)

Species	Pollution Index
<u>Ankistrodesmus falcatus</u>	3
<u>Arthrospira jenneri</u>	2
<u>Chlorella vulgaris</u>	2
<u>Cyclotella meneghiniana</u>	2
<u>Euglena gracilis</u>	1
<u>Euglena viridis</u>	6
<u>Gomphonema parvulum</u>	1
<u>Melosira varians</u>	2
<u>Navicula cryptocephala</u>	1
<u>Nitzschia acicularis</u>	1
<u>Nitzschia palea</u>	5
<u>Oscillatoria chlorina</u>	2
<u>Oscillatoria limosa</u>	4
<u>Oscillatoria princeps</u>	1
<u>Oscillatoria putrida</u>	1
<u>Oscillatoria tenuis</u>	4
<u>Pandorina morum</u>	3
<u>Scenedesmus quadricauda</u>	4
<u>Stigeoclonium tenue</u>	3
<u>Synedra ulna</u>	3

extremely tolerant forms. Palmer based the index numbers on occurrence records and/or where emphasized by the authors as being especially tolerant of organic pollution.

In analyzing a water sample, any of the 20 genera or species of algae present in concentrations of 50 per milliliter or more are recorded. The pollution index numbers of the algae present are totaled, providing a genus score and a species score. Palmer determined that a score of 20 or more for either index can be taken as evidence of high organic pollution, while a score of 15 to 19 is taken as probable evidence of high organic pollution. Lower figures suggest that the organic pollution of the sample is not high, that the sample is not representative, or that some substance or factor interfering with algal persistence is present and active.

#### SPECIES DIVERSITY AND ABUNDANCE INDICES

"Information content" of biological samples is being used commonly by biologists as a measure of diversity. Diversity in this connection means the degree of uncertainty attached to the specific identity of any randomly selected individual. The greater the number of taxa and the more equal their proportions, the greater the uncertainty, and hence, the diversity (Pielou 1966). There are several methods of measuring diversity, e.g., the formulas given by Brillouin (1962) and Shannon and Weaver (1963). The method which is appropriate depends on the type of biological sample on hand.

Pielou (1966) classifies the types of biological samples and gives the measure of diversity appropriate for each type. The Survey phytoplankton samples are what she classifies as larger samples (collections in Pielou's terminology) from which random subsamples can be drawn. According to Pielou, the average diversity per individual ( $H$ ) for these types of samples can be estimated from the Shannon-Wiener formula (Shannon and Weaver 1963):

$$H = -\sum_{i=1}^S p_i \log_x p_i$$

where  $P$  is the proportion of the  $i$ th taxon in the sample, which is calculated from  $n_i/N$ ;  $n_i$  is the number of individuals per milliliter of the  $i$ th taxon;  $N$  is the total number of individuals per ml; and  $S$  is the total number of taxa. However, Basharin (1959) and Pielou (1966) have pointed out that  $H$  calculated from the subsample is a biased estimator of the sample  $H$ , and if this bias is to be accounted for, we must know the total number of taxa present in the sample since the magnitude of this bias depends on it.

Pielou (1966) suggests that if the number of taxa in the subsample falls only slightly short of the number in the larger sample, no appreciable error will result in considering  $S$ , estimated from the subsample, as being equal to the sample value. Even though considerable effort was made to find and identify all taxa, the Survey samples undoubtedly contain a fair number of rare phytoplankton taxa which were not encountered.

In the Shannon-Wiener formula, an increase in the number of taxa and/or an increase in the evenness of the distribution of individuals among taxa will increase the average diversity per individual from its minimal value of zero. Sager and Hasler (1969) found that the richness of taxa was of minor importance in determination of average diversity per individual for phytoplankton and they concluded that phytoplankton taxa in excess of the 10 to 15 most abundant ones have little effect on H. This was verified by our own calculations. Our counts are in number per milliliter and since logarithms to the base 2 were used in our calculations, H is expressed in units of bits per individual. When individuals of a taxon were so rare that they were not counted, a value of 1/130 per milliliter or 0.008 per milliliter was used in the calculations since at least one individual of the taxon must have been present in the collection.

A Survey sample for a given lake represents a composite of all phytoplankton collected at different sampling sites on the lake during a given sampling period. Since the number of samples (M) making up a composite is a function of both the complexity of the lake sampled and its size, it should affect the richness-of-taxa component of the diversity of our phytoplankton collections. The maximum diversity (MaxH) (i.e., when the individuals are distributed among the taxa as evenly as possible) was estimated from  $\log_2 S$  (Pielou 1966), while the minimum diversity (MinH), was estimated from the formula:

$$\text{MinH} = -\frac{S-1}{N} \log_2 \frac{1}{N} - \left[ \frac{N-(S-1)}{N} \right] \log_2 \left[ \frac{N-(S-1)}{N} \right]$$

given by Zand (1976). The total diversity (D) was calculated from  $H_N$  (Pielou 1966). Also given in Appendix B are L (the mean number of individuals per taxa per milliliter) and K (the number of individuals per milliliter of the most abundant taxon in the sample).

The evenness component of diversity (J) was estimated from  $H/\text{MaxH}$  (Pielou 1966). Relative evenness (RJ) was calculated from the formula:

$$RJ = \frac{H-\text{MinH}}{\text{MaxH}-\text{MinH}}$$

given by Zand (1976). Zand suggests that RJ be used as a substitute for both J and the redundancy expression given by Wilhm and Dorris (1968). As pointed out by Zand, the redundancy expression given by Wilhm and Dorris does not properly express what it is intended to show, i.e., the position of H in the range between MaxH and MinH. RJ may range from 0 to 1; being 1 for the most even samples and 0 for the least even samples.

Zand (1976) suggests that diversity indices be expressed in units of "sits", i.e., in logarithms to base S (where S is the total number of taxa in the sample) instead of in "bits", i.e., in logarithms to base 2. Zand points out that the diversity index in sits per individual is a normalized number ranging from 1 for the most evenly distributed samples to 0 for the least evenly distributed samples. Also, it can be used to compare different samples, independent of the number of taxa in each. The diversity in bits per

individual should not be used in direct comparisons involving various samples which have different numbers of taxa. Since MaxH equals  $\log S$ , the expression in sites is equal to  $\log S$ , or 1. Therefore diversity in sites per individual is numerically equivalent to J, the evenness component for the Shannon-Wiener formula.

#### SPECIES OCCURRENCE AND ABUNDANCE

The alphabetic phytoplankton species list for each lake, presented in Appendix B, gives the concentrations of individual species by sampling date. Concentrations are in cells, colonies, or filaments (CEL, COL, FIL) per milliliter. An "X" after a species name indicates that the species identified in the preliminary examination was in such a low concentration that it did not appear in the count. A blank space indicates that the organism was not found in the sample collected on that date. Column S is used to designate the examiner's subjective opinion of the five dominant taxa in a sample, based upon relative size and concentration of the organism. The percent column (%C) presents, by abundance, the percentage composition of each taxon.

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**APPENDIX A**  
**PHYTOPLANKTON SPECIES FOR THE STATE OF SOUTH DAKOTA**

<i>Achnanthes inflata</i>	<i>Characium</i> sp.
<i>Actinastrum gracilimum</i>	<i>Chlamydomonas globosa</i>
<i>Actinastrum hantzschia</i>	<i>Chroococcus dispersus</i>
<i>Amphora ovalis</i>	<i>Chroococcus limneticus</i>
v. <i>affinis</i>	<i>Chroomonas acuta</i>
<i>Anabaena circinalis</i>	<i>Chroomonas reflexa</i>
<i>Anabaena flos-aquae</i>	<i>Closteriopsis</i> sp.
<i>Anabaena oscillarioides</i>	<i>Closterium</i> sp.
<i>Anabaena plantonica</i>	<i>Coccconeis placentula</i>
<i>Anabaena subcylindrica</i>	<i>Coccconeis placentula</i>
v. <i>circularis</i>	v. <i>lineata</i>
<i>Anabaenopsis elenkinii</i>	<i>Coelastrum cambricum</i>
<i>Anabaenopsis raciborskii</i>	<i>Coelastrum cambricum</i>
<i>Anabaenopsis seriata</i>	v. <i>intermedium</i>
<i>Ankistrodesmus falcatus</i>	<i>Coelastrum microporum</i>
<i>Ankistrodesmus falcatus</i>	<i>Coelastrum reticulatum</i>
v. <i>acicularis</i>	<i>Coelosphaerium kuetzingianum</i>
<i>Ankistrodesmus falcatus</i>	<i>Coelosphaerium naegelianum</i>
v. <i>mirabilis</i>	<i>Coelosphaerium pallidum</i>
<i>Aphanizomenon flos-aquae</i>	<i>Coscinodiscus rothii</i>
<i>Aphanizomenon gracile</i>	v. <i>subsalsa</i>
<i>Aphanocapsa delicatissima</i>	<i>Cosmarium clepsydra</i>
<i>Aphanocapsa elachista</i>	v. <i>nanum</i>
<i>Aphanocapsa elachista</i>	<i>Crucigenia apiculata</i>
v. <i>conferta</i>	<i>Crucigenia quadrata</i>
<i>Aphanocapsa elachista</i>	<i>Crucigenia rectangularis</i>
v. <i>plantonica</i>	<i>Crucigenia tetrapedia</i>
<i>Aphanothece nidulans</i>	<i>Cryptomonas erosa</i>
<i>Aphanothece nidulans</i>	<i>Cryptomonas erosa</i>
v. <i>endophytica</i>	v. <i>reflexa</i>
<i>Aphanothece pulverulenta</i> ?	<i>Cryptomonas marssonii</i>
<i>ArthrosPIra jenneri</i>	<i>Cryptomonas ovata</i>
<i>Asterionella formosa</i>	<i>Cryptomonas reflexa</i>
<i>Asterionella formosa</i>	<i>Cyclotella meneghiniana</i>
v. <i>gracillima</i>	<i>Cyclotella michiganiana</i>
<i>Binuclearia</i> sp.	<i>Cymatopleura elliptica</i>
<i>Botryococcus branuui</i>	<i>Cymatopleura solea</i>
<i>Caloneis</i> ? <i>lewisii</i>	<i>Cymatopleura solea</i>
<i>Caloneis amphisbaena</i>	v. <i>regula</i>
<i>Carteria</i> sp.	<i>Cymbella cymbiformis</i>
<i>Ceratium hirundinella</i>	<i>Cymbella mexicana</i>
<i>Ceratium hirundinella</i>	<i>Cymbella minuta</i>
f. <i>austriacum</i>	<i>Cymbella minuta</i>
<i>Ceratium hirundinella</i>	v. <i>pseudogracilis</i>
f. <i>brachyceras</i>	<i>Cymbella triangulum</i>
<i>Ceratium hirundinella</i>	<i>Cymbella ventricosa</i>
f. <i>furcoides</i>	<i>Dactylococcopsis irregularis</i>
<i>Ceratium hirundinella</i>	<i>Dichotomococcus</i> sp.
f. <i>scotticum</i>	<i>Dictyosphaerium pulchellum</i>
<i>Chaetoceros elmorei</i>	<i>Dinobryon divergens</i>

<i>Dinobryon pediforme</i>	<i>Kirchneriella lunaris</i>
<i>Dinobryon sertularia</i>	v. <i>irregularis</i>
<i>Dinobryon sertularia</i>	<i>Kirchneriella subsolitaria</i>
v. <i>protuberans</i>	<i>Lagerheimia wratislaviensis</i>
<i>Dinobryon sociale</i>	<i>Lepocinclis fusiformis</i>
<i>Diplopsalis acuta</i>	<i>Lyngbya birgei</i>
<i>Elakatothrix gelatinosa</i>	<i>Lyngbya contorta</i>
<i>Entomoneis alata</i>	<i>Lyngbya lagerheimii</i>
<i>Entomoneis ornata</i>	<i>Lyngbya subtilis</i>
<i>Entomoneis paludosa</i>	<i>Mallomonas acaroides</i>
<i>Epithemia sorex</i>	<i>Melosira distans</i>
<i>Epithemia turgida</i>	<i>Melosira granulata</i>
<i>Eudorina elegans</i>	<i>Melosira granulata</i>
<i>Euglena acus</i>	v. <i>angustissima</i>
<i>Euglena charkowiensis</i> ?	<i>Melosira italicica</i>
<i>Euglena ehrenbergii</i>	<i>Melosira varians</i>
<i>Euglena gracilis</i>	<i>Merismopedia glauca</i>
<i>Euglena oxyuris</i>	<i>Merismopedia minima</i>
<i>Euglena oxyuris</i>	<i>Merismopedia tenuissima</i>
v. <i>minor</i>	<i>Mesostigma viridis</i>
<i>Euglena tripteris</i>	<i>Micractinium pusillum</i>
<i>Eunotia valida</i>	<i>Microcystis aeruginosa</i>
<i>Fragilaria bicapitata</i>	<i>Microcystis incerta</i>
<i>Fragilaria brevistriata</i>	<i>Microcystis marginata</i>
v. <i>inflata</i>	<i>Mougeotia</i> sp.
<i>Fragilaria capucina</i>	<i>Navicula capitata</i>
<i>Fragilaria capucina</i>	<i>Navicula cuspidata</i>
v. <i>mesolepta</i>	<i>Navicula gastrum</i>
<i>Fragilaria construens</i>	<i>Navicula pupula</i>
<i>Fragilaria crotonensis</i>	v. <i>elliptica</i>
<i>Franceia ovalis</i>	<i>Navicula pygmaea</i>
<i>Franceia tuberculata</i>	<i>Navicula reinhardtii</i>
<i>Glenodinium gymnodinium</i>	<i>Neidium</i> sp.
<i>Glenodinium gymnodinium</i>	<i>Nitzschia acicularis</i>
v. <i>biscutelliforme</i>	<i>Nitzschia amphibia</i>
<i>Glenodinium oculatum</i>	<i>Nitzschia commutata</i>
<i>Gloeocapsa aeruginosa</i>	<i>Nitzschia dissipata</i>
<i>Gloeocystis</i> sp.	<i>Nitzschia holsatica</i>
<i>Gloeotrichia echinulata</i>	<i>Nitzschia hungarica</i> ?
<i>Gomphonema angustatum</i>	<i>Nitzschia longissima</i>
<i>Gomphonema olivaceum</i>	v. <i>reversa</i>
<i>Gomphonema parvulum</i>	<i>Nitzschia palea</i>
<i>Gomphosphaeria aponina</i>	<i>Nitzschia sigmaoidea</i>
<i>Gonium</i> sp.	<i>Nitzschia tryblionella</i>
<i>Gymnodinium album</i>	<i>Nitzschia vermicularis</i>
<i>Gymnodinium ordinatum</i>	<i>Nodularia</i> sp.
<i>Gyrosigma wormleyi</i>	<i>Nostoc</i> sp.
<i>Hantzschia amphioxys</i>	<i>Oocystis borgei</i>
<i>Kirchneriella contorta</i>	<i>Oocystis citriformis</i>
<i>Kirchneriella lunaris</i>	<i>Oscillatoria agardhii</i>

<i>Oscillatoria angustissima</i>	<i>Scenedesmus dimorphus</i>
<i>Oscillatoria limmetica</i>	<i>Scenedesmus intermedius</i>
<i>Paradoxia multiseta</i>	<i>Scenedesmus intermedius</i>
<i>Pediastrum boryanum</i>	<i>v. balaticus</i>
<i>Pediastrum duplex</i>	<i>Scenedesmus intermedius</i>
<i>Pediastrum duplex</i> v. <i>clathratum</i>	<i>v. bicaudatus</i>
<i>Pediastrum duplex</i> v. <i>reticulatum</i>	<i>Scenedesmus opoliensis</i>
<i>Pediastrum kawraiskyi</i>	<i>Scenedesmus protuberans</i>
<i>Pediastrum simplex</i>	<i>Scenedesmus quadricauda</i>
<i>Pediastrum simplex</i> v. <i>duodenarium</i>	<i>Scenedesmus quadricauda</i> v. <i>parvus</i>
<i>Pediastrum tetras</i> v. <i>tetraodon</i>	<i>Scenedesmus raciborskii</i>
<i>Peridinium borgei</i>	<i>f. granulatus</i>
<i>Peridinium cinctum</i>	<i>Schroederia judayi</i>
<i>Peridinium umbonatum</i>	<i>Schroederia setigera</i>
<i>Peridinium willei</i>	<i>Selenastrum sp.</i>
<i>Phacus acuminatus</i>	<i>Skeletonema potamos</i>
<i>Phacus acuminatus</i> v. <i>drezepolskii</i>	<i>Spermatozoopsis exultans</i>
<i>Phacus caudatus</i>	<i>Sphaerocystis schroeteri</i>
<i>Phacus helikoides</i>	<i>Spirogyra sp.</i>
<i>Phacus longicauda</i>	<i>Spirulina sp.</i>
<i>Phacus megalopsis</i>	<i>Staurastrum astraea</i>
<i>Phacus pleuronectes</i>	v. <i>minutula</i>
<i>Phacus pseudonordstedtii</i>	<i>Staurastrum tetracerum</i>
<i>Phacus tortus</i>	<i>Stauroneis anceps</i>
<i>Phormidium mucicola</i>	<i>Stauroneis anceps</i>
<i>Pinnularia microstauron</i>	v. <i>gracilis</i>
<i>Pleurosigma delicatulum</i>	<i>Stauroneis salina</i>
<i>Pteromonas angulosa</i>	<i>Stephanodiscus astraea</i>
<i>Raphidiopsis curvata</i>	<i>Stephanodiscus astraea</i>
<i>Rhoicosphenia curvata</i>	v. <i>minutula</i>
<i>Rhopalodia gibba</i>	<i>Stephanodiscus niagarae</i>
<i>Scenedesmus abundans</i>	<i>Stipitococcus sp.</i>
<i>Scenedesmus acuminatus</i>	<i>Surirella angusta</i>
<i>Scenedesmus arcuatus</i>	<i>Surirella brightwellii</i> ?
<i>Scenedesmus arcuatus</i> v. <i>capitatus</i>	<i>Surirella linearis</i>
<i>Scenedesmus arcuatus</i> v. <i>platydisca</i>	<i>Surirella ovata</i>
<i>Scenedesmus balaticus</i>	<i>Surirella peisonis</i>
<i>Scenedesmus bernardii</i>	<i>Surirella spiralis</i>
<i>Scenedesmus bicaudatus</i>	<i>Synedra acus</i>
<i>Scenedesmus bijuga</i>	<i>Synedra cyclopum</i>
<i>Scenedesmus bijuga</i> v. <i>alternans</i>	<i>Synedra cyclopum</i>
<i>Scenedesmus bijuga</i> v. <i>flexuosus</i>	v. <i>robustum</i>
	<i>Synedra delicatissima</i>
	v. <i>angustissima</i>
	<i>Synedra rumpens</i>
	<i>Synedra ulna</i>
	<i>Synura uvella</i>
	<i>Tabellaria fenestrata</i>
	<i>Tetraedron constrictum</i>
	<i>Tetraedron gracile</i> ?

<i>Tetraedron hastatum</i> ?	<i>Tetraedron victoriae</i>
<i>Tetraedron limneticum</i>	<i>Tetrastrum elegans</i>
<i>Tetraedron minimum</i>	<i>Tetrastrum glabrum</i>
<i>Tetraedron minimum</i>	<i>Tetrastrum heteracanthum</i>
v. <i>scrobiculatum</i>	<i>Tetrastrum staurogeniaeforme</i>
<i>Tetraedron muticum</i>	<i>Trachelomonas intermedia</i>
<i>Tetraedron planctonicum</i>	<i>Trachelomonas volvocina</i>
<i>Tetraedron trigonum</i>	<i>Treubaria setigerum</i>
<i>Tetraedron trigonum</i>	<i>Treubaria triappendiculata</i>
v. <i>gracile</i>	<i>Ulothrix</i> ? sp.
<i>Tetraedron trigonum</i>	
v. <i>papilliferum</i>	

## APPENDIX B. SUMMARY OF PHYTOPLANKTON DATA

This appendix was generated by computer. Because it was only possible to use upper case letters in the printout, all scientific names are printed in upper case and are not italicized.

The alphabetic phytoplankton lists include taxa without species names (e.g., EUNOTIA, EUNOTIA #1, FLAGELLATE, FLAGELLATES, MICROCYSTIS INCERTA ?, CHLOROPHYTAN COCCOID CELLED COLONY). When species determinations were not possible, symbols or descriptive phrases were used to separate taxa for enumeration purposes. Each name on a list, however, represents a unique species different from any other name on the same list, unless otherwise noted, for counting purposes.

Numbers were used to separate unidentified species of the same genus. A generic name listed alone is also a unique species. A question mark (?) is placed immediately after the portion of a name which was assigned with uncertainty. Numbered, questioned, or otherwise designated taxa were established on a lake-by-lake basis; therefore NAVICULA #2 from lake A cannot be compared to NAVICULA #2 from lake B. Pluralized categories (e.g., FLAGELLATES, CENTRIC DIATOMS, SPP.) were used for counting purposes when taxa could not be properly differentiated on the counting chamber.

LAKE NAME: LAKE ALBERT  
STONET NUMBER: 4601

NYGAARD TROPHIC STATE INDICES

	DATE	04 23 74	07 11 74	09 20 74
MYXOPHYCEAN		6.00 E	3.00 E	2.33 E
CHLOROPHYCEAN		13.0 E	4.33 E	6.33 E
EUGLENOPHYTE		0.21 E	L/22 ?	J/26 ?
DIATOM		0.44 E	0.75 E	0.59 E
COMPOUND		27.0 E	8.33 E	10.0 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 23 74	07 11 74	09 20 74
GENUS		19	14	14
SPECIES		04	00	07

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 23 74	07 11 74	09 20 74
AVERAGE DIVERSITY	H	0.80	2.06	1.91
NUMBER OF TAXA	S	41.00	37.00	43.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	5.36	5.21	5.43
MINIMUM DIVERSITY	MINH	0.00	0.02	0.02
TOTAL DIVERSITY	D	148396.00	51647.70	87596.42
TOTAL NUMBER OF INDIVIDUALS/ML	N	185495.00	25096.00	45862.00
EVENNESS COMPONENT	J	0.15	0.40	0.35
RELATIVE EVENNESS	PJ	.15	0.40	0.35
MEAN NUMBER OF INDIVIDUALS/TAXA	L	4524.27	678.27	1666.56
NUMBER/ML OF MOST ABUNDANT TAXON	K	166067.00	16351.00	26711.00

TAXA	SLPN	04 23 74			07 11 74			09 26 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ACTINIASTRUM	CEL						X			
ACTINIASTRUM GRACILIRUM	CEL			X						
ANABALNA	FIL				1.21	297				X
ANABAENA PLANTUNICA	FIL									
ANGISTRUDESMUS FALCATUS	CEL			X						
ANGISTRUDESMUS FALCATUS V. ACICULARIS	CEL				162.21	16351	1158.21	26711	366	
APHAENIZUMENON FLOWS-AQUAE	FIL									
BINUCLEARIA	FIL							1.11	486	
EDATYCCUS BRAUNII	COL				0.21	42				
CERATIUM HIEUNCINELLA S. FURCULOIDES	CEL									X
CHLOROGUCCALEAN COLUMN #9	COL							3.51	244	
CHLOROCOCCUS	COL									
CHLOROMMAS ACUTA	CEL	151	1.0	2978		0.21	42			
CLISTERIOPSIS	CEL			X				0.31	122	
CLISTERIUM #1	CEL					0.51	127			
CLISTERIUM #2	CEL									X
COELASTRUM CAMBIKUM	COL				0.21	42				
CGELASTRUM MICROPORUM	COL			X				0.51	244	
COELUSPHAEARIUM MAEGLIANUM	COL		0.21	425	1.51	562	151	1.11	486	
CRUCIGENIA	COL				0.51	127				
CRUCIGENIA QUADRATA	COL		0.11	142						X
CRUCIGENIA TETRAPLEIA	COL									
CRYPTOMMAS	CEL									
CRYPTOMMAS ROSA	CEL		0.41	759						
CYCLOTELLA	CEL									
CYCLOTELLA MICHIGANIANA	CEL						X			
CYCLOTELLA MICHIGANIANA	CEL							0.51	244	
CYNAGCPLEUPA SULLA	CEL			X			X			X
CYMBELLA	CEL						X			
CYMBELLA TRIANGULUM	CEL			X						
DACTYLOCOPPIS IRREGULARIS	CEL	141	6.01	7374						
DICTYOSPHEARIUM PULCHELLUM	COL									X
DIPLOPSALIS ACUTA	CEL				0.31	89				
ELAKATOTOMA GELATINGSA	COL							0.31	122	
ENTOMONEIS	CEL									
EUGLENA	CEL									
EUGLENA GRACILIS	CEL			X						
GLENODINIUM GLENODINIUM	CEL									
COMPONEMA OIVACEUM	CEL			X						
GYRODINIUM ALBULUM	CEL		0.11	142						
GYRUSIGMA	CEL									
KIRCHNERIELLA CONTORTA	CCL		0.31	567						
LYNGBYA	FIL									
NELOSIRA GRANULATA	CFL	21	1.1	1969	131	10.51	2633	12126.6	14197	
NELOSIRA GRANULATA										
V. ANGUSTISSIMA	CEL		0.21	284				1.91	654	
MICROCYSTIS AFUGINOSA	COL			X		0.71	173			
MICROCYSTIS INCERTA	COL		0.51	851	0.31	85		0.81	366	
NAVICULA CUSPIDATA	CEL			X						
NITZSCHIA	CEL		0.21	142						
NITZSCHIA #1	CFL									X
NITZSCHIA #2	CEL									X
DOCTYSIIS	CEL									
DOCTYSIIS BORGII	CFL				3.61	977	131	3.71	1718	
OSCILLATORIA	FIL	131	0.91	1722	21	0.31	1571	0.51	244	
OSCILLATORIA LIMNETICA	FIL									
PEDIASTRUM BORTANUM	COL			X			X			
PEDIASTRUM COMPLEX	COL						X			
PEDIASTRUM COMPLEX										
V. CLATHRATUM	COL			X	0.11	2.11	51			
PEDIASTRUM KARBASAYI	COL						X			
PHACUS CAUDATUS	CFL			X						
PHACUS NEGLALPIS	CEL		0.11	142						
PHILOMIDIUM MUCICOLA	CUL				0.21	42				
PLEROCYSTIS SIGMA	CEL									
RAPHICILPSIS	FIL			X						
VHA PALUODIA GIBBA	CEL			X						
SCENEDESMIUS ALGINATUS	COL		0.21	425			X		0.31	122
SCENEDESMIUS BALAIATICUS	CGL				0.21	170				
SCENEDESMIUS BIJUGA	CCL			X						
SCENEDESMIUS BIOMORPHUS	COL									
SCENEDESMIUS UPOJILNSIS	COL									
SCENEDESMIUS GUADICAUDE	COL		0.31	567				1.31	610	
SCENEDESMIUS SPP.	COL				1.21	297				
SCHROEDERIA SETIGERA	CEL			X	0.31	85		0.31	122	
STAURASTRUM #1	CFL			X	0.21	42				
STAURASTRUM #2	CEL									
STAURASTRUM TEIRACEKLN	CFL									
STEPHANODISCUS	CEL			X						
SURIRELLA	CEL		0.11	142			X			
SURIRELLA #9	CFL			X						
SYNECHIA ACUS	CEL		0.51	651			X			
TETRAEUKUM MASTATUR ?	CEL									X

TOTAL

- 1854.95

25006

49862

LAKE NAME: ALVIN LAKE  
STORET NUMBER: 4602

NYGAARD TROPHIC STATE INDICES

DATE	04 23 74	07 11 74	09 20 74
PHYTOPHYCIAN	0/0 D	3.00 E	1.00 E
CHLOROPHYCEAN	01/0 E	4.00 E	1.00 E
EUGLENOPHYTE	0/01 ?	0.14 ?	0/02 ?
DIATOM	1.00 E	1.00 E	0.33 E
COMPOUND	02/0 E	11.0 E	3.00 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 23 74	07 11 74	09 20 74
GENUS	00	00	00
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 23 74	07 11 74	09 20 74
AVERAGE DIVERSITY	H	0.40	1.71
NUMBER OF TAXA	S	8.00	17.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00
MAXIMUM DIVERSITY MAXH	M	3.00	4.09
MINIMUM DIVERSITY MINH	M	0.34	0.52
TOTAL DIVERSITY	D	0.00	509.58
TOTAL NUMBER OF INDIVIDUALS/ML	N	182.00	298.00
EVENNESS COMPONENT	J	0.00	0.42
RELATIVE EVENNESS	HJ	-0.12	0.34
MEAN NUMBER OF INDIVIDUALS/TAXA	L	22.75	17.53
NUMBER/ML OF MOST ABUNDANT TAXON	K	182.00	183.00

TAXA	FORM	-4 73 74			57 11 74			39 20 74		
		IS	ZC	PER ML	IS	ZC	PER ML	IS	ZC	PER ML
APHAENIZOMENON FLUS-AQUAE	FIL	1	1	1	131	7.71	23	11157.11	1166	1
CENTRIC DIATOM	CEL	1	1		12115.61	46	1	1	1	1
CHLOROCOCcalean CULUNY	COL	1	1			X				
CHROGAMMAS ACUTA	CEL	1	1	100.	182	11161.61	183	12132.11	623	1
CLUSTERIUM #1	CFL	1	1				X			X
CLUSTERIUM #2	CFL	1	1							
CRUCIGERIA TETRAPELIA	CGL	1	1		X					
CRYPTODROMAS EROSA	CEL	1	1				X	131	8.91	173
CRYPTODROMAS MARSSUNII	CEL	1	1							
CYST	CEL	1	1		X					1
DINOBRYON DIVERGENS	CEL	1	1		X					
EUCLENA	CEL	1	1							
GYROSIGMA	CEL	1	1				X			
MELOSIRA	CEL	1	1				X			X
MELOSIRA GRANULATA	CEL	1	1		X					
MICROCYSTIS AERUGINOSA	CDL	1	1				X			
MITZSCHIA #1	CELL	1	1							X
MITZSCHIA #2	CEL	1	1							X
MITZSCHIA #3	CEL	1	1				X			X
OCYSTIS	CEL	1	1				X			
OSCILLATORIA	FIL	1	1				X			
SCHEIDECKA ACUPINATUS	CUL	1	1				X			
SCHAFFNERIA SETIGERA	CEL	1	1							
STEPHANOLISCUS	CEL	1	1		X					
STEPHANOLISCUS ASTREA	CEL	1	1				X			
SURISSELLA #9	CEL	1	1		X					
SURISSELLA ANGUSTA	CEL	1	1		X					
SYNUCCA KUPPELS	CEL	1	1		141	7.71	23	1	1	1
TOTAL					182		298	-		1439

LAKE NAME: ANGOSTURA RES.  
STORET NUMBER: 4603

NYGAARD TRUPLIC STATE INDICES

	DATE	04 24 74	07 15 74	09 11 74
MYXOPHYCEAN		0/0 D	2.00 E	0/03 D
CHLOROPHYCEAN		03/0 E	3.00 E	1.67 E
EUGLENOPHYTE		0.33 E	0/05 ?	1.00 E
DIATOM		0/06 2	0.17 ?	0/06 ?
COMPLUND		04/0 E	6.00 E	3.33 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 24 74	07 15 74	09 11 74
GENUS		64	63	30
SPECIES		03	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 24 74	07 15 74	09 11 74
AVERAGE DIVERSITY	H	1.54	2.49	1.99
NUMBER OF TAXA	S	15.00	20.00	27.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00
MAXIMUM DIVERSITY MAXH		3.91	4.32	4.75
MINIMUM DIVERSITY MINH		0.10	0.18	0.42
TOTAL DIVERSITY	D	2772.00	3067.68	1345.24
TOTAL NUMBER OF INDIVIDUALS/ML	N	1600.00	1232.00	676.00
EVENNESS COMPONENT	J	0.39	0.58	0.42
RELATIVE EVENNESS	PJ	0.36	0.56	0.37
MEAN NUMBER OF INDIVIDUALS/TAXA	L	120.00	61.60	25.14
NUMBER/ML OF MOST ABUNDANT TAXON	K	1167.00	493.00	276.00

TAXA	FORM	.4 24 74			.7 15 74			29 11 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ANASTRODESMUS FALCATUS	CEL	1	1	X	1	1	1	1	1	1
ANASTRODESMUS FALCATUS V. ACICULARIS	CEL	131	7.4	133						
ASTERJUNELLA FURROSA	CEL	141	3.71	67						X
CARTEPIA	CEL	1	1		1129.01		308			X
CERATIUM MIRUNDINELLA	CEL	1	1				X			X
CHOGONUM ACUTA	CEL	12164.81	1167	12140.51	493	12136.41		246		
CLOSTERIUM #1	CEL	1	1							X
CLOSTERIUM #2	CEL	1	1							X
COCLEASTRUM MICRODORUM	COL	1	1				X			X
COSMOPHIA #1	CEL	1	1				X			X
CRUCIGLORIA TETRAPEDIA	COL	1	1				X			X
CRYPTOMONAS EROSA	CEL	151	1.81	33	1	2.51	31	1140.81	276	
CRYPTOMONAS MARSSONII	CEL	151	1.81	33			X			
CYABELLA	CEL	1	1				X			
DINOBRYON DIVERGENS	CEL	1	1		15	5.01	62	15	9.01	61
ENDOMONEIS	CEL	1	1				X			
ENTOMONEIS ALATA	CEL	1	1				X			
EUGLENA	CEL	1	1				X			
EUGLENA ACUS	CEL	1	1				X			X
EUGLENA LACTUCA	CEL	1	1				X			X
EUGLENA TRIPTERIS	CEL	1	1				X			X
GLENODINIUM	CEL	1	1				X			
GLENODINIUM OCULATUM	CEL	1	1				X			
GLENODINIUM ALBULUM	CEL	1	1				X			
GYROSIGMA	CEL	1	1				X			
GYROSIGMA JURILEYI	CEL	1	1		31	7.51	92			X
PERISPEDIA MINIMA	CUL	1	1		7.51		92			X
PLUGECTIA	FIL	1	1							X
NAVICULA #1	CEL	1	1							X
NAVICULA #2	CEL	1	1							X
NITZSCHEA #1	CEL	1	1							
NITZSCHEA #2	CEL	1	1							
NITZSCHEA #3	CEL	1	1							
NITZSCHEA #4	CEL	1	1							
NITZSCHEA ACICULARIS	CEL	1	1		4.51		31			X
NITZSCHEA LUNGISSIMA	CEL	1	1		41	7.51	92			X
V. REVERSA	CEL	1	1		41	7.51	92			X
UDCYSTIS	CEL	1	1				X			X
OSCILLATORIA	FIL	1	1				X			X
PEDIASIKUM DUPLEX	COL	1	1							X
V. RETICULATA	CEL	1	1							X
PERIDINIUM UMBONATUM	CEL	1	1							X
PHACUS CAUDATUS	CEL	1	1					131	4.61	31
PHACUS HELICOIDES	CEL	1	1							X
SCENODESMUS BIJUGA	COL	1	1		2.51		31			
SCENODESMUS CINORPHUS	COL	1	1				X			
SPHAEROCYSTIS	COL	1	1				X			
SPHAEROCYSTIS SCHROETERI	COL	1	1				X			X
STEPHANODISCS	CEL	1	1				X			
SURIRELLA	CEL	1	1				X			
SURIRELLA ANGUSTA	CEL	1	1				X			
STENODA ACUS	CEL	13129.41	367							X
TOTAL				1860			1232			676

LAKE NAME: BRANT LAKE  
STORET NUMBER: 4654

NYGAARD TROPHIC STATE INDICES

DATE	04 23 74	07 11 74	09 20 74
MYXOPHYCEAN	01/0 E	05/0 E	05/0 E
CHLOROPHYCEAN	01/0 E	01/0 E	0/0 U
EUGLENOPHYTE	0/02 ?	0/06 ?	0/05 ?
DIATOR	0.33 E	1.50 E	01/0 E
CMPUND	03/0 E	07/0 E	06/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 23 74	07 11 74	09 20 74
GENUS	00	00	05
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 23 74	07 11 74	09 20 74
AVERAGE DIVERSITY	H	0.92	0.37
NUMBER OF TAXA	S	9.00	11.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00
MAXIMUM DIVERSITY MAXH	MAXH	3.17	3.46
MINIMUM DIVERSITY MINH	MINH	0.69	0.02
TOTAL DIVERSITY	D	83.72	2674.36
TOTAL NUMBER OF INDIVIDUALS/ML	N	91.00	7228.00
EVENNESS COMPONENT	J	0.29	0.11
RELATIVE EVENNESS	RJ	0.10	0.11
MEAN NUMBER OF INDIVIDUALS/TAXA	L	10.11	657.09
NUMBER/ML OF MOST ABUNDANT TAXON	K	61.00	6848.00
			1595.00

TAXA	FORM	04 25 74			07 11 74			09 20 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
APHAENIZOMENUM FLUSS-AQUAE	FIL	1	1	1	11194.71	0848	11174.61	1595	1	1
CHLOROPHYTAN COLONY	COL	1	1	1	1	1	1	1	1	1
CHROMONAS ALATA	CEL	12133.01	3J	131 3.91	280	13112.71	271	1	1	1
CYEDOSPHEARIUM NAEGLERIANUM	COL	1	1	1	1	1	1	1	1	1
CRYPTOMNAS MARSSONII	CEL	13167.01	61	151 0.31	25	1	1	1	1	1
ENTOMONAS ALATA	CIL	1	1	x	1	1	1	1	1	1
FRAGILARIA	CEL	1	1	x	1	1	1	1	1	1
LYNGBYA	FIL	1	1	x	1	1	1	1	1	1
MICROCYSTIS AERUGINOSA	COL	1	1	1	1	1	x	1	1	1
MAVICULA	CEL	1	1	1	1	1	x	1	1	1
MIIZSCHIA VERNICULARIS	CEL	1	1	x	1	1	1	1	1	1
OSCILLATORIA	FIL	1	1	1	141 0.31	25	12112.71	271	1	1
PHORMIDIUM MUCICOLA	FIL	1	1	1	1	1	x	1	1	1
SCENEDESHUS DIMORPHUS	COL	1	1	x	1	1	1	1	1	1
SCHROEDERIA JUDAYI	CEL	1	1	1	1 0.31	25	1	1	1	1
STEPHAMUDISCUS NIAGARAE	CEL	1	1	x	121 0.31	25	1	1	x	1
SURIRELLA	CEL	1	1	x	1	1	1	1	1	1
TOTAL				91		7228		2137		

LAKE NAME: LAKE BYPUN  
STORE NUMBER: 4665

NYGAARD TROPHIC STATE INDICES

	DATE	04 24 74	07 11 74	09 18 74
MYXOPHYCEAN		C5/C E	5.00 E	J2/C E
CHLOROPHYCEAN		G2/G E	5.00 E	O1/O E
EUGLENOPHYTE		0.29 E	0.20 ?	O/G3 ?
DIATOM		J.43 E	1.33 E	G/C ?
COMPOUND		12/C E	16.0 E	C3/J0 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 24 74	07 11 74	09 18 74
GENUS		00	C6	J0
SPECIES		00	J2	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 24 74	07 11 74	09 18 74
AVERAGE DIVERSITY	H	2.40	1.53	0.04
NUMBER OF TAXA	S	22.00	20.00	3.00
NUMBER OF SAMPLES COMPOSITED	q	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	4.46	4.32	1.58
MINIMUM DIVERSITY	MINH	0.24	0.02	0.00
TOTAL DIVERSITY	D	2424.00	16460.98	5514.24
TOTAL NUMBER OF INDIVIDUALS/ML	N	1010.00	12066.00	137856.00
EVENNESS COMPONENT	J	0.54	0.35	0.03
RELATIVE EVENNESS	VJ	0.52	0.36	0.03
MEAN NUMBER OF INDIVIDUALS/TAXA	L	45.91	60.3.30	45952.00
NUMBER/ML OF MOST ABUNDANT TAXON	K	337.00	6635.00	137293.00

TAXA	FORM	04 24 74			07 11 74			09 18 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ANABAENA	FIL						0.681	101		563
APIHANTZONENON PLOS-AQUAE	FIL				1171.61		8635	11199.61	137293	
CENTRIC DIATOMS	CEL	151	9.51	96						
CHACORDONAS ACUTA	CEL			x						
CLOSTERIUM	CEL						0.64	90		
CRUCIGERIA QUADRATA	COL						2.51	303		
CRYPTOMONAS MARSSONII	CEL	121	4.81	48						
CYCLOTELLA MENEGhiniana	CEL			x	151	0.8		101		
CYRATIPEURA SOLLA	CEL			x						
DACTYLODISCUS	CEL		128.61	289						
ENTORENEIS ALATA	CEL	131	4.81	48						
EUGLENA	CEL			x						
GOMPHONEMA	CEL			x						
MELOSIA GRANULATA	CEL						121	8.41	1010	
MELUSINA GRANULATA										
V. ANGUSTISSIMA	CEL						1312.11	1464		
MERISOPEDIA MINIMA	COL							x		
MICROCYSTIS AERUGINOSA	COL			x				x		
MICROCYSTIS INCERTA	COL							x		
NETZSCHEIA LONGISSIMA										
V. REVERSA	CEL						3.41	50		
OCYSTIS	CEL						1.31	151		
OSCILLATORIA	FIL			x						
OSCILLATORIA #2	FIL	141	4.81	48						
PEDIASTRUM BURMANUM	CEL			x				x		
PENNATE DIATOMS	CEL		1133.41	337						
PHACUS MEGALOPSIS	CEL			x				x		
PHACUS TURTUS	CEL						0.41	50		
PHALARISIDIUM MUCICOLA	FIL			x						
PLFRUSIGRA	CEL			x				x		
SCENEDESNUS BALANTINICUS	COL									2
SCHROEDERIA SETIGERA	CEL		116.31	146			0.81	101		
STEPHANIWICUS	CEL			x	161	0.41		50		
SUGIRELLA	CEL			x				x		
SYNEDRA	CEL			x						
SYNEDRA ULNA	CEL		0	x	0					
TOTAL					1716		12660		137856	

LAKE NAME: CLEAR LAKE  
STORET NUMBER: 46C6

NYGAARD TROPHIC STATE INDICES

	DATE	04 29 74	07 10 74	09 18 74
MYXOPHYCEAN		05/0 E	3.50 E	2.53 E
CHLOROPHYCEAN		01/0 E	2.00 E	1.33 E
EUGLENOPHYTE		0/0 ?	0/11 ?	0/11 ?
DIATOM		0.20 ?	1.00 E	0.33 E
COMPOUND		08/0 E	6.50 E	4.33 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 29 74	07 10 74	09 18 74
GENUS		03	02	02
SPECIES		00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 29 74	07 10 74	09 18 74
AVERAGE DIVERSITY	H	1.83	2.35	1.90
NUMBER OF TAXA	S	23.00	21.00	26.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY MAXH		4.52	4.39	4.76
MINIMUM DIVERSITY MINH		0.06	0.08	0.06
TOTAL DIVERSITY	D	6824.26	7299.11	10945.63
TOTAL NUMBER OF INDIVIDUALS/PL	N	4822.00	3106.00	5762.00
EVENNESS COMPONENT	J	0.40	0.54	0.40
RELATIVE EVENNESS	RJ	0.40	0.53	0.40
MEAN NUMBER OF INDIVIDUALS/TAXA	L	209.05	147.90	222.38
NUMBER/ML OF MOST ABUNDANT TAXON	K	2775.00	1343.00	2608.00

TAXA	FORM	54 29 74			67 10 74			09 18 74		
		IS	%C	PER ML	IS	%C	PER ML	IS	%C	PER ML
ARABAEINA	FIL									
APHAENIZURENON FLOS-AGUAE	FIL				131	2.71	84	11146.11	2668	
APHAENIZUCEE MIDULANS	CEL					2.71	84			
ASTERIOPHYLLA FORMOSA	CFL	121	6.81	130				151	1.31	56
CERATIUM HIRUNDINELLA	CEL									
CHODONUCUS LINNITICUS	COL					1.41	44			
CHODONUNAS ACUTA	CEL	11157.51	2775		9.51	294				
CLOSTERIUM	CEL									
COCCONEIS	CEL									
COELOSPHEARIUM NAEGELIANUM	COL									
COELOSPHEARIUM PALLIDUM	COL									
COSMARIA	CEL									
CRYPTURUNAS EROSA	CEL									
CYANOPHYTUM COLONI	COL									
CYDIELLA	CEL									
DACTYLOCOPOPSIS	CEL		1.4	66						
DINOGRYMUS SOCIALE	CEL									
DINOCYCLATE	CEL									
DIPLOPSALIS ACUTA	CEL									
ELAKATOCHRIS GELATINUSA	CEL									
EPITHEMIA	CEL									
FLAGELLATE	CEL	15121.91	1.57							
FRAGILARIA	CEL							131	7.71	445
FRAGILARIA CAPUCINA	CEL									
FRAGILARIA CRUTONENSIS	CEL	141	5.51	264	12127.01		839			
GLENDINIUM GYMNOLITHUM	COL									
V. BISCUTELLIFORME	CEL									
HELICYSTIS	COL									
GRAPHINEMA	CEL									
GRAPHOSPHAERIA APUNINA	COL									
GYRUSTIGMA	CEL									
LYNGBYA BIRGEI	FIL									
MALLOMUNAS	CEL									
MELOSIRA GRANULATA	CEL	131	5.51	264	11143.21	1343	12129.81	1723		
MICROCYSTIS AERUGINOSA	COL									
MICROCYSTIS INCERTA	COL					2.71	84	14113.51	778	
NAVICULA	CEL									
NEIZSCHIA VERNICULARIS	CEL									
OCYSTIS	CEL									
OSCILLATORIA	FIL									
PEDIASTRUM BORYANUM	COL									
PEDIASTRUM DUPLEX	COL									
PEDIASTRUM DUPLEX	COL									
V. RETICULATUM	COL									
PEDIASTRUM SIMPLEX	COL									
V. DUODENARIUM	COL									
STAURASTRUM	CEL									
STEPHANODISCUS NIAGARAE	CEL									
SYNECHIA CYCLOPUM	CEL	1.4	66							
SYNECHIA UELNA	CEL									
TOTAL					4822		3106		5782	

LAKE NAME: CLEAR LAKE  
STURET NUMBER: 4607

NYGAARD TROPHIC STATE INDICES

	DATE	04 22 74	07 12 74	09 20 74
MYXOPHYCEAN		4.00 E	11.0 E	10/0 E
CHLOROPHYCEAN		7.00 E	10.0 E	11/0 E
EUGLENOPHYTE		0.69 ?	0.10 ?	0.05 ?
DIATOM		0.21 ?	0.56 E	0.17 ?
CRYPTOCOEN		13.5 E	26.0 E	23/3 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 22 74	07 12 74	09 20 74
GENUS		19	17	11
SPECIES		04	04	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 22 74	07 12 74	09 20 74
AVERAGE DIVERSITY	H	3.42	3.63	2.37
NUMBER OF TAXA	S	45.00	43.00	33.00
NUMBER OF SAMPLES COMPOSITED	M	1.00	1.00	1.00
MAXIMUM DIVERSITY	MAXH	5.44	5.43	5.34
MINIMUM DIVERSITY	MINH	1.07	0.01	0.00
TOTAL DIVERSITY	D	33847.74	334678.65	278951.37
TOTAL NUMBER OF INDIVIDUALS/ML	N	9897.00	110455.00	117701.00
EVENNESS COMPONENT	J	0.62	0.56	0.47
RELATIVE EVENNESS	PJ	0.62	0.56	0.46
MEAN NUMBER OF INDIVIDUALS/TAXA	L	214.93	2566.72	3566.70
NUMBER/ML OF MOST ABUNDANT TAXON	R	3077.00	27291.00	52534.00

TAXA	FORM	04 22 74			07 12 74			09 20 74		
		IS	ZC	PER ML	IS	ZC	PER ML	IS	ZC	PER ML
ACTINASTHUR MANTZSCHII	COL				0.51	553				
AMPHORA UVALIS	FIL		X							
V. AFFINIS	FIL				124.71	47291		3.31	401	
ANABAENA B2	CEL	3.41	333						X	
ANABAENA CIRCINALIS	COL				0.21	184				
ANKISTIGUESMUS FALCATUS	CEL									
APHAENOTHECE MIDULANS	CEL				0.51	553		0.31	401	
CHLAMYDOMONAS	CEL									
CHLAMYDOMONAS	CEL									
CHLAMYDOMONAS ACUTA	CEL									
CLOSTERIUM #1	CEL		X							
CLOSTERIUM #2	CEL		X							
COCCONEIS PLACENTULA	CEL									
V. LINEATA	CFL		X							
COSMARIA	CEL									
CRYPTODONAS	CEL		X							
CRYPTODONAS EROSA	CEL									
CYCLOTELLA MENEGHINIANA	CEL		X							
CYATOLEPURA SOLEA	CEL		X							
CYPBELLA VENTRICUSA	CEL									
LACTYLUCCOCCOPSIS	CEL									
DICITOSPHELIUM	CCL				0.31	369		1.71	2005	
DICITOSPHELIUM PULLELLUP	CEL	0.81	83					0.31	401	
ELAKATUFRIA GELATINOSA	CEL	0.81	83							
EUGLENA	CEL	1.71	166							
EUGLENA ACUS	CEL									
FLAGELLATE	CEL	3.41	333							
FLAGELLATE #2	CEL							1.21	1464	
FRAGILARIA	CEL				0.71	730				
GENBNERIA PARVULUP	CEL		X							
MANTZSCHIA ARPHIUNTS	CEL		X							
KIRCHNERIELLA CONICATA	CEL							2.61	3008	
KIRCHNERIELLA LUNARIS	CEL									
KIRCHNERIELLA SPP.	CEL				0.31	4220				
KIRCHNERIELLA SUBSULITANIA	CEL									
LYNGBYA #1	FIL	4.21	416							
LYNGBYA #2	CEL		X							
LYNGBYA CONTORTA	FIL	0.81	83	4115.91	17516		5.81	6817		
PALLIPORAS	CEL									
MELOSIRA DISTANS	CEL									
MELOSIRA GRANULATA	CEL									
MELOSIRA GRANULATA ?	CEL	0.81	3.41	333						
MELOSIRA ITALICA	CEL									
MERISPODIA RIMINA	COL	15.1	1497	1514.41	21390	3144.6	52534			
MERISMOPEDIA TENUISSIMA	COL									
MICRACIUM PUSillum	COL	0.81	83							
MICROCYSTIS AERUGINOSA	COL	13.51	1531	1313.21	3554	1216.11	7218			
MICROCYSTIS INCERTA	COL	2.51	250	6.1	4851	1512.91	3409			
NAVICULA CUSPIDATA	CEL		X							
MITZSCHIA #1	CEL	1.71	166							
MITZSCHIA #2	CEL									
MITZSCHIA ACICULARIS	CEL	0.81	83							
MITZSCHIA AMPHIBIA	CEL		X							
MITZSCHIA DISSIPATA	CEL									
OCCYSTIS	CEL	3.41	333	0.4	922					
OSCILLATORIA #1	FIL		X							
OSCILLATORIA #2	FIL		X							
OSCILLATORIA AGARDHII	FIL			1211.71	12908	1129.01	34687			
PELIASTHUR BURMANUM	CGL		X							
PELIASTHUR DUPLEX	CGL		X							
PELIASTHUR DUPLEX	CGL		X							
V. RETICULATUM	CGL		X							
PELIASTHUR KARAIKISHI	CCL									
PENNATE DIATOM	CEL									
PHACUS	CEL									
PHACUS MEGALOPODISIS	CEL		X							
PHYPFRIDIUM RUGICOLA	FIL			4.21	4970		2.31	2406		
RHYPALOURIA	CEL		X							
SCENEDERUS ACURINATUS	COL		X							
SCENEDERUS CINCERHUS	COL		X							
SCENEDERUS CROLIFENSIS	COL		X							
SCENEDERUS PROTUBERAENS	COL	0.81	83		0.31	369		0.51	602	
SCENEDERUS GUARDICAUJA	COL		X		0.31	369				
SCHROEDERIA SETIGERA	CEL		X		0.31	369		2.21	2667	
SPHAEROCYSTIS SCHROETERI	COL		X							
STAURIGNEIS ANCPS	CEL		X							
V. GRACILIS	CEL		X							
STEPHANODISCUS	CEL									
STEPHANODISCUS ASTREA	CEL									
V. MINUTULA	CEL	2131.11	3077							
SURIRELLA #9	CEL	1315.91	582							
SURIRELLA ANGUSTA	CEL	110.81	83							
SYNUCCA	CEL	1.71	166							
SYNEDRA RURPENS	CEL		X							

LAKE NAME: CLEAR LAKE  
STUDENT NUMBER: 6607

CONTINUED

TAXA	FORM	64 22 74			17 12 74			29 20 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
SYNEDRA URNA	CFL	1	1	1	1	1	X	1	1	1
TETRALEURUM RUTICUM	CFL	1	1	1	1	1	1	1	1	1
TEPHRASTERUM GLABRUM	COL	1	1	1	1	1	1	1	1	1
TETRASTIKUM STAUROGENTAEFORME	CCL	1	1	3.41	333	1	1	1	1	1
TOTAL				98.97			11.455		11.2701	

LAKE NAME: COCHRANE  
STORE NUMBER: 4608

NYGAARD TRUPHIC STATE INDICES

DATE	04 24 74	07 12 74	09 19 74
MYXOPHYCEAN	6.00 E	7.00 E	4.00 E
CHLOROPHYCEAN	4.00 E	5.00 E	1.50 E
EUGLENOPHYTE	0.20 ?	0.08 ?	0.36 E
DIATOM	0.09 ?	0.10 E	0.08 ?
COMPOUND	13.0 E	14.0 E	7.50 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 24 74	07 12 74	09 19 74
GENUS	07	01	08
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 24 74	07 12 74	09 19 74	
AVERAGE DIVERSITY	H	2.89	1.10	2.53
NUMBER OF TAXA	S	29.00	29.00	29.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	4.86	4.32	4.86
MINIMUM DIVERSITY	MINH	0.20	0.03	0.16
TOTAL DIVERSITY	D	4817.63	11473.00	9057.40
TOTAL NUMBER OF INDIVIDUALS/ML	N	1667.00	10430.00	3580.00
EVENNESS COMPONENT	J	0.54	0.25	0.52
RELATIVE EVENNESS	PJ	0.56	0.25	0.52
MEAN NUMBER OF INDIVIDUALS/TAXA	L	57.48	521.50	123.45
NUMBER/ML OF MOST ABUNDANT TAXON	K	555.00	8734.00	1006.00

LAKE NAME: COCHRANE  
STORE NUMBER: 4608

CONTINUED

TAXA	FORM	04 24 74			7 12 74			09 19 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ACHMANTHES	CEL	1	2.6	43						
AMPHUSA	CEL	1		x						
ANTRISTRODES MUS FALCATUS	CEL	1		x						
APHAENOMECHE	COL	1								
APHAENOMECHE NIOLANS	COL	1			183.71	6734		17.21	617	
BOTRYOCUCUS BRAUNII	COL	1			91.0.81	61.				
CENTRIC DIATOM	CEL	1	20.5	342						
CERATIUM MIRUNDINELLA	CEL	1					x			
CERATIUM MIRUNDINELLA F. AUSTRIACUM	CEL	1					x			
CHAELOCEROS ELMOREI	CEL	1	2.6	43			x			
CHROOCOCCUS DISPERSUS	COL	1			1.0.81	61.		0.9	247	
CHLORURAS ACUTA	CEL	1			0.41	40				
COECUMIS	CFL	1		x						
COELASTIUM MICROPORUM	COL	1			1.0.81	61.				
COELOSphaERIUM PALLIDUM	COL	1	2.6	43	131.4.71	465		3.41	123	
COSMARIA	CEL	1						1.71	62	
COSMARIA CLEPSYDNA	CEL	1								
V. NARUM	CEL	1		x			0.81	81		
CRYPTOCHROMAS EROSA	CEL	1	2.6	43						
CYBSELLA	CEL	1		x						
CYST	CEL	1	10.31	171						
DICHTYOSPHERIUM PULCHELLUM	CGL	1					x			
DIPLOPSALIS ACUTA	CEL	1					x			
ELARAIOTHRIX GELATINOSA	COL	1								
ENTOMONEMA PALUDESA	CEL	1	2.6	43						
EPITHERIA	CEL	1								
EUGLENA #1	CEL	1		x						
EUGLENA #2	CFL	1						x		
EUGLENA EHRENBERGII	CEL	1					x			
EUNOTIA	CEL	1								
GOMPHONERA OLIVACEUM	CEL	1								
GOMPHOSphaeria APGININA	COL	1			0.41	42				
KIRCHNERIELLA	CEL	1					x			
LEPUCI INCLIS	CEL	1								
LYNGYA CINTORTA	FIL	1		x			3.1	323		
MESOPEDIA GLAUCA	COL	1			0.41	43		1.71	62	
MICROCYSTIS AERUGINOSA	COL	1		x			x	151.3.41	123	
MICROCYSTIS INCERTA	COL	1						12146.51	1066	
NAVICULA	CEL	1	2.6	43						
NAVICULA CUSPIDATA	CEL	1		x						
NAVICULA PUPULA	CEL	1								
V. ELLIPTICA	CEL	1		x						
NETZSCHIA VERNICULARIS	CEL	1		x						
OXYSTIS	CFL	1		x						
OSCILLATORIA	FIL	1	33.31	255			x			
OSCILLATORIA LINNETICA	FIL	1	5.31	85						
PEDIASTRUM BORYANUM	COL	1		x						
PEPIDONIUM BORGII	CEL	1		x	121.3.41	404		12.11	432	
PERDIDIUM BILLEI	CEL	1			141.3.61	61		1.71	62	
PHACUS PSEUDOUNDOSTEDTII	CEL	1		x						
PINNULARIA	CEL	1								
SCENELES MUS GUARDIANA	COL	1	2.6	43						
SURIRELLA	CEL	1		x						
SURIRELLA #1	CEL	1		x						
SYNEURA ACUS	CEL	1	12.61	212						
SYNEURA ULNA	CEL	1	1	x				1.71	62	
TOTAL					3667		1.437		3580	

LAKE NAME: COTTUNBUOD LAKE  
STORE NUMBER: 4669

NYGAARD TROPHIC STATE INDICES

DATE	04 24 74	07 11 74	09 18 74
MYXOPHYCEAN	04/0 E	5.00 E	6.00 E
CHLOPHYCEAN	03/0 E	4.00 E	2.00 E
EUGLENOPHYTE	0.43 E	0/09 ?	1/06 ?
DIATOM	0.25 ?	0.80 E	0.10 E
COMPOUND	14/0 E	13.0 E	9.00 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 24 74	07 11 74	09 18 74
GENUS	07	31	01
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 24 74	07 11 74	09 18 74
AVERAGE DIVERSITY	H	2.82	1.51
NUMBER OF TAXA	S	34.00	21.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00
MAXIMUM DIVERSITY MAXH	5.09	4.39	3.56
MINIMUM DIVERSITY MINH	0.18	0.07	0.01
TOTAL DIVERSITY	D	6548.04	5630.53
TOTAL NUMBER OF INDIVIDUALS/ML	N	2322.00	3887.00
EVENNESS COMPONENT	J	0.55	0.34
RELATIVE EVENNESS	RJ	0.54	0.34
MEAN NUMBER OF INDIVIDUALS/TAXA	L	66.29	185.10
NUMBER/ML OF MOST ABUNDANT TAXON	K	721.00	2574.00
			13092.00

TAXA	FORM	14 24 74			17 18 74			09 18 74		
		IS	ZC	PER ML	IS	ZC	PER ML	IS	ZC	PER ML
APPHOBIA	CEL	1	1	X	1	1		1	1	
ANABAENA	FIL			X						
ANABAENA FILIS-AQUAE	FIL				131 0.01	263	121 0.01	875		
ANASTICEDESRUS FALCATUS	FIL									
V. ACICULARIS	CEL			X						
APHANTORENON FLOS-AQUAE	FIL				1100.21	2574	11189.81	13002		
CENTERIC DIATOM	CEL						X			
CHROOCOCCUS DISPERSUS	COL							131 2.21	318	
CHROOCOCCUS DISPERSUS ?	COL				2121.91	814				
CHROOCOCCUS ACUTA	CEL	1.71	40			5.71	26			X
CLOSTERIUM	CEL						X			
COELASTRUM PICROPURUM	COL									X
COELOSPHAERIUM HAEGLIANUM	COL									
COSCINODISCUS ROTHEI	CEL									
V. SUBSALSA	CEL						X			
CRUCIGENIA QUADRATA	COL						X			
CRYPTOMUNAS	CEL						X			
CRYPTOMUNAS EKOZA	CEL	131 5.21	120							
CYATOPLEURA ELLIPTICA	CEL			X						
CYBELLIA MEXICANA	CEL						X			
CYBELLIA TRIANGULUM	CEL			X						
GACTYLLOCOPPSIS IRREGULARIS	CEL	12131.11	721				X			
ENTOMONEIS ORNATA	CEL	1.71	40				X			
EPITHEMIA	CEL			X						
EUGLENA GRACILIS	CEL	1.71	40				X			
GYRPHUNEA OLIVACEUM	CEL			X						
PELUSIRA GRANULATA	CEL			X			X			
MELUSINA GRANULATA	CEL			X			X			
V. ANGSTISSIMA	CEL			X						
MICRUCYTSIS AERUGINOSA	CEL				1.71	26				
MOGEGOTIA	FIL					1				
NAVICULA	CEL			X						
NAVICULA CUSPIGATA	CEL			X						
NITZSCHIA #1	CEL	131 6.91	160							
NITZSCHIA #2	CEL	1.71	5.21	120						
NITZSCHIA #3	CEL	1.71	40							
NITZSCHIA #4	CEL			X						
OOGYSTIS	CEL			X						
OSCILLATORIA	FIL			X						
OSCILLATORIA LIMNETICA	FIL	1.71	40							
PLOIASTRUM DUPLEX	COL			X						
PHACUS PSEUDOGNOSTEDTII	CEL	3.61	80			1.71	26			
PHARMIDIUM MUCICOLA	FIL						X			
PINNULARIA	CEL									
PINNULARIA MICROSTAURON	CEL			X						
RHOPALODIA GIRBA	CEL			X						
SCENEGESMUS BIJUGA	COL			X						
SCHROEDERIA SETIGERA	CEL			X						
STEPHANODISCUS	CEL									
STEPHANODISCUS #1	CEL			X						
STEPHANODISCUS #2	CEL	131 31.11	721							
STEPHANODISCUS NIAGARAE	CEL									
SUBIRELLA #9	CEL	1.71	3.41	80			X			
SYNEDRA T	CEL			X						
SYNEDRA ACUS	CEL	131 5.21	120							
TRACHELUMONAS VOLVUCINA	CEL			X						
ULOTHrix ?	FIL	1	1	X	1	1		1	1	
TOTAL					2522		3867		14474	

LAKE NAME: DEERFIELD RES.  
STATION NUMBER: 4610

NYGAARD TROPHIC STATE INDICES

	DATE	04 25 74	07 15 74	09 11 74
MYXOPHYCEAN		0/01 0	01/0 E	1.67 E
CHLOROPHYCOPHAN		2.00 E	03/0 E	0.67 ?
EUGLENOPHYTE		C/02 ?	0/04 ?	0/07 ?
DIATOM		0.20 ?	1.00 E	0.25 ?
COMPOUND		3.00 E	07/0 E	2.67 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 25 74	07 15 74	09 11 74
GENUS		02	00	00
SPECIES		00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 25 74	07 15 74	09 11 74
AVERAGE DIVERSITY	H	1.83	2.47	2.44
NUMBER OF TAXA	S	16.00	17.00	22.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY MAXH		4.17	4.09	4.46
MINIMUM DIVERSITY MINH		0.06	0.14	0.32
TOTAL DIVERSITY	D	7021.71	3242.51	1756.80
TOTAL NUMBER OF INDIVIDUALS/ML	N	3837.00	1333.00	720.00
EVENNESS COMPONENT	J	0.44	~0.6	0.55
RELATIVE EVENNESS	RJ	0.44	~0.54	0.52
MEAN NUMBER OF INDIVIDUALS/TAXA	L	213.17	76.41	32.73
NUMBER/ML OF MOST ABUNDANT TAXON	K	2142.00	521.00	265.00

TAXA	FORM	04 25 74		07 19 74		08 11 74				
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ANABACINA	FIL	1	1					151	5.30	36
ANISTRIDIUM FALCATUS	CEL	1	1	X	1	2.21	29	1	1	
ANISTRIDIUM FALCATUS V. ACICULARIS	CEL	1	1	X						
ASTERIUNELLA FURROSA	CEL	151	7.9	280				11121.0	151	
CENTRIC DIATOMS	CFL	1	1		151	0.71	116			
CERATIUM CYST	CEL	1	1			4.21	29			X
CERATIUM MIRUNDINELLA	CEL	1	1							
CERATIUM MIRUNDINELLA F. SCOTTICUM	CEL	1	1		141	4.41	29			X
CHODOCOCCUS	COL	1	1							X
CHORDOMAS ACUTA	CFL	12155.8	2142		11139.11	521		14136.8	265	
COCCOID CELL	CEL	1	1							X
COSMARIA #1	CEL	1	1							X
COSMARIA #2	CEL	1	1	X						X
COSMARIA #3	CEL	1	1							X
CRYPTOMMAS EROSA	CEL	141	5.6	224						
CRYPTOMMAS MARSSONII	CEL	131	6.71	256						36
CRYPTOMMAS REFLEXA	CEL	1	1	X						
CRYPTOMMAS spp.	CEL	1	1		12112.01	203				
CYCLOSTELLA RENEGHINIANA	CEL	1	1	X						X
DIMBULON DIVERGENS	CEL	1	1							X
EUDRINA ELEGANS	COL	1	1							X
FLAGELLATE	CEL	1	1	X	13121.81	87		12135.8	114	
FRAGILARIA CHOTON. NSIS	CEL	1	1	X						
GLENDINUM	CEL	1	1	X						
GYMNOZIUM	CEL	1	1	X						
GYPSIGMA	CEL	1	1							X
LYMBEA BIAGELI	FIL	1	1							X
MELLUSINA	CEL	1	1							
MICROCYSTIS INCELLTA	COL	1	1							
MITESCHIA	CEL	1	1							
OCYCYSTIS	CEL	1	1		2.41	29				
OSCILLATORIA	FIL	1	1							
PEDASTRUM BERYANUM	COL	1	1							X
PERIDINUM VILLEI	CEL	1	1	X						
PHAEPIDION	FIL	1	1							
SCHROEDERIA SETIGERA	CEL	1	1							X
STEPHANODISCUS	CEL	1	1	X						
SYMEDRA ACUS	CEL	11122.5	863							
SYMEDRA ULNA	CEL	1	1	X						
TABELLARIA FENESTRATA	CEL	1	1	3.71	64			15110.61	76	
TOTAL				3837			1333		720	

LAKE NAME: ENEMY SWIM LAKE  
STORE NUMBER: 4611

NYGAARD TROPHIC STATE INDICES

DATE	04 25 74	07 11 74	09 19 74
MYXOPHYCEAN	05/0 E	9.00 E	16/0 E
CHLOROPHYCEAN	03/0 E	8.00 E	04/0 E
EUGLENOPHYTE	0.12 ?	0/17 ?	3/19 ?
DIATOM	0.15 ?	0.50 E	0.33 E
COMPOUND	11/0 E	19.0 E	21/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 25 74	07 11 74	09 19 74
GENUS	02	02	02
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 25 74	07 11 74	09 19 74
AVERAGE DIVERSITY	H	2.37	2.51
NUMBER OF TAXA	S	33.00	29.00
NUMBER OF SAMPLES COMPOSITED	M	1.00	2.00
MAXIMUM DIVERSITY MAXH	M	5.04	4.86
MINIMUM DIVERSITY MINH	M	0.05	0.11
TOTAL DIVERSITY	D	21461.68	8837.71
TOTAL NUMBER OF INDIVIDUALS/ML	N	9064.00	3521.00
EVENNESS COMPONENT	J	0.47	0.52
RELATIVE EVENNESS	RJ	0.47	0.51
MEAN NUMBER OF INDIVIDUALS/TAXA	L	274.67	121.41
NUMBER/ML OF MOST ABUNDANT TAXON	K	3573.00	1576.00
			148.43
			1863.00

TAXA	FLDR	64 25 74			17 11 74			09 19 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ANOMOEA UVALIS	CEL	3.4	33							
V. AFFINIS	FIL				1.31	45				X
ANABAENA PLANCTONICA	FIL					1	131	4.8	2.7	
APHAENIZUMENUM FLOS-AQUAE	COL				1.1	1.31	66			X
APHAENICAPS A LACHISTIA	COL				1.1	44.01	1576		8.1	362
V. CONFERTA	COL									
APHAENICHECE PULVERULENTA ?	CEL	12125.91	2349							
ASTERIONELLA FORMOSA	COL									
BOTRYOCOCCUS BRAUNII	COL									
CERATIUM HIRUNDINELLA	CEL									
CHAGORODIA ACUTA	CEL	11139.41	3573		16.41	669		4.6	207	
COCCONEIS PLACENTULA	CEL									
V. LINEATA	CEL			X						
COELOSPHEARIUM ?	COL									
COELOSPHEARIUM PALLIUM	COL									
CHUCIGENIA QUADRATA	COL				2.01	43				X
CRYPTICRUMAS	CEL			X	1.31	40				
CRYPTICRUMAS EROSA	CEL									
V. REFLEXA	CFL	2.91	265							
CYBSELLA	CFL			X						
CYBEELLA MINUTA	CEL									
V. PSEUDOGRAEILIS	CEL			X						
CYBEELLA TRIANGULUM	CEL									
DACTYLICOCOCCOPSIS	CEL	1.11	49							
SICULYSphaerium PULCHELLUM	CFL			X						
DINGBYIA SETULARIA	CFL	1515.81	229					1.21	52	
DIPLOPSALIS ACUTA	CEL			X						
ELATATLITHIX GELATINUSA	CEL			X						
EPITHIMIA	CEL			X						
EULGRIMA	CUL			X						
FLAGELLATE	CEL	16111.31	1026							
FRAGILARIA BICAPITATA	CEL									
FRAGILARIA CRISTATENSIS	CEL	13113.91	992	1210.61	232	12141.81	1863			
GOMPHESphaeria APONIMA	COL			X						
GYMNODIUM ALBULUM	CEL			X						
GYROSIGMA	CEL									
LYNGBYA BIRGEI	FIL									
LYNGBYA SUBTILIS	FIL			X				1.21	52	
MALLORUMAS	CEL			X						
MELOSIRA GRANULATA	CEL			1317.91	278	1512.31	104			
MELOSIRA ITALICA	CFL			X						
MICROCYSTIS ? INCERTA	COL			X						
MICROCYSTIS AERUGINOSA	CNL			X				1.21	52	
NAVICULA	CEL			X						
NAVICULA GASTRUM	CEL			X						
NAVICULA REINHARDTII	CEL			X						
NITZSCHIA ARPHIBIA	CEL			X						
NITZSCHIA SIGNOTDEA	CEL			X						
NITZSCHIA VERMICULARIS	CEL									
DOCYSTIS	CEL				11.01	417	7.01	311		
PEDIASTRUM BURNTANUM	COL			1511.31	46					
PEDIASTRUM DUPLEX	CGL									
PELIASTRUM DUPLEX										
V. CLATHRATUM	COL									
PEDIASTRUM SIMPLEX	COL									
V. DUODENARIUM	COL			X						
PERIDIDIUM VILLEI	CEL			X						
PHANERODILIA MUCICOLA	COL									
SCENELLESCHUS BIJUGA	CCL									
STAURASTIUM	CEL									
STAURONEIS SALINA	CEL									
STEPHANOPODISCUS NIGRANAE	CEL	1.11	99	1.31	46		1.21	52		
SUBINELLA LINEARIS	CEL									
SYNEURA CYCLOPUM	CEL									
V. RUBRISTIUM	CEL	1.11	99							
SYNEURA ULVA	CEL			X						
TETRAEDRON PLANCTONICUM	CEL									
TETRAEDRUM TRIGONUM	CEL									
V. GRACILE	CEL									
TETRASTRUM GLABRUM	COL				1.31	46				
TRACHELLUMAS	CEL			X						
TOTAL				9064		3521		4453		

LAKE NAME: LAKE HEYMAN  
STREET NUMBER: 4612

NYGAARD TROPHIC STATE INDICES

DATE	04 23 74	07 11 74	09 20 74
MYXOPHYCEAN	7.00 E	4.00 E	7.00 E
CHLOROPHYCEAN	10.0 E	3.00 E	7.00 E
EUGLENOPHYTE	0.53 E	0.07 ?	0.29 E
DIATOM	0.33 E	0.25 ?	0.30 ?
COMPOUND	30.0 E	8.00 E	21.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 23 74	07 11 74	09 20 74
GENUS	10	01	06
SPECIES	00	00	02

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 23 74	07 11 74	09 20 74
AVERAGE DIVERSITY	H	2.33	0.41
NUMBER OF TAXA	S	46.00	14.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00
MAXIMUM DIVERSITY MAXH		5.52	3.81
MINIMUM DIVERSITY MINH		0.06	0.01
TOTAL DIVERSITY	D	26366.28	6441.51
TOTAL NUMBER OF INDIVIDUALS/ML	N	11316.00	15711.00
EVENNESS COMPONENT	J	0.42	0.11
RELATIVE EVENNESS	RJ	0.42	0.11
MEAN NUMBER OF INDIVIDUALS/TAXA	L	246.00	1122.21
NUMBER/ML OF MOST ABUNDANT TAXON	K	4011.00	14864.00

TAXA	FORM	04 23 74			07 11 74			09 26 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ACTINOSTRUM GRACILINUM	CFL									
AMPHORA	CFL	0.71	63							x
ANGIOBIAENA	FIL	0.21	28							
ANISTRUDERUS FALCATUS	CFL									x
V. ACICULARIS	CFL									
ANISTRUDERUS FALCATUS	CFL			x						
V. PIRABILIS	CFL									
APHAENIZOMENON FLOS-AQUAE	FIL				11196.61	14669		2.3	204	
APHAENIZOMENON FLOS-AQUAE	CGL				1510.41	67				
CENTRIC DIATOM	CFL	11135.61	6011							
CHROOCHOMAS ACUTA	CFL	13119.31	2165	1213.11	471	1415.11	530			
CLOSTRIDIUM ?	CFL					x				
CLOSTERIUM ?	CFL			x				0.61	41	
CLADOKERIS PLACENTIULA	CFL									
V. LINEATA	CFL			x						x
COELASTRUM MICROPURUM	COL			x						x
COELOSPHELIUM CULLINSII ?	COL			x				0.4	41	
CRUCIGENIA QUADRATA	COT			x						
CRYPTOCOENAS EROSA	CFL	0.71	63					1.6	163	
CYCLOTELLA MENEGHINIATA	CFL			x—						
CYDTEPLEURA SOLEA	CFL									x
CYBDELLA	CFL									
CYBDELLA MEXICANA	CFL			x						
CYBDELLA TRIANGULARIS	CFL			x						
CACTYLUGOCOPUSIS	CFL	12133.61	3735					15128.71	2074	
ENTOMONEIS UPNATA	CFL	0.21	28							
EPIT-ERIA	CFL			x						x
EPITHIMIA #1-	CFL			x						
EUGLENA #1	CFL			x						
EUGLENA #2	CFL			x						
EUGLENA #3	CFL			x						
EUGLENA ACUS	CFL			x						x
EUGLENA OXYTIS	CFL			x						
EUGLENA TRIPTERIS	CFL			x						
FRAGILARIA	CFL			x						
GARDNERIA	CFL			x						
KINCHNERIELLA	CFL									x
PICHNERIELLA ?	CUL							2.31	204	
PELLSIRA GRANULATA	CFL	1412.21	249							
MELCSIRA GRANULATA	CFL									
V. ANGUSTISSIMA	CFL	1512.21	249					1114.71	469	
MERISTIPEDIA MINIMA	CFL	10.71	83					13127.21	2811	
MICROCYSTIS AERUGINOSA	CFL			x	1310.41	67				x
MICROCYSTIS INCERTA	CFL			x				7.1	733	
NAVICULA	CFL				0.61	34				x
NAVICULA PUPILLARIA	CFL									
V. ELLIPTICA	CFL			x						
NITZSCHEIA	CFL	1.01	111					1.21	122	
OCYTSIS	CFL	0.51	25					5.1	530	
OSCILLATORIA	FIL	0.21	28							
OSCILLATORIA LINNELLICA	FIL			x						x
PEDIASTRUM BUNYANUM	CFL			x						
PEDIASTRUM DUPLEX	CFL			x						
V. RETICULATUM	CFL	3.21	28							
PEDIASTRUM SIMPLEX	CFL			x						
PENNATE DIATOM	CFL			x						x
PHACUS ACURINATUS ?	CFL			x						
PHACUS ACURINATUS	CFL			x						
V. JREZEPOLSKII	CFL	3.21	28							x
PHACUS MEGALPSIS	CFL			x						
PHALUS PSEUDOUNGSTELTII	CFL			x						
PHALUS TORTILIS	CFL			x						
PINNULARIA	CFL			x						
SCHEUDERIA DIMORPHUS	EPK	3.51	25							
SCHEUDERIA INTERPLECTUS	CFL			x						
SCHEUDERIA SETIGERA	CFL			x	1410.91	135		0.4	41	
STEPHANOJELCUS	CFL	1.01	111							
STEPHANOJELCUS ASTRAEA	CFL			x						
V. RIMULATA	CFL			x				110.61	1106	
SPIRELLA #9	CFL	2.21	28							x
SYNEURA AL	CFL			x	3.21	34		1.6	163	
SYNEURA #2	CFL			x						
SYNEURA ACUS	CFL	1.21	130							x
SYNEURA ULNA	CFL			x				0.61	61	
TRACHELOCHOMAS	CFL			x						

TOTAL

11310

15711

10369

LAKE NAME: JOHN LAKE  
STORET NUMBER: 4613

NYGAARD TRUPHIC STATE INDICES

DATE	04 23 74	07 11 74	09 20 74
MYXOPHYCEAN	1.33 E	3.33 E	2.00 E
CHLOROPHYCEAN	5.33 E	8.33 E	3.83 E
EUGLENOPHYTE	0.1C ?	0.17 ?	0.09 ?
DIATOM	0.40 E	0.67 E	0.42 L
COMPOUND	9.33 E	15.6 E	7.17 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 23 74	07 11 74	09 20 74
GENUS	19	20	25
SPECIES	55	65	36

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 23 74	07 11 74	09 20 74
AVERAGE DIVERSITY H	2.11	4.26	2.74
NUMBER OF TAXA S	51.00	65.00	67.00
NUMBER OF SAMPLES COMPOSITED M	1.00	2.00	2.00
MAXIMUM DIVERSITY MAXH	5.67	6.02	6.07
MINIMUM DIVERSITY MINH	0.01	0.06	0.02
TOTAL DIVERSITY D	222942.60	72777.12	202762.74
TOTAL NUMBER OF INDIVIDUALS/ML N	105666.00	17034.00	74001.00
EVENNESS COMPONENT J	0.37	0.71	0.45
RELATIVE EVENNESS R.J.	0.38	0.71	0.45
MEAN NUMBER OF INDIVIDUALS/TAXA L	2071.76	261.60	1144.49
NUMBER/ML OF MOST ABUNDANT TAXON K	58307.00	2061.00	44482.00

TAXA	FLAM	04 23 76			07 11 76			09 26 76		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ACTINASTHEA	COL	1	1	1	1	1	1	1	0.41	269
ANABAENA	FIL	1	1	1	1	1	1	1	0.61	428
ANABAENOPSIS CIRCULARIS	FIL	1	1	1	1	1	1	1	1	1
ANKISTROJELUS FALCATUS	CEL	1	1	2.01	343	1	1	1	1	2
ANKISTROJELUS FALCATUS	CEL	1	1	5.91	6276	1	1	1	1	1
V. ACICULARIS	CEL	1	1	1	1	1	1	1	1	1
APHANIZOMENON FLOS-AQUAE	FIL	1	1	1	1	1	1	1	1.21	655
APHANIZOMENON GRACILE	FIL	1	1	1	1	1	1	1	2.11	1568
APHANOCAPS A DELICATISSIMA	COL	1	1	1	1	1	1	1	1	1
APHANOCAPS A ELACHISTA	COL	1	1	1	1	1	1	1	1	1
APHANOCAPS A ELACHISTA	COL	1	1	1	1	1	1	1	1	1
V. PLACTONICA	COL	1	1	1	1	1	1	1	1	1
BINUCLEARIA	FIL	1	1	1	1	1	1	1	5.81	4277
BOTRYLOCOCCUS	COL	1	1	1	1	1	1	1	1	1
CERATIUM HIRUNDINELLA	CEL	1	1	1	1	1	1	1	1	1
CHARACIUM	CEL	1	1	1	1	1	1	1	1	1
CHLOROPHYTAN LUNATE CELL	CEL	1	1	1	1	1	1	1	0.41	285
CHLORONMAS ACUTA	CEL	1	1	1	1	1	1	1	3.31	2424
CLOSTERIUM	CEL	1	1	1	1	1	1	1	4.61	3422
CLOSTERIUM #1	CEL	1	1	1	1	1	1	1	1	1
CLOSTERIUM #2	CEL	1	1	1	1	1	1	1	1	1
COCCONEIS	CEL	1	1	1	1	1	1	1	1	1
COELASTRUM MICROPGRM	COL	1	1	0.11	114	1	1	1	1	1
COELASTRUM RETICULATUM	COL	1	1	1	1	1	1	1	1	1
COELOSPHAERIUM COLLINSII	COL	1	1	1	1	1	1	1	4.41	3279
COELOSPHAERIUM COLLINSII ?	COL	1	1	1	1	1	1	1	1	1
COCCHAZIUM	CEL	1	1	1	1	1	1	1	1	1
CYLICICLIA APICULATA	COL	1	1	1	1	1	1	1	1	1
CRUCICILIUM QUADRATA	COL	1	1	1	1	1	1	1	1	1
CRUCICILIUM TETRAPEUDIA	COL	1	1	1	1	1	1	1	1	1
CRYPTOMMAS LABDA	COL	1	1	1	1	1	1	1	1	1
CRYPTOMMAS EFOSA	COL	1	1	1	1	1	1	1	1	1
V. ARPLEA	CEL	1	1	0.41	434	1	1	1	1	1
CRYPTOMMAS HARSSAGNI	CEL	1	1	1	1	1	1	1	0.21	143
CYCLOTILLA RENIGMINIANA	CEL	1	1	0.41	436	1	1	1	1.01	713
CYTRICPLEURA SOLEA	CEL	1	1	1	1	1	1	1	1	1
CYBELLIA MINUTA	CEL	1	1	1	1	1	1	1	1	1
CYBELLIA TRIANGULUM	CEL	1	1	1	1	1	1	1	1	1
DACTYLOCUCOPSIS	CEL	1	1	1	1	1	1	1	0.61	426
DICTYOSPHELIUM PULCHELLUM	COL	1	1	1	1	1	1	1	1	1
DIPLOPSALIS ACUTA	COL	1	1	1	1	1	1	1	1	1
ELAKATUTHA GELATINOSEA	COL	1	1	1	1	1	1	1	0.21	143
ENTOMONEIS ORNATA	CEL	1	1	1	1	1	1	1	1	1
EPITHEMIA	CEL	1	1	1	1	1	1	1	1	1
EUGLENA	CEL	1	1	1	1	1	1	1	0.21	143
EUGLENA CHARRONIENSIS ?	CEL	1	1	1	1	1	1	1	1	1
EUGLENA EHRENBENGII	CEL	1	1	1	1	1	1	1	1	1
EUGLENA OXYURIS	CEL	1	1	1	1	1	1	1	1	1
V. MINOR	CEL	1	1	1	1	1	1	1	1	1
FLAGELLATES	CEL	1	1	1	1	1	1	1	1	1
GLEOCLENIUM GYMNOGINIUM	CEL	1	1	1	1	1	1	1	1	1
V. BISCUTELLIFORME	CEL	1	1	1	1	1	1	1	1	1
COMPIONEMA	CEL	1	1	1	1	1	1	1	1	1
GYMNOGINIUM URBINATUM	CEL	1	1	1	1	1	1	1	1	1
MATZSCHIA	CEL	1	1	1	1	1	1	1	1	1
KIRCHNERIELLA LUNARIS	CEL	1	1	1	1	1	1	1	1	1
V. IRREGULARIS	CEL	1	1	1	1	1	1	1	1	1
LAGERHEIMIA	CEL	1	1	1	1	1	1	1	1	1
LTHGETA	FIL	1	1	1	1	1	1	1	0.41	285
MALLOMUNAS ACAROIDES	CEL	1	1	1	1	1	1	1	1	1
MELISSTRA	CEL	1	1	1	1	1	1	1	1	1
MELISSTRA #1	CEL	1	1	1	1	1	1	1	0.41	285
MELISSTRA GRANULATA	CEL	1	1	1	1	1	1	1	1	1
V. ANGUSTISSIMA	CEL	1	1	1	1	1	1	1	1	1
MELISSTRA ITALICA	CEL	1	1	1	1	1	1	1	1	1
MELISSTRA ITALICA ?	CEL	1	1	1	1	1	1	1	1	1
MERISMOPEDIA RIMINA	COL	1	1	1	1	1	1	1	1	1
MICROCYSTIS AERUGINOSA	COL	1	1	1	1	1	1	1	1	1
MICROCYSTIS INCERTA	COL	1	1	1	1	1	1	1	1	1
NAVICULA CAPITATA	CEL	1	1	1	1	1	1	1	1	1
NAVICULA CUSPIDATA	CEL	1	1	0.01	689	1	1	1	1	1
NAVICULA REINHARDTII	CEL	1	1	1	1	1	1	1	1	1
MATZSCHIA	CEL	1	1	1	1	1	1	1	1	1
MATZSCHIA #1	CEL	1	1	0.11	114	1	1	1	0.21	143
MATZSCHIA #2	CEL	1	1	0.11	114	1	1	1	1	1
MATZSCHIA ACICULARIS	CEL	1	1	1	1	1	1	1	1	1
MATZSCHIA LONGISSIMA	CEL	1	1	1	1	1	1	1	1	1
V. REVERSA	CEL	1	1	1	1	1	1	1	1	1
ODCYSTIS	COL	1	1	0.61	689	1	1	1	1	998
OSCILLATORIA	FIL	1	1	1	1	1	1	1	1	1
OSCILLATORIA AGATHICIS	FIL	1	1	1	1	1	1	1	1	570
OSCILLATORIA LIMNETICA	FIL	1	1	1	1	1	1	1	1	44682
PEDIASTHM BORTYANUM	CEL	1	1	1	1	1	1	1	1	285

04 23 74      07 11 74      09 20 74

TAXA	FURN	ALGAL UNITS			ALGAL UNITS			ALGAL UNITS		
		IS	ZC	PER ML	IS	ZC	PER ML	IS	ZC	PER ML
PEDIASTRUM DUPLEX	COL			x		4.51	807		0.21	143
V. RETICULATUM	COL						x		0.21	143
PEDIASTRUM TETRAS	COL						x		x	
V. TETRAUDON	COL						x			
PHACUS	COL						x			
PHACUS HILARIOIDES	COL						x		0.21	143
PHACUS NEGALPSIS	COL						x			
PENNULARIA	COL			x					0.21	143
PLEUROSPERMUM DELICATULUM	COL								0.21	143
PHOCLESPHENIA CUVIATA	COL			x					x	
SCENEDESMAUS	COL			x						
SCENEDESMAUS ABUNDANS	COL			x						
SCENEDESMAUS ACUMINATUS	COL	0.5	571	0.51	86		0.21	143		
SCENEDESMAUS ARCUATUS	COL						0.41	285		
SCENEDESMAUS BALATONICUS	COL				5.61	964	0.61	420		
SCENEDESMAUS BERNARDII	COL					x				
SCENEDESMAUS BICAUDATUS	COL				0.51	86				
SCENEDESMAUS BIJUGA	COL									
V. FLIGGUSUS	COL	0.21	114							
SCENEDESMAUS GIMMELPHUS	COL			x						
SCENEDESMAUS INTERMEDIA	COL			x	1.51	298				
SCENEDESMAUS PROTUBERANS	COL					x	0.21	143		
SCENEDESMAUS QUADRICAUDA	COL			x			0.41	285		
SCENEDESMAUS SPP.	CCL	0.61	685	1.51	601			x		
SCHNOERERIA SETIGERA	COL									
SELENASTRUM	COL									
SELENASTRUM ?	COL			x						
SPHAEROCYSTIS SCHRUETERI	COL					x			x	
STAURASTRUM #1	COL			x			x		0.21	143
STAURASTRUM #2	COL					x			x	
STAURASTRUM TETRACERUM	COL					x		0.21	143	
STEPHANODISCUS	COL	4.6	5621							
STEPHANODISCUS ASTREA	COL									
V. MINUTULA	COL									
STEPHANODISCUS NIAGARE	COL	0.1	314	0.51	86		0.21	143		
SURIRELLA	COL									
SURIRELLA #1	COL									
SURIRELLA AUGUSTA	COL			x						
SURIRELLA BRIGHTWELLII ?	COL			x						
SYNEURA	COL									
SYNEURA DELICATISSIMA	COL									
V. AUGUSTISSIMA	COL									
SYNEURA ULNA	COL			x						
TEMBECKIA LIPNETICUM	COL					x				
TEMBECKIA MINIMA	COL									
V. SCHREIBERI	COL									
TEMBECKIA ELEGANS	COL				0.51	86		0.21	143	
TEMBECKIA GLABRUM	COL				1.01	172			x	
TEMBECKIA STAUROGENIAEFORNII	COL	0.2	220			x		0.41	285	
TRACHELORHYNCHUS	COL			x						
TREUBANIA TRIAPPENDICULATA	COL			x				0.21	143	

TOTAL

109660

17004

74001

LAKE NAME: LAKE KAMPESKA  
STORE NUMBER: 4614

NYGAARD TRUPHIC STATE INDICES

	DATE	04 25 74	07 12 74	09 19 74
MYXOPHYCEAN		01/0 E	05/0 E	02/0 E
CHLOROPHYCEAN		0/0 D	06/0 E	01/0 E
EUCLEROPHYTE		1.00 E	0/11 ?	0/03 ?
DIATOM		0.30 ?	03/0 E	1.25 E
COMPOUND		05/0 E	14/0 E	06/0 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 25 74	07 12 74	09 19 74
GENUS		06	03	00
SPECIES		00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 25 74	07 12 74	09 19 74
AVERAGE DIVERSITY	H	2.26	2.51	2.36
NUMBER OF TAXA	S	19.00	16.00	14.70
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY MAXH		4.25	4.00	3.81
MINIMUM DIVERSITY MINH		0.17	0.04	0.03
TOTAL DIVERSITY	D	2793.00	12364.20	2593.00
TOTAL NUMBER OF INDIVIDUALS/ML	N	1225.00	4926.00	7213.00
FRENESS COMPONENT	J	0.54	0.63	0.09
RELATIVE EVENESS	RJ	0.52	0.03	0.04
MEAN NUMBER OF INDIVIDUALS/TAXA	L	64.47	337.88	514.50
NUMBER/ML OF MOST ABUNDANT TAXON	K	531.00	2430.00	6830.00

TAXA	FURP	64 25 74			7 12 74			39 19 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
APHAENIZONIUM FLUSS-AQUAE	FIL				11140.51	2430	11194.81	6830		
APHAENIZONIUM GRACILE	FIL			X						
CHLOROCYCCUS	COL				1.1	93				
CHLOROMMAS ACUTA	CEL	113.31	163	131 6.61	424	131 2.61	167			
CHLOROMMAS REFLEXA	CEL									X
COCCOMELIS PLACENTILLA	CFL									
COELASTIAUM MICRUFURUM	CUL									
CRYPTODROMIA EROSA	CEL									
CYCLOTELLA	CEL	11143.31	531	111 2.21	130					
CYCLOTELLA RENEGMINIANA	CEL									X
CYRATOPLEURA SCLEA	CEL			X						
CYMBELLA	CEL			X						
CYMBELLA TRIANGULUM	CEL									X
DINOBYXON SEPTULARIA	CEL	12113.31	163							
ELAKATOTHEIX GELATINUSA	COL				1.1	23				
EPITHERIA TURGIDA	CEL									X
EUGLENA	CEL			X						
FRAGILARIA	CEL	13113.31	163							X
GLENULINUM OCULATUM	CEL			X						
GYROSIGMA	CEL			X						
KIRCHNERIELLA CONTORTA	CEL				3.21	159				
LELOSIRA GRANULATA	CEL			X			X			
LELOSIRA GRANULATA V. ANGUSTISSIMA	CEL									X
MERTISPEDIA PINIMA	COL				2.21	136				
MICRYSTIS AERUGINOSA	COL						121 0.51	37		
MICRYSTIS INCERTA	COL				2112.91	635				
NAVILLA	CEL			X						
NITZSCHIA	CEL	151 0.7	82							
NITZSCHIA VERMICULARIS	CEL			X						
ODCYSTIS	CEL									
PICRIGIUM	FIL									
SCHPOEDERIA SETIGERA	CEL				151 4.31	212				
STEPHANODISCUS	CEL									
STEPHANODISCUS ASTREA	CEL			X			151 2.11	140		
V. MINUTULA	CEL									X
SUPERELLA #0	CEL			X						
SUPERELLA ANGUSTA	CEL			X						
SYNEURA ACUS	CEL	16113.01	123							
TETRASTRUM GLABRUM	COL									
ZOSPOKE	CEL				11 4.31	212				
TOTAL					1229		4926		7203	

LAKE NAME: MADISON LAKE  
STORET NUMBER: 4625

NYGAARD TROPHIC STATE INDICES

DATE	04 23 74	07 11 74	09 20 74
MYXOPHYCEAN	04/0 E	01/0 E	9.00 E
CHLOROPHYCEAN	08/0 E	02/0 E	13.0 E
EUGLENOPHYTE	0.08 ?	0/03 ?	0/22 ?
DIATOM	0.27 ?	1.00 E	0.37 E
COMPOUND	16/0 L	04/0 E	25.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 23 74	07 11 74	09 20 74
GENUS	13	36	20
SPECIES	63	66	52

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 23 74	07 11 74	09 20 74
AVERAGE DIVERSITY H	0.91	0.34	2.34
NUMBER OF TAXA S	33.00	5.60	35.00
NUMBER OF SAMPLES COMPOSITED M	3.00	3.00	3.00
MAXIMUM DIVERSITY MAXH	5.34	2.32	5.29
MINIMUM DIVERSITY MINH	0.01	0.06	0.04
TOTAL DIVERSITY D	61014.59	201.12	38843.14
TOTAL NUMBER OF INDIVIDUALS/ML N	67049.00	768.00	10621.00
EVENNESS COMPONENT J	0.16	0.15	0.44
RELATIVE EVENNESS R.J.	0.18	0.13	0.44
MEAN NUMBER OF INDIVIDUALS/TAXA L	2031.79	153.62	426.18
NUMBER/ML OF MOST ABUNDANT TAXON K	58722.00	720.00	10641.00

TAXA	FLPN	04 23 74			07 11 74			09 20 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ACTINASTRUM	CEL	1	0.31	221				1	0.21	683
AMPHORA	CEL	1	1	x						
ANABAENA	FIL	1	1	x				1	1.21	201
ANASTRODESMUS FALCIATUS	CEL	141	2.41	1630						
ANASTRODESMUS FALCIATUS V. ACICULARIS	CEL	1	1	0.71	441					
APHAENIZOMA FLOS-AQUAE	FIL	1	1		1193.71	72.	1164.01	10641		
CHLAMYDOMMAS GLOBOSEA	CEL	1	1					1	0.71	120
CHROMOMMAS ACUTA	CEL	121	4.21	2812					1	
CLOSTERIUM	CUL	1	1					1	0.21	40
COLLASTRUM MICROPORUM	CUL	1	1					1	0.21	40
CRYPTOPORAS	CEL	1	1	2.41	276			1	0.71	120
CYPTOCHELAS EPICA	CEL	1	1		x			1	3.91	642
CYCLUTELLA MENEGHINIANA	CEL	1	1		x				1	
CYRATUPLEURA SOLEA	CEL	1	1		x				1	
CYRELLA	CGL	1	1		x			1	0.51	80
DICTYOSPHAERIUM	COL	1	1		x				1	
DICTYOSPHAERIUM PULCHELLUM	CEL	1	1		x				1	
ENTOMONEIS PALUOSA	CEL	1	1		x				1	
FLAGELLATE	CEL	11187.01	58722							
FLAGELLATE #2	CFL	1	1					1	1.71	281
GGRPHGNERA	CEL	1	1	x				1	0.21	40
GYRDINIUM ALBULUM	CEL	1	1	0.21	130					
KIRCHNERIELLA	CEL	1	1	0.91	607					
KIRCHNERIELLA #2	CFL	1	1					1	1.71	281
KIRCHNERIELLA CONTORTA	CEL	1	1					1	0.71	120
MELOSIRA GRANULATA										
V. ANGUSTISSIMA	CEL	1	1					1	1.01	161
VERISPUMEDIA MINIMA	COL	1	1					1	1.01	321
MICROCYSTIS #1	COL	1	1					1	2.41	402
MICROCYSTIS INCERTA	COL	1	1	0.11	55			1	0.71	120
NAVICILLA	CEL	1	1		x				1	
NAVICULA #1	CEL	1	1	0.31	221					
NAVICULA CUSPIDATA	CEL	1	1	x						
MITZSCHIA #1	CEL	1	1					1	0.21	40
MITZSCHIA #2	CEL	1	1		x			1	0.21	40
MITZSCHIA ACICULARIS	CEL	1	1		x				1	
ODCYSTIS	CEL	1	1		x				1	
OSCILLATORIA	FIL	1	1	0.11	95			1	3.11	522
OSCILLATORIA LINNETICA	FIL	131	1.21	772						
PEDIASTRUM	CUL	1	1							
PECIASTRUM KAPPAISKYI	COL	1	1							
PERNATE DEATOR	CEL	1	1		x					
PHACUS	CEL	1	1		x					
PHAGIDIUM	FIL	1	1					1	7.21	1205
PAPHIDIOPSIS	FIL	1	1					1	1.01	321
PAPHIDIOPSIS CURVATA	FIL	1	1						1	
SCENEDESMUS ACURINATUS	COL	1	1		x				1	
SCENEDESMUS ARCUATUS	COL	1	1		x			1	0.51	80
V. CAPITATUS	COL	1	1						1	
SCENEDESMUS RACIBORSKII	COL	1	1						1	
F. GRANULATUS	COL	1	1						1	
SCENEDESMUS SPP.	COL	1	1					1	1.71	120
SCHUBERDIA SETIGERA	CEL	1	1		x	121	6.41	48		
SPERMATOZOOPSIS EXULTANS	CFL	1	1		x					
STEPHANODISCUS ASTRAEA										
V. MINUTULA	CEL	1	1	0.31	221					
STEPHANODISCUS NIAGARAE	CEL	1	1	0.21	165			1		
SUPERELLA	CEL	1	1		x				1	
SYNEURA	CFL	1	1	0.71	441				1	
TETRASTRUM GLABRUM	CFL	1	1						1	
TRICRUCIALIS SETIGERA	CFL	1	1						1	
TOTAL					67649			768		10621

LAKE NAME: LAKE MITCHELL  
STORET NUMBER: 4616

NYGAARD TROPHIC STATE INDICES

DATE	04 23 74	07 11 74	09 18 74
MIXOOPHYCEAN	02/0 E	05/0 E	1..0 E
CHLOROPHYCEAN	10/0 E	16/0 E	22.0 E
EUGLENOPHYTE	0.17 ?	0.24 E	0.19 ?
DIATOM	0.33 E	2.00 E	0.67 E
COMPOUND	15/0 E	28/0 E	40.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 23 74	07 11 74	09 18 74
GENUS	07	14	21
SPECIES	61	66	37

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 23 74	07 11 74	09 18 74	
AVERAGE DIVERSITY	H	1.81	3.38	4.46
NUMBER OF TAXA	S	22.00	30.00	49.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY MAXH		4.46	5.17	5.61
MINIMUM DIVERSITY MINH		0.03	0.15	0.04
TOTAL DIVERSITY	D	18677.39	13393.50	88343.08
TOTAL NUMBER OF INDIVIDUALS/ML	N	10319.00	3075.00	19808.00
LEVELNESS COMPONENT	J	0.41	0.65	0.80
RELATIVE EVENNESS	RJ	0.41	0.65	0.80
MEAN NUMBER OF INDIVIDUALS/TAXA	L	464.00	65.42	444.24
NUMBER/ML OF MOST ABUNDANT TAXON	K	5184.00	627.00	3254.00

TAXA	FORM	14 23 74			17 11 74			29 18 74		
		IS	ZC	PER ML	IS	ZC	PER ML	IS	ZC	PER ML
ANABAENA	FIL						X			
ANABAENOPSIS	FIL									X
ANKISTRODESmus FALCATUS	CEL							3.11	623	
APHAENOMENON FLOS-AUAE	FIL							2.61	480	
APHAENOTHECE	COL							0.71	144	
CARTERIA	CEL			3.16.31	52					
CERATIUM MIRUNDINELLA										
F. BRACHYCEPHALUS	CEL			11.2.1	63			0.71	144	
CHLAMYDOMMAS	CEL									X
CHLAMYDOMMAS GLBOSA	CEL									
CHLAMOCOCCUS LIMNETICUS	COL				X			2.71	144	
CHLOROPHYLUS ACUTA	CEL	1.4	146	4.11	129	15	6.51	1678		
COELASTRUM CARMICUM										
V. INTEPREGNUM	COL				X					
COELASTRUM MICROFOLIUM	COL		3.51	49						X
CGSARUM CLEPYDRA										
V. NANUM	CEL							3.71	144	
CRUCIGENIA TETRAPEDIA	COL	2125.01	2641	11.21	314	33	5.31	1055		
CRYPTOMMAS	CEL			X	151.0.1	188		2.21	432	
CRYPTOMMAS PARSONII	CEL			X						
CYCLOTELLA	CEL							1.51	288	
DACTYLOCYCOPSIS	CEL	3152.21	5184	116.31	52	12110.91	2158			
DICTCYSPHAEFIUM	CCL			X				1.21	192	
DECTYSPHAEUM PULCHELLUM	CCL									
DIPLOPSALIS ACUTA	CEL				X					
ELATIOTHrix GELatinosa	CEL				X					
EUGLENA #1	CEL			X						
EUGLENA #2	CEL				41.6.21	491				X
EUGLENA #3	CEL				X					
EUGLENA EHRENBURGII	CEL				2.	63				
EUGLENA spp.	CEL							1.71	336	
FLAGELLATE #2	CEL							3.61	719	
FRAGILARIA	CEL			X						
FRANCIA ovalis	CEL									X
FRANCIA TUBerculata	CEL									
GYROSIGMA	CEL							4.81	959	
KIRCHNERIELLA	CFL							2.51	96	
LAGERHEIMIA GRATISLAVIENSIS	CEL							1.21	48	
LEPODICHLIS FUSIFORMIS	CEL									
MELGISIRA GRANULATA	CEL			X						X
MERISOPEDIA MINIMA	COL							10.21	2034	
MERISOPEDIA TENUISSIMA	COL									X
PEDOSTIGMA VIRIDIS	CEL			X	2.1	63				
MICROCYSTIS INCERTA	COL	191.0.51	49					0.81	1343	
NAVICULA	CEL			X						
MITZSCHIA	CEL							0.51	96	
MITZSCHIA ACICULARIS	CEL	3118.51	1907							X
MITZSCHIA LENGSSIHA										
V. REVERSA	CEL			X						
GLOCHYSTIS	CEL							4.11	815	
OSCILLATORIA	FIL			2124.41	647					
PEGIASTRUM EDYTANUM	CGL				X					
PEGIASTRUM LUPLEX										
V. CLATHRATUM	COL				2..	63				
PEGIASTRUM TETRAS										
V. TETRAODON	COL			X						
PEPSIMUM	CEL									
PHACUS	CEL			X						
PHACUS ACUPINATUS	CEL									X
PHACUS LUNGICAUDA	CEL							2.21	48	
PHACUS NEGALOPSIS	CEL							11.11.1	2254	
PHORMIDIUM spp.	FIL									
SCENEDESmus BEUNDAMS	COL	142.2.41	245	4.11	63		1.51	266		
SCENEDESmus BIJUGA	COL							0.51	96	
SCENEDESmus BIJUGA										
V. ALTERANS	CEL							0.21	48	
SCENEDESmus DINOPHUS	CEL		0.51	49	2.11	63		0.51	96	
SCENEDESmus INTERREDIUS	COL									
SCENEDESmus QUADICLAUDA	COL				X			2.41	460	
SCENEDESmus QUADICLAUDA										
V. PARVUS	CEL							1.91	384	
SCHAUERDIA SETIGERA	CEL			X				3.41	671	
STEPHANODISCUS	CEL				2..	63				
TETRAEDRUM	CEL									
TETRAEDRUM MINIMUM	CEL							3.21	48	
TETRAEDRUM MINIMUM										
V. SCROBICULATUM	CEL									
TETRAEDRUM TRIGONUM										
V. PAPILLIFERUM	CEL							3.11	623	
TETRASTRUM ELEGANS	CEL			X						
TETRASTRUM GLABRUM	CEL							1.01	142	
TESTRASTRUM HETEROCANTHUM	CEL							1.51	288	
TESTRASTRUM STAUROGENIAEFORUM	CEL		0.51	49	4.11	329		0.71	144	
TRACHELUMMAS INTERMEDIA	CEL							0.51	96	
THEUDARIA SETIGERA	CEL							0.51	96	

TOTAL

10319

3679

198.8

LAKE NAME: LAKE NORDEN  
STORE NUMBER: 4617

NYGAARD TROPHIC STATE INDICES

	DATE	04	23	74	07	11	74	04	19	74
MYXOPHYCEAN		2.00	E		2.33	E		2.50	E	
CHLOROPHYCEAN		9.00	E		5.33	E		6.00	E	
EUGLENOPHYTE		0.16	?		0.26	E		0.24	E	
DIATOM		0.27	?		0.43	E		0.56	E	
COMPLUND		16.0	E		10.6	E		13.0	E	

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04	23	74	07	11	74	09	19	74
GENUS					13			07		14
SPECIES					03			00		07

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04	23	74	07	11	74	09	19	74
AVERAGE DIVERSITY	H		1.62		2.51		3.04			
NUMBER OF TAXA	S		35.00		47.00		40.00			
NUMBER OF SAMPLES COMPOSITED	M		1.00		1.00		1.00			
MAXIMUM DIVERSITY	MAXH		5.13		5.55		5.32			
MINIMUM DIVERSITY	MINH		0.01		0.04		0.04			
TOTAL DIVERSITY	D	75822.48		48510.77		49892.46				
TOTAL NUMBER OF INDIVIDUALS/ML	N	46804.00		19327.00		16412.00				
EVENNESS COMPONENT	J	0.32		0.45		0.57				
KLLATIVE EVENNESS	RJ	0.32		0.45		0.57				
MEAN NUMBER OF INDIVIDUALS/TAXA	L	1337.26		411.21		410.34				
NUMBER/ML OF MOST ABUNDANT TAXON	K	35800.00		16700.00		7307.00				

LAKE NAMES: LAKE NOKOMIN  
STRUCT NUMBER: 4617

(CONTINUED)

4 45 74      7 11 74      60 19 74

LAKE NAMES, LAKE NUMBERS  
STATION NUMBER 4617

CONTINUED

TAXA	FORM	14 23 74			17 18 74			04 19 74		
		ALGAL		UNITS	ALGAL		UNITS	ALGAL		UNITS
		IS	ZC		IS	ZC		IS	ZC	
SCENEDESMUS BIJUGA	COL	1	1	X						
SCENEDESMUS OPOLIENSIS	COL	1	1			X				
SCENEDESMUS PRUTUBERANS	CGL	1	1	X						
SCENEDESMUS QUADRICAUDA	CGL	1	1					0.41	0.6	
SCHREUDERIA SETIGERA	CFL	1	1		1.31	245		1.81	299	
SKELETONEMA PICTUMUS	CFL	1	1					2.71	120	
SPHAEROCYSTIS SCHKUTZKI	CUL	1	1		0.21	41				
STAURASTRUM	CUL	1	1			X				
STEPHANODISCUS	CFL	1	1	0.51	224		1.11	368		4.38
SUPIFILLA	CFL	1	1					X		
SUPINILLA P9	CFL	1	1	X						
SUPINILLA ANGUSTA	CFL	1	1	X						
SYNEDRA ACUS	CFL	1	1	20.91	9774			15	5.51	696
TETRALDOMA CONSTRICTUM	CFL	1	1				X	1	1	
TETRASTRUM GLABRUM	CUL	1	1	X				0.41	60	
TOTAL				466.36			19327		16412	

LAKE NAME: OAKWOOD LAKE EAST  
STORE NUMBER: 4616

NYGAARD TROPHIC STATE INDICES

DATE	04 23 74	07 12 74	09 20 74
MYXOPHYCEAN	4.50 E	7.50 E	12.0 E
CHLOROPHYCEAN	7.00 E	7.00 E	16.0 E
EUGLENOPHYTE	0.04 ?	0.29 ?	0.05 ?
DIATOM	0.33 E	0.27 ?	0.75 E
CUMPOUND	14.0 E	16.5 E	24.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 23 74	07 12 74	09 20 74
GENUS	18	18	12
SPECIES	55	40	30

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 23 74	07 12 74	09 20 74	
AVERAGE DIVERSITY	H	4.04	3.58	1.43
NUMBER OF TAXA	S	51.00	52.00	29.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	5.07	5.70	4.86
MINIMUM DIVERSITY	MINH	0.02	0.02	0.00
TOTAL DIVERSITY	D	134320.26	149226.72	148033.60
TOTAL NUMBER OF INDIVIDUALS/ML	N	33415.00	41684.00	163520.00
EVENLESS COMPONENT	J	0.71	0.63	0.29
RELATIVE EVENNESS	RJ	0.71	0.63	0.30
MEAN NUMBER OF INDIVIDUALS/TAXA	L	655.16	631.62	350.90
NUMBER/ML OF MOST ABUNDANT TAXON	K	6770.00	8821.00	77640.00

TAXA	FORM	06 23 74			07 12 74			09 20 74		
		I	ALGAL UNITS	I	ALGAL UNITS	I	ALGAL UNITS	I	ALGAL UNITS	
		IS	ZC	PER ML	IS	ZC	PER ML	IS	ZC	PER ML
ACIUMASTRUM	CEL			X			X			X
ANABIAEHA PLANTARUMICA	FIL						X			
ANABAENOPSIS SERIATA	FIL							1175.01	77640	
ANKISTRIDIUM	CEL				0.21	71				X
ANKISTRIDIUM FALCATUS	CEL	151	7.41	2485						
APHANIZOMON PLUS-AQUAE	FIL		1.11	373		0.91	356			
APHANOCAPS A	COL				2121.21	8821				X
APHANOCAPS DELICATISSIMA	COL							151	2.31	2353
APHANOCAPS MIDULANS	COL									
APHANOCAPS MIDULANS										
V. ENDOPHYTICA										
CANTEPA	COL		0.91	311						
CHLAMYDINIMAS	CEL			X						
CHROMOCUCUS	COL									X
CHROMOCUCUS LINNETICUS	COL					6.31	2632			
CHRONIUM ACUTA	CEL		5.21	1739						
CLUSTERIOPSIS	CEL			X						
COCCINEIS PLACENTULA	CEL			X			X			
COELASTRIUM MICROPURUM	COL			X						
COELOSPHEARIUM CULLINSII	COL		0.61	126		112.41	996			
COELOSPHEARIUM PALLIDUM	COL									X
COSMARIA	CEL			X						
CRYPTOMUNAS ERUSA	CEL		0.91	311			X			
CRYPTOMUNAS MASSONII	CEL		1.31	435						
CYCLUTELLA MENIGHINIAMA	CEL		0.41	124		0.31	162			X
CYMBELLA	CEL		0.71	248						
CYMBELLA #1	CEL						X			
CYMBELLA #2	CEL						X			
CYMBELLA #3	CEL						X			
CYMBELLA SPP.	CEL						1			
DACTYLLOCOPUSIS	CEL		0.61	186		0.51	213			
DICITOSPHERIUM PULCHELLUM	COL		0.61	186		0.31	205			
ELARATUHRIZ GELATINOSA	COL					0.31	362			
EPITHIMIA	CEL					0.31	362			
EUGLENA	CEL		0.21	62		0.21	71			
FLAGELLATE #2	CEL		3.71	1242						
FLAGELLATES	FIL	12124.51	4845							
FRAGILARIA BREVISTRIATA										
V. INFLATA	CEL			X						
FRAGILARIA CAPUCINA										
V. MESOLEPTA	CEL			X						
FRAGILARIA CONSTRIENS	CEL		4.61	1553		10.21	4268			
FRAGILARIA CRUDOMINIS I	CEL	1120.31	6770							
GOMPHIUMA OLIVACULUM	CEL			X						
GONIUM	COL		0.71	248						
GYMNUDINUM ALBULUM	CEL		0.21	62						
KIRCHNERIELLA	CEL		0.51	124						
KIRCHNERIELLA CONTURIA	CEL		1.91	621						
LYNGBYA	FIL	141	6.71	2236						
LYNGBYA CONTURIA	FIL									
LYNGBYA LAGERHEIMII	FIL		2.1	13114.51		6046				
MELUSIRA GRANULATA	CEL		2.01	683		2.61	1067			
MELUSIRA GRANULATA										
V. ANGUSTISSIMA	CEL		0.21	62		3.11	1280		0.31	294
MERISMOPEDIA MINIMA	COL	13111.51	3851	15136.41		6829		0.61	588	
MERISMOPEDIA THOUSSIMA	COL		2.21	745						
MICROCYSTIS ALERGINISA	COL		0.71	248		1.71	711		0.11	147
MICROCYSTIS INCERTA	COL		2.01	683		0.41	356			
MICROCYSTIS MARGINATA	COL									
MAYICULA	CEL			X						
MAYICULA REINHARDTII	CEL			X						
MITZSCHIA #1	CEL			X						
MITZSCHIA #2	CEL			X						X
MITZSCHIA ACICULARIS	CEL			X						
MITZSCHIA AMPHIBIA	CEL			X						
MITZSCHIA HULSATILLA	CEL		1.91	621		2.41	996		2.01	2059
MITZSCHIA SPP.	CEL									
NOCTYSIS	CEL		0.41	124		0.71	285		0.31	294
OSCILLATORIA	FIL					0.21	71			
OSCILLATORIA #1	FIL							151	1.41	1470
OSCILLATORIA ANGUSTISSIMA	FIL							131	5.71	5882
PEDIASTRUM BURMANUM	COL									X
PEDIASTRUM DUPLEX	COL									
PEDIASTRUM DUPLEX										
V. CLAVIFLORA	COL									X
PEDIASTRUM KARVALSKYI	COL			X						
PINNATE DIATOMS	CEL					3.41	1423			
PHACUS REGALUPSES	CEL									X
PHORMIDIUM	FIL		1.71	559						
PHORMIDIUM HUCICULA	FIL					0.41	3406			X
PINNULARIA	CEL									
RHOECOSPHEMIA CURVATA	CEL									

04 23 74      07 12 74      09 20 74

TAXA	FORM	04 23 74		07 12 74		09 20 74	
		IS	ZC	IS	ZC	IS	ZC
SCENEDESMUS ABUNDANS	COL			X			
SCENEDESMUS ARCUATUS	COL						
V. PLATYDISCA	COL					X	
SCENEDESMUS BALATUNICUS	COL						
SCENEDESMUS BIJUGA	COL			0.31	142		
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL						
SCENEDESMUS DIROKPHUS	COL	0.6	180	0.31	142		
SCENEDESMUS QUADRICAUDA	COL			X			
SCHODIERIA SETIGERA	CLL	2.21	745	0.21	71		
STAURASTRUM	CEL	1.1	373				
STAURASTRUM #2	CEL				X		
STAURASTRUM TETRACEPHALUM	CEL			0.21	71		
STEPHANODISCUS	CEL	0.71	00248	0.91	356	0.11	142
SYNEURA	CEL				X		
SYNEURA ACUS	CEL				X		
TETRAEDRUM GRACILE ?	CEL				X		
TETRASTRUM GLABRUM	COL			X			
TRICLARIA SETIGERUM	CEL					X	
<b>TOTAL</b>				<b>33613</b>	<b>41684</b>	<b>103520</b>	

LAKE NAME: OAKWOOD LAKE WEST  
STORE NUMBER: 4619

NYGAARD TROPHIC STATE INDICES

	DATE	04 23 74	07 12 74	09 20 74
RYXOPHYCEAN		05/0 E	4.60 E	8.00 E
CHLOROPHYCEAN		01/0 E	2.50 E	5.00 E
EUGLENOPHYTE		0.33 E	0/13 ?	0/13 ?
DIATOM		1.00 E	0.67 E	0.60 E
COMPOUND		14/0 E	8.50 E	17.0 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 23 74	07 12 74	09 20 74
GENUS		12	10	07
SPECIES		00	02	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 23 74	07 12 74	09 20 74
AVERAGE DIVERSITY	H	0.74	1.75	1.11
NUMBER OF TAXA	S	25.00	27.00	23.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	4.64	4.75	4.52
MINIMUM DIVERSITY	MINH	0.00	0.30	0.00
TOTAL DIVERSITY	U	105894.00	322313.25	174668.49
TOTAL NUMBER OF INDIVIDUALS/ML	N	143100.00	184179.00	157359.00
EVENNESS COMPONENT	J	0.16	0.37	0.25
RELATIVE EVENNESS	EJ	0.16	0.37	0.25
MEAN NUMBER OF INDIVIDUALS/TAXA	L	5724.00	6821.44	6411.70
NUMBER/ML OF MOST ABUNDANT TAXON	K	129424.00	119922.00	121592.00

TAXA	FORM	64 23 74			-7 12 74			09 20 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
AMMISTODESMUS FALCATUS	CEL	1	1		1	1		1	1	x
APHAENIZOMON FILS-AQUAE	FIL	1	1	131 6.21	11379	121 7.0	12485			
APHAENIZOMON GRACILE	FIL	1	1	11165.11119922		11177.31121592				
CENTRIC DIATOMS	CEL	151	1.71	2504						
CERATIUM HIFUNCINELLA	CIL	1	1			x				
F. FURGUIDES	CEL	1	1	1.71	2534					
CHLOROPHYTA CELL	CEL	1	1	1.21	1733					
CHROMOMAS ACUTA	CEL	1	1			x				
CLOSTERIUM	CEL	1	1							
CLOSTERIUM #1	CEL	1	1					0.11	112	
COCCONEIS	CEL	1	1	x		x				
CELLASTHUM MICROPLUM	COL	1	1			x				
CULICOSPHELIUM KUETZINGIANUM	COL	1	1					0.11	112	
CRYPTOMMAS OVATA	CEL	1	1	x		x				
CYCLICELLA	CEL	1	1	x		x				
CYCLOTELLA RENEGHINIANA	CEL	1	1	x		x				
CYMBELLA	CEL	1	1	x		x				
CYMBELLA CYMBIFORMIS	CEL	1	1			x				
CACTYLUCOCAPSIS IRREGULARIS	CEL	1	1	2.61	1156					
EUGLENA	CEL	1	1	0.11	193					
FRAGILARIA	CEL	1	1							x
GLENDODINUM OCULATUM	CEL	1	1	x						
HIRNHELIUM CONICATA	COL	1	1			0.11	112			
LYNCHIA	FIL	1	1	x	191 5.01	1.375				x
MOLUSIRA GRANULATA	CEL	1	1	x	121 5.01	14948	141 0.91	1462		
MELUSIRA GRANULATA										
V. ANGUSTISSIMA	CEL	1	1	2.71	9e3			x		
PSIPOPELIA TENUISSIMA	CEL	1	1			1.21	192	15 1.4	2137	
MICROCYSTIS AERUGINOSA	CUL	1	1			1.21	946			x
MICROCYSTIS INCERTA	CUL	1	1	2.11	193	0.71	1339			x
NAVICULA PI	CFL	1	1							x
NAVICULA CUSPIDATA	CEL	1	1	x						x
NAVICULA PUPULA	CEL	1	1	x						x
V. ELLIPTICA	CEL	1	1							x
NEIDIA	CEL	1	1			x				x
NETZSCHIA #2	CEL	1	1	x						
NETZSCHIA PALEA	CEL	1	1	x						x
NUCYSTIS	CEL	1	1	x		x				x
OSCILLATORIA #1	FIL	121	1.31	1926		0.21	235			x
OSCILLATORIA LINNETICA	FIL	11190.44	129424	1412.4	22757	13112.4	19450			
PEDIASTRUM DUPLEX	CGL	1	1			x				x
PEDIASTRUM DUPLEX	CFL	1	1			x				x
V. ?	COL	1	1			x				x
PEDIASTRUM DUPLEX	CGL	1	1							x
V. CLATHRATUM	CEL	131	1.31	1926						x
PENNATE DIATOMS	CEL	1	1	x						x
PHACUS REGALOPSIS	COL	1	1	x						x
SCENEDESMUS ACUMINATUS	COL	1	1	x						x
SCENEDESMUS GUADICAUDA	COL	1	1			x				x
STAURASTHUM	CEL	1	1			x				x
STEPHANODISCUS	CEL	1	1	x						x
STEPHANODISCUS NIAGARAE	CEL	1	1			x				x
SURIRELLA #9	CEL	1	1			x				x
STHEDDA ACUS	CEL	1	1			0.31	1450			
TOTAL					143100		184179		157359	

LAKE NAME: PACTOLA RES  
STORET NUMBER: 4620

NYGAARD TROPHIC STATE INDICES

DATE	04 25 74	07 15 74	09 12 74
MYXOPHYCEAN	0.3/0 E	0/01 U	4.00 E
CHLOROPHYCEAN	02/0 E	0/01 U	5.00 E
EUGLENOPHYTE	0/05 ?	0/0 ?	0.11 ?
DIATOM	0.40 E	0.50 E	0.25 ?
COMPOUND	07/0 E	1.00 U	11.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 25 74	07 15 74	09 12 74
GENUS	02	00	01
SPECIES	73	60	02

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 25 74	07 15 74	09 12 74	
AVERAGE DIVERSITY	H	1.74	1.57	1.45
NUMBER OF TAXA	S	19.00	7.00	22.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	4.25	2.81	4.46
MINIMUM DIVERSITY	MINH	0.31	0.15	0.30
TOTAL DIVERSITY	D	1097.94	632.71	1117.86
TOTAL NUMBER OF INDIVIDUALS/ML	N	631.00	403.00	764.00
EVENNESS COMPONENT	J	0.41	0.56	0.33
RELATIVE EVENNESS	RJ	0.37	0.54	0.20
MEAN NUMBER OF INDIVIDUALS/TAXA	L	33.21	57.57	34.73
NUMBER/ML OF MOST ABUNDANT TAXON	K	291.00	242.00	547.00

NAME	FORM	04 25 74		07 15 74		09 12 74				
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
AMPHORA 2	CEL	1	1	1	1	1	1	1	1	1
ANABATHMOPsis RACIBURSKII	FIL	1	1	1	1	1	1	1	1	1
ANKistrodesmus FALCATUS										
V. ACICULARIS	CEL	131	15.4	97	1	1	1	1	1	1
ASTERIOMELLA FIRMISSIMA	CEL	1	1	X	111	20.1	81	1	3.1	24
CIPARIUM HIRUNDININELLA	CEL	1	1	1	1	1	1	1	1	1
CHROMOMMAS ACUTA	CEL	121	46.1	291	131	60.0	262	171	6.1	547
COSMARIA	CEL	1	1	1	1	1	1	1	1	1
CRYPTOMMAS EROSA	CEL	1	1	1	1	1	1	1	1	1
CRYPTOMMAS EROSA	CEL	1	1	1	1	1	1	1	1	1
V. REFLEXA	CEL	1	1	X	1	1	1	1	1	1
CYANOPHYTAN FILAMENT	FIL	1	1	1	1	1	1	1	1	1
CYCLOTILLA	CEL	1	1	X	1	1	1	1	1	1
DINOBRYUM	CEL	1	1	X	1	1	1	1	1	1
DINOBRYUM DIVERGENS	CEL	1	1	X	1	1	1	1	1	1
DINOBRYUM PEDIFORME	CEL	1	1	X	1	1	1	1	1	1
EUDORINA ELEGANS	COL	1	1	1	1	1	1	1	1	1
EUCLENA	CEL	1	1	1	1	1	1	1	1	1
FRAGILARIA CRUTONENSIS	CEL	111	30.7	194	1	1	1	1	1	24
GLENODINIUM	CEL	1	1	1	1	1	1	1	1	1
GLOEOPHYTIS										
GYNODINIUM ALBULUM	COL	1	1	X	1	1	1	1	1	1
GYROSIGMA VORALEVI	CEL	111	7.8	49	1	1	1	1	1	1
MICROCYSTIS AERUGINOSA	COL	1	1	X	1	1	1	1	1	1
MICROCYSTIS INCERTA	COL	1	1	X	1	1	1	1	1	1
MITZSCHEA	CEL	1	1	X	1	1	1	1	1	1
OULYSTIS	COL	1	1	X	1	1	1	1	1	1
OSCILLATORIA	FIL	1	1	1	1	1	1	1	1	1
OSCILLATORIA #1	FIL	1	1	X	1	1	1	1	1	1
OSCILLATORIA #2	FIL	1	1	X	1	1	1	1	1	1
PERIDINIUM CINCTUM	CEL	1	1	X	1	1	1	1	1	1
SCENEGLSMUS BIJUGA	COL	1	1	1	1	1	1	1	1	1
V. FLEXUOSUS	COL	1	1	1	1	1	1	1	1	1
SCHELDLSMUS QUADRICAUDA	COL	1	1	1	1	1	1	1	1	1
SCHROEDERIA SETIFERA	CEL	1	1	1	1	1	1	1	1	1
SPERMATODISCUS	CEL	1	1	X	121	9.9	40	1	3.1	24
TABELLARIA FENESTRATA	CEL	1	1	X	1	1	1	1	1	1
TOTAL				631		403		764		

LAKE NAME: FICKERAL LAKE  
STORY NUMBER: 4621

NYGAARD TROPHIC STATE INDICES

	DATE	04 25 74	07 11 74	09 19 74
MYXOPHYCEAN		02/6 E	3.00 E	07/0 E
CHLOROPHYCEAN		04/0 E	1.67 E	0/0 0
EUGLENOPHYTE		3/06 ?	3/14 ?	6/07 ?
DIATOM		0.30 ?	0.15 ?	0.20 ?
COMPOUND		09/0 E	5.33 E	09/0 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 25 74	07 11 74	09 19 74
GENUS		02	07	03
SPECIES		00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 25 74	07 11 74	09 19 74
AVERAGE DIVERSITY	H	1.35	2.54	2.42
NUMBER OF TAXA	S	26.00	35.00	27.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	4.70	5.13	4.75
MINIMUM DIVERSITY	MINH	0.32	0.31	0.06
TOTAL DIVERSITY	D	24216.70	3276.00	16005.86
TOTAL NUMBER OF INDIVIDUALS/ML	N	21642.00	1290.00	6614.00
EVENNESS COMPONENT	J	0.29	0.50	0.51
RELATIVE EVENNESS	RJ	0.29	0.47	0.51
MEAN NUMBER OF INDIVIDUALS/TAXA	L	832.38	30.66	244.90
NUMBER/ML OF MOST ABUNDANT TAXLN	K	15938.00	444.00	3160.00

TAXA	FORM	04 25 74		07 11 74		09 19 74			
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC
ACTINASIRUM GRACILIUM	CEL					X			
AMPHORA	CEL								
ANABAENA	FIL					X			
ANABAENA ?	FIL		0.21	45				147.81	3160
ANABAENA PLANCTONICA	FIL				4	3.11	40		
APHAENIZOMIUM HIRM	FIL						X		
APHAENIZOMIUM PLUS-AQUAE	FIL					3.11	40		
APHAENOTHECE	CYL						X		
ASTERTIUNELLA FURMOSA	CYL	13173.61	35938						
CALUNEA ? LEVISII	CEL					X			
CARTERIA	CEL		0.21	45					
CERATIUM MIRUNDINELLA	CEL							0.61	42
CERATIUM MIRUNDINELLA F. FURCHIFOLIS	CEL								X
CHIARODUNNAS	CEL								
CHIARODUNNAS ACUTA	CEL	12116.81	3637	2134.61		444			
CLOSTERIUM	CEL					X			
CUCCINEIS	CEL					X			
CUSMARIA	CEL					X			
CRUGIENIA QUADRATA ?	COL		0.81	180					
CRYPTOMERIA EROSA	CEL				3.11	40	141	2.51	166
CYNATUPILLURA SOLEA	CEL					X			
CYMBELLA	CEL					X			
CYMBELLA #2	CEL					X			
CYMBELLA SPP.	CEL							0.61	42
CYMBELLA TRIANGULUM	CEL								X
CYMBELLA TRIANGULUM ?	CEL								
DICRITOSPHEARIUM	COL					X			
DIMIDYRUM SENIULAKIA V. PILOTUBERANS	CEL		0.41	90					
DIMIDYRUM SOCIALE	CEL							0.61	42
DIMIDYRUM STATUSPURE	CEL		0.21	45					
EMPHORNEIS UMAIA	CEL					X			
EPITHENIA SOPRA	CEL					X			
EUDOTIA VALIDA	CEL	151	0.41	90					
FLAGELLATE	CEL								
FLAGELLATE #2	CEL					X			
FRAGILARIA FRIGIDENS	CEL								X
GOMPHUNEMA	CEL								
GOMPHUNEMA ULIVACEUM	CEL		0.21	45					
GYMNODINIUM ALBULUM	CEL		0.21	45					
GYROSIGMA	CEL								
LYNGBYA	FIL								
MALLORINAS	CEL							1.31	83
MELOSIRA DISTANS	CEL		0.21	45					
MELOSIRA GRANULATA	CEL		0.21	45	128.11	363	1.91	125	
MERISMOPEDIA GLAUCA	CYL					X			
MERISMOPEDIA MINIMA	CYL							0.61	42
MICROCYSTIS ALRULINUSA	COL							0.61	42
MICROCYSTIS INCERTA	COL	131	1.71	359	5112.51	101	151	9.01	333
NAVICULA	CEL								
NAVICULA #1	CEL					3.11	40		
NAVICULA #2	CEL					X			
METZSCHEIA	CEL								
DUCTSIS	CEL								
OSCILLATORIA	FIL								
PEDIASTRUM BUKYANUM	COL				6.31	81			
PERIDIUM	CEL								
PIOMIDIUM	FIL								
PIOMIDIUM MUCICOLA	FIL							5.01	333
PINNULARIA	CEL								
SCHROEDERIA SETIGERA	CEL		0.41	90	31	6.31	81		
SPHAEROCYSTIS SCHNEIDERI	COL					X			
STAURASTIUM	CEL								
STAURINEIS ANCEPS	CEL					X			
STEPHANODISCUS	CEL		0.21	45				1.31	83
SYNEDRA	CEL								
TOTAL					21642		1290		6614

LAKE NAME: LAKE PUINSETT  
STORET NUMBER: 4622

NYGAARD TROPHIC STATE INDICES

	DATE	04 25 74	07 11 74	09 19 74
MYXOPHYCEAN		04/0 E	3.00 E	4.50 E
CHLOROPHYCEAN		05/0 E	3.00 E	5.00 E
EUGLENOPHYTE		0/04 ?	0/12 ?	0.05 ?
DIATOM		1.33 E	2.00 E	2.67 E
CLMPUND		13/0 E	7.00 E	11.0 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 25 74	07 11 74	09 19 74
GENUS		J4	06	04
SPECIES		00	00	J0

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 25 74	07 11 74	09 19 74
AVERAGE DIVERSITY	H	2.29	3.02	2.75
NUMBER OF TAXA	S	22.00	22.00	30.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY MAXH		4.46	4.46	4.91
MINIMUM DIVERSITY MINH		0.04	0.05	0.06
TOTAL DIVERSITY	D	16870.43	16024.12	12617.10
TOTAL NUMBER OF INDIVIDUALS/PL	N	7367.00	5306.00	4673.00
EVENNESS COMPONENT	J	0.51	0.68	0.55
RELATIVE EVENNESS	RJ	0.51	0.68	0.55
MEAN NUMBER OF INDIVIDUALS/TAXA	L	334.86	241.18	195.77
NUMBER/ML OF MOST ABUNDANT TAXON	K	3604.00	1388.00	2380.00

TAXA	FORM	04 29 74			07 11 74			09 19 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ANABAENA	FIL									
APHAENIDIUM FILUS-AQUAE	FIL									
ASTERIOPHILLA FORMOSA	CEL									
CHLAMYDOMONAS	CFL									
CHROOCOCCUS LINNETTICUS	COL									
CHLAMOMONAS ACUTA	CEL	12148.9	3604		7.5	397		3.3	153	
CLOSTERIUM	CEL									
CLOSTERIUM #1	CEL									
CLOSTERIUM #2	CEL									
COPLASIUM MICRUPURUM	COL									
COLEUSPHAEKUM	COL									
COLEUSPHALIUM PALLIDUM	COL									
CRYPTOMONAS	CEL									
CRYPTOMONAS ERUSA	CEL	131	7.71	567						
CRYPTOMONAS MARSSUNII	CEL	11119.21	1417		1.91	99				
CYANOPHYCEA FILAMENT	FIL									
CYRBELLA	CEL		0.51	40						
DACTYLICHOCCUPIS	CEL		0.51	40						
DICHTYOSPHECIUM PULCHELLUM	COL									
ELAKATUTIRIX GELATINOSA	COL									
EUGLENA	CEL									
FLAGELLATE #2	CEL		4.91	364						
FLAGELLATES	CEL	14111.5	850							
LYNGBYA	FIL									
MAL LUMINOSA	CEL									
MELOSIRA	CFL									
MELOSIRA DISTANS	CEL									
MELOSIRA GRANULATA	CEL									
MELOSIRA VARIANS	CEL									
MERISMOPEDIA MINIMA	COL									
MICROCYTIS ALPUGINOSA	COL		1.61	121	31	6.51	367			
MICROCYTIS INCEPTIA	COL		1.21	81	312.11	644		2.01	92	
NAVICULA	CEL									
NITZSCHEA	CFL									
NITZSCHEA #1	CEL		1.61	121						
NITZSCHEA #2	CEL									
ODCYSTIS	CEL									
OSCILLATORIA	FIL									
PEDIASTRUM BUKTRANUM	COL									
PEDIASTRUM DUPLEX										
V. RETICULATUM	CUL									
PEDIASTRUM KAWAIISKYI	COL									
PHORMIDIUM NUCICULIA	FIL									
SCHEIDECKIA ARUNDANS	COL									
SCHEIDECKIA ACUINERVATUS	COL									
SCHEIDECKIA BICAUDATUS	COL									
SCHEIDECKIA BEJUGA										
V. FLIXDUSUS	COL									
SCHEIDECKIA HIPOLITENSIS	COL									
SCHIRIADERIA SITIGERA	CEL									
STAURASTRUM	CEL									
STEPHANOIDES ASTRAEA	CEL	151	2.21	162				131	3.31	153
STIPITOCOCCUS	CEL									
STIPITOCOCCUS STAURGENIAEFORME	COL									
TOTAL				7367			5306		4673	

LAKE NAME: LAKE RLU IRON SOUTH  
STORE NUMBER: 4623

NYGAARD TROPHIC STATE INDICES

	DATE	04 29 74	07 10 74	J4 18 74
MYXOPHYCEAN		4.00 E	4.00 E	2.50 E
CHLOROPHYCLAN		4.00 E	4.00 E	2.50 E
EUGLENOPHYTE		0.0E ?	0/08 ?	0.10 ?
DIATOM		0.33 E	0.50 E	0.33 E
COMPOUND		17.0 E	10.0 E	6.50 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 29 74	07 10 74	09 18 74
GENUS		04	01	01
SPECIES		00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 29 74	07 10 74	J4 18 74
AVERAGE DIVERSITY	H	2.64	2.38	1.65
NUMBER OF TAXA	S	32.00	21.00	22.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY MAXH		5.00	4.39	4.46
MINIMUM DIVERSITY MINH		0.12	0.14	0.30
TOTAL DIVERSITY D		4057.84	3484.55	1278.75
TOTAL NUMBER OF INDIVIDUALS/ML	N	3431.00	1675.00	775.00
EVENNESS COMPONENT J		0.53	0.47	0.37
RELATIVE EVENNESS RJ		0.52	0.46	0.33
MEAN NUMBER OF INDIVIDUALS/TAXA	L	107.22	79.70	35.23
NUMBER/ML OF MOST ABUNDANT TAXON	K	1531.00	661.00	56.00

TAXA	FORM	04 29 74			07 10 74			09 18 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ACMANTHES INFLATA	CEL	1	1		1	X				
APPHIJA	CEL	1	1							2
ANGAEINA	FIL	1	1	2123.71	397		2135.61	119		
ANABATHMA SUBCYLINDRICA	FIL	1	1							
ANKistrodesmus FALCATUS										
V. ACICULAPIS	CEL	1	1	3						
APHAENIZOMENON FLUS-AQUAE	FIL	1	1					151 3.91	30	
ASTERIGHELLA FORMOSA	CEL	1	1	2.71	93	1	2.61	44		
BOTRYOCOCCUS BRAUNII	COL	1	1							2
CERATIUM MIRUNDINELLA	CEL	1	1							2
CHLOROPHYTAN COLORAT	COL	1	1							
CHLOROMMAS ACUTA	CEL	14	16.2	557	3126.31	441	4			
CLOSTERIUM	CEL	1	1							
CUCCONEIS PLACENTULA										
V. ?	CEL	1	1							
COELUSPHAERIUM PALLIDUM	COL	1	1	1						
CRYPTOMMAS ERUSA	CEL	2110.8	371		2.61	44				
CRYPTOMMAS MAHSSUNII	CEL	1	1	*	1					
CRYPTOMMAS REFLEXA	FIL	1	1							
CYMBELLA #1	CEL	1	1							
CYMBELLA #2	CEL	1	1							
DACTYLOCUCUPPSIS IRREGULARIS	CEL	1	1	1.31	46					
ELAKATOTHRIX GELATINOSA	CEL	1	1							
ENTOMONEIS ORNATA	CEL	1	1							
EUGLENA	CEL	1	1							
FRAGILARIA	CEL	1	1							
FRAGILARIA CRETICENSIS	CEL	131 8.11	278							2
GLI-OGLINUM OCULATUM	CEL	1	1	1.31	46					
GLI-OGLICHIA ?	FIL	1	1							
LYNGBYA	FIL	1	1							
LYNGBYA BIRGEI	FIL	1	1							
MELOSIRA GRANULATA	CEL	1144.0	1931		19.51	601	1165.31	506		
MELOSIRA GRANULATA										
V. ARGUSTISSIMA	CEL	1	1	1						
PERISOPEDIA RIMINA	COL	1	1							3.91
MICROCYSTIS AERUGINOSA	CGL	1	1	1.31	46					
MICROCYSTIS INCERTA	COL	1	1	4.1	139					
MOGULIA	FIL	1	1							
NAVICULA #1	CEL	1	1							2
NAVICULA #2	CEL	1	1							2
NAVICULA CUSPIDATA	CEL	1	1							
MITZSCHIA	CEL	1	1	1.31	46					
MITZSCHIA SIGMOIDEA	CEL	1	1							
MUSTOC	FIL	1	1							
OCYSTIS	CEL	1	1	1.31	46					
PEDIASTRUM BORYANUM	COL	1	1							
PEDIASTRUM DUPLEX	COL	1	1							
PEDIASTRUM DUPLEX										
V. CLATHRATUM	COL	1	1							
PEDIASTRUM KABRAISKYI	COL	1	1							
PHACUS PLEURONECTES	CEL	1	1							
SCENEDESMIUS	COL	1	1							
SCENEDESMIUS BIJUGA	COL	1	1	1.31	46					
SCENEDESMIUS BIJUGA										
V. ALTERNANS	COL	1	1							
SCENEDESMIUS GUADRICAUDA	CGL	1	1	1						
SPHAEROCYSTIS SCHROETERI	COL	1	1							
S'AUSTRUM	CEL	1	1							
STEPHANODISCUS ASTRAEA	CEL	1	1	1	1	2.61	44			
SCHIZELLA	CEL	1	1							
SYNOCHA ACJS	CEL	151 5.64	186		151 2.61	44				
TETRAEURUM MINIMUM										
V. SCRUBICULATUM	CEL	1	1							
TOTAL				3431		1675		775		

LAKE NAME: RICHMOND LAKE  
STURET NUMBER: 4624

NYGAARD TROPHIC STATE INDICES

	DATE	04 26 74	07 10 74	09 18 74
MYXOPHYCEAN		01/0 E	03/0 E	13/0 E
CHLOROPHYCEAN		01/0 E	03/0 E	0/0 0
EUGLENOPHYTE		0/02 ?	0/06 ?	1/03 ?
DIATOM		1.00 E	0/0 ?	31/0 E
COMPOUND		03/0 E	06/0 E	04/0 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 26 74	07 10 74	09 18 74
GENUS		00	00	05
SPECIES		00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 26 74	07 10 74	09 18 74
AVERAGE DIVERSITY	H	1.18	1.15	0.28
NUMBER OF TAXA	S	6.00	9.00	5.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY MAXH	MAXH	2.58	3.17	2.32
MINIMUM DIVERSITY MINH	MINH	0.05	0.05	0.01
TOTAL DIVERSITY	D	1472.04	2515.05	2213.96
TOTAL NUMBER OF INDIVIDUALS/ML	N	1269.00	2187.00	7907.00
EVENNESS COMPONENT	J	0.45	0.36	0.12
RELATIVE EVENNESS	RJ	0.44	0.36	0.12
MEAN NUMBER OF INDIVIDUALS/TAXA	L	211.50	243.00	1561.40
NUMBER/ML OF MOST ABUNDANT TAXON	K	907.00	1618.00	7579.00

TABA	FORM	04 26 74			07 10 74			09 18 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ANABALNA	FIL	1	1	0	121	2.01	44	1	1	1
APMANIZUMENDON FLDS-AQUAE	FIL	1	1	x	11176.01	1618	11195.91	7579		
CHROOONMAS ACUTA	CEL	12171.51	907	13116.01		350	1613.01	234		
CRYPTICRUNAS	CEL	1	1			x	1	1		
CRYPTICRUNAS HARSSUNII	CEL	1313.51	45	1	1	x	1	1		
FRAGILARIA CRUTONENSIS	CEL	1	1	x	1	1	1	1		
GLODTRICHIA ?	FIL	1	1		1	1	1	1	x	1
HEWISHUPEDIA	COL	1	1		1	1	x	1	1	
OXYCYSTIS	CEL	1	1			x	1	1		
OSCILLATORIA	FIL	1	1		1	1	131	1.21	94	
SCHROEDERIA JUDAYI	CEL	1	1	1416.01	175	1	1	1		
SCHROEDERIA SETIGERA	CEL	1413.51	45	1	1	x	1	1		
STEPHANOESCUS ASTRAEA	CEL	11121.41	272	1	1	1	1	1	x	1
TOTAL				1269		2187		7907		

LAKE NAME: ROY LAKE  
STORET NUMBER: 4625

NYGAARD TROPHIC STATE INDICES

	DATE	04 29 74	07 10 74	09 18 74
MYXOPHYCEAN		3.00 E	7.00 E	3.50 E
CHLOROPHYCEAN		5.00 E	6.00 E	2.00 E
EUGLENOPHYTE		0.12 ?	0/13 ?	0/11 ?
DIATOM		0.20 ?	0.67 E	0.67 E
COMPUND		12.0 E	15.0 E	6.50 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 29 74	07 10 74	09 18 74
GENUS		04	02	02
SPECIES		03	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 29 74	07 10 74	09 18 74
AVERAGE DIVERSITY	H	2.10	2.31	2.28
NUMBER OF TAXA	S	33.00	25.00	22.00
NUMBER OF SAMPLES COMPOSED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY MAXH		5.04	4.64	4.46
MINIMUM DIVERSITY MINH		0.12	0.07	0.03
TOTAL DIVERSITY	G	7236.70	10766.85	22264.20
TOTAL NUMBER OF INDIVIDUALS/ML	N	3447.00	4635.00	4765.00
EVENNESS COMPONENT	J	0.42	0.50	0.51
RELATIVE EVENNESS	RJ	0.41	0.50	0.51
MEAN NUMBER OF INDIVIDUALS/TAXA	L	104.45	105.40	443.80
NUMBER/ML OF MOST ABUNDANT TAXON	K	1633.00	1837.00	5635.00

TAXA	FORM	14 29 74			17 10 74			09 18 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ANABACINA	FIL	1	1		1	1		1	2.21	210
ANABACINA FLUS-AQUAE	FIL	1	1		131	5.71	262	1		
ANABACINA PLANTOIDICA	FIL			X						
ANASTRODESPUS FALCATIS	CEL		2.61	91						
V. ACICULARIS	FIL			X						
APHANIZODERMIN FILOS-AQUAE	FIL			X						
APHAENOTHECE MIDULANS	COL			11139.61	1637		121	0.5	630	
ASTERIONELLA FORMOSA	CEL		2.61	91		X				
ASTERIONELLA FORMOSA	CEL			X						
V. GRACILLIMA	CEL			X						
BOTRYOCOCCUS BRAUNII	COL			X						
CENTRIC DIATOM	CEL	141	7.9	272			X			X
CEPATIUM HIRUNDINELLA	CEL			X			X			
CHROOCOCCUS DISPERsus	COL			X			151	2.21	210	
CHROOCOCCUS LIMNETICUS	COL			X			X			
CHROOCOMAS ACUTA	CEL	2847.4	1633		5.71	262		7.21	700-	
CLUSTERIUM	CEL			X			X			X
COCCONIUS	CEL			X			X			X
CYLLOSPHAERIUM NAEGLERIANUM	COL			X			X			
CCSPARIUM	CEL			X			X			
CRUCIGENIA RECTANGULARIS	COL			X			X			
CRYPTOCOMAS EROSA	CEL	151	7.9	272		1.91	87		2.21	210
CRYPTOCOMAS MAPSCHNI	CEL			X			X			
CYNATOPLEURA ELLIPTICA	CEL			X						
CYNATOPLEURA SOLEA	CEL			X						
V. RICULA	CEL			X						X
CYRDELLA #1	CEL			X						
CYRDELLA #2	CEL			X						
DIPLOPSALIS ACUTA	CEL			X			X			
ELAKATOTHRIS GELatinosa	CEL			X						X
ENTOMONIS DONATA	CEL			X						
EPITHEMIA	CEL			X						
EUGLENA GRACILIS	CEL			X						
FRAGILARIA	CEL			X						
FRAGILARIA CRUTONENSIS	CEL	131	5.31	181	12126.41	1225	11157.71	5635		
GLENODINIUM GYMNOLINIUM	CEL			X						
GLENODINIUM OCULATUM	CEL			X						
GLOEOPCAPSA AERUGINOSA	COL			X				1.41	140	
GYMNOCLINUM ALBULUM	CEL			X						
LYNGBYA BIRGEI	FIL			X			X			
MELGISIRA GRANULATA	CEL			X	151	5.81	175	161	4.71	455
MICROCYSTIS AERUGINOSA	COL			X			X			
MICROCYSTIS INCERTA	COL			X				13111.91	1120	
NAVICULA	CEL			X						
NITZSCHEIA #1	CEL			X						
NITZSCHEIA SIGNICIDEA	CEL			X						
OOCYSTIS	CEL			X						
PEDIASTRUM BORYANUM	COL			X			X			
PEDIASTRUM KABRAISKYI	COL			X			X			
PHORMIDIUM PUCICULA	FIL			X			X			X
PINNULARIA	CEL			X			X			
SCENELESNUS BIJUGA	COL			X				0.41	35	
V. FLEXUGUS	COL			X						
SCENELESNUS INTERREVIUS	COL			X						
V. BALATUNICULUS	COL			X						
SCENELESNUS QUADRICAUDA	COL			X						
SCHROEDERIA SETIGERA	CEL			X				0.41	35	
STAURASTRUM	CEL			X						
STEFANIA HISCU	CEL			X						
STEFANIA HISCU ASIFALA	CEL			X				1.81	175	
SYNECHIA ACUS	CEL	11126.31	467							
TETRAEDRUM VICTORIENSE	CEL	111	1							
TOTAL				3467			4635		9765	

LAKE NAME: SAND LAKE  
STORE NUMBER: 4626

NYGAARD TROPHIC STATE INDICES

	DATE	04 26 74	07 10 74	09 18 74
MYCOPHYTEAN		3.00 E	2.00 E	4.33 E
CHLOROPHYCEAN		6.50 E	6.00 E	7.33 E
EUGLENOPHYTE		0.26 E	0.37 E	0.23 E
DIATOM		0.22 ?	0.67 E	0.35 E
COMPOUND		14.0 E	13.0 E	16.3 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 26 74	07 10 74	09 18 74
GENUS		21	56	29
SPECIES		57	50	59

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 26 74	07 10 74	09 18 74
AVERAGE DIVERSITY	H	2.83	0.55	4.03
NUMBER OF TAXA	S	53.00	22.00	61.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	5.73	4.46	6.34
MINIMUM DIVERSITY	MINH	0.03	0.02	0.03
TOTAL DIVERSITY	D	87650.76	10643.05	101578.82
TOTAL NUMBER OF INDIVIDUALS/ML	N	30472.00	19351.00	40094.00
EVENNESS COMPONENT	J	0.49	0.12	0.64
RELATIVE EVENNESS	RJ	0.50	0.12	0.64
MEAN NUMBER OF INDIVIDUALS/TAXA	L	564.38	879.59	444.94
NUMBER/ML OF MOST ABUNDANT TAXON	K	13131.00	17933.00	7612.00

TAXA	FORM	LA 20 74			J7 10 74			09 18 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ACTINASTRUM GRACILINUM	CEL			x						
ACTINASTRUM MANTZSCHII	CEL							1.31	507	
ARPHOMA	CEL								x	
ANABAENA	FIL		0.41	124						
ANABAENA OSCILLARIIFORMES	FIL							0.41	169	
ANABAENOPSIS ELENKHINII	FIL							0.21	85	
ANALISTRODES SPURUS	CEL					x				
ANALISTRODES FALCATUS	CEL							0.61	294	
V. ACICULARIS	CEL	131	0.61	1858						
ANALISTRODES FALCATUS	CEL									
V. MIRABILIS	CEL		0.41	124				0.21	85	
APHAENIZIUMENIUS FLUS-AUVAE	FIL				1102.71	1793u	1119.01		7612	
ARTHROSPIRA JENNENSIS	CEL								x	
CALONEIS ARPHISSALMA	CEL								x	
CENTRIC DIATOM	CEL					x				
CHLAMYDOMONAS	CEL									
CHLAMYDOMONAS 2	CEL							0.21	85	
CHROMUNAS ACUTA	CEL	15111.6	3592		0.41	75				
CHYTROSPHYTAN FILAMENT	FIL				0.51	193		9.11	3637	
CLUSTERIUM #1	CEL			x					x	
CLUSTERIUM #2	CEL								x	
CUCCOMELIS PLACENTULA										
V. LINEATA	CEL								x	
CULASTIUM MICROPORUM	COL					x			x	
CUECUSphaerium PALLIUM	COL		0.41	124				1.31	507	
COSPARIA	CEL								x	
COSMARIUM #1	CEL			x						
CRUCIGENIA APICULATA	COL								x	
CRUCIGENIA GUADUATA	COL				1.31	299		0.21	85	
CRUCIGENIA TETRAPLOIA	COL			x					x	
CRYPTOMUNAS	CEL									
CRYPTOMUNAS EROSA	CEL				131	1.51	299	2.31	930	
CRYPTOMUNAS REFLEXA	CFL			x						
CYCLOTELLA MENEGHINIANA	CEL							4.61	1776	
CYATOPLEURA ELLIPTICA	CEL			x						
CYATOPLEURA SOLEA	CEL			x						
CYPBELLA	CEL			x						
CYST	CEL			x						
DACTYLOCOCCOPSIS	CEL							7.21	2876	
DACTYLOCOCCOPSIS IRREGULARIS	CEL	14120.01	6194							
DICHLATOMOCUCUS	COL							0.61	294	
DICTYOSPHEARIUM PULCHELLUM	COL		0.41	124				1.31	502	
ENTOMONEIS	CEL			x					x	
EPITHEMIA	CEL									
EPITHEMIA TURGIDA	CEL			x					x	
EUGLENA	CEL					x				
EUGLENA #1	CEL			x					x	
EUGLENA #2	CEL			x					x	
EUGLENA #3	CEL			x					x	
EUGLENA ACUS	CEL			x				0.21	85	
EUGLENA GRACILIS	CEL			x						
EUGLENA TRIPERICIS	CEL			x						
FRAGILARIA	CEL			x						
GLENODINIUM OCULATUM	CEL		0.41	124			x			
GOMPHONERA ANGSTAUTUM	CEL						x			
GYRGODINIUM ALBUM	CEL						x	0.21	85	
GYROSIGMA	CEL			x						
LEPUSINCLIS	CEL			x					x	
MALLUMONAS ACAROIDES	CEL			x				0.21	85	
MELUSINA	CEL			x						
MELUSINA DISTANS	CEL		0.81	248						
MELUSINA GRANULATA	CEL			x					x	
V. ANGUSTISSIMA	CEL			x				0.61	254	
MERISOPEDIA MINIMA	COL							1.31	502	
MICROCYSTIS AERUGINOSA	COL				121	2.31	448	0.21	85	
MICROCYSTIS INCERTA	CGL		0.41	124				0.81	330	
NAVICULA #1	CEL								x	
NAVICULA #2	CEL		0.41	124					x	
NAVICULA CUSPIDATA	CEL		0.41	124					x	
NAVICULA PYGMAEA	CEL								x	
METZSCHEA ? #1	CEL			x						
METZSCHEA ? #2	CEL		2.01	619						
METZSCHEA COMMUTATA	CEL			x					x	
METZSCHEA HUNGARICA ?	CEL			x						
METZSCHEA LONGISSIMA	CEL			x						
V. REVERSA	CEL							1.91	761	
METZSCHEA TRYBLIGHELLA	CEL		0.61	248						
METZSCHEA VERNICULARIS	CEL			x						
OOCYSTIS	CEL			x				0.21	85	
OSCILLATORIA	FIL		1.61	496						
OSCILLATORIA ?	FIL		1.61	496				131	3.81	1922

LAKE NAME: SAND LAKE  
STORE NUMBER: 4626

CONTINUED

TAXA	FORM	04 26 74			07 10 74			09 18 74		
		IS	ZC	PER ML	IS	ZC	PER ML	IS	ZC	PER ML
Oscillatoria sp.	FIL			X				12117.51	7020	
Oscillatoria litpnethica	FIL							3.91	761	
Pediastrum acutum	COL			X						
Pediastrum duplex	COL									
V. clathratum	COL			X						
Pediastrum tetrads	COL									
V. tetraodon	CEL									
Pennate diatom	CEL									
Phacus	CEL									
Phacus caudatus	CEL									
Phacus megallipsis	CEL									
Phacus pleurocysts	CEL									
Phormidium mucicula	CEL									
-Pinnularia	CEL									
Pleurostigma delicatulum	CEL									
Pteromonas angulosa	CEL									
Ranicosphaera curvata	CEL									
Rhopalodia gibba	CEL			X						
Scenedesmus abundans	COL							1.11	423	
Scenedesmus acuminatus	COL			0.41	124			0.41	169	
Scenedesmus balatonicus	COL			0.41	124					
Scenedesmus bijuga	COL			1.21	372			1.71	677	
Scenedesmus dimorphus	COL									
Scenedesmus interpedius	COL							0.41	169	
Scenedesmus quadrifolia	COL			1.21	372			0.61	254	
Schroederia setigera	CEL									
Skeletomera potanos	CEL							0.41	169	
Spermatozopsis	CEL									
Sphaerocystis schroeteri	COL							0.21	85	
Spirogyra	FIL									
Staukastrum astraea	CEL									
V. minutula	CEL									
Stephanodiscus	CEL									
Stephanodiscus astraea	CEL									
V. minutula	CEL									
Surirella po	CEL			0.81	248					
Surirella angusta	CEL			0.41	124					
Surirella ovata	CEL									
Synecha sp.	CEL							1.11	423	
Syneura acus	CEL			21.5.61	1734			0.41	169	
Syneura ulna	CEL									
Synura uvella	CEL							5.3.81	1522	
Tetradonion pinnatum	CEL									
V. scrobicularium	CEL							0.21	85	
Tetradonion ruizicum	CEL							0.61	254	
Tetralonion trigonum	CEL			0.41	124					
Tetraselmis elegans	COL									
Tetraselmis staurogeminaeformis	COL			0.81	248					
Trachelomonas intermedia	CEL			0.41	124					
TOTAL					36972			19351		40094

LAKE NAME: SHERIDAN LAKE  
STOKET NUMBER: 4627

NYGAARD TRUPHIC STATE INDICES

	DATE	04	25	74	07	15	74	09	12	74
MYXOPHYCEAN		0.370	E		0.63	E		1.07	E	
CHLOROPHYCLAN		0.00	D		0.33	?		1.33	E	
EUCLENOPHYTE		0.33	L		0.07	?		0.00	?	
DIATOM		0.37	E		1.00	E		1.00	E	
COMPCUND		0.70	E		1.07	E		3.33	E	

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04	25	74	07	15	74	09	12	74
GENUS		16			63			31		
SPECIES		00			03			00		

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04	25	74	07	15	74	09	12	74
AVERAGE DIVERSITY	H	3.30			1.55			2.67		
NUMBER OF TAXA	S	20.00			27.00			20.00		
NUMBER OF SAMPLES COMPOSITED	M	2.00			2.00			2.00		
MAXIMUM DIVERSITY MAXH		4.71			4.75			4.32		
MINIMUM DIVERSITY MINH		0.00			0.11			0.13		
TOTAL DIVERSITY	O	10113.00			4030.55			4765.95		
TOTAL NUMBER OF INDIVIDUALS/ML	N	5792.00			3181.00			1785.00		
EVENNESS CUMPONENT	J	0.76			0.33			0.62		
RELATIVE EVENESS	RJ	0.76			0.34			0.61		
MEAN NUMBER OF INDIVIDUALS/TAXA	L	222.77			117.81			59.25		
NUMBER/ML OF MOST ABUNDANT TAXON	K	1230.00			2250.00			632.00		

TAXA	FORM	6-25-74			7-15-74			9-12-74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ANABAENA PLANCTONICA	FIL				121	3.01	116	121	8.31	149
ANISTOPODUS FALCATUS	CEL				111	2.50	78	111	1	1
APHAENIZUMENI FLUSS-AQUAT	FIL				141	1.41	39	11135.41	632	
APHAENICELLA	CCL							13125.01	446	
ASTILOCHIELLA FORMUSA	CCL		4.01	268			x			
CENTRIC DEALTA	CEL					1.21	39			
CEPIDIUM MINUNDINELLA	CEL						x			x
CHIOPHYTAN COLONY	COL						x			
CHLOROPUNAS ACUTA	CEL	3110.81	626		1.21	39		6.31	112	
CUCCUMEIS PLACENTULA	CEL			x						
COELASTRUM MICROPYRUM	CGL						x			x
CELLUSPHARMIUM MAGELLANICUM	COL						x			x
COSMARIA #1	CEL									
COSMARIA #2	CEL							151	2.11	37
COSMARIA #3	CEL						x			
COSMARIA #4	CEL						x			
COSMARIA #5	CEL						x			
COSMARIA #6	CEL						x			
COSMARIA #7	CFL						x			
CRYPTOMUNAS EPOSA	CEL			x			x			
CRYPTOMUNAS MARSSLERII	CEL			x	131	9.71	313		6.11	76
CRYPTOMUNAS spp.	CEL	11119.31	11118							
CYANOPHYTAN FILAMENT	FIL							6.31	149	
CYCLUTELLA	CFL		1.21	67						
CYPBELLA	CEL			x			x			
DACTYLOCUCCLPSIS	CEL			x						
DINGEPTUN DIVERGENS	CEL		3.91	224			x			
EPIPHYTIC	CEL						x			
EUCHARINA ELEGANS	CEL						x			x
FLAGELLATES	CEL		7.71	447						
FRAGILARIA #2	CEL		3.21	179						
FRAGILARIA CRUTONENSIS	CEL	2121.21	1230	11172.71	2290		6.31	112		
GLENGUILLIUM	CEL		3.61	22						
GLUEOCYSTIS	CEL			x						
GLUDOFICHIUM ECINULATA	FIL						x			
GYNODONIUM ALMULGA	CEL		0.61	45						
MELLSIFA DISTANS	CEL		1.21	67						
MELLSIFA GRANULATA	CEL						x			
MESOSTIGMA VIRIDIS	CEL	4115.51	695							
MICROCYSTIS INCERIA	COL		1.21	67	151	9.71	313			
NAVICULA	CEL			x						
NITZSCHIA	CEL		9.01	268						
OCCYSTITIS #1	CEL									x
OCCYSTITIS #2	CEL									x
OCCYSTITIS #3	CEL						x			
PHAEOMIDUM	FIL			x						
SPHAENODCTTIS SCHWEITERI	CCL									x
STAUPASTRUM	CEL						x	141	2.11	37
STEPHANOCYCTUS	CEL						x			x
STEPHANOCYCTUS ASTREA										
V. MINUTULA	CEL	151	3.11	179						
STIPITOCYCTUS	CEL		0.61	45						
SYNECHIA ULNA	CEL		0.61	45						
TRACHELUNGAS VULVUCINA	CEL			x						
TOTAL					5792		3103		1769	

LAKE NAME: STOCKADE LAKE  
STOKET NUMBER: 4628

NYGAARD TROPHIC STATE INDICES

DATE	04 24 74	07 15 74	09 11 74
MYXOPHYCEAN	02/0 E	0.00 E	04/0 E
CHLOROPHYCLAN	01/0 E	3.00 E	09/0 E
EUGLENOPHYTE	0/03 ?	0/09 ?	0.08 ?
DIATOM	0.33 E	0/02 ?	0.67 E
COMPOUND	04/0 E	9.00 E	10/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 24 74	07 15 74	09 11 74
GENUS	00	02	05
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 24 74	07 15 74	09 11 74	
AVERAGE DIVERSITY	H	1.28	1.99	0.57
NUMBER OF TAXA	S	13.00	16.00	23.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY MAXH	MAXH	3.70	4.00	4.52
MINIMUM DIVERSITY MINH	MINH	0.01	0.03	0.02
TOTAL DIVERSITY	D	28770.56	13354.89	9149.64
TOTAL NUMBER OF INDIVIDUALS/PL	N	22477.00	6711.00	16352.00
EVENNESS COMPONENT	J	0.35	0.50	0.13
RELATIVE EVENNESS	HJ	0.35	0.50	0.13
MEAN NUMBER OF INDIVIDUALS/TAXA	L	1729.00	419.44	697.41
NUMBER/ML OF MOST ABUNDANT TAXON	K	16809.00	3698.00	14916.00

TAXA	FORM	19 24 74			J7 15 74			29 11 74		
		IS	ZC	PER ML	IS	ZC	PER ML	IS	ZC	PER ML
BRABAENA	FIL	1	1	1	1	1	0.41	33	1	0.51
EPHAENIZUPENUM FLUS-AQUAE	FIL	1	1		11140.21	3.96		11192.01	14936	
ASTERIONELLA FORMUSA	CFL	131	0.41	194						
CELL	CFL	1	1	1.61	344					
CENTRIC GLATUM	CFL	12174.61	16610							
CHROMUNAS ACUTA	CFL	1	1		0.41	01	131	2.71	437	
COELASTRUM MICROPIURUM	COL	1	1			1				
CRUCIGENIA TETRAPEUDIA	COL	1	1					1	0.31	44
CRYPTCHONAS EROSA	CFL	1	1		0.41	30		0.31	44	
CRYPTORUNAS MARSSUNII	CFL	11111.41	2562	0.41		30				
CYPTRICRUNAS REFLEXA	CFL	131	1.61	311						
CACTYLOCUCOPSIS	CFL	1	1	0.21	39					
FLAGELLATE	CFL	141	9.51	2135						
FRAGILARIA	CFL	1	1							x
FRAGILARIA CROTONENSIS	CFL	1	1		31	5.41	393			
GLOEOSTYSIS ?	COL	1	1		0.41	33				
GYNNIDIUM	CFL	1	1	x						
MELOSINA GRANULATA	CFL	1	1					21	3.51	47
MERISMOPEDIA MINIMA	COL	1	1				4			
MERISMOPEDIA TENUISSIMA	CGL	1	1				1			x
MICROCYSTIS AERUGINOSA	COL	1	1		21	7.71	516			x
NAVICULA	CFL	1	1				x			
NITZSCHIA	CFL	1	1	x						
NITZSCHIA LONGISSIMA	CFL	1	1							x
v. REVERSA	CFL	1	1							
NITZSCHIA VERNICULARIS	CFL	1	1	x						
OXYCYSTIS	CFL	1	1		3.91	01	151	0.81	131	
OSCILLATORIA	FIL	1	1	x						
PARAOCTIA MULTISETA	CFL	1	1					0.51	47	
PHACUS	CFL	1	1							x
PHAGRIDIUM MUCICELLA	FIL	1	1		6133.91	2278				
PTEROPUNAS	CFL	1	1	0.21	39					
SCENELESMUS AEUNGANS	COL	1	1							x
SCENELESMUS INTERMIXUS	CFL	1	1							
v. BICAUDATUS	COL	1	1					151	0.81	131
SCENELESMUS GUADELUPENSIS	COL	1	1							x
SCHAUDERIA SETIGERA	CFL	1	1	0.21	39	0.41	31	1.31	44	
STAUROSTIUM	CFL	1	1		151	0.31	152			
SUHIELLA	CFL	1	1							x
TETRALEUKUM MINIMUM	CFL	1	1							x
TETRASTRUM ELEGANS	COL	1	1							x
TOTAL					22477		6711		16052	

LAKE NAME: EAST VERNILLION LAKE  
STURET NUMBER: 4629

NYGAARD TROPHIC STATE INDICES

	DATE	04 22 74	07 11 74	09 20 74
MYXOPHYCEAN		04/0 E	02/0 E	03/0 E
CHLOROPHYCEAN		03/0 E	0/0 D	0/0 D
EUGLENOPHYTE		0/0? ?	0/0? ?	0/0? ?
DIATOM		0.17?	0.50 E	0/01?
COMPOUND		08/0 E	04/0 E	05/0 E

PALMER'S ORGANIC POLLUTION INDICES

	DATE	04 22 74	07 11 74	09 20 74
GENUS		05	05	08
SPECIES		00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	04 22 74	07 11 74	09 20 74
AVERAGE DIVERSITY	H	1.83	0.17	0.13
NUMBER OF TAXA	S	16.00	8.00	5.00
NUMBER OF SAMPLES COMPOSED	M	2.00	2.00	2.00
MAXIMUM DIVERSITY MAXH		4.17	3.00	2.32
MINIMUM DIVERSITY MINH		0.04	0.01	0.00
TOTAL DIVERSITY D		10107.00	2454.29	5964.40
TOTAL NUMBER OF INDIVIDUALS/ML	N	5615.00	14437.00	45886.00
EVENNESS COMPONENT J		0.43	0.00	0.00
RELATIVE EVENNESS RJ		0.43	0.00	0.00
MEAN NUMBER OF INDIVIDUALS/TAXA	L	311.94	1804.63	9176.00
NUMBER/ML OF MOST ABUNDANT TAXON	K	3134.00	14059.00	45153.00

LAKE NAME: EAST VERNILLIEN LAKE      CONTINUED  
 STORED NUMBER: 4629

TAXA	ITEM	04 22 74			07 11 74			09 20 74		
		IS	%C	ALGAL UNITS PER ML	IS	%C	ALGAL UNITS PER ML	IS	%C	ALGAL UNITS PER ML
ANABENA	FIL	1	1	1	X	1	1	1	1	1
APHAENOGRENON FLOS-AQUAE	FIL	1	1				1197.4	14059	1198.6	45153
CILIANTOUMMAS	CEL	1	1	0.61	31					
CHRYSTYKOMAS ALUTA	CEL	131	5.9	310						
CHRYSIOTHYRION FLAGELLATE	CEL	11155.8	2	3134						
CUCCONIIS	CEL	1	1				X			
CRYPTOCRINAS PEFLEXA	CEL	141	2.2	124						
DACTYLUCOCCOPSIS	CEL	1	5.9	310						
DICHTYOSPHAERIUM PULCHELLUM	CGL	1	1	X						
FRAGILARIA	CEL						X			
MESOSIRA GRANULATA										
V. ANGUSTISSIMA	CEL						X			
MICROCYSTIS AERUGINOSA	CGL									X
NAVICULA #1	CEL						X			
NAVICULA #2	CEL			X						
NAVICULA CUSPIDATA	CEL						X			
NAVICULA GASTRUM	CEL			X						
MITZSCHIA	CEL			X						
MITZSCHIA #1	CEL							131	0.5	242
MITZSCHIA VERNICULARIS	CEL			X						
OSCILLATORIA	FIL				(2)	2.0	378			
OSCILLATORIA ?	FIL								1.1	485
OSCILLATORIA #1	FIL			X						
OSCILLATORIA LIMNETICA	FIL	151	4.9	248						
SCHWEIGERIA SETIGERA	CEL			X						
STEPHANODISCUS	CEL						X			
STEPHANODISCUS ASTRAEA										
V. TINYULA	CEL	12120.0	1	3450						
SPIRIFILLA	CEL			X						
SYNECHIA ?	CEL			X						
TETRASTRUM STAUROGLOTRIAEFORME	CGL			X						
TOTAL					5812		14437			45686

LAKE NAME: WALL LAKE  
STORED NUMBER: 4630

NYGAARD TRUFAVIC STATE INDICES

	LATE	4 22 74	07 11 74	9 20 74
MYXOFLAGELLATE	C/L	D	C3/D E	C2/L L
CILIOPHYLLAN	C3/D E	C3/D E	C/D D	
EUGLENOPHYTE	C.33 I	C/D ?	C/L2 ?	
DIATOM	C.5C E	C1/D E	C1/D E	
CUMPOUND	C8/C F	C7/D E	C3/D E	

PALMER'S ORGANIC POLLUTION INDICES

	LATE	4 22 74	07 11 74	9 20 74
GENUS		43	05	05
SPECIES		09	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

	LATE	4 22 74	07 11 74	9 20 74
AVERAGE DIVERSITY	H	1.08	0.59	0.67
NUMBER OF TAXA	S	14.0	6.00	3.00
NUMBER OF SAMPLES COMPOSITED	M	1.00	1.00	1.00
MAXIMUM DIVERSITY MAXH		4.25	3.00	1.58
MINIMUM DIVERSITY MINH		0.12	0.02	0.00
TOTAL DIVERSITY	G	2497.12	2505.32	4559.35
TOTAL NUMBER OF INDIVIDUALS/ML	N	1784.00	4348.00	6805.00
EVENNESS CLIMENT	J	0.40	0.20	0.42
RELATIVE EVENNESS	KJ	-0.35	-0.20	-0.43
MEAN NUMBER OF INDIVIDUALS/TAXA	L	93.86	543.00	2268.33
NUMBER/ML OF MOST ABUNDANT TAXON	K	951.00	3724.00	5614.00

TAXA	FIRM	04 22 74			07 11 74			09 20 74		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ANKistrodesmus falcatus	CEL	151	1.71	30	1	1	1	1	1	1
Aphaniotrichum flus-aquae	FIL	1	1	1185.61	3724	1182.51	5614	1	1	1
Aphaniocapsa	COL	1	1	1	1	1	1	1	1	1
Clintric diatoms	CFL	1153.31	951	1	1	1	1	1	1	1
Chrysophytes acuta	CEL	141	5.01	89	1	1	1	1	1	1
Cryptomonas	CFL	1	1	1	1	1	1	1	1	1
Cyclotilla meneghiniana	CEL	1	1	1	1	1	1	1	1	1
Flagellate	CEL	12131.71	565	1	1	1	1	1	1	1
Fragilaria	CEL	131	6.71	119	1	1	1	1	1	1
Gomphonema	CFL	1	1	1	1	1	1	1	1	1
Navicula	CFL	1	1	1	1	1	1	1	1	1
Nitzschia	CEL	1	1	1	1	1	1	1	1	1
Oscillatoriella?	FIL	1	1	12234.41	624	12117.51	1191	1	1	1
Pediastrum boryanum	COL	1	1	1	1	1	1	1	1	1
Pediastrum duplex	COL	1	1	1	1	1	1	1	1	1
v.?	COL	1	1	1	1	1	1	1	1	1
Phacus megalopsis	CEL	1	1	1	1	1	1	1	1	1
Pinnularia	CEL	1	1	1	1	1	1	1	1	1
Schmideria setigera	CEL	1	1	1	1	1	1	1	1	1
Sphaerocystis schauderi	COL	1	1	1	1	1	1	1	1	1
Stephanodiscus astraea	CEL	1	1	1	1	1	1	1	1	1
v. minuta	CEL	1	1	1	1	1	1	1	1	1
Stephanodiscus niagarae	CEL	1	1	1	1	1	1	1	1	1
Surirella	CEL	1	1	1	1	1	1	1	1	1
Surirella?	CEL	1	1	1	1	1	1	1	1	1
Synechra acus	CEL	1	1	1	1	1	1	1	1	1
Tetrastrum staurogenialiforme	COL	1	1	1.71	30	1	1	1	1	1
<b>TOTAL</b>				<b>1786</b>		<b>4340</b>		<b>6805</b>		

LAKE NAME: SAUBAY LAKE NORTH  
STICKET NUMBER: 4631

NYGAARD TROPHIC STATE INDICES

DATE	04 25 74	07 11 74	09 19 74
MYXOPHYCEAN	0470 E	0700 E	0570 E
CHLOROPHYCEAN	0370 E	0370 E	0370 E
EUCLENOPHYTE	0.29 E	0.20 ?	0.08 ?
DIATOM	0.25 ?	0.50 E	0.50 E
COMPOUND	1270 E	1470 E	5470 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	04 25 74	07 11 74	09 19 74
GENUS	00	05	00
SPECIES	..	30	..

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE	04 25 74	07 11 74	09 19 74
AVERAGE DIVERSITY H	4.86	1.91	1.2.
NUMBER OF TAXA S	2400.0	200.00	130.00
NUMBER OF SAMPLES COMPOSITED M	3.30	3.00	3.00
MAXIMUM DIVERSITY MAXH	4.86	4.32	3.70
MINIMUM DIVERSITY MINH	0.12	0.02	0.03
TOTAL DIVERSITY D	0.00	37493.72	7142.82
TOTAL NUMBER OF INDIVIDUALS/ML N	0.30	19892.00	5994.00
EVENNESS COMPONENT J	1.00	0.44	0.32
RELATIVE EVENNESS RJ	0.35	0.44	0.32
MEAN NUMBER OF INDIVIDUALS/TAXA L	0.00	694.00	411.00
NUMBER/ML OF MOST ABUNDANT TAXON K	0.01	11300.00	4501.00

TAXA	FORM	64 25 76			07 11 76			09 19 76		
		IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML	IS	ZC	ALGAL UNITS PER ML
ANABENA	FIL			151 0.81	155					
APHAENIZOCHEMUS FLUOS-AQUAE	FIL			11157.31	11363			11128.11		1686
APIPHAECAPSA DELICATISSIMA	CYL									X
CHARACIOPSIS LIMORES	FIL			13111.51	2288	141 0.81				56
CHLOROCYCLUS	CYL	141		X						
CHLOROCYCLUS DISPENSUS	CYL			21 7.21	1435					
CHLOROMMAS ACUTA	CYL			X	1.01	194				
COELOSphaERIUM PALLIDUM	CYL									X
CRYPTOPHORAS	CYL			X						
CYCLIDIELLA	CYL	121		X						
CYMBELLA	CYL			X						
DACTYLOCUCOPSIS	CYL			X						
ENTOMOBELIS ALATA	CYL	121		X						
ENTOMOBELIS URATA	CYL				3.21	39				
EUCLERIA	CYL			X						
EUCLERIA 01	CYL									
EUCLERIA 02	CYL									
FLAGELLATE	CYL								0.41	25
FLAGELLATES	CYL			X						
LEUCYSTIS 2	CYL							12167.0		4061
GARDNERIA ULVACEUM	CYL			X						
KINOSHITELLA	CYL			X						
MALLINCHAS	CYL			X						
NELOVIRA DISTANS	CYL			X						
PERISPONDIA MINIMA	CYL				0.61	116		0.41		25
PERISPONDIA TERETISSIMA	CYL									
MICROCYSTS	CYL	151		X						
MICROCYSTS INCERTA	CYL									
ODOGCFIA	FIL			X						
NAVICULA	CYL			X	0.21	39				
NITZSCHIA	CYL			X	0.41	78	151 0.41			25
NITZSCHIA ALICULARIS	CYL			X						
NUDULAFIA	FIL							121 1.21		75
NUCYSSES	CYL				0.61	116		0.41		25
NUCTESTIA CRYPTIFORMES	CYL			X						
PEDIASTRUM CORYTHUM	CYL			X	0.21	39				
PEDIASTRUM DUPLEX	CYL									X
THACOS PSI DICHROSTILBE	CYL			X						
THYMIDIUM	FIL			X						
PHAEOPHYTON AUREOCELLA	FIL			X	14119.51	3877				
PHAEOPHYTA CURVATA	CYL			X						
SCHEUDERIA SETIGERA	CYL				0.21	39		0.41		25
SPIAULERA	FIL				0.21	39				
STIPHAMBIUSCUS	CYL			X	0.41	78				
SURIRELLA	CYL									X
SURIRELLA OVATA	CYL			X						
SURIRELLA PRISMIODIA	CYL			X						
SURIRELLA STIPHIOLIS	CYL			X						
SURIRELLA SPP.	CYL			X						
SYNLOPA	CYL			X						
TOTAL					0	14892		3994		