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Research and Development

Distribution of Phytoplankton in Texas Lakes

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DISTRIBUTION OF PHYTOPLANKTON IN TEXAS LAKES

by

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FOREWORD

Protection of the environment requires effective regulatory actions which are based on sound technical and scientific information. This information must include the quantitative description and linking of pollutant sources, transport mechanisms, interactions, and resulting effects on man and his environment. Because of the complexities involved, assessment of specific pollutants in the environment requires a total systems approach which transcends the media of air, water, and land. The Environmental Monitoring and Support Laboratory-Las Vegas contributes to the formation and enhancement of a sound monitoring data base for exposure assessment through programs designed to:

- develop and optimize systems and strategies for monitoring pollutants and their impact on the environment
- demonstrate new monitoring systems and technologies by applying them to fulfill special monitoring needs of the Agency's operating programs

This report presents the species and abundance of phytoplankton in the 38 lakes sampled by the National Eutrophication Survey in the State of Texas, along with results from the calculation of several commonly used biological indices of water quality and community structure. These data can be used to biologically characterize the study lakes, and as baseline data for future investigations. This report was written for use by Federal, State, and local governmental agencies concerned with water quality analysis, monitoring, and or regulation. Private industry and individuals similarly involved with the biological aspects of water quality will find the document useful. For further information contact the Water and Land Quality Branch, Monitoring Operations Division.

George B. Morgan
Director
Environmental Monitoring and Support Laboratory
Las Vegas

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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 38 lakes sampled in the State of Texas (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 TEXAS

STORET No.	Lake Name	County
4801	Amistad Lake	Val Verde (part in Mexico)
4802	Bastrop Lake	Bastrop
4803	Belton	Bell, Coryell
4804	Lake Braunig	Bexar
4805	Brownwood Lake	Brown
4806	Lake Buchanan	Burnet, Llano
4808	Calaveras Lake	Bexar
4809	Canyon Reservoir	Comal
4810	Lake Colorado City	Mitchell
4811	Lake Corpus Christi	Live Oak, San Patricio

(Continued)

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

STORET No.	Lake Name	County
4812	Diversion Lake	Baylor, Archer
4813	Eagle Mountain Lake	Tarrant
4814	Fort Phantom Hill Lake	Jones
4815	Garza Little Elm Reservoir (Lewisville Reservoir)	Denton
4816	Kemp Lake	Baylor
4817	Houston Lake	Harris
4818	Lake of the Pines	Marion
4819	Lavon Reservoir	Collin
4820	Livingston Lake	Walker, Trinity, Polk, San Jacinto
4821	Lyndon B. Johnson Lake	Burnet, Llano
4822	Medina Lake	Medina, Bandera
4823	Lake Merideth	Potter, Moore, Hutchison
4824	Palestine Lake	Henderson, Smith, Anderson, Cherokee
4825	Possum Kingdom Reservoir	Palo Pinto, Young
4826	San Angelo Reservoir	Tom Green
4827	Sam Rayburn Reservoir	San Augustine, Angelina, Nacogdoches, Jasper, Sabine
4828	E.V. Spence Reservoir	Coke
4829	Somerville Lake	Burleson, Washington
4830	Stamford Lake	Haskell
4831	Stillhouse Hollow Reservoir	Bell
4832	Tawakoni Lake	Hunt, Rains, Van Zandt

(Continued)

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

STORET No.	Lake Name	County
4833	Texarkana Lake (Wright-Patman Reservoir)	Bowie, Cass
4834	Texoma Lake	Grayson, Cooke (Love, Johnson, Marshall, Bryant in Oklahoma)
4835	Travis Lake	Travis
4836	Trinidad (Texas Power & Light Co. Lake)	Henderson, Navarro
4837	Twin Buttes Reservoir	Tom Green
4838	White River Reservoir	Crosby
4839	Whitney Lake	Bosque, Hill, Johnson

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 pennate 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	$\frac{\text{Myxophyceae}}{\text{Desmideae}}$	0.0-0.4	0.1-3.0
Chlorophycean	$\frac{\text{Chlorococcales}}{\text{Desmideae}}$	0.0-0.7	0.2-9.0
Diatom	$\frac{\text{Centric Diatoms}}{\text{Pennate Diatoms}}$	0.0-0.3	0.0-1.75
Euglenophyte	$\frac{\text{Euglenophyta}}{\text{Myxophyceae + Chlorococcales}}$	0.0-0.2	0.0-1.0
Compound	$\frac{\text{Myxophyceae + Chlorococcales + Centric Diatoms + Euglenophyta}}{\text{Desmideae}}$	0.0-1.0	1.2-25

TABLE 3. ALGAL GENUS POLLUTION INDEX (Palmer 1969)

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

TABLE 4. ALGAL SPECIES POLLUTION INDEX (Palmer 1969)

Species	Pollution Index
Ankistrodesmus falcatus	3
Arthrospira jenneri	2
Chlorella vulgaris	2
Cyclotella meneghiniana	2
Euglena gracilis	1
Euglena viridis	6
Gomphonema parvulum	1
Melosira varians	2
Navicula cryptocephala	1
Nitzschia acicularis	1
Nitzschia palea	5
Oscillatoria chlorina	2
Oscillatoria limosa	4
Oscillatoria princeps	1
Oscillatoria putrida	1
Oscillatoria tenuis	4
Pandorina morum	3
Scenedesmus quadricauda	4
Stigeoclonium tenue	3
Synedra ulna	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_i is the proportion of the ith taxon in the sample, which is calculated from n_i/N; n_i is the number of individuals per milliliter of the ith 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:

$$\text{MinH} = -\frac{S-1}{N}\log_2\frac{1}{N} - \frac{N-(S-1)}{N}\log_2\frac{N-(S-1)}{N}$$

given by Zand (1976). The total diversity (D) was calculated from HN (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/MaxH (Pielou 1966). Relative evenness (RJ) was calculated from the formula:

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

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 sits is equal to $\log_S S$, or 1. Therefore diversity in sits 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 LIST FOR THE STATE OF TEXAS

Achnanthes hauckiana ?
Achnanthes lanceolata
Achnanthes microcephala ?
Actinastrum gracilimum
Actinastrum hantzschii
Actinastrum hantzschii
v. *fluviatile*
Amphiprora ornata
Amphora ovalis
Anabaena flos-aquae
Anabaena inaequalis
Anabaena planctonica
Anabaena wisconsinense ?
Anabaenopsis circularis
Anabaenopsis elenkinii
Anabaenopsis philippinensis
Anabaenopsis raciborskii
Ankistrodesmus falcatus
Ankistrodesmus falcatus
v. *acicularis*
Ankistrodesmus falcatus
v. *mirabilis*
Aphanizomenon flos-aquae
Aphanizomenon gracile
Aphanocapsa delicatissima
Aphanocapsa elachista
Aphanothece sp.
Asterionella formosa
Asterionella formosa
v. *gracillima*
Binuclearia sp.
Botryococcus braunii
Caloneis sp.
Capartogramma
Capartogramma crucicula
Carteria klebsii
Ceratium hirundinella
Ceratium hirundinella
f. *austriacum*
Ceratium hirundinella
f. *brachyceras*
Ceratium hirundinella
f. *furcoides*
Chaetoceros elmorei
Chlamydomonas globosa
Chlorogonium elongatum
Chlorogonium euchlorum
Chroococcus dispersus
Chroococcus dispersus
v. *minor*
Chroococcus limneticus
Chroomonas acuta
Closteriopsis sp.
Closterium aciculare
Closterium aciculare
v. *subpronum ?*
Cocconeis placentula
Coelastrum cambricum
Coelastrum cambricum
v. *intermedium*
Coelastrum microporum
Coelastrum morus
Coelastrum reticulatum
Coelastrum sphaericum
Coelosphaerium kuetzingianum
Coelosphaerium naegelianum
Coelosphaerium pallidum
Coronastrum aestivale
Coscinodiscus denarius
Coscinodiscus lacustris
Coscinodiscus rothii
v. *subsalsa*
Cosmarium clepsydra
v. *nanum*
Cosmarium granatum
Crucigenia apiculata
Crucigenia crucifera
Crucigenia fenestrata
Crucigenia quadrata
Crucigenia tetrapedia
Crucigenia truncata
Cryptomonas erosa
Cryptomonas erosa
v. *reflexa*
Cryptomonas marssonii
Cryptomonas ovata
Cryptomonas reflexa
Cyclotella comta
Cyclotella meneghiniana
Cyclotella stelligera
Cymbella affinis
Cymbella turgida
Dactylococcopsis irregularis
Denticula ? sp.
Diatoma tenue
Diatoma vulgare
Dichotomococcus
Dictyosphaerium pulchellum
Dinobryon bavaricum
Dinobryon cylindricum
Dinobryon divergens
Dinobryon sertularia

Dinobryon sociale
Dinobryon sociale
v. *americanum*
Diploneis puella
Diplopsalis acuta
Elakatothrix gelatinosa
Elakatothrix viridis
Entomoneis sp.
Epithemia sp.
Euastrum bidentatum ?
Euastrum denticulatum
Eudorina elegans
Euglena acus
Euglena ehrenbergii
Euglena gracilis
Euglena oxyuris
Euglena spathirhyncha
Euglena tripteris
Eunotia curvata
Fragilaria crotonensis
Franceia droescheria
Franceia ovalis
Glenodinium edax
Glenodinium gymnodinium
Glenodinium gymnodinium
v. *biscutelliforme*
Glenodinium kulczynskii ?
Glenodinium oculatum
Glenodinium penardiforme
Gloeotrichia ? sp.
Golenkinia radiata
Golenkinia radiata
v. *brevispina ?*
Gomphonema angustatum
v. *producta*
Gomphonema olivaceum
Gomphosphaeria sp.
Gymnodinium albulum
Gymnodinium ordinatum
Gyrosigma macrum ?
Kentrosphaera sp.
Kirchneriella contorta
Kirchneriella obesa
Lagerheimia quadriseta
Lagerheimia subsalsa
Lagynion ? sp.
Lepocinclis acuta ?
Lepocinclis ovum
Lyngbya hieronymusii
Lyngbya lagerheimii
Lyngbya subtilis
Mallomonas acaroides
Mallomonas caudata ?
Mallomonas globosa
Mallomonas pseudocoronata ?
Mastogloia sp.
Melosira distans
Melosira granulata
Melosira granulata
v. *angustissima*
Melosira granulata
v. *angustissima* f. *spiralis*
Melosira islandica
Melosira italica
Melosira varians
Merismopedia glauca
Merismopedia minima
Merismopedia punctata
Merismopedia tenuissima
Merismopedia trolleri
Mesostigma viridis
Micractinium pusillum
Microcystis aeruginosa
Microcystis aeruginosa
v. *major*
Microcystis incerta
Mougeotia sp.
Navicula anglica
Navicula lucidula ?
Navicula pupula
Navicula pupula
v. *rectangularis*
Navicula radiosa
Neidium ? sp.
Nephrocytium agardhianum
Nephrocytium lunatum
Nitzschia acicularis
Nitzschia acicularis
v. *closterioides*
Nitzschia actinastroides
Nitzschia closterium
Nitzschia filiformis
Nitzschia holsatica
Nitzschia hungarica
Nitzschia palea
Nitzschia sigma

Nitzschia tryblionella
Nitzschia tryblionella
v. *debilis*
Nitzschia tryblionella
v. *levidensis*
Nitzschia tryblionella
v. *victoriae*
Oocystis borgei
Oocystis gloeocystiformis ?
Oocystis parva
Oocystis pusilla
Oocystis submarina
Ophiocytium capitatum
Ophiocytium capitatum
v. *longispinum*
Oscillatoria limnetica
Oscillatoria limosa
Oscillatoria splendida
Oscillatoria subtilissima ?
Palmella ? sp.
Pandorina morum
Pandorina protruberans
Pediastrum biradiatum
Pediastrum biradiatum
v. *longecornutum*
Pediastrum boryanum
Pediastrum boryanum
v. *perforatum*
Pediastrum duplex
Pediastrum duplex
v. *clathratum*
Pediastrum duplex
v. *duodenarium*
Pediastrum duplex
v. *reticulatum*
Pediastrum simplex
Pediastrum simplex
v. *duodenarium*
Pediastrum tetras
Pediastrum tetras
v. *tetraodon*
Peridinium inconspicuum
Peridinium penardiforme
Peridinium pusillum
Peridinium quadridens
Peridinium umbonatum
Peridinium willei
Phacus acuminatus
Phacus acuminatus
v. *drezepolskii*
Phacus caudatus
Phacus caudatus
v. *minor*
Phacus chloroplastes
Phacus curvicauda
Phacus glaber
Phacus helikoides
Phacus longicauda
Phacus megalopsis
Phacus orbicularis
Phacus orbicularis
v. *zmudae ?*
Phacus pleuronectes
Phacus pseudonordstedtii
Phacus pyrum
Phacus tortus
Phacus triqueter
Phormidium mucicola
Pinnularia brevicostrata
Planktosphaeria ?
Pleurosigma australe ?
Pteromonas aculeata
Pteromonas angulosa
Pteromonas nivalis ?
Raphidiopsis curvata
Rhizosolenia minima
Rhoicosphenia curvata
Rhopalodia gibba
Rhopalodia gibberula
Scenedesmus abundans
Scenedesmus acuminatus
Scenedesmus acutiformis
Scenedesmus arcuatus
Scenedesmus arcuatus
v. *platydisca*
Scenedesmus armatus
v. *boglariensis*
Scenedesmus balatonicus
Scenedesmus bernardii
Scenedesmus bicaudatus
Scenedesmus bijuga
Scenedesmus bijuga
v. *alternans*
Scenedesmus bijuga
v. *flexuosus*
Scenedesmus denticulatus
Scenedesmus denticulatus
v. *linearis*
Scenedesmus dimorphus
Scenedesmus ecornis
v. *disciformis*
Scenedesmus flexuosus

Scenedesmus granulatus
f. *disciformis*
Scenedesmus intermedius
Scenedesmus intermedius
v. *balatonicus*
Scenedesmus intermedius
v. *bicaudatus*
Scenedesmus opoliensis
Scenedesmus protuberans
Scenedesmus quadricauda
Scenedesmus quadricauda
f. *granulatus*
Scenedesmus quadricauda
v. *longispina* f. *asymmetricus*
Scenedesmus serratus
Scenedesmus spinosus
v. *bicaudatus*
Schroederia judayi
Schroederia setigera
Selenastrum sp.
Skeletonema potamos
Spermatozoopsis exultans ?
Sphaerellopsis sp.
Sphaerocystis schroeteri
Spirulina sp.
Staurastrum laeve
Staurastrum leptocladum
Staurastrum tetracerum
Stauroneis anceps
f. *linearis ?*
Stephanodiscus astraea
Stephanodiscus dubius
Stephanodiscus niagarae
Surirella ovata
Synedra acus
Synedra acus
v. *radians*
Synedra rumpens
Synedra ulna
Tabellaria fenestrata
Tabellaria flocculosa
Tetraedron caudatum
Tetraedron caudatum
v. *longispinum*
Tetraedron constrictum
Tetraedron gracile
Tetraedron hastatum
v. *palatinum*
Tetraedron lobulatum
v. *polyfurcatum*
Tetraedron minimum
Tetraedron minimum
v. *scrobiculatum*
Tetraedron muticum
Tetraedron pentaedricum
Tetraedron planctonicum
Tetraedron pusillum
v. *angolense*
Tetraedron regulare
Tetraedron regulare
v. *incus*
Tetraedron trigonum
Tetraedron trigonum
v. *gracile*
Tetraedron tumidulum
Tetrastrum elegans
Tetrastrum glabrum
Tetrastrum heteracanthum
Tetrastrum staurogeniaeforme
Trachelomonas bulla
Trachelomonas deflandrei
Trachelomonas fluviatilis
Trachelomonas girardiana
Trachelomonas hispida
Trachelomonas intermedia
Trachelomonas jaculata ?
Trachelomonas lacustris
Trachelomonas ovalis ?
Trachelomonas scabra
Trachelomonas torta ?
Trachelomonas urceolata
Trachelomonas urceolata
v. *ovalis*
Trachelomonas verrucosa ?
Trachelomonas volvocina
Treubaria setigerum
Treubaria triappendiculata
Woloszynskia reticulata

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.

ERRATA

Minimum and evenness are misspelled in the computer printout of the species diversity and abundance indices data.

LAKE NAME: AMISTAD
STORET NUMBER: 4801

NYGAARD TROPHIC STATE INDICES

DATE	03 05 74	05 15 74	08 07 74	10 29 74
MYXOPHYCEAN	03/0 E	01/0 E	1.50 E	1.67 E
CHLOROPHYCEAN	03/0 E	06/0 E	2.50 E	3.00 E
EUGLENOPHYTE	0/06 ?	0/07 ?	0.25 E	0.07 ?
DIATOM	0.50 E	0/05 ?	0.33 E	0.67 E
COMPOUND	07/0 E	07/0 E	5.50 E	5.67 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 05 74	05 15 74	06 07 74	10 29 74
GENUS	01	00	08	00
SPECIES	00	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 05 74	05 15 74	08 07 74	10 29 74
AVERAGE DIVERSITY	H	2.35	2.63	2.71	2.71
NUMBER OF TAXA	S	14.00	20.00	26.00	29.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	5.00	5.00	5.00
MAXIMUM DIVERSITY	MAXH	3.81	4.32	4.70	4.86
MINUMUM DIVERSITY	MINH	0.19	0.43	0.16	1.90
TOTAL DIVERSITY	D	1741.35	1194.02	5197.78	325.20
TOTAL NUMBER OF INDIVIDUALS/ML	N	741.00	454.00	1918.00	120.00
EVENESS COMPONENT	J	0.62	0.61	0.58	0.56
RELATIVE EVENESS	RJ	0.60	0.57	0.57	0.28
MEAN NUMBER OF INDIVIDUALS/TAXA	L	52.93	22.70	73.77	4.14
NUMBER/ML OF MOST ABUNDANT TAXON	K	262.00	161.00	739.00	30.00

LAKE NAME: AMISTAD
STORET NUMBER: 4801

CONTINUED

TAXA	FORM	03 05 74 IS	03 05 74 %C	03 05 74 ALGAL UNITS PER ML	05 15 74 IS	05 15 74 %C	05 15 74 ALGAL UNITS PER ML	08 07 74 IS	08 07 74 %C	08 07 74 ALGAL UNITS PER ML	10 29 74 IS	10 29 74 %C	10 29 74 ALGAL UNITS PER ML
APHANIZOMENON FLOS-AQUAE	FIL									X			
CARTERIA	CEL									X			
CENTRIC DIATOM	CEL							151	5.3	101			
CERATIUM HIRUNDINELLA	CEL												X
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL						X			X			
CHLAMYDOMONAS	CEL	151	5.9	44									
CHROOMONAS	CEL	13	23.5	174		8.8	40	14	19.3	370	14	16.7	20
CHRYSOPHYTAN FLAGELLATE	CEL												X
CLOSTERIUM	CEL												X
COCCOID CELL	CEL												X
COELASTRUM CAMBRICUM	COL	14	11.7	87			X				11	25.0	30
COELASTRUM MICROPORUM	COL			X			X			X			X
COELASTRUM SPP.	COL				11	35.5	161						
COELOSPHAERIUM	COL												X
COSMARIUM	CEL									X			X
CRYPTOMONAS EROSA	CEL	12	11.7	87	12	23.6	107				12	16.7	20
CRYPTOMONAS EROSA ?	CEL								3.5	67			
CYANOPHYTAN FILAMENT	FIL											8.3	10
CYCLOTELLA	CEL		11.7	87									
CYMBELLA	CEL						X						
CYMBELLA AFFINIS	CEL			X									
CYST	CEL												X
CYSTS	CEL	11	35.4	262									
DACTYLOCOCCOPSIS	CEL			X									
DINOBRYON SERTULARIA	CEL				13	8.8	40		1.8	34			
DINOBRYON SOCIALE V. AMERICANUM	CEL						X						
ELAKATOTHRIX GELATINOSA	CEL						X						
EUASTRUM DENTICULATUM ?	CEL									X			
EUGLENA OXYURIS	CEL								1.8	34			X
FLAGELLATE	CEL									X			
FRAGILARIA CROTONENSIS	CEL				14	6.8	40						X
GYMNODINIUM ALBULUM	CEL					2.9	13						
GYMNODINIUM ORDINATUM	CEL			X					1.8	34			
MELOSIRA GRANULATA	CEL										13	16.7	20
MERISMOPEDIA	COL												X
MERISMOPEDIA PUNCTATA	COL			X									
MICROCYSTIS AERUGINOSA	COL					2.9	13						X
MOUGEOTIA	CEL								1.8	34			
NAVICULA	CEL							11	38.5	739			
NAVICULA #1	CEL			X									
NITZSCHIA #1	CEL						X						
OOCYSTIS ?	CEL						X						
OOCYSTIS BORGEI	CEL			X									
OSCILLATORIA	FIL							13	14.0	269			X
PEDIASTRUM DUPLEX V. CLATHRATUM	COL												X
PEDIASTRUM SIMPLEX	COL						X						X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL									X			
PERIDINIUM	CEL						X	12	8.8	168			
PERIDINIUM QUADRIDENS	CEL								1.8	34			
PHACUS MEGALOPSIS	CEL									X			
PHORMIDIUM	FIL			X									
SCENEDESMUS	COL									X			
SCENEDESMUS BIJUGA	COL										15	8.3	10
SCENEDESMUS DIMORPHUS	COL												X
SCENEDESMUS QUADRICAUDA	COL								1.8	34			
SPHAEROCYSTIS ? SCHROETERI	COL												X
SPIRULINA	FIL									X			
STAURASTRUM	CEL												X
STEPHANODISCUS	CEL												X
SYNEDRA	CEL					2.9	13			X			X
SYNEDRA #1	CEL									X			
TABELLARIA FENESTRATA	CEL						X						X
TETRAEDRON GRACILE	CEL												X
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL				15	5.9	27			X		8.3	10
TOTAL				741			454			1918			120

LAKE NAME: BASTROP
STORET NUMBER: 4802

NYGAARD TROPHIC STATE INDICES

DATE	03 14 74	05 23 74	11 04 74
MYXOPHYCEAN	0/06 D	1.00 E	0.25 ?
CHLOROPHYCEAN	2.33 E	1.83 E	1.25 E
EUGLENOPHYTE	0.21 E	0/17 ?	0.17 ?
DIATOM	0.40 E	0.14 ?	0/05 ?
COMPOUND	3.17 E	3.00 E	1.75 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 14 74	05 23 74	11 04 74
GENUS	04	07	00
SPECIES	04	03	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 14 74	05 23 74	11 04 74
AVERAGE DIVERSITY	H	3.01	3.16	1.57
NUMBER OF TAXA	S	35.00	35.00	19.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	5.13	5.13	4.25
MINUMUM DIVERSITY	MINH	0.19	0.14	0.19
TOTAL DIVERSITY	D	6901.93	10257.36	1698.74
TOTAL NUMBER OF INDIVIDUALS/ML	N	2293.00	3246.00	1082.00
EVENESS COMPONENT	J	0.59	0.62	0.37
RELATIVE EVENESS	RJ	0.56	0.61	0.34
MEAN NUMBER OF INDIVIDUALS/TAXA	L	65.51	92.74	56.95
NUMBER/ML OF MOST ABUNDANT TAXON	K	834.00	827.00	690.00

LAKE NAME: EASTROP
STORET NUMBER: 4802

CONTINUED

TAXA	FORM	03 14 74 IS	03 14 74 %C	03 14 74 ALGAL UNITS PER ML	05 23 74 IS	05 23 74 %C	05 23 74 ALGAL UNITS PER ML	11 04 74 IS	11 04 74 %C	11 04 74 ALGAL UNITS PER ML
ANABAENA	FIL					1.9	61			
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL					2.6	92			
APHANOCAPSA	CEL						X			
BOTRYOCOCCUS BRAUNII	COL			X						
CENTRIC DIATOM	CEL						X			
CERATIUM HIRUNDINELLA V. BRACHYCERAS	CEL						X			
CHLOROPHYTAN FILAMENT #1	FIL			X						
CHROOMONAS ACUTA	CEL	14	12.1	278		6.6	214	12	63.8	690
CLOSTERIUM	CEL			X						
COCCONEIS	CEL									X
COCCONEIS PLACENTULA	CEL			X						
COELASTRUM RETICULATUM	COL	5	4.1	93						
COSMARIUM	CEL					1.9	61			
COSMARIUM #1	CEL						X			X
COSMARIUM #2	CEL			X						
COSMARIUM #3	CEL			X						
CRYPTOMONAS	CEL							1	21.7	235
CRYPTOMONAS EROSA	CEL	3	10.1	232						X
ELAKATOTHRIX	CEL						X			
EPITHEMIA	CEL			X			X			X
FRAGILARIA CROTONENSIS	CEL					1.9	61			
FRANCEIA DROESCHERI	CEL		1.0	23						
GLENODINIUM OCULATUM	CEL		1.0	23						
GYROSIGMA ?	CEL						X			
KENTROSPHAERA	CEL						X			
LAGERHEIMIA SUBSALSA	CEL						X			
MELOSIRA VARIANS	CEL			X						
MERISMOPEDIA TENUISSIMA	COL				14	19.9	643			
MESOSTIGMA VIRIDIS	CEL		1.0	23						
MOUGEOTIA	FIL						X			
NITZSCHIA	CEL								2.9	31
OOCYSTIS	CEL					1.9	61			X
OOCYSTIS GLOEOCYSTIFORMIS ?	CEL	12	16.2	371						
OSCILLATORIA	FIL									X
OSCILLATORIA #1	FIL						X			
OSCILLATORIA LIMNETICA	FIL				12	13.2	429			
OSCILLATORIA SUBTILISSIMA ?	FIL				5	7.5	245			
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL	1	36.4	834	1	10.4	337	3	5.8	63
PEDIASTRUM TETRAS	COL			X						X
PENNATE DIATOM	CEL		2.0	46						
PENNATE DIATOM #1	CEL						X			
PENNATE DIATOM #2	CEL						X			
PENNATE DIATOM #3	CEL			X						
PENNATE DIATOM #4	CEL						X			
PENNATE DIATOMS	CEL				3	25.5	827			
PERIDINIUM INCONSPICUUM	CEL					1.9	61			
PHACUS	CEL			X						
PHACUS CURVICAUDA	CEL			X						
PHACUS HELIKOIDES	CEL			X						
RHOPALODIA GIBBA	CEL									X
SCENEDESMUS	COL		1.0	23						
SCENEDESMUS ABUNDANS	COL			X						
SCENEDESMUS DENTICULATUS	COL					1.	31			
SCENEDESMUS DIMORPHUS	COL		1.0	23						X
SCENEDESMUS QUADRICAUDA	COL		6.1	139						
SCHROEDERIA SETIGERA	CEL			X						
SPHAEROCYSTIS ? SCHROETERI	COL			X						
STAURASTRUM #1	CEL									X
STAURASTRUM #2	CEL						X			X
STAURASTRUM #3	CEL			X			X	14	1.5	16
STAURASTRUM LAEVE	CEL		1.0	23			X			
STAURASTRUM TETRACERUM	CEL		1.0	23			X			
STEPHANODISCUS	CEL		1.0	23						
SYNEDRA	CEL			X						X
TETRAEDRON GRACILE	CEL						X			
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL		3.1	70		3.8	123			
TETRAEDRON PENTAEDRICUM	CEL		2.0	46			X	15	4.3	47
TRACHELOMONAS	CEL									X
TREUBARIA	CEL						X			
TOTAL				2293			3246			1082

LAKE NAME: BELTON
STORET NUMBER: 4803

NYGAARD TROPHIC STATE INDICES

DATE	03 13 74	05 20 74	08 14 74	11 01 74
MYXOPHYCEAN	2.00 E	4.00 E	4.00 E	3.50 E
CHLOROPHYCEAN	7.00 E	8.00 E	2.67 E	4.50 E
EUGLENOPHYTE	0.11 ?	0/12 ?	0.25 E	0.31 E
DIATOM	1.00 E	2.00 E	0.33 E	3.00 E
COMPOUND	11.0 E	14.0 E	8.67 E	12.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 13 74	05 20 74	08 14 74	11 01 74
GENUS	04	01	05	05
SPECIES	00	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 13 74	05 20 74	08 14 74	11 01 74
AVERAGE DIVERSITY	H	1.64	2.96	3.08	3.13
NUMBER OF TAXA	S	16.00	26.00	39.00	35.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	4.00	4.70	5.29	5.13
MINUMUM DIVERSITY	MINH	0.21	0.07	0.20	0.18
TOTAL DIVERSITY	D	1326.76	15587.36	7499.80	7446.27
TOTAL NUMBER OF INDIVIDUALS/ML	N	809.00	5266.00	2435.00	2379.00
EVENESS COMPONENT	J	0.41	0.63	0.58	0.61
RELATIVE EVENESS	RJ	0.38	0.63	0.57	0.60
MEAN NUMBER OF INDIVIDUALS/TAXA	L	50.56	202.54	62.44	67.97
NUMBER/ML OF MOST ABUNDANT TAXON	K	539.00	2057.00	865.00	499.00

LAKE NAME: BELTON
STORET NUMBER: 4803

CONTINUED

TAXA	FORM	05 13 74 IS	05 13 74 %C	05 13 74 ALGAL UNITS PER ML	05 20 74 IS	05 20 74 %C	05 20 74 ALGAL UNITS PER ML	06 14 74 IS	06 14 74 %C	06 14 74 ALGAL UNITS PER ML	11 01 74 IS	11 01 74 %C	11 01 74 ALGAL UNITS PER ML
ANABAENA	FIL				12	1.9	100						X
ANABAENA #1	FIL									X			
ANABAENA #2	FIL									X			
ANABAENOPSIS	FIL							2	18.2	442	11	16.1	384
ANABAENOPSIS RACIBORSKII	FIL									X			
ANKISTRODESMUS FALCATUS	CEL												X
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL									X		1.6	38
APHANIZOMENON FLOS-AQUAE	FIL									X			
CARTERIA	CEL							4	7.6	184		1.6	38
CENTRIC DIATOM	CEL								4.6	111		1.6	38
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL						X	5	1.5	37			X
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL						X						
CHROOMONAS	CEL					7.6	401						
CHROOMONAS ACUTA	CEL	11	66.6	539							2	21.0	499
CLUSTERIUM	CEL								1.5	37			X
COELASTRUM MICROPORUM	COL					0.9	50						X
COELASTRUM MORUS	COL			X									X
COELASTRUM RETICULATUM	COL				11	9.5	502						
COSMARIUM	CEL									X			
CRUCIGENIA TETRAPEDIA	COL			X		0.9	50		1.5	37			
CRYPTOMONAS EROSA	CEL				4	7.6	401		1.5	37			X
CRYPTOMONAS MARSSONII	CEL	5	4.2	34		0.9	50						
CRYPTOMONAS REFLEXA	CEL	2	12.5	101						X			X
CRYPTOMONAS SPP.	CEL											1.6	38
CYANOPHYTAN FILAMENT	FIL					0.9	50						
DACTYLOCOCCOPSIS	CEL								4.6	111		11.3	269
DINOBRYON BAVARICUM	CEL												X
DINOBRYON SOCIALE	CEL					8.6	452						
DINOFLAGELLATE CYST	CEL					0.9	50						
ELAKATOTHRIX	CEL						X						
EUGLENA	CEL									X			
EUGLENA SPATHIRHYNCHA	CEL												X
GYMNODINIUM ORDINATUM	CEL									X			
KIRCHNERIELLA	CEL					0.9	50						
LAGERHEIMIA	CEL												X
LYNGBYA	FIL								1.5	37			X
MALLOMONAS CAUDATA ?	CEL						X						
MALLOMONAS PSEUDOCORONATA ?	CEL					0.9	50			X			
MELOSIRA GRANULATA	CEL			X			X						X
MERISMOPEDIA MINIMA	COL			X					3.0	74	3	19.4	461
MERISMOPEDIA TROLLERI	COL									X			
MESOSTIGMA VIRIDIS	CEL												X
MICROCYSTIS	COL			X									
MICROCYSTIS ?	COL					14.3	753						
MICROCYSTIS AERUGINOSA	COL				5	1.9	100			X			
OOCYSTIS	CEL			X	3	39.1	2057			X			
OSCILLATORIA	FIL							13	9.1	221	14	6.5	154
PEDIASTRUM DUPLEX V. DUODENARIUM	COL												X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL						X		1.5	37			
PENNATE DIATOM	CEL					1.9	100				5	8.1	192
PENNATE DIATOM #1	CEL		4.2	34					3.0	74			
PENNATE DIATOM #2	CEL								3.0	74			
PERIDINIUM QUADRIDENS	CEL									X			
PHACUS	CEL			X									
PHACUS #1	CEL									X			X
PHACUS LONGICAUDA	CEL									X			
RAPHIDIOPSIS CURVATA	FIL							13	36.3	885		8.1	192
RHIZOSOLENIA	CEL												X
SCENEDESMUS	COL	3	8.3	67									
SCENEDESMUS BICAUDATUS	COL											1.6	38
SCENEDESMUS DIMORPHUS	COL												X
SCHROEDERIA SETIGERA	CEL								1.5	37			
SPHAEROCYSTIS SCHROETERI	COL	4	4.2	34									
STAURASTRUM #1	CEL			X									
STAURASTRUM #2	CEL						X						
STAURASTRUM TETRACERUM	CEL									X			X
STEPHANODISCUS ASTRAEA	CEL					0.9	50						
SYNEDRA ACUS	CEL									X			
TETRAEDRON CAUDATUM	CEL			X						X			
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL			X			X			X		1.6	38
TETRASTRUM STAUROGENIAEFORME	COL									X			
TRACHELOMONAS #1	CEL												X
TRACHELOMONAS #2	CEL									X			X
TRACHELOMONAS INTERMEDIA	CEL									X			
TRACHELOMONAS URCEOLATA	CEL												X
WOLOSZYNSKIA	CEL						X						
TOTAL				809			5266			2435			2379

LAKE NAME: LAKE BRAUNIG
STORET NUMBER: 4604

NYGAARD TROPHIC STATE INDICES

DATE	03 12 74	05 21 74	08 14 74	11 05 74
MYXOPHYCEAN	2.50 E	4.00 E	7.00 E	6.00 E
CHLOROPHYCEAN	5.50 E	20.0 E	22.0 E	19.0 E
EUGLENOPHYTE	0/16 ?	0/24 ?	0.07 ?	0.04 ?
DIATOM	0.50 E	1.00 E	0.50 E	1.00 E
COMPOUND	8.50 E	25.0 E	32.0 E	28.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 12 74	05 21 74	08 14 74	11 05 74
GENUS	07	14	14	14
SPECIES	00	03	07	07

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 12 74	05 21 74	08 14 74	11 05 74
AVERAGE DIVERSITY	H	2.62	3.65	3.78	3.16
NUMBER OF TAXA	S	23.00	32.00	46.00	38.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	4.52	5.00	5.52	5.25
MINIMUM DIVERSITY	MINH	0.02	0.11	0.06	0.06
TOTAL DIVERSITY	D	56392.88	13552.45	41107.50	29643.96
TOTAL NUMBER OF INDIVIDUALS/ML	N	21524.00	3713.00	10875.00	9381.00
EVENESS COMPONENT	J	0.58	0.73	0.68	0.60
RELATIVE EVENESS	RJ	0.58	0.73	0.69	0.60
MEAN NUMBER OF INDIVIDUALS/TAXA	L	935.83	116.03	236.41	246.87
NUMBER/ML OF MOST ABUNDANT TAXON	K	7060.00	654.00	3480.00	4143.00

LAKE NAME: LAKE BRAUNIC
STORET NUMBER: 4604

CONTINUED

TAXA	FORM	03 12 74 IS	03 12 74 %C	03 12 74 ALGAL UNITS PER ML	05 21 74 IS	05 21 74 %C	05 21 74 ALGAL UNITS PER ML	08 14 74 IS	08 14 74 %C	08 14 74 ALGAL UNITS PER ML	11 05 74 IS	11 05 74 %C	11 05 74 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII V. FLUVIATILE	COL											0.6	53
AMPHORA	CEL												
ANABAENOPSIS ELENKINII	FIL			X						X		0.9	80
ANKISTRODESMUS FALCATUS	CEL			X		1.9	69		1.1	125		0.9	80
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL								2.6	282			
CARTERIA KLEBSII	CEL							5	2.9	314			
CENTRIC DIATOM	CEL	2	32.8	7060				1	32.0	3480		6.0	561
CHLAMYDOMONAS	CEL									X			X
CHLOROCOCCALEAN COCCOID CELL	CEL							2	13.8	1505			
CHLOROGONIUM	CEL								1.7	188		0.6	53
CHLOROPHYTAN COCCOID CELL	CEL				3	14.8	551			X	2	6.8	642
CHROOCOCCUS	COL									X			
CHROOMONAS	CEL		0.3	69					2.0	219			
COELASTRUM MICROPORUM	COL			X									
COELASTRUM RETICULATUM	COL					1.9	69		1.1	125			X
COELASTRUM SPHAERICUM	COL									X		0.3	27
COSCINODISCUS	CEL												X
COSMARIUM	CEL		1.0	206									
COSMARIUM #1	CEL			X			X		0.9	94		0.6	53
CRUCIGENIA APICULATA	COL						X						
CRYPTOMONAS	CEL					0.9	34		2.6	282		1.7	160
CYMBELLA	CEL												X
DACTYLOCOCCOPSIS	CEL		10.2	2193		5.5	206		1.4	157	4	9.7	909
DICTYOSPHAERIUM PULCHELLUM	COL					2.8	103						X
DINOFLAGELLATE	CEL												X
ELAKATOTHRIX GELATINOSA	COL			X								0.3	27
EUGLENA	CEL									X		0.3	27
FLAGELLATE	CEL					5.5	206					0.6	53
GOLENKINIA	CEL						X		1.1	125			X
GYMNODINIUM ALBULUM	CEL		0.3	69									
GYMNODINIUM ORDINATUM	CEL						X						
GYROSIGMA ?	CEL			X									
KIRCHNERIELLA	CEL					0.9	34					0.9	80
LAGERHEIMIA SUESALSA	CEL									X			
LEPOCINCLIS	CEL									X			
LYNGBYA	FIL			X					0.6	63		6.0	561
MERISMOPEDIA GLAUCA	COL		0.6	137					0.3	31		0.6	53
MERISMOPEDIA TENUISSIMA	COL		11.8	2536			X		5.5	596	3	5.1	481
MESOSTIGMA VIRIDIS	CEL				1	11.1	413		0.3	31		0.3	27
NEPHROCYTIUM AGARDHIANUM	COL									X			
NITZSCHIA	CEL	1	26.8	5758	2	17.6	654		3.5	376		2.8	267
OOCYSTIS	CEL						X		0.3	31			
OSCILLATORIA #1	FIL						X						
OSCILLATORIA LIMNETICA	FIL				5	7.4	275	3	5.2	564	1	44.2	4143
PANDORINA MORUM	COL									X			
PEDIASTRUM BORYANUM	COL			X									
PEDIASTRUM BORYANUM V. PERFORATUM	COL			X									
PEDIASTRUM DUPLEX V. ?	COL									X			
PEDIASTRUM DUPLEX V. CLATHRATUM	COL						X						
PEDIASTRUM TETRAS V. TETRADON	COL						X		1.4	157			X
PERIDINIUM QUADRIDENS	CEL								0.3	31			
PERIDINIUM UMBONATUM	CEL									X			
PTEROMONAS ANGULOSA	CEL									X			
SCENEDESMUS ABUNDANS	COL	5	3.5	754		1.9	69		2.6	282	5	5.7	535
SCENEDESMUS BIJUGA	COL			X								0.6	53
SCENEDESMUS DENTICULATUS	COL					0.9	34		2.0	219			
SCENEDESMUS DIMORPHUS	COL	4	3.2	685		2.8	103		0.9	94		1.4	134
SCENEDESMUS INTERMEDIUS	COL												X
SCENEDESMUS PROTUBERANS	COL							4	6.6	721			
SCENEDESMUS QUADRICAUDA	COL					0.9	34		0.3	31		0.3	27
SCENEDESMUS QUADRICAUDA V. LONGISPINA F. ASYMETRICUS	COL											0.3	27
SCENEDESMUS QUADRICAUDA V. LONGISPINA F. ASYMMETRICUS	COL								3.5	376			
SCHROEDERIA SETIGERA	CEL					0.9	34		0.6	63		0.3	27
STEPHANODISCUS ?	CEL					7.4	275						
TETRAEDRON CAUDATUM V. LONGISPINUM	CEL		1.0	206			X						
TETRAEDRON MINIMUM	CEL						X						
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL	3	8.3	1782	4	13.0	482		0.9	94		1.4	134
TETRAEDRON MUTICUM	CEL					0.9	34		1.1	125		0.9	80
TETRASTRUM GLABRUM	COL		0.3	69									
TETRASTRUM STAUROGENIAEFORME	COL					0.9	34		0.6	63		0.3	27
TREUBARIA	CEL						X		0.3	31			
TOTAL				21524			3713			10875			9381

LAKE NAME: BROWNWOOD LAKE
STORET NUMBER: 4805

NYGAARD TROPHIC STATE INDICES

DATE	03 07 74	05 16 74	08 06 74	10 29 74
MYXOPHYCEAN	1.00 E	01/0 E	2.50 E	04/0 E
CHLOROPHYCEAN	6.00 E	03/0 E	1.00 E	07/0 E
EUGLENOPHYTE	0.57 E	1.75 E	0.71 E	0.45 E
DIATOM	0.14 ?	0.43 E	0/07 ?	2.00 E
COMPOUND	12.0 E	14/0 E	6.00 E	18/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 07 74	05 16 74	08 06 74	10 29 74
GENUS	05	16	15	05
SPECIES	03	00	- 00	02

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 07 74	05 16 74	08 06 74	10 29 74
AVERAGE DIVERSITY	H	2.72	3.16	2.78	3.22
NUMBER OF TAXA	S	24.00	24.00	25.00	27.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	4.58	4.58	4.64	4.75
MINUMUM DIVERSITY	MINH	0.19	0.14	0.08	0.29
TOTAL DIVERSITY	D	3827.04	6557.00	11097.76	3277.96
TOTAL NUMBER OF INDIVIDUALS/ML	N	1407.00	2075.00	3992.00	1018.00
EVENESS COMPONENT	J	0.59	0.69	0.60	0.68
RELATIVE EVENESS	RJ	0.58	0.69	0.60	0.66
MEAN NUMBER OF INDIVIDUALS/TAXA	L	58.63	86.46	159.68	37.70
NUMBER/ML OF MOST ABUNDANT TAXON	K	618.00	749.00	1277.00	204.00

LAKE NAME: BROWNWOOD LAKE
STORET NUMBER: 4805

CONTINUED

TAXA	FORM	03 07 74 IS	03 07 74 %C	03 07 74 ALGAL UNITS PER ML	05 16 74 IS	05 16 74 %C	05 16 74 ALGAL UNITS PER ML	06 06 74 IS	06 06 74 %C	06 06 74 ALGAL UNITS PER ML	10 29 74 IS	10 29 74 %C	10 29 74 ALGAL UNITS PER ML
ANABAENA	FIL												X
ANABAENOPSIS	FIL							14	5.0	200			
ANKISTRODESMUS FALCATUS	CEL			X								2.8	29
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL	12	9.7	137									
APHANIZOMENON FLOS-AQUAE	FIL												X
CARTERIA	CEL											2.8	29
CERATIUM HIRUNDINELLA	CEL									X			
CHLAMYDOMONAS	CEL				3	9.8	204				12	20.0	204
CHROOMONAS	CEL	11	43.9	618									
CHROOMONAS ACUTA	CEL				5	8.2	170				13	20.0	204
CHRYSOPHYTAN CELL #1	CEL										5	5.7	58
CLOSTERIUM	CEL		2.4	34						X			
COCCONEIS	CEL									X			
COCCONEIS PLACENTULA	CEL		2.4	34									
COELASTRUM MICROPORUM	COL												X
COELASTRUM RETICULATUM	COL					1.6	34						
CRUCIGENIA TETRAPEDIA	COL					1.6	34						
CRYPTOMONAS	CEL								8.0	319			
CRYPTOMONAS EROSA	CEL		7.3	103	11	11.5	238				13	20.0	204
CRYPTOMONAS MARSSONII	CEL			X									
CYCLOTELLA MENEGHINIANA	CEL						X						
CYCLOTELLA MENEGHINIANA ?	CEL											5.7	58
CYMBELLA AFFINIS	CEL			X									
CYMBELLA TURGIDA	CEL						X						
DINOBRYON DIVERGENS	CEL									X			
EUGLENA	CEL		2.4	34									X
EUGLENA #1	CEL					3.3	68			X			
EUGLENA #2	CEL			X		1.6	34						
EUGLENA #3	CEL						X						
EUGLENA ACUS	CEL			X									
EUGLENA EHRENBERGII ?	CEL									X			
FLAGELLATE #2	CEL	13	12.2	172									
GYMNODINIUM ORDINATUM	CEL										14	5.7	58
KIRCHNERIELLA	CEL											5.7	58
LYNGBYA	FIL		4.9	69	14	6.6	136	12	32.0	1277			
MELOSIRA #4	CEL					6.6	136						
MERISMOPEDIA	COL									X			
MERISMOPEDIA TENUISSIMA	COL												X
MESOSTIGMA VIRIDIS	CEL												X
NAVICULA	CEL					3.3	68						
NAVICULA #4	CEL									X			
NAVICULA #2	CEL								3.0	120			
NITZSCHIA #1	CEL	15	7.3	103	22	36.1	749	15	10.0	399			
NITZSCHIA #2	CEL					3.3	68						
NITZSCHIA #4	CEL		2.4	34		1.6	34						
NITZSCHIA ACICULARIS V. CLOSTERIOIDES	CEL									X			
NITZSCHIA HUNGARICA	CEL					3.3	68					2.8	29
NITZSCHIA SIGMA	CEL			X									
OOCYSTIS	CEL												X
OOCYSTIS BORGEI	CEL	14	4.9	69									
OSCILLATORIA	FIL							11	25.0	998		2.8	29
PEDIASTRUM SIMPLEX	COL						X						
PENNATE DIATOM #1	CEL			X									
PHACUS	CEL											2.8	29
PHACUS LONGICAUDA	CEL						X						
PHACUS MEGALOPSIS	CEL								1.0	40			X
PLEUROSIGMA	CEL						X			X			
PTEROMONAS	CEL									X			
PTEROMONAS ANGULOSA	CEL												X
RAPHIDIOPSIS	FIL							13	10.0	399			
RHOICOSPHENIA CURVATA	CEL									X			
SCENEDESMUS BIJUGA	COL								2.0	80			
SCENEDESMUS DIMORPHUS	COL												X
SCENEDESMUS QUADRICAUDA	COL			X									
SCHROEDERIA SETIGERA	CEL			X									
STAURASTRUM #1	CEL									X			
STEPHANODISCUS	CEL			X									X
STEPHANODISCUS ASTRAEA	CEL						X						
SYNEDRA	CEL			X									
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL								1.0	40			X
TETRASTRUM GLABRUM	COL			X									
TETRASTRUM STAUROGENIAEFORME	COL												X
TRACHELOMONAS BULLA ?	CEL												X
TRACHELOMONAS FLUVIATILIS	CEL			X			X		1.0	40			
TRACHELOMONAS INTERMEDIA	CEL					1.6	34		2.0	80		2.8	29
TRACHELOMONAS SCABRA	CEL						X						
TOTAL				1407			2075			3992			1018

LAKE NAME: LAKE Buchanan
STORET NUMBER: 4800

NYGAARD TROPHIC STATE INDICES

DATE	03 14 74	05 21 74	11 04 74
MYXOPHYCEAN	0170 E	0.50 E	1.50 E
CHLOROPHYCEAN	1670 E	3.50 E	5.50 E
EUGLENOPHYTE	0.29 E	0.19 ?	0.07 ?
DIATOM	0.50 E	0.17 ?	0.40 E
COMPOUND	2470 E	5.00 E	8.50 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 14 74	05 21 74	11 04 74
GENUS	18	10	15
SPECIES	07	04	04

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 14 74	05 21 74	11 04 74
AVERAGE DIVERSITY	H	3.67	3.42	2.66
NUMBER OF TAXA	S	34.00	36.00	29.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	5.09	5.17	4.86
MINIMUM DIVERSITY	MINH	0.07	0.23	0.17
TOTAL DIVERSITY	D	25557.88	6344.10	5437.04
TOTAL NUMBER OF INDIVIDUALS/ML	N	6964.00	1855.00	2044.00
EVENESS COMPONENT	J	0.72	0.66	0.55
RELATIVE EVENESS	RJ	0.72	0.65	0.54
MEAN NUMBER OF INDIVIDUALS/TAXA	L	204.82	51.53	70.48
NUMBER/ML OF MOST ABUNDANT TAXON	K	1462.00	453.00	990.00

LAKE NAME: LAKE Buchanan
STORET NUMBER: 4606

CONTINUED

TAXA	FORM	03 14 74 IS	03 14 74 %C	03 14 74 ALGAL UNITS PER ML	05 21 74 IS	05 21 74 %C	05 21 74 ALGAL UNITS PER ML	11 04 74 IS	11 04 74 %C	11 04 74 ALGAL UNITS PER ML
ANABAENA	FIL						X			
ANKISTRODESMUS FALCATUS	CEL		2.8	198					6.1	124
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL		2.8	198						
APHANIZOMENON FLOS-AQUAE	FIL									X
BOTRYOCOCCUS	COL						X			
CARTERIA	CEL			X			X			
CENTRIC DIATOM	CEL		12.1	840						
CHLAMYDOMONAS	CEL	5	7.1	494						
CHLOROGONIUM	CEL			X						
CHROOMONAS ACUTA	CEL	11	21.3	1482	3	14.7	272			
CHRYSOPHYTAN CELL	CEL									X
CLOSTERIUM #1	CEL					2.4	45			
CLOSTERIUM #2	CEL						X	5	3.0	62
COELASTRUM MICROPORUM	COL		0.7	49		2.4	45			X
COSMARIUM #2	CEL						X			
COSMARIUM CLEPSYDRA V. NANUM	CEL					2.4	45			
CRUCIGENIA TETRAPEDIA	COL			X						
CRYPTOMONAS EROSA	CEL	2	7.6	543	2	9.8	181	2	6.1	124
CYMBELLA	CEL						X			
DACTYLOCOCCOPSIS	CEL					2.4	45			
DICTYOSPHAERIUM PULCHELLUM	COL			X			X			
DIPLONEIS	CEL			X						X
DIPLONEIS PUELLA	CEL						X			
EUGLENA #2	CEL		1.4	99						
EUGLENA GRACILIS	CEL			X				3	3.0	62
FLAGELLATE #3	CEL							11	46.4	990
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL						X			X
GLENODINIUM OCULATUM	CEL									X
GYMNODINIUM ORDINATUM	CEL						X			
GYROSIGMA	CEL						X			
LYNGBYA	FIL									X
MERISMOPEDIA MINIMA	COL								3.0	62
MERISMOPEDIA TENUISSIMA	COL			X						
MESOSTIGMA VIRIDIS	CEL		1.4	99			X			
NAVICULA #1	CEL			X		4.9	91	14	6.1	124
NAVICULA #2	CEL									X
NEPHROCYTIUM	COL								3.0	62
NITZSCHIA	CEL									X
NITZSCHIA #1	CEL			X						
NITZSCHIA #2	CEL	3	12.8	869	4	9.8	181			
OOCYSTIS	CEL		6.4	445			X			
PEDIASTRUM BORYANUM	COL		0.7	49						
PEDIASTRUM SIMPLEX	COL						X			
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL					2.4	45			X
PEDIASTRUM TETRAS V. TETRADON	COL						X			X
PHACUS	CEL			X						
PHACUS MEGALOPSIS	CEL		0.7	49			X			
SCENEDESMUS ABUNDANS	COL		1.4	99		2.4	45		6.1	124
SCENEDESMUS BERNARDII	COL		1.4	99						
SCENEDESMUS BICAUDATUS	COL									X
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL		0.7	49		2.4	45			
SCENEDESMUS DENTICULATUS	COL						X			
SCENEDESMUS DIMORPHUS	COL		2.8	198			X			X
SCENEDESMUS INTERMEDIUS	COL		0.7	49						
SCENEDESMUS OPOLIENSIS	COL					2.4	45			
SCENEDESMUS QUADRICAUDA	COL	4	11.3	790	5	9.8	181			
STAURASTRUM LEPTOCLADUM	CEL									X
STEPHANODISCUS #1	CEL		1.4	99		7.3	136			X
STEPHANODISCUS #2	CEL								9.1	186
SURIRELLA	CEL						X			
SYNEDRA #2	CEL									X
TETRAEDRON CAUDATUM	CEL		0.7	49						
TETRAEDRON GRACILE	CEL									X
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL		0.7	49	1	24.4	453		6.1	124
TETRASTRUM STAUROGENIAEFORME	COL		0.7	49						X
TRACHELOMONAS FLUVIATILIS	CEL			X			X			
TRACHELOMONAS INTERMEDIA	CEL						X			
TOTAL				6964			1855			2044

LAKE NAME: CALAVERAS LAKE
STORET NUMBER: 4808

NYGAARD TROPHIC STATE INDICES

DATE	03 13 74	05 23 74	08 16 74	11 05 74
MYXOPHYCEAN	3.00 E	5.00 E	11.0 E	4.00 E
CHLOROPHYCEAN	17.0 E	8.50 E	19.0 E	7.00 E
EUGLENOPHYTE	0/20 ?	0/27 ?	0.13 ?	0.05 ?
DIATOM	0.67 E	0.80 E	0.33 E	0.50 E
COMPOUND	24.0 E	15.5 E	35.0 E	12.5 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 13 74	05 23 74	08 16 74	11 05 74
GENUS	18	23	17	13
SPECIES	07	07	07	04

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 13 74	05 23 74	08 16 74	11 05 74
AVERAGE DIVERSITY	H	4.10	4.31	4.23	2.46
NUMBER OF TAXA	S	38.00	45.00	48.00	37.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	5.25	5.49	5.58	5.21
MINIMUM DIVERSITY	MINH	0.03	0.05	0.04	0.04
TOTAL DIVERSITY	D	82820.00	57969.50	70048.80	37888.92
TOTAL NUMBER OF INDIVIDUALS/ML	N	20200.00	13450.00	16560.00	15402.00
EVENESS COMPONENT	J	0.76	0.79	0.76	0.47
RELATIVE EVENESS	RJ	0.78	0.79	0.76	0.47
MEAN NUMBER OF INDIVIDUALS/TAXA	L	531.58	298.89	345.00	416.27
NUMBER/ML OF MOST ABUNDANT TAXON	K	3032.00	3190.00	2950.00	7756.00

LAKE NAME: CALAVERAS LAKE
STORET NUMBER: 4608

CONTINUED

TAXA	FORM	03 13 74 IS	03 13 74 %C	03 13 74 ALGAL UNITS PER ML	05 23 74 IS	05 23 74 %C	05 23 74 ALGAL UNITS PER ML	08 16 74 IS	08 16 74 %C	08 16 74 ALGAL UNITS PER ML	11 05 74 IS	11 05 74 %C	11 05 74 ALGAL UNITS PER ML
ANABAENA	FIL									X			
ANABAENOPSIS	FIL												X
ANABAENOPSIS CIRCULARIS	FIL					1.0	139						
ANABAENOPSIS CIRCULARIS ?	FIL							3	4.5	738			
ANABAENOPSIS ELENKINII	FIL												X
ANABAENOPSIS PHILIPPINENSIS	FIL				1	5.2	694	5	2.2	369			
ANKISTRODESMUS FALCATUS	CEL								2.5	406		0.2	36
ANKISTRODESMUS FALCATUS V. ACICULARIS	CEL		3.1	635									
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL					1.4	185						
CENTRIC DIATOM	CEL										3	6.1	938
CHLAMYDOMONAS	CEL		0.7	147		3.1	416						
CHLOROGONIUM	CEL			X		0.7	92		3.1	516			
CHLOROPHYTAN COCCOID CELLS	CEL												X
CHLOROPHYTAN COLONY #1	COL								0.9	148			
CHLOROPHYTAN FLAGELLATES	CEL								5.8	959			
CHROOCOCCUS	COL					0.3	46		2.7	443			
CHROOMONAS	CEL								2.2	369			
CHROOMONAS ACUTA	CEL	2	12.8	2592		1.7	231						
COELASTRUM MICROPORUM	COL												X
COSMARIUM	CEL			X			X		0.9	148		0.7	108
COSMARIUM #1	CEL												X
CRUCIGENIA TETRAPEDIA	COL		1.7	342								0.7	108
CRYPTOMONAS	CEL								2.0	332			
CRYPTOMONAS EROSA	CEL	1	6.5	1320		2.8	370					0.5	72
CRYPTOMONAS EROSA V. REFLEXA	CEL		0.2	49									
CRYPTOMONAS REFLEXA	CEL								0.2	37			
CYCLOTELLA	CEL		2.7	538		4.6	647						
DACTYLOCOCCOPSIS	CEL	4	11.4	2298	13	23.7	3190				2	21.3	3283
DICTYOSPHAERIUM PULCHELLUM	COL		0.7	147									X
DINOFLAGELLATE CYST	CEL								0.2	37			
ELAKATOTHRIX GELATINOSA	COL											0.7	108
EUASTRUM DENTICULATUM	CEL						X						
EUGLENA #1	CEL								0.2	37			
EUGLENA #2	CEL									X			
EUGLENA #3	CEL									X			
EUGLENA GRACILIS	CEL												X
FLAGELLATE #2	CEL		6.3	1272		1.7	231						
FRANCEIA	CEL		0.2	49		0.7	92						
GLENODINIUM GYMNODINIUM	CEL								0.7	111			
GYROSIGMA ?	CEL												X
KIRCHNERIELLA	CEL		3.9	782		1.4	185						
KIRCHNERIELLA ?	COL								1.1	184			
LAGERHEIMIA SUBSALSA	CEL								0.2	37			
LEPOCINCLIS	CEL								0.4	74			
LYNGBYA	FIL					3.4	462	12	14.5	2397			
MALLOMONAS ?	CEL					0.3	46						
MELOSIRA #4	CEL											0.9	144
MELOSIRA DISTANS	CEL		6.3	1272		5.5	740		4.2	701			
MELOSIRA GRANULATA	CEL					0.7	92						
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL			X									
MERISMOPEDIA MINIMA	COL		15.0	3032		6.5	879		5.1	848			
MERISMOPEDIA TENUISSIMA	COL					1.7	231		2.2	369		3.5	541
MICROCYSTIS INCERTA	COL		3.4	685		0.3	46		2.5	406		0.2	36
NAVICULA	CEL						X						
NAVICULA #2	CEL									X			
NITZSCHIA #1	CEL		7.3	1467	4	6.2	832					2.1	325
NITZSCHIA #2	CEL					2.8	370			X			X
NITZSCHIA #4	CEL			X									
NITZSCHIA HOLSATICA	CEL		1.0	196									
NITZSCHIA SPP.	CEL								4.7	774			
OOCYSTIS	CEL								0.7	111			
OOCYSTIS SUBMARINA	COL		0.2	49		1.0	139						
OSCILLATORIA	FIL				2	7.6	1017	1	17.8	2950			X
OSCILLATORIA LIMNETICA	FIL										1	50.4	7756
PEDIASTRUM BORYANUM	COL						X						
PEDIASTRUM DUPLEX	COL												X
PEDIASTRUM DUPLEX V. CLATHRATUM	COL									X			
PEDIASTRUM SIMPLEX	COL									X			X
PEDIASTRUM TETRAS V. TETRADON	COL		0.5	98			X						X
PENNATE DIATOM	CEL		0.2	49									
PENNATE DIATOMS	CEL										1	3.7	577
PERIDINIUM INCONSPICUUM	CEL												X
PERIDINIUM PUSILLUM	CEL									X			
PERIDINIUM QUADRIDENS	CEL					0.7	92						X

LAKE NAME: CALAVERAS LAKE
STORET NUMBER: 4608

CONTINUED

TAXA	FORM	03 13 74 IS	03 13 74 %C	03 13 74 ALGAL UNITS PER ML	05 23 74 IS	05 23 74 %C	05 23 74 ALGAL UNITS PER ML	08 16 74 IS	08 16 74 %C	08 16 74 ALGAL UNITS PER ML	11 05 74 IS	11 05 74 %C	11 05 74 ALGAL UNITS PER ML
PERIDINIUM UMBONATUM	CEL			X									X
RAPHIDIOPSIS	FIL					2.4	324	14	10.2	1696	14	4.2	649
SCENEDESMUS ABUNDANS	COL		1.0	196			X		1.1	184			
SCENEDESMUS ACUTIFORMIS	COL									X			
SCENEDESMUS BICAUDATUS	COL					0.7	92		0.7	111			
SCENEDESMUS BIJUGA	COL		0.7	147									
SCENEDESMUS DENTICULATUS	COL									X			X
SCENEDESMUS DENTICULATUS V. LINEARIS	COL						X						
SCENEDESMUS DIMORPHUS	COL		0.2	49					1.1	184			X
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL											1.2	180
SCENEDESMUS QUADRICAUDA	COL	5	2.7	538		1.0	139		0.4	74		2.1	325
SCHROEDERIA SETIGERA	CEL	3	5.1	1027	5	3.4	462		1.1	184			
SPERMATAZOOPSIS EXULTANS ?	CEL											0.9	144
SPIRULINA	FIL								0.2	37			
STEPHANODISCUS	CEL		0.7	147		1.7	231						
SURIRELLA #3	CEL			X			X						
SYNEDRA	CEL		1.2	245		1.4	185						
TETRAEDRON CAUDATUM V. LONGISPINUM	CEL								1.1	184			
TETRAEDRON GRACILE	CEL						X						
TETRAEDRON MINIMUM	CEL					0.3	46		1.3	221		0.2	36
TETRAEDRON MINIMUM V. SCRUBICULATUM	CEL		1.0	196		0.7	92						
TETRAEDRON MUTICUM	CEL								1.1	184		0.2	36
TETRAEDRON TRIGONUM	CEL		0.5	98		0.7	92			X			
TETRASTRUM GLABRUM	COL		0.5	98		2.1	277						
TETRASTRUM STAURODENIAEFORME	COL		2.2	440		0.3	46			X			
TREUBARIA SETIGERUM	CEL			X						X			
TOTAL				20200			13450			16560			15402

LAKE NAME: CANYON RES.
STORET NUMBER: 4809

NYGAARD TROPHIC STATE INDICES

DATE	03 13 74	05 22 74	08 15 74	11 05 74
MYXOPHYCEAN	01/0 E	0/0 D	03/0 E	01/0 E
CHLOROPHYCEAN	01/0 E	04/0 E	02/0 E	05/0 E
EUGLENOPHYTE	0/02 ?	0.25 E	0.20 ?	0.17 ?
DIATOM	0.25 ?	0.33 E	0.25 ?	0.33 E
COMPOUND	03/0 E	06/0 E	07/0 E	08/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 13 74	05 22 74	08 15 74	11 05 74
GENUS	00	01	10	06
SPECIES	00	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 13 74	05 22 74	08 15 74	11 05 74
AVERAGE DIVERSITY	H	1.05	2.40	2.99	2.13
NUMBER OF TAXA	S	13.00	17.00	14.00	18.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	3.70	4.09	3.81	4.17
MINUMUM DIVERSITY	MINH	0.42	0.17	0.11	0.16
TOTAL DIVERSITY	D	287.70	2606.40	4030.52	2630.55
TOTAL NUMBER OF INDIVIDUALS/ML	N	274.00	1086.00	1348.00	1235.00
EVENESS COMPONENT	J	0.28	0.59	0.78	0.51
RELATIVE EVENESS	RJ	0.20	0.57	0.78	0.50
MEAN NUMBER OF INDIVIDUALS/TAXA	L	21.08	63.88	96.29	68.61
NUMBER/ML OF MOST ABUNDANT TAXON	K	217.00	494.00	345.00	686.00

LAKE NAME: CANYON RES.
STORET NUMBER: 4809

CONTINUED

TAXA	FORM	03 13 74 IS	03 13 74 %C	03 13 74 ALGAL UNITS PER ML	05 22 74 IS	05 22 74 %C	05 22 74 ALGAL UNITS PER ML	08 15 74 IS	08 15 74 %C	08 15 74 ALGAL UNITS PER ML	11 05 74 IS	11 05 74 %C	11 05 74 ALGAL UNITS PER ML
CENTRIC DIATOM	CEL			X									
CERATIUM HIRUNDINELLA	CEL			X			X						
CHLAMYDOMONAS	CEL										15	5.6	69
CHLOROPHYTAN COLONY	COL						X						
CHROOMONAS ACUTA	CEL	11	79.2	217	13	45.5	494	12	18.0	242	11	55.5	686
COELASTRUM RETICULATUM	COL			X	11	18.2	198						
CRYPTOMONAS	CEL												X
CRYPTOMONAS EROSA	CEL			X	12	9.1	99	11	25.6	345	12	13.9	172
CYCLOTELLA	CEL				15	9.1	99		5.1	69			X
DACTYLOCOCCOPSIS	CEL								2.6	35			
DINOBRYON BAVARICUM	CEL										14	8.3	103
DINOBRYON DIVERGENS	CEL			X		4.5	49						
DINOBRYON SOCIALE	CEL			X					2.6	35			
EUGLENA EHRENBERGII ?	CEL						X						
EUGLENA OXYURIS	CEL												X
EUNOTIA CURVATA	CEL						X						
GYMNODINIUM ALBULUM	CEL						X						
LYNGBYA	FIL									X			
MALLOMONAS	CEL												X
MALLOMONAS ACAROIDES	CEL	14	5.1	14									
MICROCYSTIS AERUGINOSA	COL			X									
MICROCYSTIS INCERTA	COL							13	20.5	276			
MOUGEOTIA	FIL						X						
NAVICULA #1	CEL			X									
NAVICULA #2	CEL												X
NAVICULA #3	CEL								5.1	69			
NAVICULA #4	CEL									X			
NITZSCHIA	CEL	13	5.1	14									
NITZSCHIA #1	CEL			X									
NITZSCHIA #2	CEL					4.5	49						
NITZSCHIA #3	CEL								5.1	69		2.8	34
OOCYSTIS	CEL									X			
OSCILLATORIA	FIL											2.8	34
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL						X						
PERIDINIUM INCONSPICUUM	CEL				14	4.5	49						X
PHACUS MEGALOPSIS	CEL							15	2.6	35			
SCENEDESMUS	COL												X
SCENEDESMUS BICAUDATUS	COL											2.8	34
SCENEDESMUS BIJUGA	COL												X
SCENEDESMUS QUADRICAUDA	COL						X						
SYNEDRA #1	CEL	12	10.6	29					5.1	69	13	8.3	103
SYNEDRA ULNA	CEL						X						
TETRAEDRON	CEL												X
TETRAEDRON MINIMUM	CEL					4.5	49						
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL							14	7.7	104			X
TOTAL				274			1086			1348			1235

LAKE NAME: LAKE COLORADO CITY
STORET NUMBER: 4810

NYGAARD TROPHIC STATE INDICES

DATE	03 04 74	05 15 74	08 06 74	10 28 74
MYXOPHYCEAN	4.00 E	1.25 E	2.33 E	3.67 E
CHLOROPHYCEAN	10.0 E	4.00 E	5.00 E	5.67 E
EUGLENOPHYTE	0.36 E	0.24 E	0.18 ?	0.18 ?
DIATOM	0.14 ?	0.29 ?	1.00 E	0.33 E
COMPOUND	20.0 E	7.00 E	9.67 E	11.6 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 04 74	05 15 74	08 06 74	10 28 74
GENUS	22	20	18	17
SPECIES	09	04	06	07

SPECIES DIVERSITY AND ABUNDANCE INDICES

	DATE	03 04 74	05 15 74	08 06 74	10 28 74
AVERAGE DIVERSITY	H	3.25	3.56	2.40	2.96
NUMBER OF TAXA	S	32.00	48.00	39.00	52.00
NUMBER OF SAMPLES COMPOSITED	M	2.00	2.00	2.00	2.00
MAXIMUM DIVERSITY	MAXH	5.00	5.58	5.29	5.70
MINUMUM DIVERSITY	MINH	0.06	0.07	0.03	0.04
TOTAL DIVERSITY	D	25369.50	34663.72	51304.80	57305.60
TOTAL NUMBER OF INDIVIDUALS/ML	N	7806.00	9737.00	21377.00	19360.00
EVENESS COMPONENT	J	0.65	0.64	0.45	0.52
RELATIVE EVENESS	RJ	0.65	0.64	0.46	0.52
MEAN NUMBER OF INDIVIDUALS/TAXA	L	243.94	202.85	548.13	372.31
NUMBER/ML OF MOST ABUNDANT TAXON	K	2140.00	3283.00	10277.00	8779.00

LAKE NAME: LAKE COLORADO CITY CONTINUED
STORET NUMBER: 4810

TAXA	FORM	03 04 74 IS	03 04 74 %C	03 04 74 ALGAL UNITS PER ML	05 15 74 IS	05 15 74 %C	05 15 74 ALGAL UNITS PER ML	08 06 74 IS	08 06 74 %C	08 06 74 ALGAL UNITS PER ML	10 28 74 IS	10 28 74 %C	10 28 74 ALGAL UNITS PER ML
ANABAENA	FIL								0.5	103			X
ANABAENOPSIS CIRCULARIS	FIL											0.2	41
ANABAENOPSIS RACIBORSKII	FIL											0.2	41
ANKISTRODESMUS FALCATUS	CEL					0.4	36		0.2	34			X
ANKISTRODESMUS FALCATUS V. ACICULARIS	CEL		2.2	168								1.7	327
APHANIZOMENON FLOS-AQUAE	FIL					0.4	36	15	1.6	343		0.8	163
CARTERIA	CEL						X						
CENTRIC DIATOM	CEL											0.6	123
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL						X						
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL									X			
CHAETOCEROS ELMOREI	CEL					0.4	36		0.2	34			
CHLAMYDOMONAS	CEL								1.0	206			X
CHLAMYDOMONAS #1	CEL						X						
CHLAMYDOMONAS #2	CEL						X						
CHLOROPHYTAN COCCOID CELL	CEL											0.4	82
CHROOCOCCUS	COL			X									X
CHROOMONAS ACUTA	CEL			X	12	11.1	1082				15	4.0	776
CHRYSOPHYTAN CELL #1	CEL					1.1	108					0.2	41
CLOSTERIUM	CEL					0.7	72						
COELASTRUM MICROPORUM	COL		0.5	42		1.5	144			X		0.2	41
COSMARIUM	CEL								0.2	34			
COSMARIUM #1	CEL			X						X			
COSMARIUM #2	CEL						X						X
COSMARIUM CLEPSYDRA V. NAIUM	CEL					1.5	144					1.7	327
CRUCIGENIA APICULATA	COL						X						
CRUCIGENIA TETRAPEDIA	COL		0.5	42		1.1	108			X			
CRYPTOMONAS EROSA	CEL	3	3.2	252	15	4.1	397	14	2.1	445		0.8	163
CYCLOTELLA MENEGHINIANA	CEL		1.1	84		0.4	36		0.5	103			
DACTYLOCOCCOPSIS IRREGULARIS	CEL		4.3	336									
DICTYOSPHAERIUM PULCHELLUM	COL			X								0.2	41
DIPLONEIS	CEL				13	8.5	830		0.6	137	12	11.2	2164
DIPLONEIS PUELLA ?	CEL	11	27.4	2140									
ELAKATOTHRIX GELATINOSA	COL								0.2	34		0.2	41
EUGLENA	CEL	4	2.2	168									
EUGLENA #1	CEL					0.4	36					0.2	41
EUGLENA #2	CEL					0.4	36						
EUGLENA #3	CEL			X									
EUGLENA ACUS	CEL			X									
EUGLENA GRACILIS	CEL								0.2	34			X
FLAGELLATE #4	CEL											0.2	41
FLAGELLATES	CEL	15	10.2	797									
FRANCEIA ORDESCHERI	CEL		0.5	42			X					0.6	123
GLENODINIUM GYMNODINIUM	CEL									X			
GLENODINIUM OCULATUM	CEL					1.1	108					0.2	41
GYROSIGMA	CEL											0.2	41
GYROSIGMA MACRUM ?	CEL						X						
LAGERHEIMIA	CEL					0.4	36						
LYNGBYA	FIL							13	26.9	5755		6.3	1225
MELOSIRA	CEL											0.4	82
MELOSIRA GRANULATA	CEL									X			
MERISMOPEDIA PUNCTATA	COL								1.4	308			X
MERISMOPEDIA TENUISSIMA	COL		2.2	168		1.8	180						
MICROCYSTIS AERUGINOSA	COL								1.0	206			X
MICROCYSTIS AERUGINOSA V. MAJOR	COL						X						
MICROCYSTIS INCERTA	COL					0.4	36					0.2	41
NAVICULA	CEL					0.4	36					0.2	41
NEPHROCYTIUM	CEL									X			X
NITZSCHIA	CEL							12	9.1	1953			
NITZSCHIA #1	CEL		0.5	42									
NITZSCHIA #3	CEL		0.5	42									
NITZSCHIA #4	CEL		1.1	84		0.4	36		0.6	137		0.4	82
NITZSCHIA SPP.	CEL					5.9	577				13	11.8	2287
NITZSCHIA TRYBLIONELLA V. DEBILIS	CEL												X
OOCYSTIS	CEL				14	7.4	721		2.1	445		1.7	327
OSCILLATORIA	FIL								0.5	103			X
OSCILLATORIA LIMNETICA	FIL	12	25.8	2014		6.7	649	11	48.1	10277	11	45.3	8779
PEDIASTRUM DUPLEX V. CLATHRATUM	COL						X						
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL									X			
PEDIASTRUM TETRAS V. TETRAODON	COL												X
PENNATE DIATOM	CEL		3.2	252			X						
PERIDINIUM	CEL						X						
PHACUS	CEL						X						
PHACUS MEGALOPSIS	CEL			X						X			X
SCENEDESMUS ABUNDANS	COL		0.5	42									

LAKE NAME: LAKE COLORADO CITY CONTINUED
STORET NUMBER: 4810

TAXA	FORM	03 04 74 IS	03 04 74 %C	03 04 74 ALGAL UNITS PER ML	05 15 74 IS	05 15 74 %C	05 15 74 ALGAL UNITS PER ML	08 06 74 IS	08 06 74 %C	08 06 74 ALGAL UNITS PER ML	10 28 74 IS	10 28 74 %C	10 28 74 ALGAL UNITS PER ML
SCENEDESMUS BIJUGA	COL					4.4	433			X			X
SCENEDESMUS DIMORPHUS	COL		0.5	42		0.4	36		0.3	69		0.2	41
SCENEDESMUS INTERMEDIUS	COL												X
SCENEDESMUS PROTUBERANS	COL						X		0.3	69			
SCENEDESMUS QUADRICAUDA	COL		1.1	64		2.6	253		0.8	171		1.7	327
SCENEDESMUS SPP.	COL		1.1	64									
SCHROEDERIA SETIGERA	CEL			X									X
STAURASTRUM TETRACERUM	CEL						X		0.5	103			X
SURIRELLA	CEL			X									
SYNEDRA	CEL		7.0	545		0.7	72					0.8	163
TETRAEDRON CAUDATUM	CEL						X						
TETRAEDRON GRACILE	CEL									X			
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL		4.3	336	1	33.7	3283		1.0	206	4	6.5	1266
TETRASTRUM HETERACANTHUM	COL									X			
TETRASTRUM STAUROGENIAEFORME	COL					0.4	36						X
TRACHELOMONAS #1	CEL											0.2	41
TRACHELOMONAS #2	CEL												X
TRACHELOMONAS #3	CEL			X									
TRACHELOMONAS FLUVIATILIS	CEL					0.4	36		0.2	34			
TRACHELOMONAS INTERMEDIA	CEL									X			
TRACHELOMONAS INTERMEDIA ?	CEL						X						
TREUBARIA	CEL					1.1	108		0.2	34			X
TOTAL				7806			9737			21377			19360

LAKE NAME: CORPUS CRISTI LAKE
STORET NUMBER: 4811

NYGAARD TROPHIC STATE INDICES

DATE	03 18 74	05 21 74	08 14 74	11 05 74
MYXOPHYCEAN	3.00 E	4.00 E	5.00 E	6.00 E
CHLOROPHYCEAN	12.5 E	9.00 E	5.50 E	16.0 E
EUGLENOPHYTE	0.03 ?	0.15 ?	0.24 E	0.14 ?
DIATOM	1.00 E	1.00 E	0.50 E	1.20 E
COMPOUND	17.5 E	17.0 E	14.5 E	31.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 18 74	05 21 74	08 14 74	11 05 74
GENUS	22	11	12	09
SPECIES	07	03	03	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 18 74	05 21 74	08 14 74	11 05 74
AVERAGE DIVERSITY	H	4.53	3.97	4.17	2.57
NUMBER OF TAXA	S	44.00	48.00	43.00	41.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	5.46	5.58	5.43	5.36
MINUMUM DIVERSITY	MINH	0.06	0.11	0.11	0.11
TOTAL DIVERSITY	D	46822.08	24097.90	21121.05	12374.55
TOTAL NUMBER OF INDIVIDUALS/ML	N	10336.00	6070.00	5065.00	4815.00
EVENESS COMPONENT	J	0.83	0.71	0.77	0.48
RELATIVE EVENESS	RJ	0.83	0.71	0.77	0.47
MEAN NUMBER OF INDIVIDUALS/TAXA	L	234.91	126.46	117.79	117.44
NUMBER/ML OF MOST ABUNDANT TAXON	K	1026.00	1451.00	766.00	2781.00

LAKE NAME: CORPUS CRISTI LAKE CONTINUED
STORET NUMBER: 4811

TAXA	FORM	03 18 74 IS	03 18 74 %C	03 18 74 ALGAL UNITS PER ML	05 21 74 IS	05 21 74 %C	05 21 74 ALGAL UNITS PER ML	08 14 74 IS	08 14 74 %C	08 14 74 ALGAL UNITS PER ML	11 05 74 IS	11 05 74 %C	11 05 74 ALGAL UNITS PER ML
ANABAENA FLOS-AQUAE	FIL				11	6.5	396	11	3.4	170			
ANABAENOPSIS	FIL									X			
ANKISTRODESMUS FALCATUS	CEL			X									
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL	14	3.7	380		2.9	176		2.5	128		0.8	38
CARTERIA	CEL					0.7	44						
CENTRIC DIATOM	CEL		7.7	798									
CENTRIC DIATOMS	CEL				13	23.9	1451		7.6	383	12	10.9	526
CHLAMYDOMONAS	CEL		5.9	608		1.4	88					2.3	113
CHROOMONAS ACUTA	CEL	12	8.5	874		2.9	176		1.7	85		3.9	188
CLOSTERIUM	CEL						X						
CLOSTERIUM #1	CEL			X									
CLOSTERIUM #2	CEL			X									
COCCONEIS PLACENTULA	CEL												X
COELASTRUM MICROPORUM	COL		0.7	76									
COELASTRUM SPHAERICUM	COL						X					0.8	38
COSCINODISCUS ROTHII V. SUBSALSA	CEL												X
COSMARIUM #1	CEL								0.8	43		0.8	38
COSMARIUM CLEPSYDRA V. NANUM	CEL					1.4	88		2.5	128			
CRUCIGENIA APICULATA	COL		0.7	76									X
CRUCIGENIA TETRAPEDIA	CEL					0.7	44		1.7	85			
CRYPTOMONAS	CEL					1.4	88		3.4	170	15	1.6	75
CRYPTOMONAS EROSA	CEL		2.2	228									
CYANOPHYTAN COLONY	COL					0.7	44						
CYCLOTELLA	CEL		2.9	304									
CYCLOTELLA MENEGHINIANA	CEL						X						X
DACTYLOCOCCOPSIS	CEL		4.0	418		1.4	88		9.2	468		1.6	75
DICTYOSPHAERIUM PULCHELLUM	COL						X		0.8	43		0.8	38
DIPLONEIS	CEL				14	12.3	747	12	15.1	766	11	57.8	2781
FLAKATOTHRIX	CEL			X									
EUGLENA	CEL						X						
FLAGELLATE #4	CEL									X			
FRANCEIA	CEL			X									
GLEMODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL						X						
GLOEOTRICHIA ?	FIL						X						
GOLENKINIA RADIATA	CEL		0.4	38									
GOMPHONEMA ANGUSTATUM V. PRODUCTA	CEL												X
KIRCHNERIELLA	CEL		8.9	874		4.3	264						
LAGERHEIMIA	CEL						X						
LAGERHEIMIA QUADRISETA	CEL		2.6	266									
LYNGBYA	FIL		2.6	266		1.4	88	14	9.2	468		1.6	75
MELOSIRA GRANULATA	CEL			X			X			X		1.6	75
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL						X		1.7	85			X
MERISMOPEDIA MINIMA	COL	31	9.9	1026		7.2	440		5.0	255			X
MERISMOPEDIA TENUISSIMA	COL		2.9	304						X			X
MESOSTIGMA VIRIDIS	CEL					1.4	88		1.7	85		0.8	38
MICROCYSTIS INCERTA	COL	11	8.1	836		1.4	88			X		0.8	38
NAVICULA	CEL									X			
NAVICULA #1	CEL			X									
NITZSCHIA	CEL		0.7	76									
NITZSCHIA #4	CEL									X			
NITZSCHIA PALEA	CEL						X						
OOCYSTIS	CEL		1.5	152	15	5.8	352		5.0	255	13	6.3	301
OSCILLATORIA	FIL		1.1	114		0.7	44	15	9.2	468			
OSCILLATORIA #1	FIL									X			
PANDORINA MORUM	COL									X			
PEDIASTRUM BORYANUM	COL									X			
PEDIASTRUM DUPLEX V. CLATHRATUM	COL						X						
PEDIASTRUM TETRAS V. TETRADORUM	COL			X									X
PENNATE DIATOM #1	CEL					3.6	220						
PERIDINIUM UNGOMASUM	CEL						X		1.7	85			
PHACUS	CEL								0.8	43			
PHACUS CAUDATUS V. MINOR	CEL		2.2	228			X						X
PHACUS MEGALOPSIS	CEL						X			X			
PLANKTOSPHAERIA ?	COL												X
RAPHIDIOPSIS	FIL							13	7.6	383			X
SCENEDESMUS ABUNDANS	COL						X						
SCENEDESMUS BICAUDATUS	COL		1.1	114			X		3.4	170	14	2.3	113
SCENEDESMUS BIJUGA	COL		5.9	608			X			X			
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL												X
SCENEDESMUS DIMORPHUS	COL		1.5	152			X		1.7	85			X
SCENEDESMUS INTERMEDIUS													

LAKE NAME: CORPUS CHRISTI LAKE CONTINUED
STORET NUMBER: 4811

TAXA	FORM	03 18 74 IS	03 18 74 %C	03 18 74 ALGAL UNITS PER ML	05 21 74 IS	05 21 74 %C	05 21 74 ALGAL UNITS PER ML	08 14 74 IS	08 14 74 %C	08 14 74 ALGAL UNITS PER ML	11 05 74 IS	11 05 74 %C	11 05 74 ALGAL UNITS PER ML
V. BALATONICUS	COL		1.5	152									
SCENEDESMUS QUADRICAUDA	COL		1.8	190									
SCENEDESMUS SPP.	COL				28	8.0	484						
SCHROEDERIA SETIGERA	CEL		1.5	152		2.9	176			X			
SPHAERELLOPSIS	CEL			X									
STEPHANODISCUS	CEL												X
SURIRELLA	CEL		1.5	152		1.4	88		0.8	43		0.8	38
SYNEDRA	CEL								0.8	43			X
SYNEDRA ACUS	CEL									X			
TETRAEDRON CAUDATUM													
V. LONGISPINUM	CEL			X									X
TETRAEDRON CONSTRICTUM	CEL			X			X					0.8	38
TETRAEDRON MINIMUM													
V. SCROBICULATUM	CEL		0.7	76		1.4	88		0.8	43			X
TETRAEDRON MUTICUM	CEL		1.1	114			X		1.7	85			X
TETRAEDRON TRIGONUM	CEL		0.7	76									
TETRASTRUM ELEGANS	COL			X		0.7	44						
TETRASTRUM GLABRUM	COL		2.2	228									
TETRASTRUM STAUROGENIAEFORME	COL	15	3.7	380		1.4	88					0.8	38
TRACHELOMONAS	CEL											0.8	38
TRACHELOMONAS #1	CEL					1.4	88			X		0.8	38
TRACHELOMONAS #2	CEL									X			
TRACHELOMONAS #3	CEL									X			
TREUBARIA	CEL											1.6	75
TOTAL				10336			6070			5065			4815

LAKE NAME: DIVERSION LAKE
STORET NUMBER: 4812

NYGAARD TROPHIC STATE INDICES

DATE	05 13 74	08 08 74	10 28 74
MYXOPHYCEAN	4.00 E	9.00 E	03/0 E
CHLOROPHYCEAN	8.00 E	4.00 E	05/0 E
EUGLENOPHYTE	0.58 E	0.15 ?	0.62 E
DIATOM	0.17 ?	0/06 ?	0.33 E
COMPOUND	20.0 E	15.0 E	14/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	05 13 74	08 08 74	10 28 74
GENUS	20	09	12
SPECIES	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		05 13 74	08 08 74	10 28 74
AVERAGE DIVERSITY	H	3.86	2.57	2.64
NUMBER OF TAXA	S	36.00	25.00	21.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	5.17	4.64	4.39
MINIMUM DIVERSITY	MINH	0.10	0.03	0.07
TOTAL DIVERSITY	D	18265.52	32767.50	9435.36
TOTAL NUMBER OF INDIVIDUALS/ML	N	4732.00	12750.00	3574.00
EVENESS COMPONENT	J	0.75	0.55	0.60
RELATIVE EVENESS	RJ	0.75	0.56	0.60
MEAN NUMBER OF INDIVIDUALS/TAXA	L	131.44	510.00	170.19
NUMBER/ML OF MOST ABUNDANT TAXON	K	870.00	4607.00	1047.00

LAKE NAME: DIVERSION LAKE
STORET NUMBER: 4612

CONTINUED

TAXA	FORM	05 13 74 IS	05 13 74 %C	05 13 74 ALGAL UNITS PER ML	06 08 74 IS	06 08 74 %C	06 08 74 ALGAL UNITS PER ML	10 28 74 IS	10 28 74 %C	10 28 74 ALGAL UNITS PER ML
AMPHIPRORA ORNATA	CEL			X						
ANABAENA	FIL					0.3	40			
ANKISTRODESMUS FALCATUS	CEL	1	1.0	48						
APHANIZOMENON	FIL				11	36.1	4607			
APHANIZOMENON FLOS-AQUAE	FIL									X
BINUCLEARIA	FIL	1	1.0	48						
CARTERIA	CEL			X						
CENTRIC DIATOM	CEL	1	6.1	290					2.0	72
CHROOCOCCUS LIMNETICUS	COL				14	2.5	318			
CHROOMONAS ACUTA	CEL	1	6.1	290		2.8	357		2.0	72
COCCONEIS PLACENTULA	CEL					1.6	199			
COSMARIUM	CEL			X		0.6	79			
CRUCIGENIA TETRAPEDIA	COL	1	2.0	97						
CRYPTOMONAS	CEL									X
CRYPTOMONAS EROSA	CEL			X		0.3	40			
DACTYLOCOCCOPSIS	CEL					0.3	40			
DINOFLAGELLATE CYST	CEL	1	2.0	97						
DIPLONEIS	CEL	1	1.0	48				15	8.1	289
ELAKATOTHRIX GELATINOSA	COL								1.0	36
EUGLENA	CEL						X			X
EUGLENA #1	CEL	14	4.1	193						
EUGLENA #2	CEL			X						X
FLAGELLATE	CEL									X
FRANCEIA OVALIS	CEL			X						
GYMNODINIUM ALBULUM	CEL						X			
GYMNODINIUM ORDINATUM	CEL	1	1.0	48						
KIRCHNERIELLA	CEL					0.9	119			
LEPOCINCLIS	CEL			X						X
LYNGBYA	FIL								1.0	36
LYNGBYA LAGERHEIMII	FIL				15	11.5	1470			
MERISMOPEDIA MINIMA	COL	1	8.2	386						
MERISMOPEDIA TENUISSIMA	COL	1	4.1	193	13	9.3	1191			
MICROCYSTIS	COL						X			
NAVICULA	CEL	1	4.1	193						
NAVICULA LUCIDULA ?	CEL					2.5	318			
NITZSCHIA	CEL					0.3	40			
NITZSCHIA #2	CEL			X						
NITZSCHIA #4	CEL						X	14	11.1	397
NITZSCHIA CLOSTERIUM	CEL	1	3.1	145			X			
NITZSCHIA SPP.	CEL							11	29.3	1047
NITZSCHIA TRYBLIONELLA V. DEBILIS ?	CEL									X
NITZSCHIA TRYBLIONELLA V. LEVIDENSIS	CEL			X						
OOCYSTIS #1	CEL								1.0	36
OOCYSTIS SPP.	COL	13	8.2	386						
OOCYSTIS SUBMARINA	CEL			X				12	17.2	614
OSCILLATORIA	FIL				12	29.0	3694			
OSCILLATORIA #1	FIL			X			X	13	25.3	903
OSCILLATORIA #2	FIL			X						
OSCILLATORIA SPP.	FIL	15	10.2	483						
PERIDINIUM	CEL	1	1.0	48						
PHACUS	CEL	1	1.0	48						X
PHACUS MEGALOPSIS	CEL			X						
SCENEDESMUS ABUNDANS	COL						X			
SCENEDESMUS BALATENICUS	COL	11	13.3	628					2.0	72
SCENEDESMUS BIJUGA	COL	12	18.4	870						
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL	1	1.0	48						
SPHAERELLOPSIS	CEL	1	1.0	48						
SYNEDRA	CEL						X			
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL					0.6	79			
TETRAEDRON MUTICUM	CEL					1.2	159			X
TRACHELOMONAS	CEL						X			X
TRACHELOMONAS FLUVIATILIS	CEL			X						
TRACHELOMONAS INTERMEDIA ?	CEL	1	2.0	97						
TOTAL				4732			12750			3574

LAKE NAME: EAGLE MOUNTAIN LAKE
STORET NUMBER: 4813

NYGAARD TROPHIC STATE INDICES

DATE	03 07 74	05 16 74	08 13 74	10 30 74
MYXOPHYCEAN	1.00 E	5.00 E	2.67 E	2.50 E
CHLOROPHYCEAN	3.50 E	7.00 E	4.00 E	3.00 E
EUGLENOPHYTE	0.11 ?	0.50 E	0.30 E	0.36 E
DIATOM	0.75 E	0.50 E	0.75 E	0.57 E
COMPOUND	6.50 E	20.0 E	9.67 E	9.50 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 07 74	05 16 74	08 13 74	10 30 74
GENUS	09	10	09	19
SPECIES	05	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 07 74	05 16 74	08 13 74	10 30 74
AVERAGE DIVERSITY	H	3.55	3.31	3.14	3.83
NUMBER OF TAXA	S	25.00	33.00	43.00	32.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	4.64	5.04	5.43	5.00
MINUMUM DIVERSITY	MINH	0.10	0.13	0.49	0.18
TOTAL DIVERSITY	D	10877.20	11009.06	3070.92	8318.76
TOTAL NUMBER OF INDIVIDUALS/ML	N	3064.00	3326.00	978.00	2172.00
EVENESS COMPONENT	J	0.77	0.66	0.58	0.77
RELATIVE EVENESS	RJ	0.70	0.65	0.54	0.76
MEAN NUMBER OF INDIVIDUALS/TAXA	L	122.56	100.79	22.74	67.88
NUMBER/ML OF MOST ABUNDANT TAXON	K	606.00	898.00	207.00	306.00

LAKE NAME: EAGLE MOUNTAIN LAKE CONTINUED
STORET NUMBER: 4813

TAXA	FORM	03 07 74 S	03 07 74 %C	03 07 74 ALGAL UNITS PER ML	05 16 74 S	05 16 74 %C	05 16 74 ALGAL UNITS PER ML	08 13 74 S	08 13 74 %C	08 13 74 ALGAL UNITS PER ML	10 30 74 S	10 30 74 %C	10 30 74 ALGAL UNITS PER ML
ANABAENA	FIL									X	2	1.4	31
ANABAENA INAEQUALIS	FIL						X						
ANABAENOPSIS ELENKINII	FIL									X			
ANABAENOPSIS RACIBORSKII	FIL							5	9.1	89			
ANKISTRODESMUS FALCATUS	CEL	3	8.8	269									
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL		3.3	101									
APHANIZOMENON	FIL				3	0.9	30						
APHANIZOMENON FLOS-AQUAE	FIL								3.1	30			
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL									X			
CHLAMYDOMONAS	CEL									X			
CHLOROGONIUM	CEL					3.6	120						
CHLOROGONIUM ?	CEL		2.2	67									
CHLOROPHYTAN COLONY	COL						X					1.4	31
CHLOROPHYTAN FILAMENT #1	FIL		5.5	168	1	27.0	898					2.8	61
CHROOMONAS ACUTA	CEL	2	18.7	572		4.5	150				4	12.7	275
CLOSTERIUM #1	CEL			X						X			
CLOSTERIUM #2	CEL		1.1	34			X					2.8	61
COELASTRUM MICROPORUM	COL		1.1	34						X			X
COELASTRUM RETICULATUM	COL									X			
COSCINODISCUS LACUSTRIS	CEL									X			
COSCINODISCUS ROTHII V. SUBSALSA	CEL											4.2	92
COSMARIUM	CEL									X			
COSMARIUM CLEPSYDRA V. NANUM	CEL								3.1	30			X
CRUCIGENIA QUADRATA	COL												X
CRUCIGENIA TETRAPEDIA	COL									X			
CRYPTOMONAS	CEL							4	9.1	89			
CRYPTOMONAS EROSA	CEL		1.1	34		2.7	90						
CRYPTOMONAS MARSSONII	CEL		1.1	34									
CYCLOTELLA	CEL											12.7	275
CYCLOTELLA MENEGHINIANA	CEL		2.2	67									
DACTYLOCOCCOPSIS	CEL	4	7.7	236									X
DIATOMA	CEL												X
DIPLONEIS	CEL												X
EUGLENA #1	CEL						X					2.8	61
EUGLENA #2	CEL									X			X
EUGLENA #3	CEL					1.8	60						X
EUGLENA #5	CEL									X			
FLAGELLATE #2	CEL	5	11.0	337		5.4	180						
FRANCEIA DROESCHERI	CEL									X			
GLENODINIUM GYMNODINIUM	CEL									X			
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL				4	0.9	30				5	1.4	31
GLENODINIUM OCULATUM	CEL						X						
KIRCHNERIELLA	CEL		6.6	202									
KIRCHNERIELLA CONTORTA	COL					1.8	60						
LEPOCINCLIS	CEL			X		0.9	30						
LYNGBYA	FIL								9.1	89		4.2	92
MELOSIRA DISTANS	CEL					6.3	210	2	12.1	118	1	14.1	306
MELOSIRA GRANULATA	CEL			X			X			X		2.8	61
MERISMOPEDIA MINIMA	COL					6.3	210					8.4	183
MESOSTIGMA VIRIDIS	CEL									X			
MICROCYSTIS AERUGINOSA	COL									X			
MICROCYSTIS INCERTA	COL					2.7	90					5.6	122
MOUGEOTIA	FIL									X			
NAVICULA #1	CEL		2.2	67			X					4.2	92
NAVICULA #2	CEL												X
NITZSCHIA #1	CEL				5	27.0	898			X	3	11.2	244
NITZSCHIA #2	CEL						X			X			X
NITZSCHIA #3	CEL		2.2	67									
NITZSCHIA #4	CEL									X			
NITZSCHIA #5	CEL					0.9	30						
NITZSCHIA #6	CEL		4.4	135									
NITZSCHIA SPP.	CEL							3	21.2	207			
NITZSCHIA TRYBLIONELLA V. LEVIDENSIS	CEL												X
OOCYSTIS	CEL			X		0.9	30						
OOCYSTIS #1	CEL												X
OOCYSTIS #2	CEL									X			X
OSCILLATORIA	FIL			X						X			
OSCILLATORIA LIMNETICA	FIL								9.1	89			
PEDIASTRUM DUPLEX V. CLATHRATUM	COL			X	2	0.9	30						
PEDIASTRUM SIMPLEX	COL									X			
PENNATE DIATOM	CEL									X			
PHACUS	CEL									X		1.4	31
PHACUS ACUMINATUS	CEL						X						
PHACUS TORTUS	CEL									X			
RAPHIDIOPSIS	FIL					2.7	90						
SCENEDESMUS BIJUGA	COL					0.9	30					4.2	92

LAKE NAME: EAGLE MOUNTAIN LAKE CONTINUED
STORET NUMBER: 4813

TAXA	FORM	03 07 74 S	03 07 74 %C	03 07 74 ALGAL UNITS PER ML	05 16 74 S	05 16 74 %C	05 16 74 ALGAL UNITS PER ML	08 13 74 S	08 13 74 %C	08 13 74 ALGAL UNITS PER ML	10 30 74 S	10 30 74 %C	10 30 74 ALGAL UNITS PER ML
SCENEDESMUS BIJUGA													
V. FLEXUOSUS	COL									X			
SCENEDESMUS DENTICULATUS	COL									X			
SCENEDESMUS DIMORPHUS	COL						X						
SCENEDESMUS QUADRICAUDA	COL		1.1	34			X			X			
SCHROEDERIA SETIGERA	CEL									X		1.4	31
STEPHANODISCUS ASTRAEA	CEL	1	19.8	606									
SURIRELLA	CEL			X									
TETRAEDRON MINIMUM													
V. SCROBICULATUM	CEL								9.1	89			
TETRASTRUM STAUROGENIAEFORME	COL					0.9	30			X			
TRACHELOMONAS	CEL									X			
TRACHELOMONAS #1	CEL					0.9	30						
TRACHELOMONAS HISPIDA	CEL							1	15.1	148			
TRACHELOMONAS INTERMEDIA	CEL						X						
TOTAL				3064			3326			978			2172

LAKE NAME: FORT PHANTOM HILL L.
STORET NUMBER: 4814

NYGAARD TROPHIC STATE INDICES

DATE	03 06 74	05 15 74	08 05 74	10 29 74
MYXOPHYCEAN	3.00 E	0.67 E	2.00 E	03/0 E
CHLOROPHYCEAN	3.00 E	2.00 E	1.67 E	02/0 E
EUGLENOPHYTE	0.33 E	0.75 E	0.36 E	0/05 ?
DIATOM	0.50 E	0.29 ?	0.33 E	1.00 E
COMPOUND	10.0 E	5.33 E	5.67 E	07/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 06 74	05 15 74	08 05 74	10 29 74
GENUS	06	11	15	13
SPECIES	00	00	03	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 06 74	05 15 74	08 05 74	10 29 74
AVERAGE DIVERSITY	H	2.34	3.21	2.46	2.68
NUMBER OF TAXA	S	18.00	31.00	32.00	12.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	4.17	4.95	5.00	3.58
MINUMUM DIVERSITY	MINH	0.13	0.15	0.07	0.07
TOTAL DIVERSITY	D	3853.98	8169.45	14976.48	5137.56
TOTAL NUMBER OF INDIVIDUALS/ML	N	1647.00	2545.00	6088.00	1917.00
EVENESS COMPONENT	J	0.56	0.65	0.49	0.75
RELATIVE EVENESS	RJ	0.55	0.64	0.49	0.75
MEAN NUMBER OF INDIVIDUALS/TAXA	L	91.50	82.10	190.25	159.75
NUMBER/ML OF MOST ABUNDANT TAXON	K	706.00	743.00	3378.00	803.00

LAKE NAME: FORT PHANTOM HILL L. CONTINUED
STORET NUMBER: 4814

TAXA	FORM	03 06 74 S	03 06 74 %C	03 06 74 ALGAL UNITS PER ML	05 15 74 S	05 15 74 %C	05 15 74 ALGAL UNITS PER ML	08 05 74 S	08 05 74 %C	08 05 74 ALGAL UNITS PER ML	10 29 74 S	10 29 74 %C	10 29 74 ALGAL UNITS PER ML
ANABAENA	FIL	3	1.6	26						X			
ANABAENOPSIS CIRCULARIS	FIL									X			
ANKISTRODESMUS FALCATUS	CEL								3.6	222			X
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL						X						
APHANIZOMENON	FIL							2	0.7	44			
CENTRIC DIATOM	CEL					7.0	177					9.3	178
CERATIUM HIRUNDINELLA F. BRACHYCEPAS	CEL						X						
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL									X			
CHLAMYDOMONAS	CEL							3	7.3	445	2	9.3	178
CHLOROGONIUM	CEL			X									
CHLOROGONIUM ?	CEL						X						
CHROOMONAS ACUTA	CEL	1	42.9	706	1	29.2	743	5	10.2	622	1	41.9	803
CLOSTERIUM #1	CEL			X						X			
CLOSTERIUM #2	CEL						X			X			
COSCINODISCUS ROTHII V. SUBSALSA	CEL							1	55.5	3378			
COSMARIUM	CEL						X		1.5	89			
CRYPTOMONAS EROSA	CEL		6.4	105	3	8.3	212					4.6	89
DACTYLOCOCCOPSIS	CEL		4.7	78									X
DIATOMA VULGARE	CEL			X									
EUGLENA	CEL						X						
EUGLENA #1	CEL		3.2	52			X		1.5	89			
EUGLENA #2	CEL				5	4.2	106			X			
EUGLENA #3	CEL					2.8	71						
GLENODINIUM OCULATUM	CEL									X			
MALLOMONAS	CEL					2.8	71						
MELOSIRA DISTANS	CEL			X									
MERISMOPEDIA TENUISSIMA	COL							4	4.4	267			
MICROCYSTIS INCERTA	COL	4	8.0	131	2	19.5	496		3.6	222		7.0	134
NAVICULA	CEL					1.4	35						
NAVICULA #1	CEL						X		0.7	44			
NAVICULA #2	CEL									X	4	4.6	89
NITZSCHIA	CEL									X			
NITZSCHIA #1	CEL						X		2.2	133			
NITZSCHIA #2	CEL			X			X		1.5	89			
NITZSCHIA ACICULARIS	CEL						X						
NITZSCHIA CLOSTERIUM	CEL		1.6	26		1.4	35			X			
NITZSCHIA TRYBLIONELLA V. VICTORIAE	CEL						X						X
OOCYSTIS	CEL			X									
OOCYSTIS #1	CEL					1.4	35						
OOCYSTIS #2	CEL				4	8.3	212			X	3	11.6	223
OSCILLATORIA	FIL					5.5	141			X	5	7.0	134
PEDIASTRUM DUPLEX V. CLATHRATUM	COL			X									
PEDIASTRUM SIMPLEX	COL						X						
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL									X			
PERIDINIUM INCONSPICUUM	CEL									X			
PHACUS ACUMINATUS	CEL						X		0.7	44			
SCENEDESMUS	COL						X						
SCENEDESMUS BIJUGA	CEL								0.7	44			
SCHROEDERIA SETIGERA	CEL					1.4	35						
SELENASTRUM	CEL	2	27.0	445									
STAURASTRUM	CEL						X						
STEPHANODISCUS	CEL									X			
STEPHANODISCUS ASTRAEA	CEL	5	4.7	78		5.5	141					4.6	89
SYNEDRA	CEL			X									
TETRAEDRON CONSTRICTUM	CEL									X			
TRACHELOMONAS FLUVIATILIS	CEL					1.4	35			X			
TRACHELOMONAS INTERMEDIA V. ?	CEL			X									
ZOOSPORE	CEL								5.8	356			
TOTAL				1647			2545			6088			1917

LAKE NAME: GARZA LITTLE ELM RES.
STORET NUMBER: 4815

NYGAARD TROPHIC STATE INDICES

DATE	03 11 74	05 20 74	08 12 74	10 31 74
MYXOPHYCEAN	02/0 E	3.00 E	1.67 E	02/0 E
CHLOROPHYCEAN	04/0 E	8.00 E	1.67 E	01/0 E
EUGLENOPHYTE	0.67 E	0.73 E	0.60 E	0/03 ?
DIATOM	0.33 E	0.50 E	1.00 E	0/02 ?
COMPOUND	11/0 E	20.0 E	6.33 E	03/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 11 74	05 20 74	08 12 74	10 31 74
GENUS	00	10	11	00
SPECIES	00	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 11 74	05 20 74	08 12 74	10 31 74
AVERAGE DIVERSITY	H	1.54	2.73	2.77	1.59
NUMBER OF TAXA	S	18.00	31.00	31.00	8.00
NUMBER OF SAMPLES COMPOSITED	M	5.00	6.00	6.00	6.00
MAXIMUM DIVERSITY	MAXH	4.17	4.95	4.95	3.00
MINUMUM DIVERSITY	MINH	0.78	0.41	0.09	0.61
TOTAL DIVERSITY	D	300.30	2235.87	12791.86	143.10
TOTAL NUMBER OF INDIVIDUALS/ML	N	195.00	819.00	4618.00	90.00
EVENESS COMPONENT	J	0.37	0.55	0.56	0.53
RELATIVE EVENESS	RJ	0.23	0.52	0.56	0.42
MEAN NUMBER OF INDIVIDUALS/TAXA	L	10.83	26.42	148.97	11.25
NUMBER/ML OF MOST ABUNDANT TAXON	K	87.00	308.00	1627.00	30.00

LAKE NAME: GARZA LITTLE ELM RES. CONTINUED
STORET NUMBER: 4815

TAXA	FORM	03 11 74 S	03 11 74 %C	03 11 74 ALGAL UNITS PER ML	05 20 74 S	05 20 74 %C	05 20 74 ALGAL UNITS PER ML	08 12 74 S	08 12 74 %C	08 12 74 ALGAL UNITS PER ML	10 31 74 S	10 31 74 %C	10 31 74 ALGAL UNITS PER ML
ANABAENA #1	FIL						X			X			
ANABAENA #2	FIL			X									
ANKISTRODESMUS FALCATUS ?	CEL			X									
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL			X			X						
APHANIZOMENON ?	FIL									X			
CARTERIA	CEL						X						
CENTRIC DIATOM	CEL					6.2	51	3	12.3	568			
CERATIUM HIRUNDINELLA F. AUSTRIACUM	CEL				1	6.2	51						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL												X
CHLOROGONIUM EUCHLORUM	CEL									X			
CHLOROPHYTAN CELL #1	CEL									X			
CHLOROPHYTAN COLONY	COL						X						
CHROOMONAS ACUTA	CEL	3	44.6	87	4	37.6	308						
CHRYSOPHYTAN CELL #1	CEL										3	33.3	30
CLOSTERIUM #1	CEL									X			
CLOSTERIUM #2	CEL									X			
CLOSTERIUM #3	CEL						X						
COELASTRUM MICROPORUM	COL			X			X			X			
COSMARIUM GRANATUM	CEL									X			
CRUCIGENIA TETRAPEDIA	COL								0.8	38			
CRYPTOMONAS	CEL				2	18.8	154						
CRYPTOMONAS EROSA	CEL	2	22.1	43							2	33.3	30
CYANOPHYTAN COLONY	COL												X
CYMBELLA	CEL			X									
CYST	CEL			X									
DIPLOPSALIS ACUTA	CEL						X						
ELAKATOTHRIX GELATINOSA	CEL						X						
EUDORINA	CEL						X						
EUGLENA #1	CEL			X									
EUGLENA #2	CEL			X									
EUGLENA #3	CEL						X						
EUGLENA #4	CEL						X						
EUGLENA #5	CEL				5	6.2	51						
EUGLENA OXYURIS	CEL			X									
EUGLENA TRIPTERIS	CEL						X						
FLAGELLATE #4	CEL									X			
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL						X			X			
KIRCHNERIELLA	CEL						X						
LEPOCINCLIS	CEL								0.8	38			
LYNGBYA	FIL							4	11.5	530			
MELOSIRA DISTANS	CEL									X			
MELOSIRA GRANULATA	CEL								3.3	151			
MERISMOPEDIA MINIMA	COL					6.2	51						
MICROCYSTIS AERUGINOSA	COL						X						
NAVICULA #1	CEL								3.3	151			
NAVICULA #2	CEL												X
NAVICULA #3	CEL					6.2	51						
NAVICULA #4	CEL						X						
NEPHROCYTIUM	COL									X			
NITZSCHIA #1	CEL								0.8	38			
NITZSCHIA #2	CEL												X
NITZSCHIA #3	CEL			X									
OOCYSTIS	CEL			X									
OSCILLATORIA #1	FIL												X
OSCILLATORIA #2	FIL			X									
OSCILLATORIA LIMNETICA	FIL							5	11.5	530			
PEDIASTRUM DUPLEX V. CLATHRATUM	COL						X						
PERIDINIUM INCONSPICUUM	CEL									X			
PERIDINIUM UMBONATUM	CEL			X									
PHACUS	CEL				3	6.2	51						
PHACUS ACUMINATUS	CEL									X			
PHACUS CAUDATUS	CEL			X									
PHACUS CAUDATUS V. MINOR	CEL						X						
PHACUS LONGICAUDA	CEL						X						
PHACUS MEGALOPSIS	CEL						X			X			
PTEROMONAS	CEL									X			
RAPHIDIOPSIS	CEL							1	35.2	1627			
RHOICOSPHENIA CURVATA ?	CEL			X									
SCENEDESMUS BIJUGA	COL									X			
SCENEDESMUS INTERMEDIUS	COL						X						
SCENEDESMUS QUADRICAUDA	COL										1	33.3	30
SCHROEDERIA SETIGERA	CEL					6.2	51						
SPHAEROCYSTIS SCHROETERI	COL						X						
STEPHANODISCUS	CEL	1	33.3	65									
SYNEDRA	CEL							2	16.4	757			
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL								2.5	114			

LAKE NAME: GARZA LITTLE ELM RES. CONTINUED
STORET NUMBER: 4815

TAXA	FORM	03 11 74 IS	03 11 74 %C	03 11 74 ALGAL UNITS PER ML	05 20 74 IS	05 20 74 %C	05 20 74 ALGAL UNITS PER ML	08 12 74 IS	08 12 74 %C	08 12 74 ALGAL UNITS PER ML	10 31 74 IS	10 31 74 %C	10 31 74 ALGAL UNITS PER ML
TRACHELOMONAS #1	CEL									X			
TRACHELOMONAS INTERMEDIA	CEL								1.6	76			
TRACHELOMONAS OVALIS ?	CEL									X			
TOTAL				195			819			4618			90

LAKE NAME: KEMP LAKE
STORET NUMBER: 4816

NYGAARD TROPHIC STATE INDICES

DATE	03 04 74	05 13 74	08 08 74	10 28 74
MYXOPHYCEAN	0/0 0	5.00 E	7.00 E	5.00 E
CHLOROPHYCEAN	02/0 E	3.00 E	5.00 E	4.00 E
EUGLENOPHYTE	0.50 E	0.25 E	0.17 ?	0/09 ?
DIATOM	0/02 ?	0.20 ?	0/04 ?	0/04 ?
COMPOUND	03/0 E	11.0 E	14.0 E	9.00 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 04 74	05 13 74	08 08 74	10 28 74
GENUS	00	27	13	11
SPECIES	00	03	03	03

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 04 74	05 13 74	08 08 74	10 28 74
AVERAGE DIVERSITY	H	0.39	3.81	2.14	2.21
NUMBER OF TAXA	S	6.00	21.00	21.00	14.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	2.58	4.39	4.39	3.81
MINUMUM DIVERSITY	MINH	0.05	0.06	0.02	0.04
TOTAL DIVERSITY	D	446.55	16691.61	36765.20	9392.50
TOTAL NUMBER OF INDIVIDUALS/ML	N	1145.00	4381.00	17180.00	4250.00
EVENESS COMPONENT	J	0.15	0.87	0.49	0.58
RELATIVE EVENESS	RJ	0.14	0.87	0.49	0.58
MEAN NUMBER OF INDIVIDUALS/TAXA	L	190.83	208.62	818.10	303.57
NUMBER/ML OF MOST ABUNDANT TAXON	K	1057.00	674.00	10492.00	2008.00

LAKE NAME: KEMP LAKE
STORET NUMBER: 4816

CONTINUED

TAXA	FORM	03 04 74 S	03 04 74 %C	03 04 74 ALGAL UNITS PER ML	05 13 74 S	05 13 74 %C	05 13 74 ALGAL UNITS PER ML	08 08 74 S	08 08 74 %C	08 08 74 ALGAL UNITS PER ML	10 28 74 S	10 28 74 %C	10 28 74 ALGAL UNITS PER ML
AMPHIPRORA	CEL			X									
ANABAENA	FIL									X			
ANABAENOPSIS RACIBORSKII	FIL							1	61.1	10492	1	26.4	1121
ANKISTRODESMUS FALCATUS V. ACICULARIS	CEL			X					0.6	103		2.2	93
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL					4.4	193						
CENTRIC DIATOM	CEL					12.1	530						
CHLAMYDOMONAS	CEL				4	6.6	289						
CHROOCOCCUS DISPERSUS V. MINOR	COL								0.6	103			X
CHROOMONAS ACUTA	CEL	1	92.3	1057		6.6	289						
CHRYSOPHYTAN CELL	CEL					3.3	144						
COCCONEIS	CEL								0.6	103			
COSMARIUM	CEL						X					1.1	47
COSMARIUM CLEPSYDRA V. NANUM	CEL								1.2	206			
CRYPTOMONAS	CEL								1.2	206			
CYANOPHYTAN FILAMENT	FIL									X			
CYANOPHYTAN FILAMENT #1	FIL											2.2	93
DACTYLOCOCCOPSIS	CEL					2.2	96			X			
DIPLONEIS PUELLA	CEL										3	7.7	327
EUGLENA	CEL								0.6	103			
EUGLENA #1	CEL						X						
EUGLENA #2	CEL						X						
EUGLENA SPP.	CEL				3	6.6	289						
GYROSIGMA	CEL												X
KIRCHNERIELLA	CEL												X
LYNGBYA	FIL					3.3	144	4	4.2	720		5.5	234
MEPISMOPEDIA	COL				5	3.3	144						
MICROCYSTIS INCERTA	COL					8.8	385						
NAVICULA	CEL					3.3	144						
NITZSCHIA #1	CEL					3.3	144						
NITZSCHIA #4	CEL					1.1	48			X			X
OOCYSTIS	CEL	2	7.7	88	2	15.4	674	3	4.8	823			X
OSCILLATORIA	FIL					9.9	433				2	47.2	2008
OSCILLATORIA #1	FIL							2	14.4	2469			
PENNATE DIATOM	CEL					2.2	98						
PENNATE DIATOM #1	CEL								3.6	617			
PENNATE DIATOM #2	CEL						X	5	3.6	617	4	4.4	187
PENNATE DIATOM #3	CEL			X									
PERIDINIUM UMBONATUM	CEL								1.2	206			
PHACUS MEGALOPSIS	CEL			X						X			
SCENEDESMUS BIJUGA	COL				1	7.7	337			X	5	3.3	140
TETRAEDRON MINIMUM	CEL								0.6	103			
TETRAEDRON MUTICUM	CEL								1.8	309			
TOTAL				1145			4381			17180			4250

LAKE NAME: HOUSTON LAKE
STORET NUMBER: 4817

NYGAARD TROPHIC STATE INDICES

DATE	03 16 74	05 23 74	08 19 74	11 06 74
MYXOPHYCEAN	07/0 E	2.50 E	3.00 E	7.00 E
CHLOROPHYCEAN	11/0 E	5.00 E	6.00 E	7.00 E
EUGLENOPHYTE	0.17 ?	0.33 E	0.89 E	0.14 ?
DIATOM	1.17 E	1.40 E	0.67 E	0.43 E
COMPOUND	28/0 E	13.5 E	21.0 E	19.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 16 74	05 23 74	08 19 74	11 06 74
GENUS	08	20	06	00
SPECIES	03	05	03	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 16 74	05 23 74	08 19 74	11 06 74
AVERAGE DIVERSITY	H	3.60	3.84	2.67	3.19
NUMBER OF TAXA	S	38.00	40.00	42.00	32.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	5.25	5.32	5.39	5.00
MINUMUM DIVERSITY	MINH	0.09	0.23	0.28	0.68
TOTAL DIVERSITY	D	20955.60	8186.88	4776.63	1492.92
TOTAL NUMBER OF INDIVIDUALS/ML	N	5821.00	2132.00	1789.00	468.00
EVENESS COMPONENT	J	0.69	0.72	0.50	0.64
RELATIVE EVENESS	RJ	0.69	0.71	0.47	0.59
MEAN NUMBER OF INDIVIDUALS/TAXA	L	153.18	53.30	42.60	14.63
NUMBER/ML OF MOST ABUNDANT TAXON	K	1711.00	313.00	547.00	108.00

LAKE NAME: HOUSTON LAKE
STORET NUMBER: 4817

CONTINUED

TAXA	FORM	03 16 74 S	03 16 74 %C	03 16 74 ALGAL UNITS PER ML	05 23 74 S	05 23 74 %C	05 23 74 ALGAL UNITS PER ML	08 19 74 S	08 19 74 %C	08 19 74 ALGAL UNITS PER ML	11 06 74 S	11 06 74 %C	11 06 74 ALGAL UNITS PER ML
ACTINASTRUM	CEL		0.8	46									
ACTINASTRUM HANTZSCHII	CEL					5.9	125						
ANABAENA	FIL					3.0	63						
ANKISTRODESMUS FALCATUS	CEL		2.4	139							5	7.7	36
ANKISTRODESMUS FALCATUS V. ?	CEL				3	11.8	251						
ANKISTRODESMUS FALCATUS V. ACICULARIS	CEL		0.8	46									
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL									X			
APHANIZOMENON FLOS-AQUAE	FIL						X			X			X
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL												X
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL												X
CHLAMYDOMONAS	CEL								2.7	49			
CHLAMYDOMONAS #1	CEL									X			
CHLAMYDOMONAS GLOBOSA	CEL		0.8	46									
CHLOROGONIUM	CEL								5.6	100			
CHLOROPHYTAN COCCOID CELL	CEL				4	5.9	125						
CHLOROPHYTAN COCCOID CELL #2	CEL									X			
CHLOROPHYTAN COCCOID CELLED COLONY	COL					3.0	63						
CHLOROPHYTAN FILAMENT	FIL												X
CHROOCOCCUS	COL	4	7.9	462									
CHROOMONAS	CEL							4	30.6	547			
CHROOMONAS ACUTA	CEL		12.7	00739									
CLOSTERIUM #1	CEL									X			
CLOSTERIUM #2	CEL						X						
COELASTRUM MICROPORUM	COL												X
COELASTRUM RETICULATUM	COL						X			X			
CRUCIGENIA FENESTRATA	COL			X									
CRUCIGENIA QUADRATA ?	COL						X						
CRUCIGENIA TETRAPEDIA	COL			X						X			
CRYPTOMONAS EROSA	CEL			X	2	14.7	313	1	30.6	547			
CRYPTOMONAS MARSSONII	CEL										1	23.1	108
CRYPTOMONAS REFLEXA	CEL							5	2.7	49			
CYANOPHYTAN COLONY	COL												X
CYCLOTELLA	CEL		10.3	601									
CYCLOTELLA MENEGHINIANA ?	CEL				5	5.9	125						
DACTYLOCOCCOPSIS	CEL		4.0	231								15.4	72
DICTYOSPHAERIUM PULCHELLUM	COL						X						
DINOBRYON BAVARICUM	CEL												X
EUGLENA #1	CEL						X			X			
EUGLENA ACUS	CEL												X
EUGLENA GRACILIS	CEL								2.7	49	3	7.7	36
FLAGELLATE	CEL					8.8	188						
FLAGELLATE #2	CEL		4.8	277									
FRANCEIA OVALIS	CEL		0.8	46									
GLENODINIUM	CEL									X			
GLENODINIUM OCULATUM	CEL									X			
LAGERHEIMIA QUADRISETA	CEL		0.8	46									
LEPOCINCLIS #1	CEL			X			X			X			
LYNGBYA	FIL												X
MELOSIRA	CEL									X			
MELOSIRA #4	CEL		3.2	185			X						
MELOSIRA DISTANS	CEL	1	29.4	1711			X			X			X
MELOSIRA GRANULATA	CEL			X		3.0	63						
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL						X						
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL									X			
MELOSIRA ITALICA	CEL	2	4.8	277									X
MELOSIRA VARIANS	CEL			X			X						
MERISMOPEDIA MINIMA	COL		4.8	277									
MERISMOPEDIA TENUISSIMA	COL		0.8	46			X					7.7	36
MICROCYSTIS INCERTA	COL		1.6	92									X
NAVICULA #1	CEL									X			
NAVICULA #2	CEL												X
NAVICULA #3	CEL						X						
NAVICULA #4	CEL												X
NITZSCHIA #1	CEL						X			X	2	7.7	36
NITZSCHIA #2	CEL			X		3.0	63			X			X
NITZSCHIA #3	CEL												X
NITZSCHIA #5	CEL		0.8	46									
NITZSCHIA #6	CEL			X									
NITZSCHIA ACTINASTROIDES	CEL		1.6	92									
NITZSCHIA TRYBLIONELLA ?	CEL									X			
OOCYSTIS	COL										4	7.7	36
OSCILLATORIA	FIL		0.8	46									
OSCILLATORIA #1	FIL					3.0	63		11.1	199			
OSCILLATORIA #2	FIL						X						
OSCILLATORIA #3	FIL			X									

LAKE NAME: HOUSTON LAKE
STORET NUMBER: 4817

CONTINUED

TAXA	FORM	03 16 74 IS	03 16 74 %C	03 16 74 ALGAL UNITS PER ML	05 23 74 IS	05 23 74 %C	05 23 74 ALGAL UNITS PER ML	08 19 74 IS	08 19 74 %C	08 19 74 ALGAL UNITS PER ML	11 06 74 IS	11 06 74 %C	11 06 74 ALGAL UNITS PER ML
OSCILLATORIA LIMNETICA	FIL											7.7	36
PANDORINA MORUM	COL						X	2	5.6	100			
PEDIASTRUM SIMPLEX													
V. DUODENARIUM	COL												X
PEDIASTRUM TETRAS	COL						X			X			
PERIDINIUM QUADRIDENS	CEL									X			
PERIDINIUM UMBONATUM	CEL									X			
PHACUS ACUMINATUS	CEL			X		3.0	63						
PHACUS LONGICAUDA	CEL									X			
PHACUS PSEUDONORDSTEDTII	CEL			X									
PINNULARIA BREVICOSTRATA	CEL									X			
PTEROMONAS ACULEATA	CEL									X			
PTEROMONAS ANGULOSA	CEL					5.9	125						
PTEROMONAS NIVALIS ?	CEL									X			
RAPHIDIOPSIS	FIL								2.7	49			
SCENEDESMUS ?	COL					3.0	63						
SCENEDESMUS ARCUATUS	COL						X						
SCENEDESMUS BICAUDATUS	COL		0.8	46									
SCENEDESMUS BIJUGA	COL											7.7	36
SCENEDESMUS DENTICULATUS	COL			X						X			
SCENEDESMUS INTERMEDIUS	COL			X									
SCENEDESMUS OPOLIENSIS ?	COL						X						
SCENEDESMUS QUADRICAUDA	COL						X			X			
STAURASTRUM #1	CEL						X						
STAURASTRUM #2	CEL												X
STAURONEIS ANCEPS													
F. LINEARIS ?	CEL						X						
STEPHANODISCUS	CEL	5	3.2	185	1	11.8	251	3	5.6	100			X
SURIRELLA	CEL			X									X
SYNEDRA	CEL					5.9	125						
SYNEDRA ULNA	CEL			X						X			X
TETRAEDRON MINIMUM													
V. SCROBICULATUM	CEL												X
TETRAEDRON MUTICUM	CEL											7.7	36
TETRASTRUM STAUROGENIAEFORME	COL		2.4	139									
TRACHELOMONAS BULLA	CEL									X			
TRACHELOMONAS BULLA ?	CEL						X						
TRACHELOMONAS DEFLANDREI	CEL					3.0	63						
TRACHELOMONAS INTERMEDIA	CEL									X			
TRACHELOMONAS JACULATA ?	CEL									X			
TRACHELOMONAS VERRUCOSA ?	CEL									X			
TOTAL				5821			2132			1789			468

LAKE NAME: LAKE OF THE PINES
STORET NUMBER: 4818

NYGAARD TROPHIC STATE INDICES

DATE	03 22 74	05 31 74	08 23 74	11 08 74
MYXOPHYCEAN	0.67 E	2.00 E	1.60 E	1.50 E
CHLOROPHYCEAN	8.00 E	7.67 E	1.80 E	11.0 E
EUGLENOPHYTE	0.19 ?	0.10 ?	0.35 E	0.12 ?
DIATOM	0.71 E	1.67 E	2.00 E	0.44 E
COMPOUND	12.0 E	12.3 E	5.00 E	16.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 22 74	05 31 74	08 23 74	11 08 74
GENUS	16	15	03	07
SPECIES	07	09	03	03

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 22 74	05 31 74	08 23 74	11 08 74
AVERAGE DIVERSITY	H	3.30	3.57	2.71	3.18
NUMBER OF TAXA	S	57.00	53.00	42.00	50.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	5.83	5.73	5.39	5.64
MINUMUM DIVERSITY	MINH	0.13	0.10	0.11	0.31
TOTAL DIVERSITY	D	19872.60	25550.49	13330.49	6140.58
TOTAL NUMBER OF INDIVIDUALS/ML	N	6022.00	7157.00	4919.00	1931.00
EVENESS COMPONENT	J	0.57	0.62	0.50	0.56
RELATIVE EVENESS	RJ	0.56	0.62	0.50	0.54
MEAN NUMBER OF INDIVIDUALS/TAXA	L	105.65	135.04	117.12	38.62
NUMBER/ML OF MOST ABUNDANT TAXON	K	1524.00	1947.00	1812.00	643.00

LAKE NAME: LAKE OF THE PINES CONTINUED
STORET NUMBER: 4818

TAXA	FORM	03 22 74 IS	03 22 74 %C	03 22 74 ALGAL UNITS PER ML	05 31 74 IS	05 31 74 %C	05 31 74 ALGAL UNITS PER ML	08 23 74 IS	08 23 74 %C	08 23 74 ALGAL UNITS PER ML	11 08 74 IS	11 08 74 %C	11 08 74 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII V. FLUVIATILE	CEL						X						X
ANABAENA	FIL			X			X			X			
ANABAENA #1	FIL					1.4	97						
ANABAENOPSIS CIRCULARIS	FIL								0.8	37			
ANABAENOPSIS ELENKINII	FIL						X						
ANKISTRODESMUS FALCATUS	CEL		8.2	496		3.4	243			X	5	7.9	153
ANKISTRODESMUS FALCATUS V. ACICULARIS	CEL						X		3.8	185			
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL												X
APHANIZOMENON GRACILE	FIL					2.0	146		1.5	74			
ASTERIONELLA FORMOSA	CEL		2.9	177									
CENTRIC DIATOM	CEL			X									
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL			X						X			X
CHLAMYDOMONAS	CEL					2.0	146						X
CHROOCOCCUS DISPERSUS V. MINOR	COL												X
CHROOMONAS	CEL		9.4	567									
CHROOMONAS ACUTA	CEL			X	1	27.2	1947				4	9.5	184
CLOSTERIUM	CEL		1.2	71						X			
COCCONEIS PLACENTULA	CEL												X
COELASTRUM CAMBRICUM	COL											1.6	31
COELASTRUM MICROPORUM	COL		1.2	71									
COELASTRUM SPHAERICUM	CEL					0.7	49						
COSMARIUM	CEL						X			X			X
CRUCIGENIA APICULATA	COL			X			X						
CRUCIGENIA CRUCIFERA	COL											1.6	31
CRUCIGENIA FENESTRATA	COL						X						
CRUCIGENIA QUADRATA	COL			X									
CRUCIGENIA TETRAPEDIA	COL			X		2.7	195			X			X
CRYPTOMONAS	CEL		1.2	71	5	4.8	341						
CRYPTOMONAS MARSSONII	CEL										2	12.7	245
CYCLOTELLA MENEGHINIANA	CEL				2	9.5	682					1.6	31
CYMBELLA	CEL												X
DACTYLOCOCCOPSIS	CEL								6.0	296		4.8	92
DICTYOSPHAERIUM PULCHELLUM	COL			X			X						
DINOBRYON BAVARICUM	CEL		0.6	35									X
DINOBRYON CYLINDRICUM	CEL			X									
DINOBRYON DIVERGENS	CEL					0.7	49						
DINOBRYON SOCIALE	CEL								1.5	74			
DIPLONEIS	CEL						X						
EUASTRUM	CEL									X		1.6	31
EUASTRUM DENTICULATUM	CEL			X			X						
EUGLENA	CEL			X			X			X			
EUNOTIA	CEL			X									X
FLAGELLATE #2	CEL											1.6	31
FLAGELLATE #4	CEL									X			
FLAGELLATES	CEL								6.0	296			
FRAGILARIA	CEL											3.2	61
GLENODINIUM OCULATUM	CEL						X						
GOLENKINIA	CEL					1.4	97						X
GOLENKINIA #1	CEL			X									
GYROSIGMA	CEL			X									
KIRCHNERIELLA	CEL		7.1	425									
KIRCHNERIELLA #1	CEL			X		9.5	682						
KIRCHNERIELLA #2	CEL											3.2	61
LEPOCINCLIS	CEL									X			
LYNGBYA	FIL					0.7	49		36.8	1812			
LYNGBYA LAGERHEIMII	FIL								12.0	592			
MALLOMONAS ACAROIDES	CEL			X									
MELOSIRA #4	CEL					0.7	49						
MELOSIRA DISTANS	CEL		16.5	992	3	8.8	633		1.5	74	1	33.3	643
MELOSIRA GRANULATA	CEL		4.7	283			X			X			X
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL						X						X
MERISMOPEDIA TENUISSIMA	COL					4.1	292			X			
MESOSTIGMA VIRIDIS	CEL									X			
MOUGEOTIA	FIL			X			X						
NAVICULA	CEL												X
NITZSCHIA	CEL			X	4	13.6	974						X
NITZSCHIA ACTINASTROIDES	CEL			X									X
NITZSCHIA SPP.	CEL		11.8	709									
OOCYSTIS	CEL			X									X
OPHIOCYTIUM CAPITATUM	CEL			X									
OSCILLATORIA LIMNETICA	FIL		1.8	106									
OSCILLATORIA SPLENDIDA	FIL											1.6	31
PANDORINA MORUM	COL									X			
PEDIASTRUM BIRADIATUM	COL									X			
PEDIASTRUM BIRADIATUM V. LONGECORNUTUM	COL			X			X						X

LAKE NAME: LAKE OF THE PINES
STORET NUMBER: 4818

CONTINUED

TAXA	FORM	03 22 74 S	03 22 74 SC	03 22 74 ALGAL UNITS PER ML	05 31 74 S	05 31 74 SC	05 31 74 ALGAL UNITS PER ML	08 23 74 S	08 23 74 SC	08 23 74 ALGAL UNITS PER ML	11 08 74 S	11 08 74 SC	11 08 74 ALGAL UNITS PER ML
PEDIASTRUM BORYANUM	COL			X									
PEDIASTRUM DUPLEX V. RETICULATUM	COL			X			X						
PEDIASTRUM TETRAS V. TETRAODON	COL			X			X						X
PENNATE DIATOM	CEL								0.8	37			
PERIDINIUM	CEL			X									
PERIDINIUM #1	CEL									X			
PERIDINIUM #2	CEL									X			
PERIDINIUM INCONSPICUUM	CEL						X						
PERIDINIUM QUADRIDENS	CEL									X			
PERIDINIUM SPP.	CEL								5.3	259			
PHACUS	CEL			X									
PHACUS #1	CEL									X			
PHACUS #2	CEL												X
PHACUS GLABER	CEL									X			
PHACUS MEGALOPSIS	CEL			X			X		0.8	37			X
PHACUS TORTUS	CEL			X						X			
RAPHIDIOPSIS	FIL								23.3	1146			
RHOPALODIA GIBBA	CEL												X
SCENEDESMUS ABUNDANS	COL			X		2.0	146						X
SCENEDESMUS ARCUATUS	COL			X									
SCENEDESMUS ARCUATUS V. PLATYDISCA	COL						X						
SCENEDESMUS BICAUDATUS	COL									X			
SCENEDESMUS DENTICULATUS	COL												X
SCENEDESMUS DIMORPHUS	COL			X			X						X
SCENEDESMUS INTERMEDIUS	COL			X									X
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL												X
SCENEDESMUS PROTUBERANS	COL			X									X
SCENEDESMUS QUADRICAUDA	COL		6.5	390		1.4	97				3	11.1	214
SCENEDESMUS SPP.	COL												
SCHROEDERIA SETIGERA	CEL		0.6	35									
SKELETONEMA POTAMOS	CEL		25.3	1524									
SPERMATOZOOPSIS	CEL						X						
SPHAERELLOPSIS	CEL						X						
STAURASTRUM #1	CEL									X			
STAURASTRUM #2	CEL			X			X			X			
STEPHANODISCUS	CEL			X									
SYNEDRA	CEL			X			X						
SYNEDRA ACUS V. RADIANS	CEL												X
SYNEDRA ULNA	CEL			X									
TETRAEDRON CAUDATUM V. LONGISPINUM	CEL					1.4	97						
TETRAEDRON LOBULATUM V. POLYFURCATUM	CEL									X			
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL					1.4	97			X		4.8	92
TETRAEDRON PLANCTONICUM	CEL						X						
TETRAEDRON TRIGONUM	CEL						X						X
TETRAEDRON TRIGONUM V. GRACILE	CEL									X			
TETRASTRUM ELEGANS	COL		0.6	35									X
TETRASTRUM HETERACANTHUM	COL						X						X
TETRASTRUM STAUROGENIAEFORME	COL			X									X
TRACHELOMONAS	CEL						X						X
TRACHELOMONAS INTERMEDIA	CEL			X									
TREUBARIA	CEL		0.6	35		0.7	49			X			
WOLOSZYNSKIA RETICULATA	CEL						X			X			
TOTAL				6022			7157			4919			1931

LAKE NAME: LAVON RES.
STORET NUMBER: 4819

NYGAARD TROPHIC STATE INDICES

DATE	03 08 74	05 20 74	08 12 74	10 31 74
MYXOPHYCEAN	1.33 E	0.50 E	0.75 E	02/0 E
CHLOROPHYCEAN	0.67 ?	1.25 E	0.50 ?	05/0 E
EUGLENOPHYTE	0.17 ?	1.00 E	0.60 E	0.14 ?
DIATOM	6.00 E	02/0 E	3.00 E	03/0 E
COMPOUND	4.33 E	4.00 E	2.75 E	11/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 08 74	05 20 74	08 12 74	10 31 74
GENUS	01	01	01	01
SPECIES	02	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 08 74	05 20 74	08 12 74	10 31 74
AVERAGE DIVERSITY	H	2.44	2.20	2.25	1.07
NUMBER OF TAXA	S	19.00	27.00	18.00	14.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	4.25	4.75	4.17	3.81
MINUMUM DIVERSITY	MINH	0.14	0.51	0.23	0.08
TOTAL DIVERSITY	D	3882.04	1183.60	1878.75	2242.72
TOTAL NUMBER OF INDIVIDUALS/ML	N	1591.00	538.00	835.00	2096.00
EVENESS COMPONENT	J	0.57	0.46	0.54	0.28
RELATIVE EVENESS	RJ	0.56	0.40	0.52	0.27
MEAN NUMBER OF INDIVIDUALS/TAXA	L	83.74	19.93	46.39	149.71
NUMBER/ML OF MOST ABUNDANT TAXON	K	473.00	166.00	387.00	1334.00

LAKE NAME: LAVON RES.
STORET NUMBER: 4819

CONTINUED

TAXA	FORM	03 08 74 S	03 08 74 %C	03 08 74 ALGAL UNITS PER ML	05 20 74 S	05 20 74 %C	05 20 74 ALGAL UNITS PER ML	08 12 74 S	08 12 74 %C	08 12 74 ALGAL UNITS PER ML	10 31 74 S	10 31 74 %C	10 31 74 ALGAL UNITS PER ML
ANABAENA	FIL									X			
ANABAENA #1	FIL			X			X						X
ANABAENA #2	FIL	4	2.7	43			X						
ANKISTRODESMUS FALCATUS	CEL												X
APHANIZOMENON FLOS-AQUAE	FIL												X
APHANIZOMENON GRACILE	FIL									X			
CENTRIC DIATOMS	CEL	2	29.7	473									
CERATIUM HIRUNDINELLA	CEL						X						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL						X						
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL						X						X
CHLOROPHYTAN CELL	CEL				4	7.6	41						
CHROOMONAS ACUTA	CEL		18.9	301	5	15.4	83		3.6	30	3	2.3	48
CLOSTERIUM #1	CEL							5	3.6	30			
CLOSTERIUM #2	CEL			X			X			X			
CLOSTERIUM #3	CEL						X			X			
CLOSTERIUM #4	CEL						X						
CLOSTERIUM #5	CEL			X									
CLOSTERIUM ACICULARE V. SUBPRONUM ?	CEL	3	2.7	43									
COELASTRUM MICROPORUM	COL			X			X						
COSMARIUM	CEL						X						
CRYPTOMONAS EROSA	CEL		2.7	43	3	23.0	124		3.6	30			
CYCLOTELLA MENEGHINIANA	CEL			X									
DACTYLOCOCCOPSIS	CEL		8.1	129									
DIPLOPSALIS ACUTA	CEL						X						X
ELAKATOTHRIX GELATINOSA	CEL						X						
EUASTRUM DENTICULATUM	CEL									X			
EUGLENA	CEL						X						
EUGLENA #1	CEL									X			
EUGLENA #2	CEL			X									
EUGLENA EHRENBERGII	CEL						X			X			
EUGLENA TRIPTERIS	CEL						X						
MELOSIRA	CEL				2	30.9	166						
MELOSIRA DISTANS	CEL			X				2	46.3	387			
MELOSIRA GRANULATA	CEL	1	29.7	473				1	21.4	179	1	63.6	1334
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL												X
MELOSIRA VARIANS	CEL	5	5.4	86									
MICROCYSTIS INCERTA	COL									X			
NAVICULA	CEL			X									
OOCYSTIS	CEL							3	14.3	119			X
OSCILLATORIA	FIL			X									
PEDIASTRUM DUPLEX	COL						X						
PEDIASTRUM DUPLEX V. CLATHRATUM	COL												X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL												X
PENNATE DIATOM	CEL									X			
PHACUS	CEL						X						
PHACUS PSEUDONORDSTEDTII	CEL						X						
SCENEDESMUS BIJUGA	COL						X						
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL			X									X
SCHROEDERIA SETIGERA	CEL						X		3.6	30			
STEPHANODISCUS	CEL			X	1	23.0	124	4	3.6	30	2	34.1	714
TRACHELOMONAS	CEL									X			X
TRACHELOMONAS FLUVIATILIS ?	CEL						X						
TRACHELOMONAS INTERMEDIA	CEL						X						
TOTAL				1591			538			835			2096

LAKE NAME: LIVINGSTON LAKE
STORET NUMBER: 4820

NYGAARD TROPHIC STATE INDICES

DATE	03 16 74	05 24 74	08 19 74	11 07 74
MYXOPHYCEAN	1.00 E	2.00 E	3.00 E	05/0 E
CHLOROPHYCEAN	1.50 E	5.00 E	1.67 E	03/0 E
EUGLENOPHYTE	1.00 E	0.11 ?	0.29 E	0.62 E
DIATOM	1.20 E	2.33 E	0.80 E	2.00 E
COMPOUND	6.50 E	9.50 E	7.33 E	19/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 16 74	05 24 74	08 19 74	11 07 74
GENUS	06	16	12	06
SPECIES	00	03	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 16 74	05 24 74	08 19 74	11 07 74
AVERAGE DIVERSITY	H	2.25	2.32	2.92	2.76
NUMBER OF TAXA	S	40.00	57.00	40.00	26.00
NUMBER OF SAMPLES COMPOSITED	M	8.00	8.00	8.00	8.00
MAXIMUM DIVERSITY	MAXH	5.32	5.83	5.32	4.70
MINUMUM DIVERSITY	MINH	0.06	0.06	0.02	0.26
TOTAL DIVERSITY	D	21348.00	35936.80	95189.08	3019.44
TOTAL NUMBER OF INDIVIDUALS/ML	N	9488.00	15490.00	32599.00	1094.00
EVENESS COMPONENT	J	0.42	0.40	0.55	0.59
RELATIVE EVENESS	RJ	0.42	0.40	0.55	0.57
MEAN NUMBER OF INDIVIDUALS/TAXA	L	237.20	271.75	814.98	42.08
NUMBER/ML OF MOST ABUNDANT TAXON	K	5017.00	9691.00	7832.00	521.00

LAKE NAME: LIVINGSTON LAKE CONTINUED
STORET NUMBER: 4820

TAXA	FORM	03 16 74 S	03 16 74 %C	03 16 74 ALGAL UNITS PER ML	05 24 74 S	05 24 74 %C	05 24 74 ALGAL UNITS PER ML	08 19 74 S	08 19 74 %C	08 19 74 ALGAL UNITS PER ML	11 07 74 S	11 07 74 %C	11 07 74 ALGAL UNITS PER ML
ACTINASTRUM GRACILIMUM	CEL			X		1.0	153						
ANABAENA #1	FIL									X			
ANABAENA #2	FIL									X			
ANABAENOPSIS CIRCULARIS	FIL								3.2	1058			
ANKISTRODESMUS	CEL		0.8	73									
ANKISTRODESMUS FALCATUS	CEL					0.5	76			X			
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL									X			
APHANIZOMENON FLOS-AQUAE	FIL									X			
CARTERIA	CEL				2	5.9	916						
CENTRIC DIATOMS	CEL				1	62.6	9691						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL												X
CHLOROPHYTAN CELL	CEL			X						X			
CHLOROPHYTAN COCCOID CELL	CEL									X			
CHLOROPHYTAN COLONY	COL									X			
CHROOMONAS	CEL	4	8.0	763									
CHROOMONAS ACUTA	CEL				4	4.4	687						
CLOSTERIUM #1	CEL			X			X						
CLOSTERIUM #2	CEL			X			X			X			
CLOSTERIUM #3	CEL			X									
CLOSTERIUM #4	CEL			X									
COELASTRUM MICROPORUM	COL			X									
COELASTRUM SPHAERICUM	COL						X						
COSMARIUM	CEL						X						
COSMARIUM CLEPSYDRA V. NANUM	CEL						X			X			
CRUCIGENIA QUADRATA	COL									X			
CRUCIGENIA TETRAPEDIA	COL			X									
CRYPTOMONAS	CEL					1.0	153						
CRYPTOMONAS EROSA	CEL		1.1	109					1.1	353	2	10.1	110
CRYPTOMONAS MARSSONII	CEL											2.5	27
CYCLOTELLA	CEL	1	52.9	5017				3	20.3	6633			
CYCLOTELLA MENEGHINIANA	CEL						X						
CYST	CEL												X
DACTYLOCOCCOPSIS	CEL					1.5	229	2	24.0	7832		7.5	82
DICTYOSPHAERIUM PULCHELLUM	COL					1.0	153						
DIPLOPSALIS ACUTA	CEL						X						
EUASTRUM DENTICULATUM	CEL									X			
EUDORINA ELEGANS	CEL						X						
EUGLENA	CEL						X						
EUGLENA #1	CEL			X						X			X
EUGLENA #2	CEL			X									
EUGLENA #3	CEL			X									
EUGLENA ACUS	CEL									X			X
EUGLENA EHRENBERGII ?	CEL			X									
EUGLENA OXYURIS	CEL												X
EUGLENA TRIPTERIS	CEL			X									
EUGLENOPHYTAN CELL	CEL									X			
FLAGELLATE	CEL		1.1	109									
FLAGELLATE #4	CEL						X						
GLENODINIUM EDAX	CEL						X						
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL									X			
GLENODINIUM OCULATUM	CEL			X						X			
GOLENKINIA	CEL						X						
GOMPHONEMA OLIVACEUM	CEL									X			
LYNGBYA	FIL						X						
MELOSIRA	CEL			X									
MELOSIRA DISTANS	CEL	3	10.3	982		0.5	76		0.4	141	4	5.0	55
MELOSIRA GRANULATA	CEL						X		0.7	212	3	5.0	55
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL										5	2.5	27
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL						X		0.4	141			X
MELOSIRA ITALICA	CEL												X
MELOSIRA VARIANS	CEL			X									
MERISMOPEDIA GLAUCA	COL							4	11.7	3810		2.5	27
MERISMOPEDIA MINIMA	COL					6.9	1068						
MERISMOPEDIA TENUISSIMA	COL			X			X		8.4	2752		2.5	27
MESOSTIGMA VIRIDIS	CEL					0.5	76						
MICROCYSTIS AERUGINOSA	COL												X
MICROCYSTIS INCERTA	COL					1.0	153						
NAVICULA	CEL											2.5	27
NITZSCHIA	CEL									X			
NITZSCHIA #1	CEL			X									
NITZSCHIA #2	CEL			X					0.4	141			
NITZSCHIA #3	CEL			X									
NITZSCHIA #4	CEL						X						
NITZSCHIA ACTINASTROIDES	CEL					0.5	76						
NITZSCHIA TRYBLIONELLA	CEL												X
OSCILLATORIA	FIL			X								7.5	82

LAKE NAME: LIVINGSTON LAKE
STORET NUMBER: 4820

CONTINUED

TAXA	FORM	03 16 74 S	03 16 74 %C	03 16 74 ALGAL UNITS PER ML	05 24 74 S	05 24 74 %C	05 24 74 ALGAL UNITS PER ML	08 19 74 S	08 19 74 %C	08 19 74 ALGAL UNITS PER ML	11 07 74 S	11 07 74 %C	11 07 74 ALGAL UNITS PER ML
OSCILLATORIA #1	FIL		0.4	36									
OSCILLATORIA #2	FIL			X			X						
OSCILLATORIA LIMNETICA	FIL				3	2.5	382	1	15.8	5151			
PEDIASTRUM BIRADIATUM V. LONGECORNUTUM	COL						X						
PEDIASTRUM DUPLEX V. CLATHRATUM	COL						X						
PEDIASTRUM TETRAS V. TETRAODON	COL					0.5	76						
PERIDINIUM	CEL						X						
PERIDINIUM PENARDIFORME	CEL									X			
PERIDINIUM QUADRIDENS	CEL						X			X			
PHACUS	CEL						X						
PHACUS ACUMINATUS	CEL									X			X
PHACUS CAUDATUS	CEL									X			
PHACUS PSEUDONORDSTEDTII	CEL			X									
PHACUS TORTUS	CEL			X									X
PHACUS TRIQUETER	CEL			X									
PTEROMONAS ACULEATA	CEL									X			
PTEROMONAS ANGULOSA	CEL						X						
RAPHIDIOPSIS	FIL					0.5	76	5	11.3	3669			
SCENEDESMUS ABUNDANS	COL						X						
SCENEDESMUS ARCUATUS	COL												X
SCENEDESMUS BICAUDATUS	COL						X						
SCENEDESMUS DENTICULATUS	COL						X						
SCENEDESMUS DIMORPHUS	COL			X			X					2.5	27
SCENEDESMUS ECORNIS V. DISCIFORMIS	COL						X						
SCENEDESMUS QUADRICAUDA	COL												X
SCENEDESMUS SPP.	COL				5	3.0	458						
SCHROEDERIA SETIGERA	CEL					2.0	305						
SKELETONEMA POTAMOS	CEL		6.9	654		3.9	610						
STEPHANODISCUS	CEL	2	13.0	1236			X				1	47.6	521
SURIRELLA	CEL			X		0.5	76						
SYNEDRA	CEL	5	5.0	473					1.7	564		2.5	27
SYNEDRA RUMPENS	CEL									X			
TETRAEDRON CAUDATUM V. LONGISPINUM	CEL						X						
TETRAEDRON CONSTRICTUM	CEL						X						
TETRAEDRON MINIMUM	CEL						X		0.2	71			
TETRASTRUM GLABRUM	COL		0.4	36									
TETRASTRUM HETERACANTHUM	COL						X						
TETRASTRUM STAUROGENIAEFORME	COL						X						
TRACHELOMONAS	CEL						X						
TRACHELOMONAS INTERMEDIA	CEL			X									
TRACHELOMONAS SCABRA	CEL			X									
TREUBARIA	CEL						X						
TREUBARIA SETIGERUM	CEL								0.2	71			
TOTAL				9488			15490			32599			1094

LAKE NAME: LYNDON B. JOHNSON RES
STORET NUMBER: 4821

NYGAARD TROPHIC STATE INDICES

DATE	03 13 74	05 21 74	11 04 74
MYXOPHYCEAN	02/0 E	2.50 E	0.67 E
CHLOROPHYCEAN	05/0 E	7.50 E	2.00 E
EUGLENOPHYTE	0.57 E	0/20 ?	0.50 E
DIATOM	0.67 E	0.43 E	0.43 E
COMPOUND	13/0 E	11.5 E	5.00 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 13 74	05 21 74	11 04 74
GENUS	06	18	01
SPECIES	04	07	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 13 74	05 21 74	11 04 74
AVERAGE DIVERSITY	H	3.20	3.85	2.17
NUMBER OF TAXA	S	23.00	36.00	28.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	4.52	5.17	4.81
MINUMUM DIVERSITY	MINH	0.21	0.08	0.48
TOTAL DIVERSITY	D	3964.80	24089.45	1288.98
TOTAL NUMBER OF INDIVIDUALS/ML	N	1239.00	6257.00	594.00
EVENESS COMPONENT	J	0.71	0.74	0.45
RELATIVE EVENESS	RJ	0.70	0.75	0.40
MEAN NUMBER OF INDIVIDUALS/TAXA	L	53.87	173.81	21.21
NUMBER/ML OF MOST ABUNDANT TAXON	K	256.00	1304.00	188.00

LAKE NAME: LYNDON B. JOHNSON RES CONTINUED
STORET NUMBER: 4821

TAXA	FORM	03 13 74 S	03 13 74 %C	03 13 74 ALGAL UNITS PER ML	05 21 74 S	05 21 74 %C	05 21 74 ALGAL UNITS PER ML	11 04 74 S	11 04 74 %C	11 04 74 ALGAL UNITS PER ML
ANKISTRODESMUS FALCATUS	CEL					3.1	196			
APHANIZOMENON FLOS-AQUAE	FIL			X		1.0	65			
CENTRIC DIATOM	CEL	3	17.3	214						
CENTRIC DIATOMS	CEL				5	12.5	783			
CERATIUM HIRUNDINELLA	CEL			X			X			
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL									X
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL			X						
CHLAMYDOMONAS	CEL				2	6.2	391			
CHLOROPHYTAN COLONY	COL		3.5	43						
CHROOMONAS	CEL	4	6.9	85						
CLOSTERIUM	CEL					1.0	65			X
COELASTRUM CAMBRICUM	COL					2.1	130			
COELASTRUM MICROPORUM	COL					2.1	130			X
COSMARIUM	CEL						X			X
CRUCIGENIA APICULATA	COL				4	12.5	783			
CRYPTOMONAS EROSA	CEL	5	10.3	128	3	6.2	391	1	31.6	188
CYCLOTELLA MENEGHINIANA	CEL						X			
CYMBELLA	CEL					2.1	130			X
DACTYLOCOCCOPSIS	CEL		20.7	256						
DINOBRYON SOCIALE ?	CEL			X						
DIPLOPSALIS ACUTA	CEL			X						
EUGLENA #1	CEL		3.5	43						
EUGLENA ACUS	CEL									X
EUGLENA GRACILIS	CEL									X
EUGLENA TRIPTERIS	CEL			X						X
FLAGELLATE #2	CEL				1	20.8	1304			
FRAGILARIA	CEL									X
FRANCEIA	CEL						X			
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL									X
GYROSIGMA ?	CEL			X						
LAGERHEIMIA SUBSALSA	CEL						X			
LYNGBYA	FIL									X
MELOSIRA	CEL									X
MELOSIRA DISTANS	CEL							3	21.0	125
MERISMOPEDIA MINIMA	COL						X			
MICROCYSTIS	COL					1.0	65			
MICROCYSTIS INCERTA	COL						X			
NAVICULA	CEL					2.1	130			X
NAVICULA ANGLICA	CEL						X			
NITZSCHIA	CEL					8.3	522			
NITZSCHIA TRYBLIONELLA	CEL									X
OOCYSTIS	CEL					3.1	196			
OSCILLATORIA	FIL									X
PEDIASTRUM SIMPLEX	COL			X						X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL			X						X
PENNATE DIATOM	CEL					2.1	130			
PENNATE DIATOM #2	CEL						X			
PENNATE DIATOM #3	CEL			X						
PENNATE DIATOM #4	CEL									X
PENNATE DIATOMS	CEL							5	21.0	125
PHACUS	CEL									X
PHACUS ACUMINATUS V. DREZEPOLSKII	CEL			X						
PHACUS ORBICULARIS V. ZMUDAE ?	CEL			X						
RAPHIDIOPSIS	FIL					2.1	130			
SCENEDESMUS ABUNDANS	COL						X			
SCENEDESMUS BICAUDATUS	COL						X			X
SCENEDESMUS BIJUGA	COL		10.3	128		5.2	326			X
SCENEDESMUS DIMORPHUS	COL		3.5	43		1.0	65			
SCENEDESMUS QUADRICAUDA	COL	1	10.3	128		1.0	65	4	5.2	31
STAURASTRUM	CEL									X
STEPHANODISCUS	CEL					1.0	65	2	21.0	125
STEPHANODISCUS NIAGARAE	CEL		3.5	43						
SURIRELLA	CEL						X			
SYNEDRA	CEL	2	10.3	128						X
TETRAEDRON CAUDATUM V. LONGISPINUM	CEL					2.1	130			
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL					1.0	65			
TETRAEDRON MUTICUM	CEL						X			
TOTAL				1239			6257			594

LAKE NAME: MEDINA
STORET NUMBER: 4822

NYGAARD TROPHIC STATE INDICES

DATE	03 12 74	05 22 74	08 15 74	11 05 74
MYXOPHYCEAN	02/0 E	05/0 E	04/0 E	4.00 E
CHLOROPHYCEAN	07/0 E	07/0 E	04/0 E	5.00 E
EUGLENOPHYTE	0/09 ?	0.08 ?	0/08 ?	0.17 ?
DIATOM	0.50 E	0.50 E	1.00 E	1.50 E
COMPOUND	10/0 E	14/0 E	10/0 E	12.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 12 74	05 22 74	08 15 74	11 05 74
GENUS	02	06	09	00
SPECIES	00	02	02	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 12 74	05 22 74	08 15 74	11 05 74
AVERAGE DIVERSITY	H	2.57	3.30	3.63	2.02
NUMBER OF TAXA	S	19.00	21.00	17.00	39.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	4.25	4.39	4.09	5.29
MINUMUM DIVERSITY	MINH	0.08	0.10	0.08	1.35
TOTAL DIVERSITY	D	7982.42	8481.00	9205.68	531.26
TOTAL NUMBER OF INDIVIDUALS/ML	N	3106.00	2570.00	2536.00	263.00
EVENESS COMPONENT	J	0.60	0.75	0.89	0.38
RELATIVE EVENESS	RJ	0.60	0.75	0.89	0.18
MEAN NUMBER OF INDIVIDUALS/TAXA	L	163.47	122.38	149.18	6.74
NUMBER/ML OF MOST ABUNDANT TAXON	K	1320.00	607.00	461.00	131.00

LAKE NAME: MEDINA
STORET NUMBER: 4822

CONTINUED

TAXA	FORM	03 12 74 S	03 12 74 %C	03 12 74 ALGAL UNITS PER ML	05 22 74 S	05 22 74 %C	05 22 74 ALGAL UNITS PER ML	08 15 74 S	08 15 74 %C	08 15 74 ALGAL UNITS PER ML	11 05 74 S	11 05 74 %C	11 05 74 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII	CEL												X
APHANOTHECE	COL	5	5.0	155		1.1	28				3	12.5	33
CENTRIC DIATOM	CEL												X
CERATIUM HIRUNDINELLA	CEL			X									X
CHLAMYDOMONAS	CEL					2.1	55						
CHLOROPHYTAN COCCOID CELLED COLONY	COL												X
CHLOROPHYTAN FILAMENT #1	CEL					6.5	166		18.2	461			
CHROOCOCCUS	CEL					1.1	28		2.6	66			
CHROOMONAS	CEL	3	17.5	543		5.4	138		7.8	198			X
CLOSTERIUM	CEL										2	12.5	33
COELASTRUM CAMBRICUM	COL												X
COELASTRUM MICROPORUM	COL			X									
COELASTRUM RETICULATUM	COL	2	10.0	311	3	14.0	359	4	3.9	99			
COELOSPHAERIUM	COL												X
CRYPTOMONAS EROSA	CEL		3.7	116		4.3	110		1.3	33	1	49.8	131
CRYPTOMONAS MARSSONII	CEL		1.3	39					1.3	33			X
CYCLOTELLA	CEL		7.5	233									
CYCLOTELLA MENEGHINIANA	CEL				5	7.5	193		7.8	198			
CYST	CEL			X									
DACTYLOCOCCOPSIS	CEL			X									
DACTYLOCOCCOPSIS IRREGULARIS	CEL										5	12.5	33
DINOBRYON DIVERGENS	CEL												X
DINOBRYON SOCIALE	CEL					3.2	83		1.3	33			
DINOBRYON SOCIALE V. AMERICANUM	CEL	1	42.5	1320									
DIPLOPSALIS ACUTA	CEL												X
ELAKATOTHRIX	CEL			X									
ELAKATOTHRIX GELATINOSA	CEL					1.1	28		5.2	132			X
EUGLENA	CEL												X
EUGLENA #1	CEL					1.1	28						
EUGLENA OXYURIS	CEL												X
FLAGELLATE	CEL										4	12.5	33
FRAGILARIA CROTONENSIS	CEL	4	8.8	272	2	22.6	580		6.5	165			X
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL												X
GYMNODINIUM ORDINATUM	CEL			X									
LYNGBYA	FIL												X
MALLOMONAS PSEUDOCORONATA ?	CEL												X
MELOSIRA GRANULATA	CEL												X
MELOSIRA ISLANDICA	CEL									X			
MELOSIRA ITALICA ?	CEL												X
MERISMOPEDIA GLAUCA	COL												X
MERISMOPEDIA TENUISSIMA	COL					1.1	28		3.9	99			
MICROCYSTIS	COL								12.9	326			
MICROCYSTIS ?	COL				4	23.6	607						
MICROCYSTIS AERUGINOSA	COL							2	10.4	264			X
MOUGEOTIA	FIL												X
NAVICULA #1	CEL								3.9	99			
NITZSCHIA #1	CEL						X						
OOCYSTIS	COL		2.5	78		1.1	28						
OOCYSTIS BORGEI	CEL						X						
OSCILLATORIA	FIL												X
OSCILLATORIA LIMOSA	FIL												X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL			X	1	1.1	28	1	2.6	66			X
PENNATE DIATOM	CEL			X									
PHACUS CAUDATUS	CEL												X
PHORMIDIUM MUCICOLA	COL						X						
SCENEDESMUS BIJUGA	COL			X		1.1	28	5	10.4	264			X
SCENEDESMUS FLEXUOSUS	COL												X
SCENEDESMUS QUADRICAUDA	COL												X
SPHAEROCYSTIS SCHROETERI	COL												X
STAURASTRUM	CEL												X
SYNEDRA	CEL												X
TETRAEDRON MINIMUM	CEL		1.3	39		2.1	55						
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL												X
TETRASTRUM ? GLABRUM	COL												X
TOTAL				3106			2570			2536			263

LAKE NAME: LAKE MERIDETH
STORET NUMBER: 4823

NYGAARD TROPHIC STATE INDICES

DATE	03 05 74	05 14 74	08 07 74	10 28 74
MYXOPHYCEAN	01/0 E	2.00 E	1.25 E	0.50 E
CHLOROPHYCEAN	04/0 E	16.0 E	1.25 E	3.25 E
EUGLENOPHYTE	0/05 ?	0.22 E	0.40 E	0.07 ?
DIATOM	0.33 E	0.12 ?	1.00 E	0.33 E
COMPOUND	06/0 E	23.0 E	3.75 E	4.25 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 05 74	05 14 74	08 07 74	10 28 74
GENUS	00	09	00	00
SPECIES	00	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 05 74	05 14 74	08 07 74	10 28 74
AVERAGE DIVERSITY	H	2.22	3.11	2.11	2.54
NUMBER OF TAXA	S	16.00	39.00	27.00	29.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	4.00	5.29	4.75	4.86
MINUMUM DIVERSITY	MINH	0.11	0.16	0.53	0.46
TOTAL DIVERSITY	D	3547.56	9914.68	1073.99	1661.16
TOTAL NUMBER OF INDIVIDUALS/ML	N	1598.00	3188.00	509.00	654.00
EVENESS COMPONENT	J	0.56	0.59	0.44	0.52
RELATIVE EVENESS	RJ	0.55	0.58	0.38	0.48
MEAN NUMBER OF INDIVIDUALS/TAXA	L	99.88	81.74	18.85	22.55
NUMBER/ML OF MOST ABUNDANT TAXON	K	734.00	801.00	286.00	277.00

LAKE NAME: LAKE MERIDETH
STORET NUMBER: 4823

CONTINUED

TAXA	FORM	03 05 74 S	03 05 74 %C	03 05 74 ALGAL UNITS PER ML	05 14 74 S	05 14 74 %C	05 14 74 ALGAL UNITS PER ML	08 07 74 S	08 07 74 %C	08 07 74 ALGAL UNITS PER ML	10 28 74 S	10 28 74 %C	10 28 74 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII	COL						X						
ACTINASTRUM HANTZSCHII V. FLUVIATILE	COL											3.8	25
ANABAENA	FIL						X						
ANKISTRODESMUS	CEL					0.8	27						
ANKISTRODESMUS FALCATUS V. ACICULARIS	CEL						X						
APHANIZOMENON FLOS-AQUAE	FIL									X		3.8	25
ASTERIONELLA FORMOSA	CEL					1.4	46						
BINUCLEARIA	FIL				2	14.9	476						
CERATIUM HIRUNDINELLA	CEL						X			X			
CHLOROPHYTAN ? FILAMENT	FIL			X									
CHLOROPHYTAN COLONY	COL						X			X			
CHLOROPHYTAN CYST	CEL									X			
CHROOMONAS	CEL			X	4	14.1	450		56.2	286			
CHROOMONAS ACUTA	CEL	1	45.9	734									
CLOSTERIUM #1	CEL									X			
CLOSTERIUM #2	CEL									X			
CLOSTERIUM #3	CEL									X			X
CLOSTERIUM #4	CEL												X
COELASTRUM MICROPORUM	COL		1.6	26			X	4	8.1	41			X
COELASTRUM RETICULATUM	COL						X						
COELOSPHAERIUM NAEGELIANUM	COL												X
COSCINODISCUS ROTHII V. SUBSALSA	CEL										1	42.4	277
COSMARIUM	CEL						X						X
CRUCIGENIA APICULATA	COL												X
CRUCIGENIA QUADRATA	COL					1.7	55				5	7.6	50
CRUCIGENIA TETRAPEDIA	COL						X			X	4	15.4	101
CRYPTOMONAS EROSA	CEL	2	6.6	105	5	3.3	105	1	16.1	82	2	15.4	101
CYST #1	CEL												X
CYST #2	CEL												X
DACTYLOCOCCOPSIS	CEL								3.9	20			
DIATOMA TENUE	CEL			X									
DIPLOPSALIS ACUTA	CEL						X				3	3.8	25
ELAKATOTHRIX GELATINOSA	CEL					0.7	23						
ENTOMONEIS	CEL						X						
EUGLENA	CEL						X			X			
EUGLENA GRACILIS	CEL						X						
EUGLENA TRIPTERIS	CEL						X						
FLAGELLATE #1	CEL	4	16.4	262									
FLAGELLATE #2	CEL			X									
FRAGILARIA CROTONENSIS	CEL					0.7	23						
GLENODINIUM GYMNODINIUM	CEL							3	3.9	20			
GLENODINIUM OCULATUM	CEL									X			X
GYROSIGMA	CEL									X			X
LEPOCINCLIS #1	CEL									X			
LEPOCINCLIS #2	CEL												X
MICROCYSTIS AERUGINOSA	COL									X			
MICROCYSTIS INCERTA	COL								3.9	20			
NAVICULA	CEL					0.8	27						
NEIDIUM ?	CEL						X						
NITZSCHIA	CEL				3	19.3	615						
NITZSCHIA #1	CEL												X
NITZSCHIA #2	CEL												X
OOCYSTIS	CEL	3	21.3	341				5	3.9	20		3.8	25
OOCYSTIS PARVA	CEL				1	25.1	801						
OSCILLATORIA	FIL		1.6	26						X			
OSCILLATORIA LIMNETICA	FIL						X						
PEDIASTRUM BORYANUM	COL						X						
PEDIASTRUM DUPLEX V. CLATHRATUM	COL									X			
PEDIASTRUM DUPLEX V. RETICULATUM	COL						X						X
PEDIASTRUM TETRAS V. TETRAODON	COL												X
PENNATE DIATOM #4	CEL					1.4	46						
PENNATE DIATOMS	CEL		1.6	26									
PERIDINIUM UMBONATUM ?	CEL			X									
PHACUS CURVICAUDA	CEL									X			
PHACUS MEGALOPSIS	CEL									X			
SCENEDESMUS ARCUATUS	COL											3.8	25
SCENEDESMUS BIJUGA	COL					0.7	23			X			
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL			X									
SCENEDESMUS DIMORPHUS	COL						X						X
SCENEDESMUS FLEXUOSUS	COL												X
SCENEDESMUS INTERMEDIUS	COL					0.8	27						
SCENEDESMUS OPOLIENSIS	COL												X

LAKE NAME: LAKE MERIDETH
STORET NUMBER: 4823

CONTINUED

TAXA	FORM	03 05 74 S	03 05 74 %C	03 05 74 ALGAL UNITS PER ML	05 14 74 S	05 14 74 %C	05 14 74 ALGAL UNITS PER ML	08 07 74 S	08 07 74 %C	08 07 74 ALGAL UNITS PER ML	10 28 74 S	10 28 74 %C	10 28 74 ALGAL UNITS PER ML
SCHROEDERIA SETIGERA	CEL					1.6	50						
STAURASTRUM #1	CEL									X			
STAURASTRUM #2	CEL												X
STEPHANODISCUS	CEL		3.3	52		9.9	316	2	3.9	20			
SURIRELLA	CEL	5	1.6	26									
SURIRELLA OVATA	CEL					0.7	23						
SYNEDRA	CEL					1.7	55						
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL						X						X
TETRASTRUM GLABRUM	COL			X									
TRACHELOMONAS INTERMEDIA	CEL						X						
TOTAL				1598			3188			509			654

LAKE NAME: PALESTINE LAKE
STORET NUMBER: 4824

NYGAARD TROPHIC STATE INDICES

DATE	03 09 74	05 17 74	08 13 74	11 01 74
MYXOPHYCEAN	2.50 E	7.00 E	1.14 E	2.00 E
CHLOROPHYCEAN	4.50 E	8.00 E	1.86 E	4.00 E
EUGLENOPHYTE	0.07 ?	0.07 ?	0.48 E	0.33 E
DIATOM	1.33 E	1.33 E	1.00 E	0.50 E
COMPOUND	9.50 E	20.0 E	4.86 E	9.00 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 09 74	05 17 74	08 13 74	11 01 74
GENUS	08	10	18	04
SPECIES	03	07	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 09 74	05 17 74	08 13 74	11 01 74
AVERAGE DIVERSITY	H	3.35	3.66	3.66	2.78
NUMBER OF TAXA	S	34.00	31.00	59.00	45.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	5.09	4.95	5.88	5.49
MINUMUM DIVERSITY	MINH	0.10	0.14	0.16	0.32
TOTAL DIVERSITY	D	15550.70	9699.00	18687.96	4578.66
TOTAL NUMBER OF INDIVIDUALS/ML	N	4642.00	2650.00	5106.00	1647.00
EVENESS COMPONENT	J	0.66	0.74	0.62	0.51
RELATIVE EVENESS	RJ	0.66	0.74	0.62	0.48
MEAN NUMBER OF INDIVIDUALS/TAXA	L	136.53	85.48	86.54	36.60
NUMBER/ML OF MOST ABUNDANT TAXON	K	1115.00	534.00	1297.00	491.00

LAKE NAME: PALESTINE LAKE
STORET NUMBER: 4824

CONTINUED

TAXA	FORM	03 09 74 S	03 09 74 %C	03 09 74 ALGAL UNITS PER ML	05 17 74 S	05 17 74 %C	05 17 74 ALGAL UNITS PER ML	08 13 74 S	08 13 74 %C	08 13 74 ALGAL UNITS PER ML	11 01 74 S	11 01 74 %C	11 01 74 ALGAL UNITS PER ML
ACHNANTHES MICROCEPHALA ?	CEL								0.6	29			
ACTINASTRUM HANTZSCHII	CEL												X
ANABAENA	FIL				2	2.0	52						X
ANABAENOPSIS	FIL									X			
ANKISTRODESMUS	CEL								1.1	58			
ANKISTRODESMUS FALCATUS	CEL					3.2	86						X
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL		6.1	285									
APHANIZOMENON	FIL				5	0.6	17						
APHANIZOMENON FLOS-AQUAE	FIL								0.6	29			
ASTERIONELLA FORMOSA V. GRACILLIMA	CEL						X						
CENTRIC DIATOM	CEL		2.2	104									
CERATIUM HIRUNDINELLA	CEL			X			X						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL						X			X			
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL					0.6	17						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL												X
CHLAMYDOMONAS	CEL						X						
CHLAMYDOMONAS #1	CEL								0.6	29			
CHLAMYDOMONAS #2	CEL								0.6	29			
CHLOROPHYTAN COLONY	COL												X
CHLOROPHYTAN FILAMENT #1	FIL									X			
CHROOMONAS	CEL	4	19.0	881	3	20.2	534		5.1	259		2.1	35
CHRYSOPHYTAN CELL #1	CEL			X									
CLOSTERIUM #1	CEL			X					1.1	58			
CLOSTERIUM #2	CEL			X						X			
CLOSTERIUM #3	CEL									X			
COCCOID CELL	CEL											6.4	105
COELASTRUM MICROPORUM	COL			X									
COELOSPHAERIUM	COL				4	2.0	52						
COSMARIUM #1	CEL								1.1	58			
COSMARIUM #2	CEL									X			X
COSMARIUM #3	CEL												X
CRUCIGENIA FENESTRATA	COL					0.6	17						
CRUCIGENIA TETRAPEDIA	COL		1.1	52		4.5	120					2.1	35
CRUCIGENIA TRUNCATA	COL												X
CRYPTOMONAS	CEL							1	11.3	577			
CRYPTOMONAS EROSA	CEL	2	12.8	596		2.0	52						
CRYPTOMONAS MARSSONII	CEL		1.1	52									
CRYPTOMONAS OVATA	CEL												X
CRYPTOMONAS REFLEXA	CEL		0.6	26					1.1	58			
CYANOPHYTAN COLONY	CEL		3.4	156									
DACTYLOCOCCOPSIS	CEL		1.7	78		5.2	138	2	25.4	1297		14.9	245
DINOBRYON BAVARICUM	CEL					2.6	69						
DINOBRYON SOCIALE	CEL			X								2.1	35
EUASTRUM	CEL									X			
EUASTRUM DENTICULATUM	CEL					0.6	17						
EUGLENA #1	CEL						X						
EUGLENA #2	CEL									X			
EUGLENA #3	CEL									X			
EUGLENA #4	CEL								0.6	29			X
EUGLENA EHRENBERGII	CEL												X
EUGLENA OXYURIS	CEL									X			
EUGLENOID CELL	CEL												X
GLENODINIUM EDAX	CEL									X			
GLENODINIUM KULCZYNSKII ?	CEL									X			
GLENODINIUM OCULATUM	CEL			X					0.6	29			
GYROSIGMA	CEL			X									X
KIRCHNERIELLA	CEL					3.9	103						
LAGERHEIMIA	CEL		1.7	78									
LEPOCINCLIS	CEL									X			
LEPOCINCLIS OVUM	CEL									X			
MALLOMONAS ACAROIDES	CEL		1.1	52									X
MALLOMONAS GLOBOSA	CEL												X
MELOSIRA DISTANS	CEL	3	7.3	337		19.5	516	5	10.2	519	2	29.8	491
MELOSIRA GRANULATA	CEL	1	24.0	1115	1	15.6	413		1.7	86	1	27.7	456
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL					3.9	103						
MELOSIRA VARIANS	CEL			X			X			X			X
MERISMOPEDIA TENUISSIMA	COL					1.3	34			X			X
MICROCYSTIS #2	COL					0.6	17						
MICROCYSTIS AERUGINOSA	COL								0.6	29			X
MICROCYSTIS INCERTA	COL	5	9.5	441		5.2	138		5.6	288		2.1	35
MOUGEOTIA	FIL									X			X
NAVICULA #1	CEL												X
NITZSCHIA	CEL										3	6.4	105
NITZSCHIA #1	CEL					0.6	17						
NITZSCHIA #2	CEL												X

LAKE NAME: PALESTINE LAKE
STORET NUMBER: 4824

CONTINUED

TAXA	FORM	03 09 74 IS	03 09 74 %C	03 09 74 ALGAL UNITS PER ML	05 17 74 IS	05 17 74 %C	05 17 74 ALGAL UNITS PER ML	08 13 74 IS	08 13 74 %C	08 13 74 ALGAL UNITS PER ML	11 01 74 IS	11 01 74 %C	11 01 74 ALGAL UNITS PER ML
OSCILLATORIA	FIL			X									
OSCILLATORIA #2	FIL												X
OSCILLATORIA LIMNETICA	FIL			X					6.2	317			
PANDORINA PROTRUBERANS	COL									X			
PEDIASTRUM DUPLEX V. RETICULATUM	COL												X
PEDIASTRUM TETRAS	COL					0.6	17						
PEDIASTRUM TETRAS V. TETRAODON	COL								0.6	29	5	2.1	35
PENNATE DIATOM	CEL		1.7	78									
PENNATE DIATOMS	CEL							4	10.7	548			
PERIDINIUM INCONSPICUUM	CEL			X									
PERIDINIUM QUADRIDENS	CEL									X			
PERIDINIUM UMBONATUM	CEL								0.6	29			
PHACUS ACUMINATUS	CEL									X			
PHACUS CHLOROPLASTES ?	CEL									X			
PHACUS CURVICAUDA	CEL										4	2.1	35
PHACUS PSEUDONORDSTEDTII	CEL									X			
PHACUS TORTUS	CEL									X			
RAPHIDIOPSIS CURVATA	FIL							3	9.6	490			
RHOPALODIA GIBBA	CEL												X
SCENEDESMUS	CEL												X
SCENEDESMUS ARCUATUS V. PLATYDISCA	COL		1.1	52						X			
SCENEDESMUS BIJUGA	COL					0.6	17		1.1	58			
SCENEDESMUS DENTICULATUS	COL			X					0.6	29			X
SCENEDESMUS DIMORPHUS	COL									X			
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL											2.1	35
SCENEDESMUS QUADRICAUDA	COL			X		2.0	52			X			
SPHAEROCYSTIS SCHROETERI	COL			X									
STAURASTRUM	CEL									X			X
SYNEDRA	CEL								0.6	29			
SYNEDRA #1	CEL		0.6	26									X
SYNEDRA ACUS	CEL					2.0	52						
TETRAEDRON	CEL									X			
TETRAEDRON GRACILE	CEL									X			X
TETRAEDRON MINIMUM	CEL						X						
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL								0.6	29			
TETRAEDRON REGULARE	CEL												X
TETRAEDRON REGULARE V. INCUS	CEL									X			
TETRAEDRON TUMIDULUM	CEL									X			
TETRASTRUM STAUROGENIAEFORME	COL		5.0	233									
TRACHELOMONAS	CEL												X
TRACHELOMONAS ?	CEL			X									
TRACHELOMONAS VOLVOCINA	CEL												X
TREUBARIA TRIAPPENDICULATA	CEL								0.6	29			X
WOLOSZYNSKIA RETICULATA	CEL								1.1	58			
TOTAL				4642			2650			5106			1647

LAKE NAME: TOMSON KINGDOM RESERVOIR
STORET NUMBER: 4825

NYGAARD TROPHIC STATE INDICES

DATE	03 08 74	05 16 74	08 09 74	10 30 74
MYXOPHYCEAN	01/0 E	1.00 E	7.00 E	9.00 E
CHLOROPHYCEAN	04/0 E	8.00 E	7.00 E	9.00 E
EUGLENOPHYTE	0/05 ?	0.22 E	0.14 ?	0.22 E
DIATOM	0.50 E	0.50 E	1.00 E	1.50 E
COMPOUND	06/0 E	12.0 E	17.0 E	25.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 08 74	05 16 74	08 09 74	10 30 74
GENUS	06	06	00	10
SPECIES	03	03	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 08 74	05 16 74	08 09 74	10 30 74
AVERAGE DIVERSITY	H	1.97	2.77	2.83	2.27
NUMBER OF TAXA	S	12.00	18.00	27.00	32.00
NUMBER OF SAMPLES COMPOSITED	M	5.00	5.00	6.00	6.00
MAXIMUM DIVERSITY	MAXH	3.58	4.17	4.75	5.00
MINUMUM DIVERSITY	MINH	0.04	0.08	0.04	0.04
TOTAL DIVERSITY	D	6432.05	8116.10	24397.43	27673.57
TOTAL NUMBER OF INDIVIDUALS/ML	N	3265.00	2930.00	8621.00	12191.00
EVENESS COMPONENT	J	0.55	0.66	0.60	0.45
RELATIVE EVENESS	RJ	0.55	0.66	0.60	0.45
MEAN NUMBER OF INDIVIDUALS/TAXA	L	272.08	162.78	319.30	380.97
NUMBER/ML OF MOST ABUNDANT TAXON	K	1391.00	778.00	3649.00	6224.00

LAKE NAME: POSSUM KINGDOM RESERVOIR CONTINUED
STORET NUMBER: 4825

TAXA	FORM	03 08 74 S	03 08 74 %C	03 08 74 ALGAL UNITS PER ML	05 16 74 S	05 16 74 %C	05 16 74 ALGAL UNITS PER ML	08 09 74 S	08 09 74 %C	08 09 74 ALGAL UNITS PER ML	10 30 74 S	10 30 74 %C	10 30 74 ALGAL UNITS PER ML
ANABAENA #1	FIL							3	4.4	378			
ANABAENA #2	FIL									X			
ANABAENOPSIS	FIL												X
ANABAENOPSIS ELENKINII	FIL								0.9	81			
ANABAENOPSIS RACIBORSKII	FIL							1	17.9	1541			
ANKISTRODESMUS FALCATUS	CEL												X
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL	4	2.8	91	5	6.2	183						
CARTERIA	CEL				1	14.1	412		0.3	27		1.2	146
CENTRIC DIATOM	CEL								0.6	54			
CHAETOCEROS ELMOREI	CEL					6.2	183					0.9	109
CHLAMYDOMONAS GLOBOSA	CEL									X			
CHLOROPHYTAN COCCOID CELL	CEL								1.3	108			
CHROOCOCCUS	COL						X						
CHROOMONAS ACUTA	CEL	1	42.6	1391	3	26.6	778				3	6.9	837
CHRYSOPHYTAN CELL	CEL									X			
CHRYSOPHYTAN CELL #1	CEL	5	0.9	30								1.2	146
COELASTRUM MICROPORUM	COL												X
COELOSPHAERIUM	COL												X
COSMARIUM	CEL						X		0.9	81			X
CRUCIGENIA TETRAPEDIA	COL						X						
CRYPTOMONAS EROSA	CEL			X					1.3	108			
CYCLOTELLA	CEL											0.6	73
DACTYLOCOCCOPSIS	CEL										2	24.2	2948
DICTYOSPHAERIUM PULCHELLUM	COL								0.3	27			
ELAKATOTHRIX ?	CEL									X			
EUGLENA	CEL									X			
FLAGELLATE	CEL								4.1	351			
FRANCEIA	CEL												X
GLENODINIUM OCULATUM	CEL								1.9	162			
GOLENKINIA ?	CEL								0.3	27			
GYMNODINIUM ORDINATUM	CEL			X			X					0.3	36
LEPOCINCLIS	CEL									X			
LYNGBYA	FIL							2	42.3	3649			X
MERISMOPEDIA MINIMA	COL											0.3	36
MERISMOPEDIA PUNCTATA	COL								6.9	595			
MERISMOPEDIA TENUISSIMA	COL											1.8	218
MERISMOPEDIA TROLLERI	COL			X									
MICROCYSTIS	COL											0.6	73
NITZSCHIA	CEL											0.9	109
OOCYSTIS	CEL	2	33.4	1089	4	12.5	366		1.9	162	4	5.4	655
OSCILLATORIA LIMNETICA	FIL										1	51.1	6224
PENNATE DIATOM	CEL		1.8	60					0.3	27			
PENNATE DIATOM #4	CEL						X						X
PERIDINIUM QUADRIDENS	CEL									X			
PHACUS	CEL												X
PHACUS CAUDATUS	CEL						X						X
PHACUS MEGALOPSIS	CEL						X						X
RAPHIDIOPSIS	FIL										5	3.6	437
RAPHIDIOPSIS CURVATA ?	FIL							5	9.7	838			
RHIZOSOLENIA	CEL		0.9	30								0.3	36
RHOPALODIA	CEL						X						
SCENEDESMUS	COL	3	15.7	514		4.7	137						X
SCENEDESMUS ACUMINATUS	COL					1.6	46						
SCENEDESMUS BICAUDATUS	COL												X
SCENEDESMUS BIJUGA	COL					1.6	46						
SCENEDESMUS DIMORPHUS	COL											0.3	36
SCENEDESMUS QUADRICAUDA	COL									X			
SYNEDRA ULNA	CEL		0.9	30									
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL		0.9	30	2	25.0	733	4	4.1	351		0.3	36
TETRAEDRON MUTICUM	CEL								0.6	54			
TETRASTRUM STAUROGENIAEFORME	COL											0.3	36
TRACHELOMONAS	CEL												X
TREUBARIA	CEL					1.6	46						
TOTAL				3265			2930			8621			12191

LAKE NAME: SAN ANGELO RES.
STORET NUMBER: 4826

NYGAARD TROPHIC STATE INDICES

DATE	03 04 74	05 15 74	08 05 74	10 19 74
MYXOPHYCEAN	1.25 E	6.00 E	10.0 E	03/0 E
CHLOROPHYCEAN	2.50 E	18.0 E	22.0 E	11/0 E
EUGLENOPHYTE	0.47 E	0.29 E	0.41 E	0.21 E
DIATOM	0/06 ?	1.00 E	0.67 E	1.50 E
COMPOUND	5.50 E	35.0 E	49.0 E	20/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 04 74	05 15 74	08 05 74	10 19 74
GENUS	29	26	29	20
SPECIES	07	07	07	03

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 04 74	05 15 74	08 05 74	10 19 74
AVERAGE DIVERSITY	H	3.69	4.27	3.84	3.04
NUMBER OF TAXA	S	39.00	46.00	68.00	28.00
NUMBER OF SAMPLES COMPOSITED	M	1.00	1.00	1.00	1.00
MAXIMUM DIVERSITY	MAXH	5.29	5.52	6.09	4.81
MINUMUM DIVERSITY	MINH	0.02	0.04	0.02	0.05
TOTAL DIVERSITY	D	111246.12	67342.17	277351.68	25426.56
TOTAL NUMBER OF INDIVIDUALS/ML	N	30148.00	15771.00	72227.00	8364.00
EVENESS COMPONENT	J	0.70	0.77	0.63	0.63
RELATIVE EVENESS	RJ	0.70	0.78	0.63	0.63
MEAN NUMBER OF INDIVIDUALS/TAXA	L	773.03	342.85	1062.16	298.71
NUMBER/ML OF MOST ABUNDANT TAXON	K	8048.00	3154.00	20535.00	3512.00

LAKE NAME: SAN ANGELO RES.
STORET NUMBER: 4826

CONTINUED

TAXA	FORM	03 04 74 S	03 04 74 %C	03 04 74 ALGAL UNITS PER ML	05 15 74 S	05 15 74 %C	05 15 74 ALGAL UNITS PER ML	08 05 74 S	08 05 74 %C	08 05 74 ALGAL UNITS PER ML	10 19 74 S	10 19 74 %C	10 19 74 ALGAL UNITS PER ML
ACTINASTRUM	CEL									X			
ANABAENA	FIL			X		0.3	45		0.6	425			
ANABAENOPSIS	FIL							2	1.7	1204			
ANABAENOPSIS CIRCULARIS	FIL						X			X			
ANKISTRODESMUS #2	CEL											0.7	56
ANKISTRODESMUS FALCATUS	CEL					2.3	360		0.1	71			X
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL	2	14.6	4407		1.1	180		0.5	354		0.7	56
CARTERIA	CEL								1.2	850			
CERATIUM HIRUNDINELLA F. BRACYCERAS	CEL									X			
CHLAMYDOMONAS	CEL					2.3	360		1.7	1204	1	42.0	3512
CHLOROGONIUM	CEL			X					0.7	496			
CHROOMONAS	CEL	5	9.3	2810		2.6	406		1.1	779	3	6.0	502
CLOSTERIUM	CEL			X									
COCCONEIS	CEL			X					0.1	71			
COELASTRUM MICROPORUM	COL								0.1	71			X
COSMARIUM	CEL		1.1	319		2.6	406		0.2	142			
CRUCIGENIA TETRAPEDIA	COL		0.4	128		0.9	135		0.3	212		0.7	56
CRYPTOMONAS EROSA	CEL		2.1	639		2.6	406		0.3	212	2	8.7	725
CRYPTOMONAS MARSSONII	CEL		0.6	192									
CYCLOTELLA	CEL										4	13.3	1115
CYCLOTELLA MENEGHINIANA	CEL						X			X			
CYCLOTELLA SPP.	CEL				3	15.1	2388		2.2	1557			
CYCLOTELLA STELLIGERA	CEL									X			
DACTYLOCOCCOPSIS	CEL		7.8	2363				4	11.6	8355			
DICTYOSPHAERIUM PULCHELLUM	COL						X			X			
DINOFLAGELLATE CYST	CEL					2.0	315						
ELAKATOTHRIX GELATINOSA	COL								0.1	71			
EUGLENA #1	CEL			X			X		0.1	71		0.7	56
EUGLENA #2	CEL								0.2	142			
EUGLENA #3	CEL								0.1	71			
EUGLENA #4	CEL			X						X			
EUGLENA #5	CEL									X			
EUGLENA SPP.	CEL	4	1.7	511		2.3	360						
FLAGELLATE #2	CEL		5.5	1661					1.2	850			
GLENODINIUM OCULATUM	CEL												X
GLENODINIUM PENARDIFORME	CEL											0.7	56
GOLENKINIA	CEL								0.2	142			
GOMPHONEMA	CEL		0.4	128		2.3	360						
GYMNODINIUM ALBULUM	CEL								0.1	71			
GYMNODINIUM ORDINATUM	CEL		0.2	64		0.3	45						
KIRCHNERIELLA	CEL		7.6	2299		0.9	135		1.8	1275		0.7	56
LAGERHEIMIA QUADRISETA	CEL		0.6	192		0.6	90						
LAGERHEIMIA SUBSALSA	COL											0.7	56
LEPOCINCLIS	CEL		0.8	255		0.6	90		0.3	212			
LYNGBYA	FIL					3.4	541					4.7	390
MELOSIRA GRANULATA	CEL					1.1	180						
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL								1.6	1133		2.7	223
MERISMOPEDIA GLAUCA	COL								0.3	212			
MERISMOPEDIA TENUISSIMA	COL			X		3.4	541		3.9	2832			
MESOSTIGMA	CEL								0.6	425			
MICROCYSTIS	COL		2.5	766		1.1	180		2.0	1416			
NAVICULA	CEL					2.6	406						
NAVICULA #1	CEL		0.6	192									
NITZSCHIA #1	CEL	1	26.7	8048	2	20.0	3154		1.2	850			X
NITZSCHIA #4	CEL									X			
NITZSCHIA HOLSATICA	CEL		3.2	958		0.9	135		0.3	212			X
NITZSCHIA SPP.	CEL										5	6.0	502
OOCYSTIS	CEL		0.4	128			X						
OOCYSTIS BORGEI	COL								0.3	212			
OSCILLATORIA	FIL		3.2	958									
OSCILLATORIA #2	FIL								6.5	4673			
OSCILLATORIA LIMNETICA	FIL							1	28.4	20535			
PEDIASTRUM DUPLEX	COL									X			
PEDIASTRUM DUPLEX V. CLATHRATUM	COL						X						
PEDIASTRUM SIMPLEX	COL									X			
PEDIASTRUM TETRAS V. TETRAODON	COL				5	3.4	541		0.1	71		0.7	56
PENNATE DIATOM #2	CEL									X			
PENNATE DIATOMS	CEL							5	7.5	5381			
PERIDINIUM INCONSPICUUM	CEL								0.1	71			
PERIDINIUM QUADRIDENS	CEL						X						
PHACUS ACUMINATUS	CEL						X						
PHACUS MEGALOPSIS	CEL		1.1	319					0.1	71			
PHACUS PLEURONECTES	CEL			X									
PHACUS PSEUDONORDSTEDTII	CEL					0.3	45						
PHACUS TRIQUETER	CEL								0.1	71			
RAPHIDIOPSIS	FIL							3	15.1	10905		4.0	334
RAPHIDIOPSIS CURVATA	FIL					7.4	1172						X

LAKE NAME: SAN ANGELO RES. CONTINUED
STORET NUMBER: 4826

TAXA	FORM	03 04 74 IS	03 04 74 %C	03 04 74 ALGAL UNITS PER ML	05 15 74 IS	05 15 74 %C	05 15 74 ALGAL UNITS PER ML	08 05 74 IS	08 05 74 %C	08 05 74 ALGAL UNITS PER ML	10 19 74 IS	10 19 74 %C	10 19 74 ALGAL UNITS PER ML
SCENEDESMUS ABUNDANS	COL		0.6	192									
SCENEDESMUS BICAUDATUS	COL								0.3	212			
SCENEDESMUS BIJUGA	COL					1.7	271		0.2	142			
SCENEDESMUS DENTICULATUS	COL						X						
SCENEDESMUS DIMORPHUS	COL					0.9	135		0.1	71		0.7	56
SCENEDESMUS OPOLIENSIS	COL											0.7	56
SCENEDESMUS QUADRICAUDA	COL	3	4.4	1341		3.1	496		1.2	850			
SCHROEDERIA SETIGERA	CEL						X		1.0	708			
SPERMATOZOOPSIS	CEL								0.6	425			
STAURASTRUM #2	CEL		0.2	64									
STAURASTRUM TETRACERUM	CEL			X									
STEPHANODISCUS	CEL				4	5.7	901					4.0	334
STEPHANODISCUS ASTRAEA	CEL									X			
SYNEDRA ACUS	CEL		0.8	255									
TETRAEDRON CAUDATUM V. LONGISPINUM	CEL					0.3	45						
TETRAEDRON HASTATUM V. PALATINUM	CEL						X						
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL			X		1.7	271		1.2	850		0.7	56
TETRAEDRON MUTICUM	CEL								0.1	71			
TETRAEDRON TRIGONUM	CEL								0.3	212			
TETRASTRUM ELEGANS	COL		2.1	639									
TETRASTRUM STAUROGENIAEFORME	COL		0.2	64		0.9	135		0.3	212			
TRACHELOMONAS #1	CEL									X			
TRACHELOMONAS #2	CEL								0.2	142			
TRACHELOMONAS BULLA ?	CEL						X		0.3	212			X
TRACHELOMONAS FLUVIATILIS	CEL		0.4	128									
TRACHELOMONAS INTERMEDIA	CEL		0.4	128	1	3.4	541		0.2	142		1.3	111
TRACHELOMONAS VOLVOCINA	CEL									X			
TOTAL				30148			15771			72227			8364

LAKE NAME: SAM RAYBURN RES.
STORET NUMBER: 4827

NYGAARD TROPHIC STATE INDICES

DATE	03 18 74	05 24 74	08 23 74	11 08 74
MYXOPHYCEAN	02/0 E	3.00 E	2.00 E	2.00 E
CHLOROPHYCEAN	11/0 E	6.00 E	1.50 E	2.00 E
EUGLENOPHYTE	0.08 ?	0.67 E	1.29 E	0.75 E
DIATOM	1.00 E	1.33 E	1.00 E	0.37 E
COMPOUND	19/0 E	17.0 E	9.50 E	8.50 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 18 74	05 24 74	08 23 74	11 08 74
GENUS	06	03	05	05
SPECIES	03	00	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 18 74	05 24 74	08 23 74	11 08 74
AVERAGE DIVERSITY	H	2.85	3.56	1.51	2.06
NUMBER OF TAXA	S	38.00	48.00	30.00	35.00
NUMBER OF SAMPLES COMPOSITED	M	6.00	6.00	6.00	6.00
MAXIMUM DIVERSITY	MAXH	5.25	5.58	4.91	5.13
MINUMUM DIVERSITY	MINH	0.13	0.29	0.04	0.21
TOTAL DIVERSITY	D	10887.00	7283.76	16958.81	4190.04
TOTAL NUMBER OF INDIVIDUALS/ML	N	3820.00	2046.00	11231.00	2034.00
EVENESS COMPONENT	J	0.54	0.64	0.31	0.40
RELATIVE EVENESS	RJ	0.54	0.62	0.31	0.38
MEAN NUMBER OF INDIVIDUALS/TAXA	L	100.53	42.63	374.37	58.11
NUMBER/ML OF MOST ABUNDANT TAXON	K	1403.00	627.00	7930.00	1204.00

LAKE NAME: SAM RAYBURN RES.
STORET NUMBER: 4827

CONTINUED

TAXA	FORM	03 18 74 IS	03 18 74 %C	03 18 74 ALGAL UNITS PER ML	05 24 74 IS	05 24 74 %C	05 24 74 ALGAL UNITS PER ML	08 23 74 IS	08 23 74 %C	08 23 74 ALGAL UNITS PER ML	11 08 74 IS	11 08 74 %C	11 08 74 ALGAL UNITS PER ML
ACTINASTRUM	CEL						X						
ANABAENA #1	FIL			X									
ANABAENA #2	FIL												X
ANABAENA INAEQUALIS ?	FIL						X						
ANABAENOPSIS RACIBORSKII	FIL							3	9.2	1034			
ANKISTRODESMUS	CEL											1.9	38
ANKISTRODESMUS FALCATUS	CEL		1.9	73									
APHANIZOMENON FLOS-AQUAE	FIL									X			X
ASTERIONELLA FORMOSA	CEL			X		3.2	66						
CENTRIC DIATOM	CEL		3.8	145									
CERATIUM HIRUNDINELLA	CEL												X
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL						X						X
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL			X			X						
CHLOROPHYTAN COCCOID CELLED COLONY	CEL			X			X						
CHLOROPHYTAN FILAMENT	CEL												X
CHROOMONAS	CEL	4	16.5	629	1	30.6	627				2	59.2	1204
CHRYSOPHYTAN CELL #1	CEL			X									
CLOSTERIOPSIS	CEL		0.6	24									
CLOSTERIUM	CEL					1.6	33						
CLOSTERIUM #1	CEL						X			X		1.9	38
CLOSTERIUM #2	CEL												X
COELASTRUM MICROPORUM	COL			X									
CRUCIGENIA APICULATA	COL					3.2	66						
CRUCIGENIA APICULATA ?	COL									X			
CRUCIGENIA TETRAPEDIA	COL		0.6	24		1.6	33		0.4	49			
CRYPTOMONAS EROSA	CEL	5	4.4	169	5	8.1	165		1.8	197	3	5.6	113
CRYPTOMONAS REFLEXA	CEL			X			X			X			X
CYCLOTELLA STELLIGERA	CEL			X									
DACTYLOCOCCOPSIS	CEL										5	5.6	113
DACTYLOCOCCOPSIS IRREGULARIS	CEL					3.2	66	1	70.6	7930			
DENTICULA ?	CEL												X
DICTYOSPHAERIUM PULCHELLUM	COL			X		1.6	33						
DINOBRYON BAVARICUM	CEL			X									
DINOBRYON DIVERGENS	CEL		1.3	48									
EUDORINA ELEGANS	COL			X									
EUGLENA #1	CEL						X						
EUGLENA #2	CEL						X						
EUGLENA #3	CEL									X			
EUGLENA ACUS	CEL					1.6	33			X			X
EUGLENA GRACILIS	CEL									X		1.9	38
EUGLENA OXYURIS	CEL									X			
FRAGILARIA CROTONENSIS	CEL												X
GLENODINIUM	CEL									X			
GLENODINIUM OCULATUM	CEL		1.3	48									X
GOLENKINIA RADIATA	COL					3.2	66						
GOMPHONEMA	CEL												X
GYMNODINIUM ALBULUM	CEL					1.6	33						
GYMNODINIUM ORDINATUM	CEL		0.6	24									
GYROSIGMA ?	CEL												X
LAGERHEIMIA	CEL					1.6	33						
LEPOCINCLIS	CEL					1.6	33						
LYNGBYA	FIL							2	13.2	1478			
MELOSIRA	CEL												X
MELOSIRA DISTANS	CEL	3	12.0	460	2	14.5	297		0.9	99			X
MELOSIRA GRANULATA	CEL	1	36.7	1403			X	5	0.9	99			
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL	2	13.9	532									
MELOSIRA ITALICA	CEL									X	1	16.7	339
MELOSIRA VARIANS	CEL						X						
MERISMOPEDIA TENUISSIMA	COL					1.6	33						
MICRACTINIUM PUSILLUM	COL			X									
MICROCYSTIS INCERTA	COL					1.6	33						
MOUGEOTIA	FIL			X						X			
NAVICULA #1	CEL						X						
NAVICULA #2	CEL									X			
NAVICULA #3	CEL												X
NITZSCHIA	CEL		3.8	145									
NITZSCHIA #1	CEL			X									
OOCYSTIS	CEL						X						
OOCYSTIS PARVA	CEL			X									
OSCILLATORIA #1	FIL			X									
OSCILLATORIA #2	FIL						X						X
OSCILLATORIA LIMNETICA	FIL						X						
PANDORINA MORUM	COL			X			X						
PANDORINA PROTRUBERANS	COL									X			
PEDIASTRUM DUPLEX V. CLATHRATUM	COL						X						
PEDIASTRUM TETRAS	COL			X			X						
PERIDINIUM INCONSPICUUM	CEL		1.3	48			X			X			

LAKE NAME: SAM RAYBURN RES.
STORET NUMBER: 4827

CONTINUED

TAXA	FORM	03 18 74 S	03 18 74 %C	03 18 74 ALGAL UNITS PER ML	05 24 74 S	05 24 74 %C	05 24 74 ALGAL UNITS PER ML	08 23 74 S	08 23 74 %C	08 23 74 ALGAL UNITS PER ML	11 08 74 S	11 08 74 %C	11 08 74 ALGAL UNITS PER ML
PERIDINIUM UMBONATUM	CEL												X
PHACUS ACUMINATUS	CEL												X
PHACUS CAUDATUS	CEL									X			
PHACUS CHLOROPLASTES	CEL						X						
PHACUS CHLOROPLASTES ?	CEL									X			
PHACUS CURVICAUDA	CEL								0.9	99			
PHACUS HELIKOIDES	CEL												X
PHACUS LONGICAUDA	CEL						X						X
PHACUS PLEURONECTES	CEL						X						
PHACUS PSEUDONORDSTEDTII ?	CEL												X
PHACUS TORTUS	CEL						X						
SCENEDESMUS ABUNDANS	COL					1.6	33						
SCENEDESMUS BIJUGA	COL										4	3.7	75
SCENEDESMUS DIMORPHUS	COL											1.9	38
SCENEDESMUS GRANULATUS F. DISCIFORMIS	COL			X									
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL									X			
SCENEDESMUS QUADRICAUDA	COL						X						
SCENEDESMUS QUADRICAUDA ?	COL												X
STAURASTRUM	CEL									X			
STEPHANODISCUS	CEL				3	8.1	165						
SYNEDRA	CEL							4	1.8	197			
SYNEDRA #1	CEL			X	4	6.5	132						X
SYNEDRA #2	CEL			X						X			X
SYNEDRA ACUS	CEL											1.9	38
TETRAEDRON PENTAEDRICUM	CEL			X									
TETRASTRUM STAUROGENIAEFORME	COL			X		1.6	33						
TRACHELOMONAS #1	CEL						X						
TRACHELOMONAS #2	CEL						X						
TRACHELOMONAS #3	CEL					1.6	33						
TRACHELOMONAS HISPIDA	CEL									X			
TRACHELOMONAS INTERMEDIA	CEL		1.3	48									
TRACHELOMONAS VOLVOCINA	CEL						X		0.4	49			
TOTAL				3820			2046			11231			2034

LAKE NAME: E.V. SPENCE RES.
STORET NUMBER: 4828

NYGAARD TROPHIC STATE INDICES

DATE	03 04 74	06 05 74	10 29 74
MYXOPHYCEAN	2.00 E	10.0 E	4.00 E
CHLOROPHYCEAN	11.0 E	12.0 E	7.50 E
EUGLENOPHYTE	0.38 E	0.09 ?	0.26 E
DIATOM	0.33 E	1.0 E	1.00 E
COMPOUND	19.0 E	26.0 E	15.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 04 74	06 05 74	10 29 74
GENUS	06	09	18
SPECIES	04	00	04

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 04 74	06 05 74	10 29 74
AVERAGE DIVERSITY	H	2.37	2.49	2.33
NUMBER OF TAXA	S	30.00	35.00	39.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	1.00	3.00
MAXIMUM DIVERSITY	MAXH	4.91	5.13	5.29
MINUMUM DIVERSITY	MINH	0.07	0.02	0.02
TOTAL DIVERSITY	D	13727.04	73885.77	60843.29
TOTAL NUMBER OF INDIVIDUALS/ML	N	5792.00	29673.00	26113.00
EVENESS COMPONENT	J	0.48	0.49	0.44
RELATIVE EVENESS	RJ	0.48	0.49	0.44
MEAN NUMBER OF INDIVIDUALS/TAXA	L	193.07	847.80	669.56
NUMBER/ML OF MOST ABUNDANT TAXON	K	2407.00	13345.00	13268.00

LAKE NAME: E.V. SPENCE RES.
STORET NUMBER: 4828

CONTINUED

TAXA	FORM	03 04 74 S	03 04 74 %C	03 04 74 ALGAL UNITS PER ML	06 05 74 S	06 05 74 %C	06 05 74 ALGAL UNITS PER ML	10 29 74 S	10 29 74 %C	10 29 74 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII	CEL									X
ANABAENOPSIS CIRCULARIS	FIL								0.2	42
ANABAENOPSIS RACIBORSKII	FIL					2.6	781			
ANKISTRODESMUS	CEL								0.2	42
ANKISTRODESMUS FALCATUS	CEL						X			X
APHANIZOMENON FLOS-AQUAE	FIL									X
APHANOCAPSA	COL						X			
CARTERIA	CEL						X			
CENTRIC DIATOM	CEL		1.3	75					0.3	85
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL				3	0.5	142			X
CHAETOCEROS	CEL						X			
CHLAMYDOMONAS	CEL								1.3	338
CHLOROPHYTAN COLONY	COL			X						
CHLOROPHYTAN LUNATE CELLED COLONY	COL								0.2	42
CHROOMONAS	CEL		3.9	226						
CHROOMONAS ACUTA	COL						X			
CHRYSOPHYTAN CELL #1	CEL								0.5	127
CHRYSOPHYTAN COCCOID CELL	CEL			X						
CLOSTERIUM	CEL									X
COCCONEIS	CEL			X						
COELASTRUM MICROPORUM	COL								0.8	211
COELASTRUM RETICULATUM	COL			X						
COELASTRUM SPHAERICUM	COL						X			
COSMARIUM	CEL			X						
COSMARIUM #1	CEL					0.5	142		1.6	423
CRUCIGENIA TETRAPEDIA	COL		1.3	75		0.5	142		0.5	127
CRYPTOMONAS EROSA	CEL	4	4.5	263					1.5	380
CRYPTOMONAS REFLEXA	CEL			X						
CYANOPHYTAN FILAMENT #1	FIL					1.4	426		0.2	42
DACTYLOCOCCOPSIS	CEL		1.3	75		7.9	2343	2	25.9	6761
DICTYOSPHAERIUM PULCHELLUM	COL			X			X		0.8	211
ELAKATOTHRIX VIRIDIS	CEL					0.2	71			
ENTOMONEIS	CEL			X						
EUGLENA #1	CEL								0.3	85
EUGLENA #2	CEL			X			X			
EUGLENA EHRENBERGII	CEL			X						
EUGLENA OXYURIS ?	CEL			X						
EUGLENA TRIPTERIS	CEL									X
GLENODINIUM EDAX	CEL					0.5	142			
GLENODINIUM OCULATUM	CEL			X						X
LAGERHEIMIA	CEL								0.2	42
LYNGBYA	FIL				4	12.4	3691			
MERISMOPEDIA GLAUCA	COL								0.3	85
MERISMOPEDIA MINIMA	COL						X			
OOCYSTIS	COL		2.6	150		1.0	284	5	1.9	507
OSCILLATORIA #1	FIL						X			
OSCILLATORIA #2	FIL									X
OSCILLATORIA #3	FIL						X			
OSCILLATORIA LIMNETICA	FIL							1	50.8	13268
OSCILLATORIA SPP.	FIL				1	45.0	13345			
PEDIASTRUM BORYANUM	COL									X
PEDIASTRUM DUPLEX	COL			X						
PEDIASTRUM DUPLEX V. RETICULATUM	COL									X
PEDIASTRUM SIMPLEX	COL			X						
PENNATE DIATOM	CEL					0.7	213			
PENNATE DIATOMS	CEL								0.5	127
PERIDINIUM QUADRIDENS	CEL						X			
PHACUS	CEL						X			
PHACUS ACUMINATUS	CEL			X						
PHACUS CAUDATUS	CEL								0.2	42
PHACUS MEGALOPSIS	CEL			X						
PHACUS PSEUDONORDSTEDTII	CEL									X
PINNULARIA	CEL			X						
RAPHIDIOPSIS	FIL			X						
RAPHIDIOPSIS CURVATA	FIL				2	18.7	5537	4	3.4	887
RHIZOSOLENIA MINIMA	CEL					0.2	71			
SCENEDESMUS BIJUGA	COL	3	8.4	489		0.2	71			X
SCENEDESMUS DIMORPHUS	COL		0.7	38		0.5	142		1.0	254
SCENEDESMUS INTERMEDIUS	COL						X			
SCENEDESMUS PROTUBERANS	COL						X			
SCENEDESMUS QUADRICAUDA	COL	2	30.5	1768					0.8	211
SPIRULINA	CEL						X			
SURIRELLA	CEL						X			
SYNEDRA	CEL	5	3.2	188						
TETRAEDRON MINIMUM	CEL	1	41.6	2407						
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL				5	7.2	2130	3	6.6	1732
TETRASTRUM ? GLABRUM	COL								0.2	42
TETRASTRUM GLABRUM	COL		0.7	38						
TETRASTRUM STAUROGENIAEFORME	COL						X			
TRACHELOMONAS DEFLANDREI	CEL									X
TRACHELOMONAS SCABRA	CEL									X
TOTAL				5792			29673			26113

LAKE NAME: SOMERVILLE LAKE
STORET NUMBER: 4829

NYGAARD TROPHIC STATE INDICES

DATE	03 14 74	05 23 74	08 16 74	11 06 74
MYXOPHYCEAN	1.33 E	10.0 E	2.40 E	3.33 E
CHLOROPHYCEAN	4.67 E	16.0 E	4.40 E	4.33 E
EUGLENOPHYTE	0.28 E	0.27 E	0.15 ?	0.35 E
DIATOM	0.62 E	0.57 E	0.36 E	0.45 E
COMPOUND	9.33 E	37.0 E	8.60 E	12.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 14 74	05 23 74	08 16 74	11 06 74
GENUS	22	21	32	18
SPECIES	09	03	07	03

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 14 74	05 23 74	08 16 74	11 06 74
AVERAGE DIVERSITY	H	4.01	2.48	3.06	3.42
NUMBER OF TAXA	S	42.00	53.00	68.00	58.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	5.39	5.73	6.09	5.86
MINUMUM DIVERSITY	MINH	0.05	0.07	0.02	0.20
TOTAL DIVERSITY	D	53256.81	29690.56	204224.40	12968.64
TOTAL NUMBER OF INDIVIDUALS/ML	N	13281.00	11972.00	66740.00	3792.00
EVENESS COMPONENT	J	0.74	0.43	0.50	0.58
RELATIVE EVENESS	RJ	0.75	0.43	0.51	0.57
MEAN NUMBER OF INDIVIDUALS/TAXA	L	316.21	225.89	981.47	65.38
NUMBER/ML OF MOST ABUNDANT TAXON	K	2419.00	7682.00	35327.00	1586.00

LAKE NAME: SOMERVILLE LAKE
STORET NUMBER: 4829

CONTINUED

TAXA	FORM	03 14 74 IS	03 14 74 %C	03 14 74 ALGAL UNITS PER ML	05 23 74 IS	05 23 74 %C	05 23 74 ALGAL UNITS PER ML	08 16 74 IS	08 16 74 %C	08 16 74 ALGAL UNITS PER ML	11 06 74 IS	11 06 74 %C	11 06 74 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII V. FLUVIATILE	COL											0.7	28
AMPHORA OVALIS	CEL									X			
ANABAENA #1	FIL					0.5	58		0.2	109		0.7	28
ANABAENA #2	FIL					1.0	117						
ANABAENA PLANCTONICA	FIL					0.5	58						
ANABAENOPSIS CIRCULARIS	FIL								2.0	1304			
ANABAENOPSIS ELENKINII	FIL						X					0.7	28
ANABAENOPSIS RACIBORSKII	FIL								2.7	1794		2.2	85
ANKISTRODESMUS FALCATUS	FIL		1.6	215					0.2	163			
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL					1.2	146				4	6.0	227
APHANIZOMENON FLOS-AQUAE	FIL						X						
BOTRYOCOCCUS BRAUNII	COL												X
CALONEIS	CEL		0.4	54									
CARTERIA KLEBSII	CEL				1	64.2	7682						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL												X
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL												X
CHLAMYDOMONAS	CEL								1.5	978			
CHLOROGONIUM	CEL								0.4	272			
CHLOROGONIUM ELONGATUM	CEL					0.2	29						X
CHROOCOCCUS DISPERSUS	COL								1.0	652			
CHROOMONAS	CEL	3	11.7	1559		0.2	29					0.7	28
CHROOMONAS ACUTA	CEL								1.3	870			
CLOSTERIUM	CEL			X						X			X
COCCONEIS PLACENTULA	CEL					0.2	29						
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL									X			
COELASTRUM RETICULATUM	COL						X						
COSCINODISCUS LACUSTRIS	CEL												X
COSMARIUM	CEL		0.4	54			X					0.7	28
COSMARIUM #1	CEL									X			
COSMARIUM CLEPSYDRA V. NANUM	CEL								0.2	109			
CRUCIGENIA	COL									X			
CRUCIGENIA TETRAPEDIA	COL		0.4	54					0.1	54			X
CRYPTOMONAS EROSA	CEL		0.8	108		0.2	29				5	2.2	85
CRYPTOMONAS MARSSONII	CEL									X			
CRYPTOMONAS REFLEXA	CEL												X
CRYPTOMONAS SPP.	CEL							5	1.6	1087			
CYANOPHYTAN FILAMENT	FIL		3.2	438									
CYCLOTELLA COMTA	CEL									X			
CYCLOTELLA MENEGHINIANA	CEL		5.7	753						X			
CYCLOTELLA SPP.	CEL								0.3	217			
CYMBELLA	CEL									X			
DACTYLOCOCCOPSIS	CEL		4.4	591		0.7	88		3.4	2283	2	11.9	453
DICTYOSPHAERIUM	COL								0.5	326			
DICTYOSPHAERIUM PULCHELLUM	COL					0.5	58					1.5	57
DIPLONEIS	CEL									X			
ELAKATOTHRIX GELATINOSA	COL		0.4	54									
ENTOMONEIS	CEL						X						
EUASTRUM DENTICULATUM	CEL			X					0.2	109			X
EUGLENA	CEL						X					0.7	28
EUGLENA #1	CEL		0.4	54		0.7	88						
EUGLENA #2	CEL			X						X			
EUGLENA ACUS	CEL					0.2	29			X			
EUGLENA GRACILIS	CEL									X			
EUGLENA SPP.	CEL								0.2	163			
FLAGELLATE #2	CEL		4.9	645									
FLAGELLATE #4	CEL									X			
GLENODINIUM OCULATUM	CEL												X
GOMPHONEMA	CEL											1.5	57
GYROSIGMA	CEL												X
KIRCHNERIELLA	CEL		1.2	161					0.2	00163			
KIRCHNERIELLA ?	CEL						X						
LAGERHEIMIA QUADRISETA	CEL		1.6	215					0.1	54			
LEPOCINCLIS	CEL								0.2	163			
LEPOCINCLIS ACUTA ?	CEL												X
LYNGBYA	FIL							4	3.7	2445			
LYNGBYA #1	FIL				4	2.4	292					0.7	28
LYNGBYA #2	FIL					0.5	58					3.7	142
MASTOGLOIA	CEL								0.2	109			
MELOSIRA DISTANS	CEL	5	12.1	1613	3	3.2	380					0.7	28
MELOSIRA GRANULATA	CEL			X			X		0.8	543		1.5	57
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL			X			X						
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL								1.1	707			X
MERISMOPEDIA GLAUCA	COL							2	4.2	2826			
MERISMOPEDIA PUNCTATA	COL											4.5	170

LAKE NAME: SOMERVILLE LAKE
STORET NUMBER: 4829

CONTINUED

TAXA	FORM	03 14 74 S	03 14 74 %C	03 14 74 ALGAL UNITS PER ML	05 23 74 S	05 23 74 %C	05 23 74 ALGAL UNITS PER ML	08 16 74 S	08 16 74 %C	08 16 74 ALGAL UNITS PER ML	11 06 74 S	11 06 74 %C	11 06 74 ALGAL UNITS PER ML
MERISMOPEDIA TENUISSIMA	COL		9.3	1236		3.4	489		2.6	1739		0.7	28
MESOSTIGMA VIRIDIS	CEL					0.2	29					0.7	28
MICROCYSTIS	COL	4	5.7	753									
MICROCYSTIS INCERTA	COL								2.8	1848			
NAVICULA	CEL					0.7	88						
NAVICULA #1	CEL		1.6	215						X			X
NAVICULA #2	CEL									X			X
NAVICULA SPP.	CEL								0.2	109			
NITZSCHIA	CEL			X				3	8.7	5815			
NITZSCHIA ? #1	CEL											3.0	113
NITZSCHIA #1	CEL				5	5.4	643			X			
NITZSCHIA #2	CEL	1	18.2	2419		1.2	146			X			4
NITZSCHIA #3	CEL					0.2	29						X
NITZSCHIA #4	CEL		2.0	269		0.7	88						
NITZSCHIA CLOSTERIUM	CEL								0.5	326			
NITZSCHIA TRYBLIONELLA	CEL			X									
OOCYSTIS	CEL		2.0	269					0.2	109			
OSCILLATORIA	FIL							1	52.9	35327			X
OSCILLATORIA LIMNETICA	FIL				2	4.9	584				1	41.8	1586
PEDIASTRUM DUPLEX V. RETICULATUM	COL						X						
PEDIASTRUM TETRAS V. TETRAODON	COL			X			X		0.1	54			X
PENNATE DIATOM #4	CEL												X
PERIDINIUM UMBONATUM	CEL						X						
PHACUS	CEL		0.4	54									
PHACUS ACUMINATUS	CEL								0.2	163			X
PHACUS MEGALOPSIS	CEL					1.7	204						X
PHACUS ORBICULARIS	CEL					0.2	29						
PTEROMONAS ANGULOSA	CEL					0.5	58						
RAPHIDIOPSIS	FIL								2.4	1630			
RAPHIDIOPSIS CURVATA	FIL									X			
RHOPALODIA GIBBERULA	CEL												X
SCENEDESMUS ABUNDANS	COL					0.2	29		0.2	109			
SCENEDESMUS BICAUDATUS	COL									X			X
SCENEDESMUS BIJUGA	COL		4.4	591									
SCENEDESMUS BIJUGA V. ALTERNANS	COL												X
SCENEDESMUS DENTICULATUS	COL								0.1	54		0.7	28
SCENEDESMUS DIMORPHUS	COL		0.4	54			X		0.2	109			
SCENEDESMUS PROTUBERANS	COL											2.2	85
SCENEDESMUS QUADRICAUDA	COL		1.2	161					0.4	272			
SCHROEDERIA SETIGERA	CEL					0.5	58		0.2	109			
STAURASTRUM	CEL									X			
STAURONEIS ?	CEL		0.4	54									
STEPHANODISCUS	CEL	2	3.2	430		1.7	204				3	4.5	170
SYNEDRA	CEL						X						
SYNEDRA #1	CEL											2.2	85
SYNEDRA #2	CEL											0.7	28
SYNEDRA ULNA	CEL			X									
TABELLARIA FLOCCULOSA	CEL									X			
TETRAEDRON CAUDATUM V. LONGISPINUM	CEL					0.2	29		0.7	435		0.7	28
TETRAEDRON GRACILE	CEL					0.2	29						
TETRAEDRON HASTATUM V. PALATINUM	CEL			X									
TETRAEDRON MINIMUM	CEL								0.1	54			
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL					0.2	29						
TETRAEDRON MUTICUM	CEL						X		0.2	163			
TETRAEDRON REGULARE V. INCUS	CEL						X						
TETRAEDRON TRIGONUM	CEL		0.4	54					0.2	109			X
TETRASTRUM GLABRUM	COL								1.0	652			
TETRASTRUM HETERACANTHUM	COL		0.8	108		0.2	29			X			X
TETRASTRUM STAUROGENIAEFORME	COL		0.4	54					0.1	54			
TRACHELOMONAS	CEL						X						X
TRACHELOMONAS #1	CEL											0.7	28
TRACHELOMONAS FLUVIATILIS	CEL											0.7	28
TRACHELOMONAS GIRARDIANA	CEL												X
TRACHELOMONAS INTERMEDIA	CEL			X		0.7	88						
TRACHELOMONAS TORTA ?	CEL			X									
TREUBARIA TRIAPPENDICULATA	CEL						X						
TOTAL				13281			11972			66748			3792

LAKE NAME: STAMFORD LAKE
STORET NUMBER: 4830

NYGAARD TROPHIC STATE INDICES

DATE	03 07 74	05 15 74	08 05 74	10 28 74
MYXOPHYCEAN	4.00 E	2.00 E	2.00 E	3.00 E
CHLOROPHYCEAN	7.00 E	5.00 E	2.25 E	4.67 E
EUGLENOPHYTE	0.36 E	0.29 E	0.65 E	0.17 ?
DIATOM	0.25 ?	1.00 E	0.29 ?	0.75 E
COMPOUND	17.0 E	11.0 E	7.50 E	10.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 07 74	05 15 74	08 05 74	10 28 74
GENUS	15	18	13	13
SPECIES	03	03	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 07 74	05 15 74	08 05 74	10 28 74
AVERAGE DIVERSITY	H	3.04	2.79	3.55	2.86
NUMBER OF TAXA	S	31.00	31.00	49.00	42.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	4.95	4.95	5.61	5.39
MINUMUM DIVERSITY	MINH	0.11	0.06	0.06	0.04
TOTAL DIVERSITY	D	11187.20	20902.68	39145.85	39754.00
TOTAL NUMBER OF INDIVIDUALS/ML	N	3680.00	7492.00	11027.00	13900.00
EVENESS COMPONENT	J	0.61	0.56	0.63	0.53
RELATIVE EVENESS	RJ	0.61	0.56	0.63	0.53
MEAN NUMBER OF INDIVIDUALS/TAXA	L	118.71	241.68	225.04	330.95
NUMBER/ML OF MOST ABUNDANT TAXON	K	1327.00	2563.00	2239.00	4888.00

LAKE NAME: STAMFORD LAKE
STORET NUMBER: 4830

CONTINUED

TAXA	FORM	03 07 74 IS	03 07 74 %C	03 07 74 ALGAL UNITS PER ML	05 15 74 IS	05 15 74 %C	05 15 74 ALGAL UNITS PER ML	08 05 74 IS	08 05 74 %C	08 05 74 ALGAL UNITS PER ML	10 28 74 IS	10 28 74 %C	10 28 74 ALGAL UNITS PER ML
ANABAENA	FIL		0.7	25					3.6	392			X
ANABAENOPSIS	FIL												X
ANABAENOPSIS ELENKINII	FIL								1.0	112			
ANABAENOPSIS RACIBORSKII	FIL							5	9.1	1007			
ANKISTRODESMUS FALCATUS	CEL											0.3	49
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL	1	36.1	1327		4.6	345						
APHANIZOMENON FLOS-AQUAE	FIL								1.5	168			
CARTERIA KLEBSII	CEL									X			
CENTRIC DIATOM	CEL									X			
CENTRIC DIATOMS	CEL				1	34.2	2563						
CHLAMYDOMONAS	CEL			X						X			
CHROOMONAS	CEL								0.5	56			
CHROOMONAS ACUTA	CEL		5.4	200	5	9.9	739				5	9.0	1244
CLOSTERIUM	CEL					0.7	49			X		0.7	96
COCCONEIS	CEL			X									
COELASTRUM MICROPORUM	COL		1.4	50								0.7	96
COSCINODISCUS	CEL		1.4	50			X						
COSCINODISCUS ROTHII V. SUBSALSA	CEL												X
COSCINODISCUS SPP.	CEL										3	11.0	1534
COSMARIUM	CEL			X									
COSMARIUM #1	CEL												X
COSMARIUM #2	CEL						X		0.5	56		0.3	48
COSMARIUM #3	CEL									X			
CRUCIGENIA FENESTRATA	COL		0.7	25			X						
CRUCIGENIA QUADRATA	COL	2	15.7	576									
CRYPTOMONAS	CEL												X
CRYPTOMONAS EROSA	CEL							1	9.1	1007			
DACTYLOCOCCOPSIS	CEL		9.5	351			X				4	11.7	1629
DICTYOSPHAERIUM	COL												X
DICTYOSPHAERIUM PULCHELLUM	COL						X		0.5	56			
DIPLONEIS PUELLA	CEL		0.7	25	4	11.2	838		0.5	56	1	35.2	4888
ELAKATOTHRIX VIRIDIS	CEL					1.3	99						X
EPITHEMIA	CEL			X									
EUGLENA	CEL		0.7	25					1.5	168			
EUGLENA #1	CEL						X			X			
EUGLENA #2	CEL						X			X			
EUGLENA #3	CEL									X			
EUGLENA ACUS	CEL								0.5	56			X
EUGLENA SPP.	CEL				3	3.3	246						
FLAGELLATE	CEL		1.4	50									
FLAGELLATE #4	CEL								0.5	56			
GYMNODINIUM ORDINATUM	CEL	5	2.7	100					1.0	112			
LEPOCINCLIS	CEL						X			X			
LUNATE CELL	CEL	3	14.3	526									
LYNGBYA	FIL							4	19.0	2183			
MELOSIRA GRANULATA	CEL			X			X						X
MERISMOPEDIA	COL											0.7	96
MERISMOPEDIA MINIMA	COL					1.3	99			X		5.2	719
MESOSTIGMA VIRIDIS	CEL					0.7	49		1.0	112			X
MICROCYSTIS INCERTA	COL			X	2	25.7	1923						
NAVICULA	CEL		2.0	75		2.0	148			X			
NITZSCHIA	CEL	4	2.7	100						X			X
NITZSCHIA #1	CEL								4.1	448			
NITZSCHIA #4	CEL					2.0	148		1.5	168		1.0	144
NITZSCHIA FILIFORMIS	CEL			X									
NITZSCHIA PALEA	CEL						X						
NITZSCHIA TRYBLIONELLA	CEL			X									
OOCYSTIS	CEL						X			X		1.4	192
OSCILLATORIA	FIL												X
OSCILLATORIA #1	FIL											0.7	96
OSCILLATORIA LIMNETICA	FIL		2.7	100			X	3	20.3	2239	2	19.0	2630
PEDIASTRUM BORYANUM	COL												X
PEDIASTRUM BORYANUM V. PERFORATUM	COL					0.7	49						
PEDIASTRUM DUPLEX V. CLATHRATUM	COL												X
PEDIASTRUM DUPLEX V. RETICULATUM	COL									X			
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL			X									
PEDIASTRUM TETRAS	COL					0.7	49						X
PENNATE DIATOM	CEL											0.7	96
PERIDINIUM UMBONATUM	CEL									X			X
PHACUS ACUMINATUS	CEL									X			
PHACUS CAUDATUS	CEL		0.7	25									X
PHACUS MEGALOPSIS	CEL		0.7	25		0.7	49			X			X
PLEUROSIGMA AUSTRALE ?	CEL									X			
RAPHIDIOPSIS CURVATA	FIL							2	14.2	1567			X
SCENEDESMUS ARCUATUS V. PLATYDISCA	COL			X									
SCENEDESMUS BALATONICUS	COL					1.3	99						

LAKE NAME: STAMFORD LAKE
STORET NUMBER: 4830

CONTINUED

TAXA	FORM	03 07 74 IS	03 07 74 %C	03 07 74 ALGAL UNITS PER ML	05 15 74 IS	05 15 74 %C	05 15 74 ALGAL UNITS PER ML	08 05 74 IS	08 05 74 %C	08 05 74 ALGAL UNITS PER ML	10 28 74 IS	10 28 74 %C	10 28 74 ALGAL UNITS PER ML
SCENEDESMUS BIJUGA	COL									X			X
SCENEDESMUS DIMORPHUS	COL												X
SCENEDESMUS INTERMEDIUS	COL												X
SCENEDESMUS PROTUBERANS	COL									X			
SCENEDESMUS SPP.	COL											1.0	144
SCHROEDERIA SETIGERA	CEL			X			X		0.5	56			X
STAURASTRUM	CEL									X			
STEPHANODISCUS	CEL						X		2.0	224			
SYNEDRA	CEL			X						X			
TETRAEDRON MINIMUM	CEL						X			X			
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL									X			X
TETRASTRUM HETERACANTHUM	COL								0.5	56			
TETRASTRUM STAUROGENIAEFORME	COL											0.7	96
TRACHELOMONAS	CEL		0.7	25									
TRACHELOMONAS #1	CEL								0.5	56			
TRACHELOMONAS BULLA ?	CEL								3.6	392			
TRACHELOMONAS INTERMEDIA	CEL								2.0	224		0.7	96
TOTAL				3680			7492			11027			13900

LAKE NAME: STILLHOUSE HOLLOW RES.
STORET NUMBER: 4831

NYGAARD TROPHIC STATE INDICES

DATE	03 13 74	05 21 74	08 14 74	11 04 74
MYXOPHYCEAN	0.67 E	2.00 E	0.75 E	0.33 ?
CHLOROPHYCEAN	2.00 E	7.00 E	1.25 E	2.00 E
EUGLENOPHYTE	0.25 E	0.11 ?	0.12 ?	0.14 ?
DIATOM	1.00 E	0/01 ?	0.75 E	0.33 E
COMPOUND	4.33 E	10.0 E	3.00 E	3.33 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 13 74	05 21 74	08 14 74	11 04 74
GENUS	00	01	01	03
SPECIES	00	00	00	05

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 13 74	05 21 74	08 14 74	11 04 74
AVERAGE DIVERSITY	H	0.98	2.27	3.42	2.66
NUMBER OF TAXA	S	27.00	20.00	28.00	23.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	4.75	4.32	4.81	4.52
MINUMUM DIVERSITY	MINH	0.27	0.25	0.48	0.25
TOTAL DIVERSITY	D	1087.80	1956.74	2048.58	2479.68
TOTAL NUMBER OF INDIVIDUALS/ML	N	1110.00	862.00	599.00	1008.00
EVENESS COMPONENT	J	0.21	0.53	0.71	0.54
RELATIVE EVENESS	RJ	0.16	0.50	0.68	0.52
MEAN NUMBER OF INDIVIDUALS/TAXA	L	41.11	43.10	21.39	43.83
NUMBER/ML OF MOST ABUNDANT TAXON	K	940.00	386.00	123.00	394.00

LAKE NAME: STILLHOUSE HOLLOW RES. CONTINUED
STORET NUMBER: 4831

TAXA	FORM	03 13 74 S	03 13 74 %C	03 13 74 ALGAL UNITS PER ML	05 21 74 S	05 21 74 %C	05 21 74 ALGAL UNITS PER ML	08 14 74 S	08 14 74 %C	08 14 74 ALGAL UNITS PER ML	11 04 74 S	11 04 74 %C	11 04 74 ALGAL UNITS PER ML
ANKISTRODESMUS FALCATUS	CEL										5	6.5	66
APHANOCAPSA	CEL					7.2	62			X			
CARTERIA	CEL						X						
CERATIUM HIRUNDINELLA	CEL			X									
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL						X						
CHLAMYDOMONAS	CEL								2.5	15			
CHLOROPHYTAN COLONY	COL			X									
CHROOMONAS	CEL	1	84.7	940							4	39.1	394
CHROOMONAS ACUTA	CEL				3	44.8	386						
CLOSTERIUM #1	CEL			X									
CLOSTERIUM #2	CEL			X									
COCCONEIS	CEL			X						X			
COELASTRUM RETICULATUM	COL			X	1	22.9	197					4.4	44
COELOSPHAERIUM NAEGELIANUM ?	COL			X									
COSMARIUM	CEL		3.1	34					7.7	46			X
CRUCIGENIA APICULATA	COL								10.4	62			
CRUCIGENIA TETRAPEDIA	COL						X						
CRYPTOMONAS	CEL				4	8.4	72						
CRYPTOMONAS EROSA	CEL			X						X	3	17.4	175
CRYPTOMONAS MARSSONII	CEL									X			
CRYPTOMONAS SPP.	CEL							1	15.5	93			
CYANOPHYTAN FILAMENT	FIL								5.2	31			
CYCLOTELLA	CEL			X									
CYCLOTELLA MENEGHINIANA	CEL									X		21.7	219
CYCLOTELLA SPP.	CEL							3	20.5	123			
CYCLOTELLA STELLIGERA	CEL									X			
DINOBRYON DIVERGENS	CEL				5	6.1	53			X			
DINOBRYON SOCIALE	CEL			X			X						
DINOFLAGELLATE CYST	CEL									X			
DIPLOPSALIS ACUTA	CEL						X						
ELAKATOTHRIX	CEL												X
ELAKATOTHRIX GELATINOSA	COL	4	3.1	34									
EUGLENA ACUS	CEL												X
EUGLENA OXYURIS	CEL			X									
FRAGILARIA CROTONENSIS	CEL						X			X			X
GLENODINIUM ?	CEL									X			
GLENODINIUM OCULATUM	CEL												X
GYMNODINIUM ALBULUM	CEL	5	3.1	34									
GYMNODINIUM ORDINATUM	CEL												X
GYROSIGMA	CEL			X									
MALLOMONAS	CEL						X						
MALLOMONAS ACAROIDES	CEL			X									
MELOSIRA	CEL			X									
MELOSIRA GRANULATA	CEL									X			X
MERISMOPEDIA MINIMA	COL						X						
MICROCYSTIS AERUGINOSA	COL			X				5	5.2	31			
NAVICULA #1	CEL												X
NAVICULA #2	CEL												X
NAVICULA #3	CEL												X
NEPHROCYTIUM LUNATUM	CEL						X						
NITZSCHIA #1	CEL												X
NITZSCHIA #2	CEL								2.5	15			
NITZSCHIA #3	CEL	3	3.1	34									
OOCYSTIS	CEL			X			X	2	12.9	77			X
OSCILLATORIA	FIL												X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL			X	2	7.2	62	4	2.5	15	1	4.4	44
PENNATE DIATOM	CEL								7.7	46			X
PERIDINIUM	CEL			X									
PHACUS ACUMINATUS	CEL			X									
PHACUS MEGALOPSIS	CEL						X						
SCENEDESMUS BIJUGA	COL			X			X						
SCENEDESMUS QUADRICAUDA	COL									X			
STAURASTRUM #1	CEL						X		2.5	15			
STAURASTRUM #2	CEL									X	2	2.2	22
STAURASTRUM TETRACERUM	CEL								2.5	15		2.2	22
STEPHANODISCUS	CEL	2	3.1	34									
TETRAEDRON MINIMUM	CEL											2.2	22
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL			X		3.5	30		2.5	15			
TRACHELOMONAS INTERMEDIA	CEL									X			
TOTAL				1110			862			599			1008

LAKE NAME: TAWAKONI LAKE
STORET NUMBER: 4832

NYGAARD TROPHIC STATE INDICES

DATE	03 09 74	05 17 74	08 12 74	11 01 74
MYXOPHYCEAN	04/0 E	04/0 E	5.00 E	2.00 E
CHLOROPHYCEAN	14/0 E	21/0 E	10.0 E	2.67 E
EUGLENOPHYTE	0.17 ?	0.08 ?	0.20 ?	0.29 E
DIATOM	0.80 E	0.67 E	0.57 E	0.75 E
COMPOUND	25/0 E	31/0 E	20.0 E	7.00 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 09 74	05 17 74	08 12 74	11 01 74
GENUS	15	16	24	06
SPECIES	03	05	09	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 09 74	05 17 74	08 12 74	11 01 74
AVERAGE DIVERSITY	H	2.88	4.07	4.14	3.36
NUMBER OF TAXA	S	37.00	44.00	60.00	37.00
NUMBER OF SAMPLES COMPOSITED	M	6.00	6.00	6.00	6.00
MAXIMUM DIVERSITY	MAXH	5.21	5.46	5.91	5.21
MINUMUM DIVERSITY	MINH	0.06	0.11	0.06	0.25
TOTAL DIVERSITY	D	26962.56	21843.69	65412.00	5816.16
TOTAL NUMBER OF INDIVIDUALS/ML	N	9362.00	5367.00	15800.00	1731.00
EVENESS COMPONENT	J	0.55	0.75	0.70	0.64
RELATIVE EVENESS	RJ	0.55	0.75	0.70	0.63
MEAN NUMBER OF INDIVIDUALS/TAXA	L	253.03	121.98	263.33	46.78
NUMBER/ML OF MOST ABUNDANT TAXON	K	3965.00	956.00	2750.00	359.00

LAKE NAME: TAWAKONI LAKE
STORET NUMBER: 4832

CONTINUED

TAXA	FORM	03 09 74 IS	03 09 74 %C	03 09 74 ALGAL UNITS PER ML	05 17 74 IS	05 17 74 %C	05 17 74 ALGAL UNITS PER ML	08 12 74 IS	08 12 74 %C	08 12 74 ALGAL UNITS PER ML	11 01 74 IS	11 01 74 %C	11 01 74 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII	CEL												X
ANABAENA	FIL									X			X
ANABAENOPSIS CIRCULARIS	FIL									X			
ANKISTRODESMUS FALCATUS	CEL		1.2	110					1.3	200			
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL					0.8	42						
APHANIZOMENON	FIL									X			
APHANIZOMENON FLOS-AQUAE	FIL												X
CAPARTOGRAMMA	CEL						X						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL											1.9	33
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL												X
CHLAMYDOMONAS	CEL					1.5	83			X			
CHLAMYDOMONAS #1	CEL		0.4	37									
CHLAMYDOMONAS #2	CEL		0.8	73									
CHLOROGONIUM	CEL								1.3	200			
CHLOROPHYTAN CELL	CEL												X
CHROOMONAS ACUTA	CEL		4.7	441		9.3	499		4.7	750			
CLOSTERIUM #1	CEL												X
COCCONEIS	CEL			X									X
COCCONEIS PLACENTULA	CEL						X						
COELASTRUM MICROPORUM	COL						X						X
COELASTRUM RETICULATUM	COL			X									
COSMARIUM	CEL									X		3.8	65
CRUCIGENIA FENESTRATA	COL					2.3	125						
CRUCIGENIA TETRAPEDIA	COL									X			
CRYPTOMONAS	CEL					3.1	166						
CRYPTOMONAS EROSA	CEL	4	4.3	404			X	4	3.8	600		1.9	33
CRYPTOMONAS MARSSONII	CEL	5	1.6	147								3.8	65
CRYPTOMONAS REFLEXA	CEL												X
CYCLOTELLA MENEGHINIANA	CEL					0.8	42		4.1	650			
CYST	CEL												X
DACTYLOCOCCOPSIS	CEL					6.2	333		3.5	550		11.3	196
DICTYOSPHAERIUM	COL								0.6	100			
DICTYOSPHAERIUM PULCHELLUM	COL		0.8	73									
EUASTRUM DENTICULATUM	CEL								0.3	50			X
EUGLENA #1	CEL			X					0.6	100			X
EUGLENA #3	CEL						X						
FLAGELLATE #2	CEL								4.1	650			
FLAGELLATES	CEL								0.9	150			
FRAGILARIA	CEL								0.3	50			
FRANCEIA	CEL								0.3	50			
FRANCEIA DROESCHERI	COL		1.2	110									
GLENODINIUM GYMNODINIUM	CEL								0.3	50			
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL												X
GLENODINIUM OCULATUM	CEL			X									
GOLENKINIA	CEL					0.8	42						
GOLENKINIA RADIATA V. BREVISPINA ?	CEL									X			
KIRCHNERIELLA	CEL		0.4	37		10.1	541		0.6	100			
LAGERHEIMIA QUADRISETA	CEL			X									
LEPOCINCLIS	CEL									X			
LYNGBYA SUBTILIS	FIL							3	7.9	1250			
MELOSIRA #4	CEL		2.7	257									
MELOSIRA DISTANS	CEL	2	42.4	3965		12.4	665		5.1	800	3	9.4	163
MELOSIRA GRANULATA	CEL	1	20.4	1909			X		2.5	400			
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL									X			
MELOSIRA ITALICA	CEL												X
MERISMOPEDIA GLAUCA	COL											1.9	33
MERISMOPEDIA MINIMA	COL					0.8	42		6.8	950			
MERISMOPEDIA TENUISSIMA	COL		0.4	37				5	3.8	600	5	9.4	163
MICROCYSTIS INCERTA	COL		2.3	220		1.5	83		2.2	350			
NAVICULA	CEL												X
NAVICULA #1	CEL					0.8	42			X			
NAVICULA #2	CEL				2	7.8	416						
NITZSCHIA #2	CEL			X		1.5	83			X			
NITZSCHIA #3	CEL									X			
NITZSCHIA #5	CEL			X			X			X			
NITZSCHIA ACICULARIS	CEL					3.9	208						
NITZSCHIA SPP.	CEL		6.3	587				2	17.4	2750			
NITZSCHIA TRYBLIONELLA V. DEBILIS	CEL									X			
OOCYSTIS BORGEI	CEL		0.4	37									
OOCYSTIS PUSILLA	CEL						X						
OPHIOCYTIUM CAPITATUM V. LONGISPINUM	CEL						X						
OSCILLATORIA	FIL			X			X	1	17.4	2750			
OSCILLATORIA LIMNETICA	FIL										4	20.7	359
PEDIASTRUM DUPLEX													

LAKE NAME: TAWAKONI LAKE
STORET NUMBER: 4832

CONTINUED

TAXA	FORM	03 09 74 IS	03 09 74 %C	03 09 74 ALGAL UNITS PER ML	05 17 74 IS	05 17 74 %C	05 17 74 ALGAL UNITS PER ML	08 12 74 IS	08 12 74 %C	08 12 74 ALGAL UNITS PER ML	11 01 74 IS	11 01 74 %C	11 01 74 ALGAL UNITS PER ML
V. CLATHRATUM	COL												X
PEDIASTRUM SIMPLEX	COL												X
PEDIASTRUM TETRAS	COL											1.9	33
PEDIASTRUM TETRAS V. TETRAODON	COL				5	0.8	42		0.3	50			
PENNATE DIATOMS	CEL										2	18.8	326
PERIDINIUM	CEL						X						
PERIDINIUM QUADRIDENS	CEL								0.6	100			X
PERIDINIUM UMBONATUM	CEL									X			
PHACUS CAUDATUS	CEL												X
PHACUS MEGALOPSIS	CEL			X					0.6	100			
PHACUS PSEUDONORDSTEDTII	CEL												X
RAPHIDIOPSIS	FIL		0.4	37									
RAPHIDIOPSIS CURVATA	FIL								3.5	550			
SCENEDESMUS ABUNDANS	COL						X			X			
SCENEDESMUS BICAUDATUS	COL		0.8	73		1.5	83		0.9	150			
SCENEDESMUS BIJUGA	COL					3.1	166		0.9	150			
SCENEDESMUS DENTICULATUS	COL					1.5	83		0.6	100			
SCENEDESMUS DIMORPHUS	COL			X		0.8	42			X			
SCENEDESMUS OPOLIENSIS	COL						X						
SCENEDESMUS QUADRICAUDA	COL			X	3	3.1	166		0.6	100			
SCENEDESMUS QUADRICAUDA F. GRANULATUS	COL						X						
SCENEDESMUS SPINOSUS V. BICAUDATUS	COL									X			
SCHROEDERIA SETIGERA	CEL									X			
SELENASTRUM	CEL			X									
SPERMATOZOOPSIS	CEL								1.6	250			
STEPHANODISCUS	CEL	3	6.7	624							1	9.4	163
STEPHANODISCUS ASTRAEA	CEL				1	17.8	956						
SURIRELLA	CEL		1.2	110					0.3	50			
SYNEDRA	CEL			X									X
TETRAEDRON CAUDATUM V. LONGISPINUM	CEL											1.9	33
TETRAEDRON CONSTRICTUM	CEL			X									
TETRAEDRON GRACILE	CEL					0.8	42						
TETRAEDRON MINIMUM	CEL											1.9	33
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL					0.8	42						
TETRAEDRON MUTICUM	CEL									X			
TETRAEDRON REGULARE	CEL									X			
TETRAEDRON TRIGONUM	CEL		0.4	37			X			X			
TETRASTRUM GLABRUM	COL				4	3.9	208						
TETRASTRUM HETERACANTHUM	COL					0.8	42		0.6	100			
TETRASTRUM STAUROGENIAEFORME	COL		0.4	37			X						
TRACHELOMONAS #1	CEL									X			
TRACHELOMONAS #2	CEL									X			
TRACHELOMONAS HISPIDA	CEL												X
TRACHELOMONAS INTERMEDIA	CEL			X		1.5	83						
TRACHELOMONAS URCEOLATA V. OVALIS	CEL												
TREUBARIA SETIGERUM	CEL									X			
TREUBARIA TRIAPPENDICULATA	CEL									X			
TOTAL				9362			5367			15000			1731

LAKE NAME: TEXARKANA LAKE
STORET NUMBER: 4833

NYGAARD TROPHIC STATE INDICES

DATE	03 22 74	05 31 74	08 23 74	11 08 74
MYXOPHYCEAN	2.00 E	3.50 E	5.00 E	07/0 E
CHLOROPHYCEAN	19.0 E	9.00 E	6.50 E	10/0 E
EUGLENOPHYTE	0.24 E	0.32 E	0.26 E	0.29 E
DIATOM	1.22 E	1.33 E	1.67 E	0.50 E
COMPOUND	37.0 E	20.5 E	17.0 E	26/0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 22 74	05 31 74	08 23 74	11 08 74
GENUS	18	14	20	22
SPECIES	03	07	01	07

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 22 74	05 31 74	08 23 74	11 08 74
AVERAGE DIVERSITY	H	3.06	3.19	4.01	3.88
NUMBER OF TAXA	S	58.00	62.00	52.00	40.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	5.86	5.95	5.70	5.32
MINUMUM DIVERSITY	MINH	0.07	0.09	0.07	0.14
TOTAL DIVERSITY	D	37411.56	33227.04	46917.00	14441.36
TOTAL NUMBER OF INDIVIDUALS/ML	N	12226.00	10416.00	11700.00	3722.00
EVENESS COMPONENT	J	0.52	0.54	0.70	0.73
RELATIVE EVENESS	RJ	0.52	0.53	0.70	0.73
MEAN NUMBER OF INDIVIDUALS/TAXA	L	210.79	168.00	225.00	93.05
NUMBER/ML OF MOST ABUNDANT TAXON	K	3782.00	4824.00	2215.00	1046.00

LAKE NAME: TEXARKANA LAKE CONTINUED
STORET NUMBER: 4833

TAXA	FORM	03 22 74 S	03 22 74 %C	03 22 74 ALGAL UNITS PER ML	05 31 74 S	05 31 74 %C	05 31 74 ALGAL UNITS PER ML	08 23 74 S	08 23 74 %C	08 23 74 ALGAL UNITS PER ML	11 08 74 S	11 08 74 %C	11 08 74 ALGAL UNITS PER ML
ACHNANTHES LANCEOLATA	CEL			X									
ACTINASTRUM HANTZSCHII V. FLUVIATILE	CEL			X		0.9	96						
ANABAENA	FIL						X		1.4	158			X
ANABAENOPSIS	FIL						X					0.8	28
ANABAENOPSIS CIRCULARIS	FIL							3	1.4	158			
ANABAENOPSIS RACIBORSKII	FIL								2.3	264			
ANKISTRODESMUS FALCATUS	CEL		0.3	40		2.8	289				4	5.9	220
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL		2.3	279						X			
APHANIZOMENON FLOS-AQUAE	FIL											0.8	28
APHANIZOMENON GRACILE	FIL						X						
CARTERIA	CEL						X						
CENTRIC DIATOMS	CEL	2	13.7	1672	1	46.3	4824						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL									X			
CHLAMYDOMONAS	CEL			X									
CHLOROGONIUM	CEL								1.3	153			
CHLOROPHYTAN LUNATE CELLED COLONY	COL			X									
CHROOMONAS	CEL											11.1	413
CHROOMONAS ACUTA	CEL		10.4	1274	5	5.6	579		2.7	316			
CLOSTERIUM	CEL						X			X			
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL					0.5	48						
COELASTRUM SPHAERICUM	COL			X									
CORONASTRUM AESTIVALE	COL						X						
CRUCIGENIA APICULATA	COL					0.5	48						
CRUCIGENIA FENESTRATA	COL			X					0.5	53			X
CRUCIGENIA TETRAPEDIA	COL		0.3	40			X						
CRYPTOMONAS	CEL		3.3	398		1.4	145				2	3.7	138
CRYPTOMONAS EROSA	CEL								3.6	422			X
CRYPTOMONAS MARSSONII	CEL			X						X			
CYCLOTELLA	CEL								0.9	105			
CYCLOTELLA MENEGHINIANA	CEL			X			X			X			
CYCLOTELLA STELLIGERA	CEL			X									
CYMBELLA	CEL			X									
DACTYLOCOCCOPSIS	CEL		5.2	637					6.3	738		8.9	330
DICHOTOMOCOCCUS	COL						X						
DICTYOSPHAERIUM	COL											1.5	55
DICTYOSPHAERIUM PULCHELLUM	COL			X		0.5	48						
DINOBRYON DIVERGENS	CEL			X		0.5	48						
DIPLONEIS	CEL					0.5	48						
EUASTRUM	CEL			X			X						
EUDORINA ELEGANS	COL						X						
EUGLENA	CEL		0.7	80			X						
EUGLENA #1	CEL								1.4	158	3	2.2	83
EUGLENA #2	CEL									X			
EUGLENA ACUS	CEL			X									
EUGLENA TRIPTERIS	CEL						X			X			
FLAGELLATE #2	CEL								0.9	105			X
GLENODINIUM EDAX	CEL			X									
GLENODINIUM OCULATUM	CEL					0.5	48			X			
GOLENKINIA	CEL								0.5	53			
GOMPHONEMA	CEL			X									
GYMNODINIUM ALBULUM	CEL											0.8	28
GYROSIGMA	CEL			X									
KIRCHNERIELLA	CEL			X		0.9	96					2.2	83
LAGYNION ?	CEL									X			
LEPOCINCLIS	CEL			X								1.5	55
LYNGBYA	FIL					0.9	96	5	8.6	1002			
MALLOMONAS	CEL									X			
MELOSIRA #4	CEL	5	30.9	3782		2.8	289						
MELOSIRA DISTANS	CEL	4	11.4	1394	4	7.0	724	2	18.9	2215	5	28.1	1046
MELOSIRA GRANULATA	CEL			X	3	3.2	338	4	3.6	422		3.0	110
MELOSIRA GRANULATA V. ANGUSTISSIMA	CEL		2.6	319		1.4	145						
MELOSIRA GRANULATA V. ANGUSTISSIMA F. SPIRALIS	CEL			X			X		1.4	158		1.5	55
MELOSIRA VARIANS	CEL			X			X						
MERISMOPEDIA GLAUCA	COL								1.8	211			
MERISMOPEDIA MINIMA	COL			X									
MERISMOPEDIA TENUISSIMA	COL					3.2	338		0.5	53		2.2	83
MESOSTIGMA VIRIDIS	CEL			X		1.4	145						
MICRACTINIUM	COL			X									
MICROCYSTIS	COL								4.1	475		2.2	83
NAVICULA	CEL		0.7	80						X		0.8	28
NAVICULA PUPULA	CEL												X
NITZSCHIA	CEL												X
NITZSCHIA #1	CEL			X					8.1	00949		5.2	193
NITZSCHIA #2	CEL			X									
NITZSCHIA #5	CEL												X
NITZSCHIA ACICULARIS	CEL								5.0	580			

LAKE NAME: TEXARKANA LAKE
STORET NUMBER: 4833

CONTINUED

TAXA	FORM	03 22 74 S	03 22 74 %C	03 22 74 ALGAL UNITS PER ML	05 31 74 S	05 31 74 %C	05 31 74 ALGAL UNITS PER ML	08 23 74 S	08 23 74 %C	08 23 74 ALGAL UNITS PER ML	11 08 74 S	11 08 74 %C	11 08 74 ALGAL UNITS PER ML
NITZSCHIA HOLSATICA	CEL						X						
NITZSCHIA PALEA	CEL			X									
NITZSCHIA SPP.	CEL	3	13.0	1593									
NITZSCHIA TRYBLIONELLA V. DEBILIS ?	CEL											0.8	28
OOCYSTIS	CEL						X						
OOCYSTIS BORGEI	CEL									X			
OPHIOCYTIUM	CEL						X						
OSCILLATORIA	FIL							1	17.6	2056	1	6.7	248
OSCILLATORIA LIMNETICA	FIL					1.4	145						
PANDORINA MORUM	COL			X			X						
PEDIASTRUM BIRADIATUM	COL					0.5	48						
PEDIASTRUM DUPLEX V. CLATHRATUM	COL					0.5	48						
PEDIASTRUM TETRAS V. TETRAODON	COL			X									
PENNATE DIATOM	CEL											0.8	28
PENNATE DIATOM #1	CEL						X						
PENNATE DIATOM #3	CEL						X						
PENNATE DIATOMS	CEL				2	11.1	1158						
PERIDINIUM QUADRIDENS	CEL					0.5	48			X			
PERIDINIUM UMBONATUM	CEL												X
PHACUS	CEL					0.5	48						X
PHACUS ACUMINATUS	CEL									X			
PHACUS CAUDATUS V. MINOR	CEL					0.9	96						
PHACUS LONGICAUDA	CEL						X						
PHACUS MEGALOPSIS	CEL						X			X			
PTEROMONAS ANGULOSA	CEL						X		1.8	211			
RAPHIDIOPSIS	FIL								0.9	105			
RAPHIDIOPSIS CURVATA	FIL						X						
SCENEDESMUS ABUNDANS	COL			X									
SCENEDESMUS ACUMINATUS	COL			X									
SCENEDESMUS ARMATUS V. BOGLARIENSIS	COL									X			
SCENEDESMUS BICAUDATUS	COL						X		0.5	53			
SCENEDESMUS BIJUGA	COL									X		1.5	55
SCENEDESMUS DIMORPHUS	COL			X		0.5	48			X		1.5	55
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL			X									
SCENEDESMUS OPOLIENSIS	COL											0.8	28
SCENEDESMUS PROTUBERANS	COL			X									
SCENEDESMUS QUADRICAUDA	COL					2.3	241			X		3.0	110
SCENEDESMUS SPP.	COL	5	4.2	518									
SCHROEDERIA	CEL					0.5	48						
SCHROEDERIA SETIGERA	CEL								1.4	158			
SELENASTRUM ?	COL												X
SPERMATOZOOPSIS	CEL						X		1.4	158			
STAURASTRUM #1	CEL									X			
STEPHANODISCUS	CEL			X								1.5	55
STEPHANODISCUS DUBIUS	CEL			X									
SURIRELLA	CEL			X								0.8	28
SYNEDRA ULNA	CEL						X						
TETRAEDRON GRACILE	CEL												X
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL						X						
TETRAEDRON MUTICUM	CEL			X									
TETRAEDRON REGULARE V. INCUS	CEL		0.3	40									
TETRAEDRON TRIGONUM	CEL								0.5	53			
TETRAEDRON TRIGONUM V. GRACILE	CEL					0.5	48						
TETRASTRUM ELEGANS	COL			X					0.5	53			
TETRASTRUM HETERACANTHUM	COL			X			X			X			
TRACHELOMONAS	CEL			X									
TRACHELOMONAS FLUVIATILIS	CEL											0.8	28
TRACHELOMONAS INTERMEDIA	CEL		0.7	80			X		0.9	105			X
TRACHELOMONAS SPP.	CEL					0.5	48						
WOLOSZYNSKIA RETICULATA	CEL									X			
TOTAL				12226			10416			11700			3722

LAKE NAME: TEXOMA LAKE
STORET NUMBER: 4834

NYGAARD TROPHIC STATE INDICES

DATE	03 09 74	05 17 74	08 09 74	10 31 74
MYXOPHYCEAN	03/0 E	6.00 E	8.00 E	8.00 E
CHLOROPHYCEAN	05/0 E	18.0 E	9.00 E	12.0 E
EUGLENOPHYTE	0.12 ?	0.17 ?	0.35 E	0.10 ?
DIATOM	1.00 E	1.50 E	2.00 E	0.50 E
COMPOUND	14/0 E	34.0 E	27.0 E	25.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 09 74	05 17 74	08 09 74	10 31 74
GENUS	03	07	12	15
SPECIES	03	03	00	05

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 09 74	05 17 74	08 09 74	10 31 74
AVERAGE DIVERSITY	H	2.19	3.72	2.85	2.46
NUMBER OF TAXA	S	25.00	48.00	41.00	37.00
NUMBER OF SAMPLES COMPOSITED	M	7.00	7.00	7.00	7.00
MAXIMUM DIVERSITY	MAXH	4.64	5.58	5.36	5.21
MINUMUM DIVERSITY	MINH	0.07	0.30	0.06	0.11
TOTAL DIVERSITY	D	10509.81	7120.08	27918.60	11129.04
TOTAL NUMBER OF INDIVIDUALS/ML	N	4799.00	1914.00	9796.00	4524.00
EVENESS COMPONENT	J	0.47	0.67	0.53	0.47
RELATIVE EVENESS	RJ	0.47	0.65	0.53	0.47
MEAN NUMBER OF INDIVIDUALS/TAXA	L	191.96	39.88	238.93	122.27
NUMBER/ML OF MOST ABUNDANT TAXON	K	2270.00	324.00	3886.00	2618.00

LAKE NAME: TEXOMA LAKE
STORET NUMBER: 4834

CONTINUED

TAXA	FORM	03 09 74 IS	03 09 74 %C	03 09 74 ALGAL UNITS PER ML	05 17 74 IS	05 17 74 %C	05 17 74 ALGAL UNITS PER ML	08 09 74 IS	08 09 74 %C	08 09 74 ALGAL UNITS PER ML	10 31 74 IS	10 31 74 %C	10 31 74 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII V. FLUVIATILE	CEL			X									X
ANABAENA	FIL					3.1	59			X			X
ANABAENA #1	FIL								0.8	79			
ANABAENOPSIS	FIL								1.2	119			
ANABAENOPSIS RACIBORSKII	FIL								0.8	79			
ANKISTRODESMUS FALCATUS	CEL								0.4	40			
ANKISTRODESMUS FALCATUS V. ACICULARIS	CEL											1.0	44
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL	5	10.7	514		3.1	59					2.0	89
APHANIZOMENON FLOS-AQUAE	FIL						X						
CAPARTOGRAMMA CRUCICULA	CEL												X
CARTERIA	CEL						X						X
CENTRIC DIATOM	CEL							5	4.1	397			
CENTRIC DIATOMS	CEL	3	13.4	643	1	12.3	236						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL						X						
CHLAMYDOMONAS	CEL						X		0.4	40	3	4.9	222
CHLOROGONIUM	CEL									X			
CHROOMONAS	CEL								0.8	79			
CHROOMONAS ACUTA	CEL	1	47.3	2270		3.1	59			X		1.0	44
CLOSTERIUM	CEL					1.5	29					1.0	44
COELASTRUM MICROPORUM	COL				3	6.2	118			X			
COSCINODISCUS	CEL						X						
COSCINODISCUS DENARIUS	CEL										5	2.0	89
COSMARIUM CLEPSYDRA V. NANUM	CEL								0.8	79			
CRUCIGENIA APICULATA	COL						X						
CRYPTOMONAS	CEL				2	13.8	265		1.6	159			
CRYPTOMONAS MARSSONII	CEL			X									
CRYPTOMONAS REFLEXA	CEL			X									
CRYPTOMONAS SPP.	CEL	4	5.4	257									
CYCLOTELLA MENEGHINIANA	CEL			X							2	5.4	266
DACTYLOCOCCOPSIS	FIL											7.8	355
DICTYOSPHAERIUM PULCHELLUM	COL									X			X
DIPLONEIS	CEL			X	5	16.9	324					2.9	133
EUGLENA	CEL						X						
EUGLENA GRACILIS	CEL									X			
FLAGELLATE	CEL	2	18.8	900		1.5	29						
GLENODINIUM GYMNODINIUM	CEL									X			
GLENODINIUM OCULATUM	CEL								0.8	79			
GOMPHONEMA	CEL			X									X
KIRCHNERIELLA	CEL					3.1	59						
LEPOCINCLIS	CEL									X			
LYNGBYA	FIL			X				4	10.1	991			X
MELOSIRA	CEL									X			X
MELOSIRA #4	CEL					6.2	118						
MELOSIRA DISTANS	CEL		1.8	86			X			X			
MELOSIRA VARIANS	CEL			X									
MERISMOPEDIA MINIMA	COL											2.0	89
MERISMOPEDIA TENUISSIMA	COL						X		0.4	40			
MESOSTIGMA VIRIDIS	CEL						X			X			
MICROCYSTIS INCERTA	COL						X						
MOUGEOTIA	CEL								0.4	40			
NAVICULA	CEL			X									X
NITZSCHIA	CEL						X	3	11.7	1150	4	5.9	266
NITZSCHIA #4	CEL					1.5	29		0.8	79		1.0	44
OOCYSTIS	CEL			X		6.2	118		2.8	278		2.9	133
OSCILLATORIA	FIL							1	39.7	3886		1.0	44
OSCILLATORIA #1	FIL			X			X						X
OSCILLATORIA LIMNETICA	FIL		0.9	43			X				1	57.9	2618
PANDORINA MORUM	COL			X						X			
PEDIASTRUM DUPLEX V. CLATHRATUM	COL						X						
PEDIASTRUM TETRAS V. TETRAODON	COL								0.4	40			
PENNATE DIATOM	CEL		1.8	86		4.4	88						
PERIDINIUM QUADRIDENS	CEL									X			
PERIDINIUM UMBONATUM	CEL					3.1	59						X
PHACUS	CEL			X			X		0.4	40			
PHACUS CAUDATUS V. MINOR	CEL						X						X
PHACUS MEGALOPSIS	CEL						X			X			
PLEUROSIGMA	CEL												X
RAPHIDIOPSIS	FIL							2	19.8	1943			X
RHIZOSOLENIA	CEL								0.4	40			
SCENEDESMUS ACUMINATUS	COL			X			X						
SCENEDESMUS BALATONICUS	COL												X
SCENEDESMUS BICAUDATUS	COL						X						X
SCENEDESMUS BIJUGA	COL						X						X
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL								0.8	79			

LAKE NAME: TEXOMA LAKE
STORET NUMBER: 4834

CONTINUED

TAXA	FORM	03 09 74 IS	03 09 74 %C	03 09 74 ALGAL UNITS PER ML	05 17 74 IS	05 17 74 %C	05 17 74 ALGAL UNITS PER ML	08 09 74 IS	08 09 74 %C	08 09 74 ALGAL UNITS PER ML	10 31 74 IS	10 31 74 %C	10 31 74 ALGAL UNITS PER ML
SCENEDESMUS DIMORPHUS	COL						X			X		1.0	44
SCENEDESMUS INTERMEDIUS	COL						X						X
SCENEDESMUS QUADRICAUDA	COL						X						
SCENEDESMUS SPP.	COL				4	9.2	177						
SCHROEDERIA JUDAYI	CEL						X						
SPHAEROCYSTIS SCHROETERI	COL						X						
STEPHANODISCUS	CEL			X			X						
STEPHANODISCUS DUBIUS	CEL						X						
SYNEDRA	CEL			X									
TETRAEDRON CAUDATUM	CEL						X						
TETRAEDRON MINIMUM	CEL								0.4	40			
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL					4.6	88			X			X
TETRASTRUM	COL			X									
TETRASTRUM ELEGANS	COL						X						
TETRASTRUM STAUROGENIAEFORME	COL						X						
TRACHELOMONAS FLUVIATILIS	CEL									X			
TRACHELOMONAS INTERMEDIA	CEL									X			X
TREUBARIA	CEL												X
TOTAL				4799			1914			9796			4524

LAKE NAME: TRAVIS LAKE
STORET NUMBER: 4835

NYGAARD TROPHIC STATE INDICES

DATE	03 15 74	05 22 74	08 20 74	11 06 74
MYXOPHYCEAN	1.50 E	1.25 E	0.50 E	4.00 E
CHLOROPHYCEAN	3.50 E	2.50 E	0.75 E	4.00 E
EUGLENOPHYTE	0.10 ?	0.40 E	0.20 ?	0/08 ?
DIATOM	0/02 ?	1.00 E	0.33 E	1.00 E
COMPOUND	5.50 E	5.50 E	2.00 E	10.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 15 74	05 22 74	08 20 74	11 06 74
GENUS	00	00	03	09
SPECIES	00	00	00	02

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 15 74	05 22 74	08 20 74	11 06 74
AVERAGE DIVERSITY	H	1.81	2.71	2.11	2.85
NUMBER OF TAXA	S	20.00	37.00	23.00	16.00
NUMBER OF SAMPLES COMPOSITED	M	5.00	6.00	6.00	6.00
MAXIMUM DIVERSITY	MAXH	4.32	5.21	4.52	4.00
MINUMUM DIVERSITY	MINH	0.24	0.23	0.20	0.37
TOTAL DIVERSITY	D	1619.95	5230.30	2698.69	1171.35
TOTAL NUMBER OF INDIVIDUALS/ML	N	895.00	1930.00	1279.00	411.00
EVENESS COMPONENT	J	0.42	0.52	0.47	0.71
RELATIVE EVENESS	RJ	0.39	0.50	0.45	0.69
MEAN NUMBER OF INDIVIDUALS/TAXA	L	44.75	52.16	55.61	25.69
NUMBER/ML OF MOST ABUNDANT TAXON	K	487.00	518.00	654.00	103.00

LAKE NAME: TRAVIS LAKE CONTINUED
STORET NUMBER: 4835

TAXA	FORM	03 15 74 S	03 15 74 %C	03 15 74 ALGAL UNITS PER ML	05 22 74 S	05 22 74 %C	05 22 74 ALGAL UNITS PER ML	08 20 74 S	08 20 74 %C	08 20 74 ALGAL UNITS PER ML	11 06 74 S	11 06 74 %C	11 06 74 ALGAL UNITS PER ML
ANABAENA	FIL			X			X						
ANKISTRODESMUS FALCATUS	CEL					2.4	47						
APHANIZOMENON FLOS-AQUAE	FIL						X						
CERATIUM HIRUNDINELLA	CEL			X			X						
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL							3	2.2	28			
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL						X			X			
CHLAMYDOMONAS	CEL	5	4.6	41							3	16.8	69
CHLOROPHYTAN COCCOID CELL	CEL							4	4.5	57			
CHLOROPHYTAN COCCOID CELLED COLONY	COL			X									
CHLOROPHYTAN COLONY	COL					2.4	47						
CHROOMONAS	CEL	2	27.3	244	5	17.1	330			X			X
CHRYSOPHYTAN CELL #1	CEL						X						
CLOSTERIUM #1	CEL			X			X						
CLOSTERIUM #2	CEL			X			X			X			X
COELASTRUM	COL												X
COELASTRUM MICROPORUM	COL						X						
COELASTRUM RETICULATUM	COL			X	1	26.8	518						
COELOSPHAERIUM	COL			X			X						
COSMARIUM	CEL									X			
CRUCIGENIA TETRAPEDIA	COL			X									
CRYPTOMONAS	CEL				3	9.7	188				2	16.8	69
CRYPTOMONAS EROSA	CEL	1	54.4	487									
CYANOPHYTAN FILAMENT	FIL							5	20.0	256			
CYCLOTELLA MENEGHINIANA	CEL										1	25.1	103
CYMBELLA TURGIDA	CEL									X			
DACTYLOCOCCOPSIS	CEL											8.3	34
DACTYLOCOCCOPSIS IRREGULARIS	CEL						X						
DINOBRYON DIVERGENS	CEL						X						
EUGLENA	CEL						X						
EUGLENA EHRENBERGII	CEL						X						
FRAGILARIA CROTONENSIS	CEL				2	26.8	518						
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL						X						
GOLENKINIA RADIATA	CEL					2.4	47						
LAGERHEIMIA	CEL					2.4	47						
LYNGBYA HIERONYMUSII	FIL									X			
MALLOMONAS PSEUDOCORONATA ?	CEL						X						
MELOSIRA GRANULATA	CEL							2	13.4	171			
MICROCYSTIS AERUGINOSA	COL			X			X						X
NAVICULA #1	CEL								2.2	28			
NAVICULA RADIOSA	CEL			X									
NITZSCHIA	CEL												X
NITZSCHIA #1	CEL									X			
OOCYSTIS	CEL	3	4.6	41							4	8.3	34
OSCILLATORIA	FIL												X
OSCILLATORIA LIMNETICA	FIL												X
PALMELLA ?	COL			X									
PEDIASTRUM DUPLEX V. CLATHRATUM	COL									X			
PEDIASTRUM DUPLEX V. DUODENARIUM	COL						X						
PEDIASTRUM SIMPLEX	COL						X			X			
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL			X									
PENNATE DIATOM	CEL											8.3	34
PERIDINIUM	CEL						X						
PERIDINIUM INCONSPICUUM	CEL									X			
PHACUS ACUMINATUS	CEL									X			
PHACUS CURVICAUDA	CEL						X						
PHACUS ORBICULARIS V. ZMUDAE ?	CEL			X									
PHACUS PYRUM ?	CEL						X						
PINNULARIA	CEL									X			
SCENEDESMUS ABUNDANS	COL						X						
SCENEDESMUS BICAUDATUS	COL	4	6.6	41									
SCENEDESMUS BIJUGA	COL					2.4	47						
SCENEDESMUS DIMORPHUS	COL											8.3	34
SCENEDESMUS QUADRICAUDA	COL										5	8.3	34
STAURASTRUM #1	CEL									X			
STAURASTRUM #2	CEL						X						
STAURASTRUM LEPTOCLADUM	CEL						X			X			
STEPHANODISCUS	CEL						X			X			X
SURIRELLA	CEL								2.2	28			
SYNEDRA	CEL							1	51.1	654			
SYNEDRA ULNA	CEL			X									
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL		4.6	41	4	7.3	141		4.5	57			
TRACHELOMONAS GIRARDIANA	CEL						X						
TRACHELOMONAS LACUSTRIS	CEL						X						
TOTAL				895			1938			1279			411

LAKE NAME: TRINIDAD
STORET NUMBER: 4836

NYGAARD TROPHIC STATE INDICES

DATE	03 11 74	05 16 74	08 12 74	11 01 74
MYXOPHYCEAN	6.00 E	3.50 E	10.0 E	11.0 E
CHLOROPHYCEAN	29.0 E	11.5 E	22.0 E	18.0 E
EUGLENOPHYTE	0.06 ?	0.10 ?	0.03 ?	0.03 ?
DIATOM	2.00 E	0.60 E	0.50 E	1.33 E
COMPOUND	43.0 E	18.0 E	34.0 E	34.0 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 11 74	05 16 74	08 12 74	11 01 74
GENUS	20	19	20	14
SPECIES	07	09	09	03

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 11 74	05 16 74	08 12 74	11 01 74
AVERAGE DIVERSITY	H	3.71	4.06	3.95	3.82
NUMBER OF TAXA	S	53.00	50.00	42.00	40.00
NUMBER OF SAMPLES COMPOSITED	M	1.00	1.00	1.00	1.00
MAXIMUM DIVERSITY	MAXH	5.73	5.64	5.39	5.32
MINUMUM DIVERSITY	MINH	0.02	0.05	0.02	0.02
TOTAL DIVERSITY	D	212794.47	63250.74	158904.55	132649.50
TOTAL NUMBER OF INDIVIDUALS/ML	N	57357.00	15579.00	40229.00	34725.00
EVENESS COMPONENT	J	0.65	0.72	0.73	0.72
RELATIVE EVENESS	RJ	0.65	0.72	0.74	0.72
MEAN NUMBER OF INDIVIDUALS/TAXA	L	1082.21	311.58	957.83	868.13
NUMBER/ML OF MOST ABUNDANT TAXON	K	11416.00	3752.00	7025.00	6089.00

LAKE NAME: TRINIDAD
STORET NUMBER: 4836

CONTINUED

TAXA	FORM	03 11 74 IS	03 11 74 %C	03 11 74 ALGAL UNITS PER ML	05 16 74 IS	05 16 74 %C	05 16 74 ALGAL UNITS PER ML	08 12 74 IS	08 12 74 %C	08 12 74 ALGAL UNITS PER ML	11 01 74 IS	11 01 74 %C	11 01 74 ALGAL UNITS PER ML
ACTINASTRUM HANTZSCHII V. FLUVIATILE	COL		0.1	70									
ANABAENA	FIL								0.2	69			
ANABAENOPSIS ELENKINII	FIL			X	3	2.4	379		0.3	138		0.7	247
ANKISTRODESMUS #1	CEL		0.9	490								17.5	6089
ANKISTRODESMUS FALCATUS	CEL		1.0	560		0.7	114		0.7	276		1.6	494
APHANOCAPSA ELACHISTA	COL		0.1	70									
CENTRIC DIATOM	CEL			X									
CENTRIC DIATOMS	CEL	3	19.0	10926								5.0	1724
CHLAMYDOMONAS	CEL		1.0	560		2.4	379		1.7	689			
CHLOROGONIUM	CEL						X						
CHLOROPHYTAN COCCOID CELL	CEL								1.9	758			
CHROOCOCCUS	COL											2.1	741
CHROOMONAS	CEL					0.5	76		1.5	620			
COELASTRUM MICROPORUM	COL					0.2	38						
COELASTRUM SPHAERICUM	COL		0.1	70									
COSMARIUM	CEL					1.9	303						
COSMARIUM CLEPSYDRA V. NANUM	CEL	1	19.9	11416			X		1.5	620		1.7	576
CRUCIGENIA APICULATA	COL						X			X			
CRUCIGENIA TETRAPEDIA	COL		0.1	70									
CRYPTOMONAS	CEL		0.2	140									
CRYPTOMONAS EROSA	CEL				4	3.9	606		1.9	758			
CYCLOTELLA	CEL			X									
CYCLOTELLA MENEGHINIANA	CEL				2	9.0	1402	2	4.6	3444			X
CYCLOTELLA MENEGHINIANA ?	CEL						X						
CYMBELLA	CEL						X						X
DACTYLOCOCCOPSIS	CEL		0.1	70	5	24.1	3752		3.3	1309		4.7	1446
DICHOTOMOCOCCUS	COL		1.0	560					0.7	276			
DICTYOSPHAERIUM PULCHELLUM	COL			X			X		0.2	69			
ELAKATOTHRIX	CEL			X									
EUGLENA #1	CEL					0.7	114			X			
EUGLENA #2	CEL			X		0.5	76						
EUGLENA #3	CEL												X
FLAGELLATE #3	CEL		2.2	1261									
FLAGELLATE #4	CEL											1.6	494
FRANCEIA	CEL			X									
GLENODINIUM OCULATUM	CEL			X		0.5	76						
GOLENKINIA	CEL	2	12.6	7214	1	13.1	2047		0.5	207		0.2	82
GYMNODINIUM ORDINATUM	CEL						X						
KIRCHNERIELLA	CEL								6.6	3444		9.0	3127
LAGERHEIMIA	CEL		0.1	70									
LAGERHEIMIA SUBSALSA	CEL									X			
LYNGBYA #1	FIL			X		1.5	227		2.4	904		2.6	905
LYNGBYA LAGERHEIMII	FIL							1	14.6	5854		3.3	1152
MELOSIRA	CEL			X									
MELOSIRA #4	CEL		0.9	490								1.9	654
MERISMOPEDIA MINIMA	COL					1.0	303						
MERISMOPEDIA PUNCTATA	COL								0.3	138		0.2	82
MERISMOPEDIA TENUISSIMA	COL		2.0	1611		5.0	910	3	17.5	7025	3	9.7	3376
MESOSTIGMA VIRIDIS	CEL			X			X						
MICROCYSTIS INCERTA	COL								1.9	758	5	2.6	905
NAVICULA	CEL											0.2	82
NAVICULA PUPULA V. RECTANGULARIS	CEL			X			X			X			
NEPHROCYTIUM	COL		1.1	630		0.2	38						
NITZSCHIA	CEL										2	11.6	3958
NITZSCHIA #1	CEL	4	5.4	3002		5.0	910	4	12.0	4821			
NITZSCHIA #2	CEL						X						
NITZSCHIA #4	CEL						X						
NITZSCHIA TRYBLIONELLA	CEL			X									
OOCYSTIS	CEL		1.5	840		2.7	417		0.2	69			
OSCILLATORIA	FIL		0.2	140			X						X
OSCILLATORIA LIMNETICA	FIL								1.4	551			
PEDIASTRUM BORYANUM	COL		0.1	70		0.5	76			X			X
PEDIASTRUM DUPLEX	COL									X			
PEDIASTRUM DUPLEX V. CLATHRATUM	COL		0.4	210									
PEDIASTRUM SIMPLEX	COL			X		0.2	38			X			X
PEDIASTRUM TETRAS V. TETRADON	COL		0.5	280		1.0	152		0.2	69		0.7	247
PHACUS MEGALOPSIS	CEL			X			X						
RAPHIDIOPSIS	FIL												X
RAPHIDIOPSIS CURVATA	FIL							5	6.8	2755		1.2	411
RAPHIDIOPSIS CURVATA ?	FIL					0.5	76						
SCENEDESMUS ABUNDANS	COL	5	12.6	7214		4.9	758		1.4	551			X
SCENEDESMUS ARCUATUS	COL									X			
SCENEDESMUS BICAUDATUS	COL		4.5	2591		2.2	341		2.6	1033			X
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL			X		0.2	38						
SCENEDESMUS DENTICULATUS	COL		0.1	70		1.5	227		0.3	138			

LAKE NAME: TRINIDAD
STORET NUMBER: 4836

CONTINUED

TAXA	FORM	03 11 74 S	03 11 74 %C	03 11 74 ALGAL UNITS PER ML	05 16 74 S	05 16 74 %C	05 16 74 ALGAL UNITS PER ML	08 12 74 S	08 12 74 %C	08 12 74 ALGAL UNITS PER ML	11 01 74 S	11 01 74 %C	11 01 74 ALGAL UNITS PER ML
SCENEDESMUS DIMORPHUS	COL		3.1	1751		0.5	76		0.2	69			X
SCENEDESMUS INTERMEDIUS V. BICAUDATUS	COL												X
SCENEDESMUS OPOLIENSIS	COL		1.7	980									
SCENEDESMUS PROTUBERANS	COL					2.2	341						
SCENEDESMUS QUADRICAUDA	COL		1.2	700		1.0	152		4.8	1929			X
SCENEDESMUS SERRATUS	COL						X						
SCENEDESMUS SPP.	COL										1	16.1	5596
SCHROEDERIA SETIGERA	CEL			X		1.2	189		0.5	207		0.5	165
STEPHANODISCUS	CEL			X									X
STEPHANODISCUS ASTRAEA	CEL					0.7	114						
TETRAEDRON CAUDATUM V. LONGISPINUM	CEL		1.7	980			X		0.2	69		0.2	82
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL		2.4	1401		4.1	644		0.7	276		0.9	329
TETRAEDRON MUTICUM	CEL		0.5	280		1.0	152			X		0.9	329
TETRASTRUM STAUROGENIAEFORME	COL		0.7	420		0.2	38					3.6	1234
TREUBARIA	CEL		0.1	70					0.7	276			X
TOTAL				57357			15579			48229			34725

LAKE NAME: TWIN BUTTES RES.
STORET NUMBER: 4837

NYGAARD TROPHIC STATE INDICES

DATE	03 04 74	05 15 74	08 05 74	10 29 74
MYXOPHYCEAN	1.00 E	1.00 E	1.20 E	0.75 E
CHLOROPHYCEAN	10.0 E	9.00 E	3.20 E	4.75 E
EUGLENOPHYTE	0.27 E	0.50 E	0.45 E	0.14 ?
DIATOM	0.33 E	0.43 E	0.30 ?	1.00 E
COMPOUND	15.0 E	16.5 E	7.00 E	6.75 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 04 74	05 15 74	08 05 74	10 29 74
GENUS	11	08	19	06
SPECIES	07	07	00	07

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 04 74	05 15 74	08 05 74	10 29 74
AVERAGE DIVERSITY	H	3.59	3.02	1.78	3.07
NUMBER OF TAXA	S	48.00	53.00	59.00	41.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	5.58	5.73	5.88	5.36
MINUMUM DIVERSITY	MINH	0.11	0.14	0.05	0.17
TOTAL DIVERSITY	D	20445.05	15154.36	32468.98	9547.70
TOTAL NUMBER OF INDIVIDUALS/ML	N	5695.00	5018.00	18241.00	3110.00
EVENESS COMPONENT	J	0.64	0.53	0.30	0.57
RELATIVE EVENESS	RJ	0.64	0.52	0.30	0.56
MEAN NUMBER OF INDIVIDUALS/TAXA	L	118.65	94.68	309.17	75.85
NUMBER/ML OF MOST ABUNDANT TAXON	K	1327.00	1593.00	13554.00	877.00

LAKE NAME: TWIN BUTTES RES.
STORET NUMBER: 4837

CONTINUED

TAXA	FORM	03 04 74 S	03 04 74 %C	03 04 74 ALGAL UNITS PER ML	05 15 74 S	05 15 74 %C	05 15 74 ALGAL UNITS PER ML	08 05 74 S	08 05 74 %C	08 05 74 ALGAL UNITS PER ML	10 29 74 S	10 29 74 %C	10 29 74 ALGAL UNITS PER ML
ACHNANTHES HAUCKIANA ?	CEL									X			
AMPHORA	CEL									X			
ANABAENOPSIS CIRCULARIS	FIL									X			
ANKISTRODESMUS	CEL									X			
ANKISTRODESMUS FALCATUS V. ACICULARIS	CEL					5.4	271		0.2	39		2.7	85
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL	3	14.2	809		4.0	203				5	6.4	198
APHANOCAPSA	CEL									X			
CARTERIA	CEL		0.6	32				3	2.4	430			
CENTRIC DIATOM	CEL			X							3	12.7	396
CERATIUM HIRUNDINELLA F. BRACHYCERAS	CEL						X			X		0.9	28
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL						X						
CHLOROGONIUM	CEL									X		0.9	28
CHLOROPHYTAN COCCOID CELL	CEL												X
CHLOROPHYTAN LUNATE CELLED COLONY	COL						X						
CHROOMONAS	CEL				2	31.7	1593						
CHROOMONAS ACUTA	CEL		2.3	129							2	26.4	821
CHRYSOPHYTAN CELL	CEL		3.4	194									
CHRYSOPHYTAN CELL #1	CEL												X
CHRYSOPHYTAN FLAGELLATE	CEL			X									
CLOSTERIUM	CEL									X			
CLOSTERIUM #1	CEL												X
CLOSTERIUM #2	CEL												X
COCCONEIS	CEL						X						
COELASTRUM MICROPORUM	COL						X					1.8	57
COELASTRUM RETICULATUM	COL									X			
COELOSPHAERIUM PALLIDUM	COL			X									
COSMARIUM	CEL									X			
COSMARIUM #1	CEL						X					0.9	28
COSMARIUM #2	CEL						X						X
COSMARIUM CLEPSYDRA V. ?	CEL			X									
COSMARIUM CLEPSYDRA V. NANUM	CEL								0.6	117			
CRUCIGENIA FENESTRATA	COL			X									
CRUCIGENIA QUADRATA	COL			X									
CRUCIGENIA TETRAPEDIA	COL		2.8	142		1.4	68		0.6	117		0.9	28
CRYPTOMONAS	CEL	5	2.8	162									
CRYPTOMONAS EROSA	CEL					0.7	34				1	28.2	877
CRYPTOMONAS REFLEXA	CEL												X
CYANOPHYTAN COLONY	COL									X			
CYCLOTELLA	CEL												X
CYCLOTELLA STELLIGERA	CEL									X			
CYMBELLA	CEL			X									
CYMBELLA #1	CEL						X						
CYMBELLA #2	CEL						X						
CYMBELLA #3	CEL									X			
DACTYLOCOCCOPSIS	CEL											0.2	255
DIATOMA VULGARE	CEL						X						
DICTYOSPHAERIUM PULCHELLUM	COL			X						X			
DINOBRYON BAVARICUM	CEL									X			
DINOBRYON SEPTULARIA	CEL			X									
DINOBRYON SOCIALE	CEL					0.7	34						
DIPLOPSALIS ACUTA	CEL						X						
ELAKATOTHRIX GELATINOSA	COL					2.7	136						
EUASTRUM	CEL								0.2	39			
EUGLENA	CEL			X									
EUGLENA #1	CEL		0.6	32			X		0.4	78			
EUGLENA #2	CEL			X			X			X			X
EUGLENA #3	CEL									X			
EUGLENA #4	CEL								0.2	39			
EUGLENA #5	CEL									X			
EUGLENA OXYURIS	CEL						X						
FLAGELLATE	CEL		2.8	142									
FLAGELLATE #1	CEL									X			
FLAGELLATES	CEL							4	5.8	1055			
FRANCEIA	CEL						X						
GLENODINIUM	CEL						X						
GOLENKINIA	CEL					1.4	68						X
GOMPHONEMA	CEL			X									
GYMNODINIUM ORDINATUM	CEL		1.1	65									
KIRCHNERIELLA	CEL		0.6	32									
MALLOMONAS	CEL			X									
MALLOMONAS ACAROIDES	CEL					0.7	34						
MELOSIRA DISTANS	CEL						X						
MELOSIRA GRANULATA	CEL						X			X			
MERISMOPEDIA	COL												X
MERISMOPEDIA PUNCTATA	COL			X									
MERISMOPEDIA TENUISSIMA	COL								2.6	469			
MOUGEOTIA	CEL			X			X	11	2.1	391			

LAKE NAME: TWIN BUTTES RES.
STORET NUMBER: 4837

CONTINUED

TAXA	FORM	03 04 74 IS	03 04 74 %C	03 04 74 ALGAL UNITS PER ML	05 15 74 IS	05 15 74 %C	05 15 74 ALGAL UNITS PER ML	08 05 74 IS	08 05 74 %C	08 05 74 ALGAL UNITS PER ML	10 29 74 IS	10 29 74 %C	10 29 74 ALGAL UNITS PER ML
NAVICULA	CEL		1.7	97						X			X
NAVICULA #1	CEL									X			
NITZSCHIA	CEL			X					0.9	156			
NITZSCHIA #1	CEL						X						
OOCYSTIS	CEL	4	5.7	324			X						X
OSCILLATORIA	FIL						X	5	2.1	391			X
PEDIASTRUM DUPLEX V. CLATHRATUM	COL			X			X					0.9	28
PEDIASTRUM SIMPLEX	COL			X	3	4.7	237		0.4	78			X
PEDIASTRUM SIMPLEX V. DUODENARIUM	COL			X			X						
PEDIASTRUM TETRAS V. TETRAODON	COL			X								0.9	28
PENNATE DIATOMS	CEL								0.9	156			
PERIDINIUM	CEL												X
PERIDINIUM INCONSPICUUM	CEL									X			
PERIDINIUM QUADRIDENS	CEL						X			X			
PHACUS	CEL			X						X			
PHACUS ACUMINATUS	CEL												X
PHACUS HELIKOIDES	CEL									X			
PHACUS LONGICAUDA	CEL			X						X			
PHACUS MEGALOPSIS	CEL			X									
PHACUS PLEURONECTES	CEL						X						
PHACUS PSEUDONORDSTEDTII	CEL						X						
PHACUS PYRUM	CEL						X						
PHACUS TORTUS	CEL						X						X
RAPHIDIOPSIS CURVATA	FIL					5.4	271	2	74.3	13554			
SCENEDESMUS	COL									X			
SCENEDESMUS ABUNDANS	COL		3.4	194					1.1	195			X
SCENEDESMUS BICAUDATUS	COL					0.7	34		0.4	78		0.9	28
SCENEDESMUS BIJUGA V. FLEXUOSUS	COL		0.6	32									X
SCENEDESMUS DENTICULATUS	COL		0.6	32	5	2.0	102			X		0.9	28
SCENEDESMUS DIMORPHUS	COL		5.1	291					0.2	39			X
SCENEDESMUS QUADRICAUDA	COL	1	19.3	1101	1	29.1	1458				4	2.7	85
SCHROEDERIA SETIGERA	CEL		1.7	97									
STAURASTRUM	CEL									X			
STAURASTRUM TETRACERUM	CEL			X									
STEPHANODISCUS	CEL		2.9	162			X		0.2	39			
SURIRELLA	CEL		0.6	32									
SURIRELLA ?	CEL									X			
SYNEDRA	CEL	2	23.3	1327	4	2.7	136		3.2	506		0.9	28
SYNEDRA #1	CEL									X			
SYNEDRA ULNA	CEL						X						
TETRAEDRON CAUDATUM	CEL					0.7	34						
TETRAEDRON CAUDATUM V. LONGISPINUM	CEL									X		0.9	28
TETRAEDRON GRACILE	CEL									X		0.9	28
TETRAEDRON MINIMUM	CEL					4.0	203						
TETRAEDRON MINIMUM V. SCROBICULATUM	CEL			X					0.4	78		0.9	28
TETRAEDRON MUTICUM	CEL												X
TETRASTRUM ELEGANS	COL		1.1	65			X			X			
TETRASTRUM GLABRUM	COL					1.4	68						
TETRASTRUM STAUROGENIAEFORME	COL		2.8	162					0.4	78			
TRACHELOMONAS	CEL									X			
TRACHELOMONAS #1	CEL								0.2	39			
TRACHELOMONAS FLUVIATILIS	CEL						X						
TRACHELOMONAS HISPIDA	CEL						X						
TRACHELOMONAS VOLVOCINA	CEL					0.7	34						
TOTAL				5695			5018			18241			3114

LAKE NAME: WHITE RIVER RES.
STORET NUMBER: 4838

NYGAARD TROPHIC STATE INDICES

DATE	03 06 74	05 14 74	08 06 74	10 28 74
MYXOPHYCEAN	1.33 E	2.00 E	1.00 E	3.00 E
CHLOROPHYCEAN	2.00 E	1.50 E	1.40 E	2.50 E
EUGLENOPHYTE	0.10 ?	0/07 ?	0.17 ?	0.09 ?
DIATOM	0/04 ?	0/02 ?	2.00 E	1.50 E
COMPOUND	3.67 E	3.50 E	3.20 E	7.50 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 06 74	05 14 74	08 06 74	10 28 74
GENUS	04	06	10	07
SPECIES	00	03	00	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 06 74	05 14 74	08 06 74	10 28 74
AVERAGE DIVERSITY	H	0.78	2.52	2.53	2.67
NUMBER OF TAXA	S	28.00	16.00	27.00	21.00
NUMBER OF SAMPLES COMPOSITED	M	3.00	3.00	3.00	3.00
MAXIMUM DIVERSITY	MAXH	4.81	4.00	4.75	4.39
MINUMUM DIVERSITY	MINH	0.05	0.21	0.12	0.08
TOTAL DIVERSITY	D	6023.16	1968.12	7243.39	9013.92
TOTAL NUMBER OF INDIVIDUALS/ML	N	7722.00	781.00	2863.00	3376.00
EVENESS COMPONENT	J	0.16	0.63	0.53	0.61
RELATIVE EVENESS	RJ	0.16	0.61	0.53	0.61
MEAN NUMBER OF INDIVIDUALS/TAXA	L	275.79	48.81	106.04	160.76
NUMBER/ML OF MOST ABUNDANT TAXON	K	6692.00	250.00	1326.00	1086.00

LAKE NAME: WHITE RIVER RES. CONTINUED
STORET NUMBER: 4838

TAXA	FORM	03 06 74 IS	03 06 74 BC	03 06 74 ALGAL UNITS PER ML	05 14 74 IS	05 14 74 BC	05 14 74 ALGAL UNITS PER ML	08 06 74 IS	08 06 74 BC	08 06 74 ALGAL UNITS PER ML	10 20 74 IS	10 20 74 BC	10 20 74 ALGAL UNITS PER ML
ANABAENA PLANCTONICA	FIL								2.4	70			
ANKISTRODESMUS FALCATUS													
V. MIRABILIS	CEL		0.2	14	4	16.0	125		1.2	35			
APHANIZOMENON FLOS-AQUAE	FIL	3	2.2	170	1	12.0	94				1	20.6	965
APHANOCAPSA DELICATISSIMA	COL							4	17.1	489			
BOTRYOCOCCUS	COL			X									
CERATIUM HIRUNDINELLA	CEL						X						
CERATIUM HIRUNDINELLA													
F. FURCOIDES	CEL			X			X	1	2.4	70			
CHLAMYDOMONAS	CEL	1	86.7	6692	3	20.0	156						
CHLOROPHYTAN COCCOID CELLED COLONY	COL			X									
CHLOROPHYTAN COLONY	COL			X									
CHROOMONAS ACUTA	CEL	2	8.9	689	2	32.0	250	5	13.4	384	3	32.2	1006
CLOSTERIUM	CEL									X			X
CLOSTERIUM ACICULARE	CEL			X									
COCCOID CELL	CEL			X									
COCCONEIS PLACENTULA	CEL											1.2	43
COELASTRUM	COL									X			
COELASTRUM MICROPORUM	COL												X
COELASTRUM RETICULATUM	COL			X								2.4	83
COELOSPHAERIUM	COL									X			
COELOSPHAERIUM PALLIDUM	COL		0.4	32			X						
COSMARIUM	CEL				5	12.0	94		1.2	35			
COSMARIUM #1	CEL			X									
CRUCIGENIA FENESTRATA	COL												X
CRYPTOMONAS EROSA	CEL										4	6.0	211
CRYPTOMONAS MARSSONII	CEL									X			
CRYPTOMONAS SPP.	CEL							3	7.3	209			
CYCLOTELLA STELLIGERA	CEL									X		10.7	352
CYST	CEL			X									
DACTYLOCOCCOPSIS	CEL		0.2	16								2.4	80
DINOBRYON BAVARICUM	CEL						X						
DINOFLAGELLATE	CEL									X			
ELAKATOTHRIX GELATINOSA	CEL									X			
EUASTRUM BIDENTATUM ?	CEL												X
EUGLENOPHYTAN CELL	CEL			X									
FLAGELLATE	CEL			X									
FRAGILARIA CROTONENSIS	CEL	4	0.9	67									X
GOMPHOSPHAERIA	COL												X
GYROSIGMA	CEL			X									
MELOSIRA GRANULATA	CEL									X	2	8.3	281
MELOSIRA GRANULATA													
V. ANGUSTISSIMA	CEL												X
MERISMOPEDIA	COL									X			
MICROCYSTIS AERUGINOSA	COL											1.2	43
NEPHROCYTIUM AGARDHIANUM	COL											2.4	83
OOCYSTIS	CEL	5	0.5	42			X			X			
OSCILLATORIA	FIL			X							5	4.4	161
OSCILLATORIA #1	FIL						X						
OSCILLATORIA #2	FIL						X		2.4	70			X
PENNATE DIATOM	CEL					4.0	31	2	46.3	1320			
PERIDINIUM WILLEI	CEL			X									
PHACUS CAUDATUS													
V. MINOR	CEL			X						X			
PHACUS LONGICAUDA	CEL									X			
PLEUROSIGMA	CEL						X						
RHOPALODIA GIBBA	CEL			X									
SCENEDESMUS BIJUGA	COL								1.2	35			X
SCENEDESMUS INTERMEDIUS													
V. BICAUDATUS	COL								1.2	35			
SPHAEROCYSTIS SCHROETERI	COL			X									
STAURASTRUM	CEL			X			X			X			
STAURASTRUM LEPTOCLADUM	CEL								1.2	35			
STAURASTRUM TETRACERUM	CEL									X			
SYNEDRA ULNA	CEL			X									
TETRAEDRON MINIMUM													
V. SCROBICULATUM	CEL			X					2.4	70			
TETRASTRUM ELEGANS	COL					4.0	31						
TRACHELOMONAS INTERMEDIA	CEL												X
TOTAL				7722			781			2843			3376

LAKE NAME: WHITNEY LAKE
STORET NUMBER: 4839

NYGAARD TROPHIC STATE INDICES

DATE	03 08 74	05 16 74	08 13 74	11 04 74
MYXOPHYCEAN	0.50 E	1.00 E	3.00 E	1.50 E
CHLOROPHYCEAN	5.50 E	6.50 E	2.67 E	2.00 E
EUGLENOPHYTE	0.08 ?	0.40 E	0.12 ?	0.29 E
DIATOM	0.17 ?	0.14 ?	0.60 E	3.00 E
COMPOUND	7.00 E	11.0 E	7.33 E	5.25 E

PALMER'S ORGANIC POLLUTION INDICES

DATE	03 08 74	05 16 74	08 13 74	11 04 74
GENUS	06	04	11	08
SPECIES	07	00	06	00

SPECIES DIVERSITY AND ABUNDANCE INDICES

DATE		03 08 74	05 16 74	08 13 74	11 04 74
AVERAGE DIVERSITY	H	2.87	2.22	3.36	2.83
NUMBER OF TAXA	S	25.00	39.00	34.00	34.00
NUMBER OF SAMPLES COMPOSITED	M	4.00	4.00	4.00	4.00
MAXIMUM DIVERSITY	MAXH	4.64	5.29	5.09	5.09
MINUMUM DIVERSITY	MINH	0.12	0.60	0.05	0.12
TOTAL DIVERSITY	D	7605.50	1520.70	32306.40	10626.65
TOTAL NUMBER OF INDIVIDUALS/ML	N	2650.00	685.00	9615.00	3755.00
EVENESS COMPONENT	J	0.62	0.42	0.66	0.56
RELATIVE EVENESS	PJ	0.61	0.35	0.66	0.55
MEAN NUMBER OF INDIVIDUALS/TAXA	L	106.00	17.56	282.79	110.44
NUMBER/ML OF MOST ABUNDANT TAXON	K	791.00	382.00	2265.00	1261.00

LAKE NAME: WHITNEY LAKE
STORET NUMBER: 4839

CONTINUED

TAXA	FORM	03 08 74 IS	03 08 74 %C	03 08 74 ALGAL UNITS PER ML	05 16 74 IS	05 16 74 %C	05 16 74 ALGAL UNITS PER ML	08 13 74 IS	08 13 74 %C	08 13 74 ALGAL UNITS PER ML	11 04 74 IS	11 04 74 %C	11 04 74 ALGAL UNITS PER ML
ANABAENA	FIL								0.5	50			
ANABAENA WISCONSINENSE ?	FIL									X			
ANABAENOPSIS CIRCULARIS	FIL								1.6	151			
ANABAENOPSIS RACIBORSKII	FIL							1	15.2	1468			
ANKISTRODESMUS FALCATUS V. MIRABILIS	CEL	4	7.0	185									
APHANIZOMENON FLOS-AQUAE	FIL												X
CERATIUM HIRUNDINELLA	CEL						X						
CERATIUM HIRUNDINELLA F. FURCOIDES	CEL									X			X
CHAETOCEROS ELMOREI	CEL								1.1	101			
CHLOROPHYTAN CELL	CEL												X
CHRODMONAS ACUTA	CEL	3	13.4	356		2.3	16					2.0	110
CHRYSOPHYTAN CELL #1	CEL												X
CHRYSOPHYTAN COCCOID CELL	CEL											1.5	55
CLOSTERIUM	CEL		0.5	13	3	2.3	16						
CLOSTERIUM #1	CEL												X
COELASTRUM CAMBRICUM V. INTERMEDIUM	COL								0.5	50			
COELASTRUM MICROPORUM	COL			X	4	4.7	32						X
COELOSPHAERIUM KUETZINGIANUM	COL			X									
COSCINODISCUS	CEL			X									
COSCINODISCUS ROTHII V. SUBSALSA	CEL						X						
COSMARIUM	CEL						X		2.6	252		0.7	27
CRUCIGENIA	COL						X						
CRUCIGENIA QUADRATA	COL		5.0	132									
CRUCIGENIA TETRAPEDIA	COL		4.0	105		2.3	16		1.1	101			X
CRYPTOMONAS	CEL		0.5	13		2.3	16						
CRYPTOMONAS MARSSONII	CEL						X					0.7	27
CYCLOTELLA MENEGHINIANA	CEL								4.2	403			
CYMBELLA	CEL						X						
DACTYLOCOCCOPSIS	CEL										3	33.4	1261
DINOBRYON DIVERGENS	CEL			X									
DIPLONEIS	CEL		1.0	26	5	2.3	16	4	10.5	1007			
DIPLOPSALIS ACUTA	CEL						X						
ELAKATOTHRIX GELATINOSA	CEL						X						
EPITHEMIA	CEL						X						
EUGLENA	CEL												X
EUGLENA #1	CEL						X						
EUGLENA #2	CEL						X						
EUGLENA EHRENBERGII ?	CEL												X
EUGLENA SPP.	CEL					2.3	16						
EUGLENA TRIPTERIS	CEL					2.3	16						X
GLENODINIUM GYMNODINIUM V. BISCUTELLIFORME	CEL												X
GOMPHONEMA	CEL						X						
GYROSIGMA	CEL		0.5	13									
KIRCHNERIELLA	CEL									X			
KIRCHNERIELLA OBESA	CEL						X						
LYNGBYA	FIL						X	3	10.3	1762			X
MELOSIRA #4	CEL											1.5	55
MELOSIRA GRANULATA	CEL												X
MERISMOPEDIA	COL								0.5	50			
MERISMOPEDIA GLAUCA	COL											7.3	274
MERISMOPEDIA MINIMA	COL								1.1	101			
MESOSTIGMA VIRIDIS	CEL									X			
MICROCYSTIS AERUGINOSA	COL												X
MICROCYSTIS INCERTA	COL								0.5	50			
MOUGEOTIA	FIL									X			
NAVICULA	CEL		0.5	13			X			X			
NITZSCHIA #4	CEL									X			
OOCYSTIS	COL	2	25.9	686			X		1.1	101	1	22.4	850
OSCILLATORIA	FIL					4.7	32						
OSCILLATORIA LIMNETICA	FIL							2	29.6	2265	5	13.9	521
PANDORINA MORUM	COL									X			
PEDIASTRUM BORYANUM	COL			X			X			X			
PEDIASTRUM DUPLEX	COL											0.7	27
PEDIASTRUM TETRAS	COL												X
PENNATE DIATOM	CEL		4.5	119									
PENNATE DIATOMS	CEL							5	7.3	705			
PERIDINIUM UMBONATUM	CEL						X						X
PHACUS	CEL			X			X			X			
PHACUS CAUDATUS	CEL						X			X			
PHACUS LONGICAUDA	CEL						X						
RHIZOSOLENIA MINIMA	CEL								3.1	302			
RHOICOSPHENIA CURVATA	CEL			X			X						
RHOPALODIA	CEL						X						
SCENEDESMUS BICAUDATUS	COL						X		1.1	101			
SCENEDESMUS BIJUGA	COL		0.5	13			X					0.7	27
SCENEDESMUS QUADRICAUDA	COL	1	29.0	791			X		0.5	50			X

LAKE NAME: WHITNEY LAKE
STORET NUMBER: 4839

CONTINUED

TAXA	FORM	03 08 74 IS	03 08 74 %C	03 08 74 ALGAL UNITS PER ML	05 16 74 IS	05 16 74 %C	05 16 74 ALGAL UNITS PER ML	08 13 74 IS	08 13 74 %C	08 13 74 ALGAL UNITS PER ML	11 04 74 IS	11 04 74 %C	11 04 74 ALGAL UNITS PER ML
SCENEDESMUS SPP.	COL				1	55.8	382						
SPHAEROCYSTIS SCHROETERI	COL			X									
STAURASTRUM	CEL			X								0.7	27
STAURASTRUM #1	CEL									X			X
STAURASTRUM TETRACERUM	CEL								0.5	50			
STEPHANODISCUS	CEL												X
SYNEDRA	CEL			X						X	4	4.4	165
TETRAEDRON CAUDATUM	CEL						X						
TETRAEDRON MINIMUM													
V. SCROBICULATUM	CEL	5	4.5	119	2	18.5	127		5.2	503	2	7.3	274
TETRAEDRON PUSILLUM													
V. ANGOLENSE	CEL						X						
TETRASTRUM GLABRUM	COL		2.5	66									
TRACHELOMONAS FLUVIATILIS	CEL											1.5	55
TOTAL				2650			685			9615			3755

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

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16. ABSTRACT

This is a data report presenting the species and abundance of phytoplankton in the 38 lakes sampled by the National Eutrophication Survey in the State of Texas. Results from the calculation of several water quality indices are also included (Nygaard's Trophic State Index, Palmer's Organic Pollution Index, and species diversity and abundance indices).

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
*aquatic microbiology lakes *phytoplankton water quality	Texas lake eutrophication Nygaard's trophic indices Palmer's organic pollution indices Species diversity and abundance indices	06 C, M 08 H 13 B

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