

NoCar
QK
933
T96x

ABSTRACT

Linda Ives Tyndall. SEASONAL ABUNDANCE AND DISTRIBUTION OF PHYTOPLANKTON
IN THE CURRITUCK SOUND. (Under the direction of Dr. Graham J. Davis)
Department of Biology, June, 1980.

Phytoplankton abundance and distribution in Currituck Sound, N. C. were studied through analysis of samples taken from 13 stations at approximately monthly intervals from November 1977 through October 1978. Of the phyla represented, the cyanophytes had the greatest density. A total of 204 taxa were found. These represented 67 genera, 14 orders, and 6 phyla. Maximum cell numbers occurred in August, 1978 and maximum biomass in May, 1978. In August, the phytoplankton population consisted of a large number of small species such as blue-green algae with volumes of only a few μ^3 ; whereas, the May biomass peak consisted of larger forms.

The major portion of the phytoplankton in the water column probably originated through resuspension of sediments through wind action and sloughing of epiphytic forms from submersed macrophytes. A greater Cyanophyta population existed in the northern sound and a larger diatom population in the southern sound. Possible factors involved were shallowness of the sound, restriction of water circulation by the marsh islands in the middle reach of the sound, and differences in morphometry and salinity for the two areas. Only 22% of all algal species were euplanktonic types.

SEASONAL ABUNDANCE AND DISTRIBUTION OF
PHYTOPLANKTON IN THE CURRITUCK SOUND

A Thesis

Presented to
the Faculty of the Department of Biology
East Carolina University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Biology

by

Linda Ives Tyndall

June, 1980

SEASONAL ABUNDANCE AND DISTRIBUTION OF
PHYTOPLANKTON IN THE CURRITUCK SOUND

by

Linda Ives Tyndall

APPROVED BY:

SUPERVISOR OF THESIS

Graham J. Davis
Graham J. Davis, Ph.D.

THESIS COMMITTEE

Mark M. Brinson
Mark M. Brinson, Ph.D.

Vincent J. Bellis
Vincent J. Bellis, Jr., Ph.D.

Bernard E. Kane Jr.
Bernard E. Kane, Ph.D.

ACTING CHAIRMAN OF THE DEPARTMENT OF BIOLOGY

Edward P. Ryan
Edward P. Ryan, Ph.D.

DEAN OF THE GRADUATE SCHOOL

Joseph G. Boyette
Joseph G. Boyette, Ph.D.

ACKNOWLEDGMENTS

Grateful appreciation is extended to Dr. Graham Davis whose guidance made completion of this thesis possible. Sincere appreciation is also extended to Dr. Vincent Bellis, Dr. Mark Brinson, Dr. Barney Kane, Dr. Charles O'Rear, Dr. Charles Bland, Dr. Edward Ryan, and Ms. Martha Jones for their assistance in this research. A special thanks goes to Donald Carey and numerous others who aided in the collection of phytoplankton samples and hydrographic data. This work was supported in part by the office of Sea Grant NOAA, U. S. Department of Commerce, under grant No. R-ES-21 and the North Carolina Department of Administration. Finally, I wish to sincerely thank everyone who supported and encouraged me in the completion of this study.

TABLE OF CONTENTS

LIST OF TABLES.....	iv
LIST OF FIGURES.....	v
INTRODUCTION.....	1
DESCRIPTION OF STUDY AREA.....	4
MATERIALS AND METHODS.....	8
Field Methods.....	8
Analyses.....	10
RESULTS AND DISCUSSION.....	12
Areal and Temporal Variations in Biomass and Density of Phytoplankton.....	12
Origins of Phytoplankton in the Water Column.....	35
Differences between Populations in the Northern and Southern Sound.....	37
Relationships between Phytoplankton and some Chemical and Physical Parameters.....	40
Comparisons with Other Systems in North Carolina.....	41
SUMMARY AND CONCLUSIONS.....	47
LITERATURE CITED.....	49
APPENDIX A.....	51
APPENDIX B.....	61
APPENDIX C.....	160
APPENDIX D.....	170
APPENDIX E.....	182

LIST OF TABLES

1. Summary of physical, chemical, and phytoplanktonic data.....	30
2. Percentages of algal species by habitat.....	36
3. Stepwise multiple regression for the diatom population in the northern sound.....	38
4. Stepwise multiple regression for the cyanophyte population in the northern sound.....	38
5. Stepwise multiple regression for the cyanophyte population in the southern sound.....	39
6. Stepwise multiple regression for the diatom population in the southern sound.....	39
7. Dominant phytoplanktonic types and abundance in Currituck Sound compared with other North Carolina estuaries.....	42
8. Pearson correlations for the 10 month study.....	44
9. Stepwise multiple regression for the 10 month study.....	44

LIST OF FIGURES

1. North Carolina coast showing location of Currituck Sound.....	6
2. Currituck Sound showing location of sampling sites.....	9
3. Mean biomass and numbers for stations in Currituck Sound.....	13
4. Biomass and distribution of phytoplankton in the sound on 5 November 1977.....	14
5. Biomass and distribution of phytoplankton in the sound on 3 December 1977.....	15
6. Biomass and distribution of phytoplankton in the sound on 15 January 1978.....	16
7. Biomass and distribution of phytoplankton in the sound on 25 February 1978.....	17
8. Biomass and distribution of phytoplankton in the sound on 18 March 1978.....	18
9. Biomass and distribution of phytoplankton in the sound on 29 April 1978.....	19
10. Biomass and distribution of phytoplankton in the sound on 26 May 1978.....	20
11. Biomass and distribution of phytoplankton in the sound on 24 June 1978.....	21
12. Biomass and distribution of phytoplankton in the sound on 25 July 1978.....	22
13. Biomass and distribution of phytoplankton in the sound on 20 August 1978.....	23
14. Mean biomass of the major taxa in the sound.....	24
15. Mean biomass of the major taxa in the sound.....	25
16. Mean biomass of the major taxa in the sound.....	26
17. Variation in the average depth at which 1% incident light was calculated to have occurred.....	28
18. Coinjock Bay study area with sampling stations.....	36

INTRODUCTION

Background and Objectives

For many years Currituck Sound has been an important bass fishery area, a temporary home for waterfowl, and a summer recreational area. Generations of local residents have earned their livelihood through commercial fishing and other related activities. Sincock (1965) cited letters from local residents to the District Engineer of the U. S. Army Corps of Engineers in Norfolk, Virginia. These letters recalled a crab factory on Currituck Sound during the late 1800's with as many as 32 fishing crews that harvested an average of 1000 pounds per week per crew. Presently, commercial fishing is not economically important.

An early study of the sound in 1897 viewed the closing of the new Currituck inlet in 1828 as one of the most important geological events with ecological consequences occurring along the Atlantic Coast in recent times (Weiland, 1897 cited in Sincock, 1965). Prior to the closing of this inlet, extensive oyster beds existed in the sound. The closing of this inlet led to the conversion of a body of shallow salt water to mildly brackish water. Oysters died leaving only shells as reminders of their past importance. Weiland also noted changes in vegetation that attracted numerous species of ducks and stated that fresh water fish replaced salt water species (Sincock, 1965).

The first recorded observations of vegetation of the Currituck Sound were by McAtee (1919) in 1909 and the fall of 1918. He reported sago pondweed (Potamogeton pectinatus L.) as the dominant plant. In a report to the U. S. Senate in 1929 (cited in Sincock, 1965), Jadwin,

O'Connor, and Jewett testified before the committee that there had been a decline in the number of ducks visiting the sound since 1920. The greatest decline had been in the northern sound.

The apparent effects of dredging of the Albemarle and Chesapeake Canal, of the North Landing River and in the general vicinity of the Currituck Sound from 1914 to 1923 led to an investigation of the factors associated with the decline of aquatic plants in Back Bay and Currituck Sound waters from 1926 to 1930 by Bourn (1932). An important aspect of Bourn's work was the development of methods of reseeding barren areas of the sound. Prior to the dredging activities, the water had been reported clear (Bourn, 1932). Bourn described these waters as "extremely turbid" and concluded from his investigation that turbidity was the major factor responsible for the destruction of submerged plants. He stated that the primary source of turbid water was from the Albemarle and Chesapeake Canal (the intracoastal waterway) that connected Norfolk Harbor with North Landing River. Until the canal was sold to the Federal Government in 1912, the locks at Great Bridge, Virginia prevented movement of water down the canal. From this time until August, 1932 the locks were left opened. In August 1932, new locks were put into operation at the urging of Bourn and others. Bourn surmised that increased turbidity of Currituck Sound was related to city sewer effluent from southeastern Virginia transported by way of the intracoastal waterway. In a survey of Back Bay and Currituck Sound in the 1940's, Bourn noted there were improvements in waterfowl and fish food conditions (Sincock, 1965).

Dickinson (1958) rated the growth of aquatic plants as good in most areas with wildcelery (Vallisneria americana L.), sago pondweed

and widgeongrass (Ruppia maritima L.) the predominant species. It was not until a cooperative study by the Bureau of Sports Fisheries and Wildlife, the North Carolina Wildlife Resources Commission, and the Virginia Commission of Game and Inland Fisheries that a thorough quantitative measurement was made of the aquatic vegetation, waterfowl, and fish populations in Currituck Sound. This report listed bushy pondweed (Najas guadalupensis Spreng. (Morong)), muskgrass, which included Chara and Nitella, and sago pondweed as the most abundant species of aquatic macrophytes (Sincock, 1965). Greater turbidities during the period of November through April with winds from the north and northeast were also reported. Harmful effects to aquatic vegetation resulted from these periods of increased turbidity.

Crowell et al. (1967) reported that Eurasian watermilfoil (Myriophyllum spicatum L.) was the dominant aquatic macrophyte in Currituck Sound by 1967. The invasion of the sound by Eurasian watermilfoil brought complaints from local residents. This aquatic macrophyte hampered recreational activities and formed undesirable floating mats of decaying plants aligned in unsightly stinking windrows. Some residents also felt that there was a decline in use of the sound by waterfowl. A management options study for Eurasian watermilfoil has recently been completed under a program funded by Sea Grant College of the University of North Carolina and the U. S. Department of Commerce. This research was a part of that study.

None of the previous studies included an investigation of phytoplankton. Sincock (1965) mentioned aufwuchs on submersed aquatic macrophytes which were composed of Nostoc spongiforme C. A. Agardh,

Rivularia globiceps G. S. West, Oscillatoria lemmermanni Lemmermann, Cosmarium sp., Oedogonium sp., Synedra pulchella O'Meara, Cocconeis placentula Ehrenberg, Chroococcus limneticus Lemmermanni, Gomphosphaeria aponina Kutzing, Merismopedia sp., Eunotia sp., Scenedesmus quadricauda (Turp.) Brebisson, Pediastrum tetras (Ehrenberg) Ralfs, Staurostrum sp., Spirulina sp., and Achnanthes sp. A report by Whitney et al. (1970) stated that 19 plankton samples were analyzed but they did not publish the results. They also acknowledged the lack of plankton population data for Currituck Sound.

Phytoplankton investigations along the North Carolina coast include studies on the Chowan River (Witherspoon, 1979), on Gales Creek (Campbell, 1973), on the Pamlico River Estuary (Hobbie, 1971; Davis, Brinson, and Burke, 1978; Kuenzler, Stanley, and Koenings, 1979), in shallow estuaries near Beaufort, North Carolina (Thayer, 1971), and on the Neuse River Estuary (Hobbie and Smith, 1975).

The purpose of this research was to study the seasonal variation in species composition, numbers, and biomass of phytoplankton in the Currituck Sound from November, 1977 to October, 1978. The Currituck Sound is a large, shallow, fresh to oligohaline system which is unique in the North Carolina estuarine system. As indicated above, nothing was known about the planktonic communities of the sound prior to the present study. Seasonal variation of these communities are compared with fresh to oligohaline segments of other North Carolina estuaries.

Study Area

The Currituck Sound is the northernmost sound along the North

Carolina coast (Fig.1). It extends 56.0 km southward from the Virginia state line to the Albemarle Sound and averages about 8.0 km in width. Average depth is 1.5 m (Kearson, 1973). It is separated from the Atlantic Ocean by a barrier spit island which varies in width from 0.4 to 1.6 km. Early records list four ocean inlets to the sound and note that the last inlet closed in 1828 (Sincock, 1965). Presently, the Currituck Sound exchanges water with the Albemarle Sound via Coinjock Bay, the intercoastal waterway, and North River, as well as via its southern terminus which is contiguous with the northeastern reach of the Albemarle Sound (Carey, 1979). Water sources are from North Landing River, Back Bay, marsh drainage and numerous farm drainage ditches. Extensive marshes composed of cattail, three-square, spikerushes, marshmallow, and smartweeds dominate the northern sound. Marshes in the southern sound are composed of needlerush, big cordgrass, sawgrass, and cattail and are not nearly as extensive as in the northern sound (Sincock, 1965). Marsh islands in the middle reach act as barriers to water circulation. There is no significant watershed for Currituck Sound. It is contiguous with the northeastern reach of Albemarle Sound with a wind driven exchange of waters. Submersed macrophyte biomass is also higher in the northern sound than the southern area. The water level is affected more by wind than by lunar tides. Sincock (1965) reported fluctuations of no more than 1.3 m in the water level due to wind tides. Carey (1979) observed current flows greater than 1 m per second with northerly winds emptying the sound and southerly winds filling it. Carey monitored changes in water depth from 14 July 1978

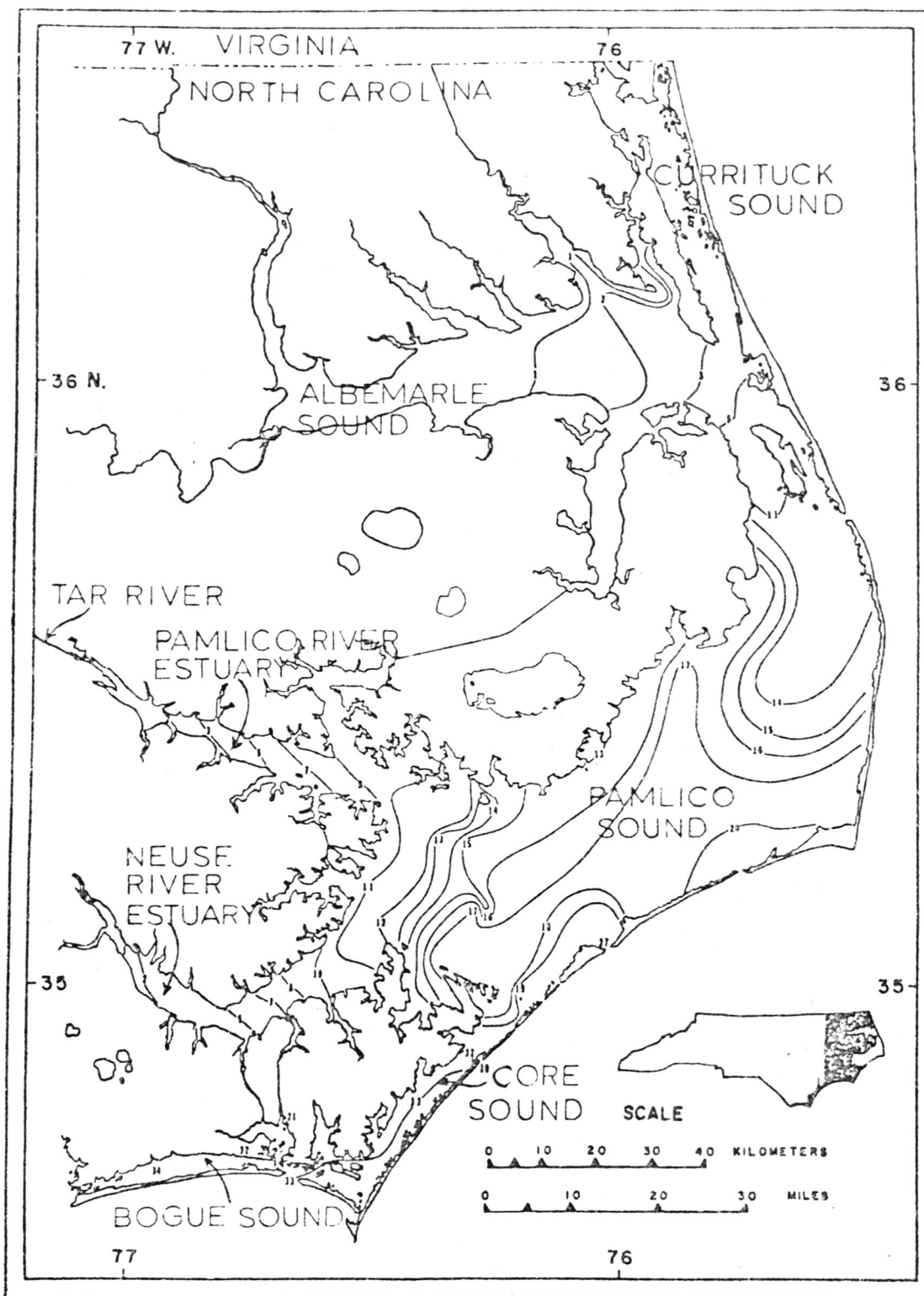


FIG. 1. LOCATION OF CURRITUCK SOUND ALONG THE NORTH CAROLINA COAST. INSET SHOWS RELATION OF THE AREA TO THE REST OF THE STATE. SURFACE ISOHALINE FOR MAY ARE SHOWN ADAPTED FROM WILLIAMS ET AL. (1973).

to 11 August 1978 and found 0.75 cm per hour the greatest rate of change in depth.

MATERIALS AND METHODS

Field Methods

Hydrographic data and water samples were collected monthly from November, 1977 through August, 1978 from 13 stations in Currituck Sound (Fig. 2). On 23 September, 1978 a study was made of Coinjock Bay to delimit the extent of a bloom observed on this date and to attempt to determine the causal factors. On 8 October, 1978 a survey was conducted of transect L to determine the variability of the phytoplanktonic communities from shore to shore. Twelve stations were sampled in each study. Measurements of temperature, salinity, and conductivity were with a YSI Model 33-S-C-T meter and dissolved oxygen with a YSI oxygen meter. Transparency was determined with a Secchi disk. Water was tested for pH with short range alkacid test ribbons (0.5 pH unit increment). Wind speed and direction for the sound were estimated. Weather data were obtained from the National Weather Service for the Norfolk, Virginia Station.

Filtered and unfiltered aliquots of water were stored in the dark on ice, frozen at the end of hydrographic runs and later analyzed.

Phytoplankton samples were collected 0.5 m below the surface, fixed with a modified Lugol's solution containing 10.0 g of iodine, 21.85 g of sodium acetate, 20.0 g of potassium iodide, and 200.0 ml of distilled water. Substitution of the sodium acetate for acetic acid better preserves coccolithophores (Hobbie, 1971). However, Campbell (1973) stated that Lugol's solution caused distortion of unarmoured dinoflagellate cells and recommended centrifugation of live material.

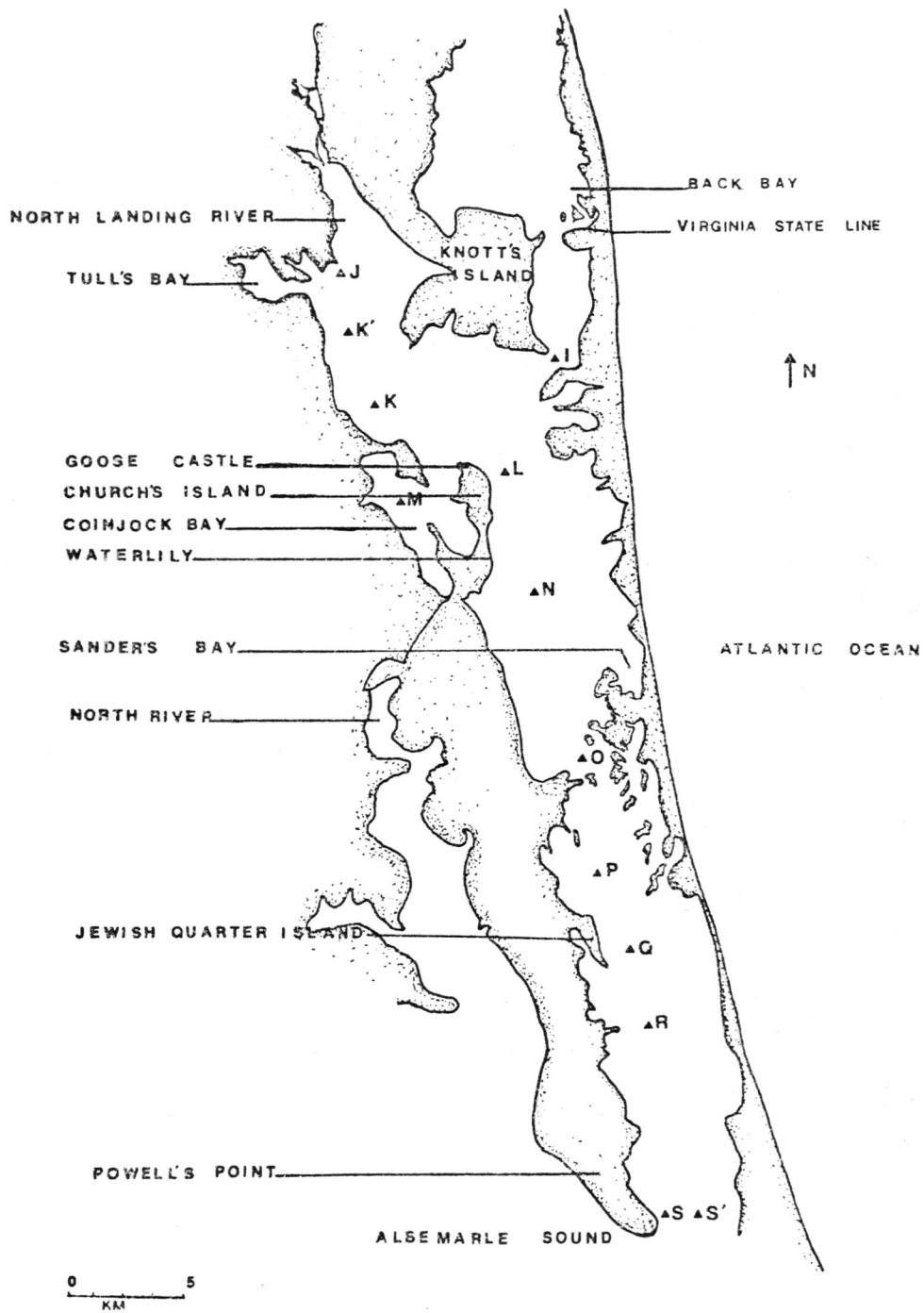


FIG. 2. LOCATION OF SAMPLING STATIONS IN THE CURRITUCK SOUND.

Laboratory Analyses

Kjeldahl-N was determined by mercuric sulfate digestion (APHA, 1975) and analyzed with an ammonium electrode (APHA, 1975). Nitrate-N was determined by the UV spectrophotometric method (APHA, 1975). The azo-spectrophotometric method (EPA, 1976) was used for the analysis of nitrite-N. Ammonium-N was analyzed by the indolphenol method (Scheiner, 1976). Particulate-N was estimated by subtracting the dissolved Kjeldahl-N from the total Kjeldahl-N. Phosphorus analyses were by conversion to orthophosphate by persulfate digestion and molybdate spectrophotometric analysis (EPA, 1976). Particulate-P was calculated as total phosphorus minus dissolved phosphorus.

Phytoplankton density and biomass were determined by the Utermöhl technique as modified by Lund et al. (1958). Fifty cm³ of the water sample was allowed to settle in a sedimentation type counting chamber for 24 hours. Random fields were then counted on a Wild M40 inverted microscope at a magnification of 400X until at least 100 individuals of the most abundant species were counted. The count for each species was converted to numbers per liter by considering the amount of the sample settled, the area of the counting chamber, and the area of the chamber counted. The counts of numbers per liter were converted to volume per liter by multiplying by the volume of the species counted. Species volume was obtained by determining the average cell dimensions for each species and approximating the cell shape to the closest geometric solid configuration. Volume per liter was converted to biomass by assuming a specific gravity of unity. A sample calculation is given in Appendix E.

Variability of the counting procedure was determined by taking 10 samples from a pail and counting the 12 most abundant species in each 50 cm³ sample. The coefficient of variation of 25.6% determined was very close to that of Hobbie (1971) for the Pamlico River Estuary and to Willen (1976) for Lake Hjälmaren, Sweden. The coefficient of variation for the error of the method indicated that there was adequate counting precision for estimating the population biomass as compared with other sources of potential error. These sources include the lack of a uniform sample, uneven or incomplete sedimentation, determination of cell volumes and each researchers conversion of cell shapes to geometric solid configurations. For example, most researchers interpreted the diatom Navicula to a right circular cylinder. In this research, the shape of this species was adjusted to two right circular cones. Since the accuracy of counting varies inversely with the square root of the number counted, doubling the number of organisms counted would have very little effect on counting accuracy.

References used in identification included Campbell (1973), Cleve-Euler (1951), Patrick (1966), Pestalozzi (1965), Prescott (1951), Prescott(1970), Vinyard (1975), and Whitford and Schumacher (1973).

RESULTS AND DISCUSSION

Areal and Temporal Variations in Biomass

and Density of Phytoplankton

Annual Survey The yearly cycle of biomass and numbers of phytoplankton is given in Figure 3. Monthly variations in biomass for the 13 stations are given in Figures 4-13. These numbers are averages of samples from all the stations. Due to bad weather and an occasional loss of sample, the number of samples are not the same on every date.

There were three periods of high biomass with late winter, mid spring, and mid summer peaks. Phytoplankton density had an entirely different pattern. Number peaks occurred in late fall, early spring, late spring, and late summer. Biomass peaks represent moderate numbers of medium sized organisms; whereas, the number peaks represent large numbers of small forms (eg. small blue-green algae with volumes of only a few μ^3).

The late winter biomass peak occurred in February, 1978 and was composed of Zygnematales, Nostocales, Chroococcales, Centrales, and Pennales (Figs. 14-16). Species of Cosmarium, Staurostrum, Anabaena, Coelosphaerium, Aphanocapsa, and benthic and epiphytic diatoms such as Navicula and Cocconeis had high biomass. Slightly higher cyanophyte biomass occurred in the southern sound area for this period (Fig. 7). Since many of the cyanophytes were benthic or tychoplanktonic species, their presence could be explained by increased wind activity and changed direction in February. Winds were estimated at 12 mph from southwestern and westerly directions. Data from the National Weather Service listed winds from the southwest with an average speed of 12.1 mph

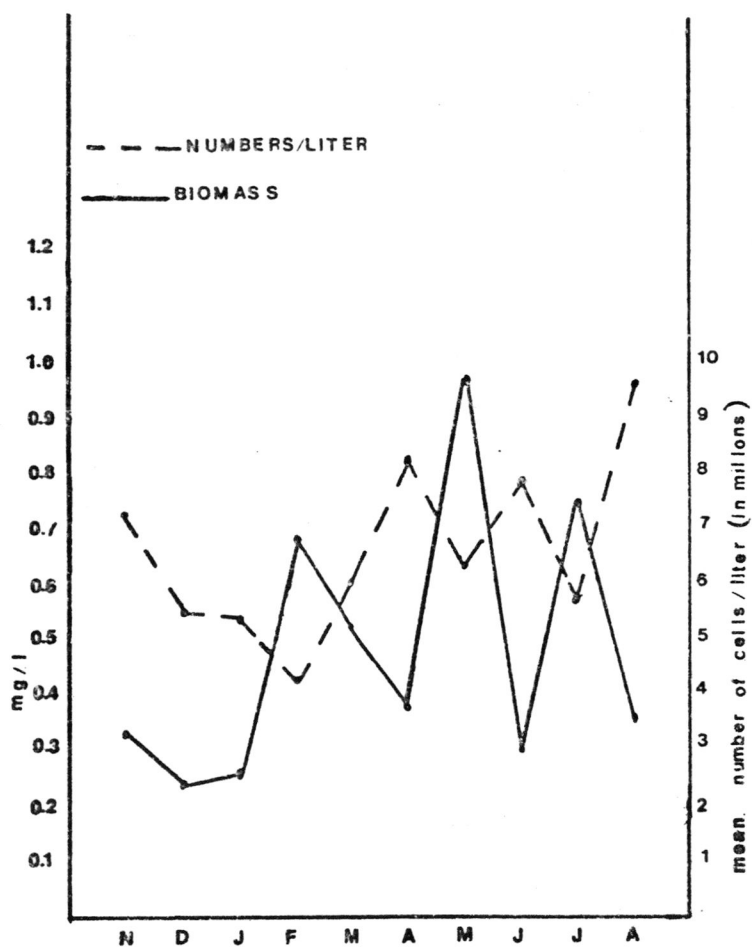


FIG. 3. MEAN BIOMASS AND NUMBERS FOR STATIONS IN CURRITUCK SOUND
SAMPLED FROM NOVEMBER, 1977 TO AUGUST, 1978.

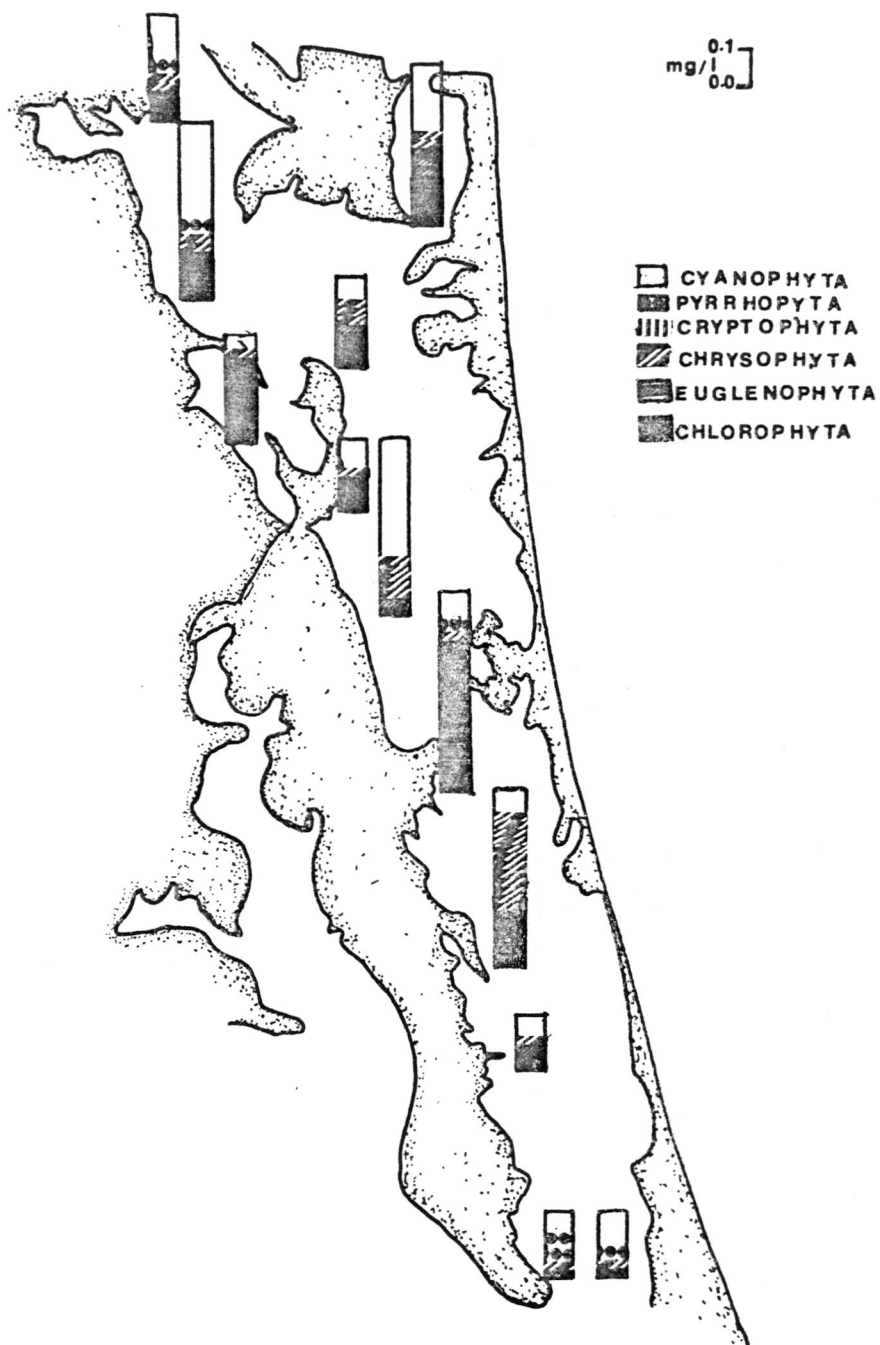


FIG. 4. BIOMASS OF PHYTOPLANKTON IN CURRITUCK SOUND ON
5 NOVEMBER 1977.

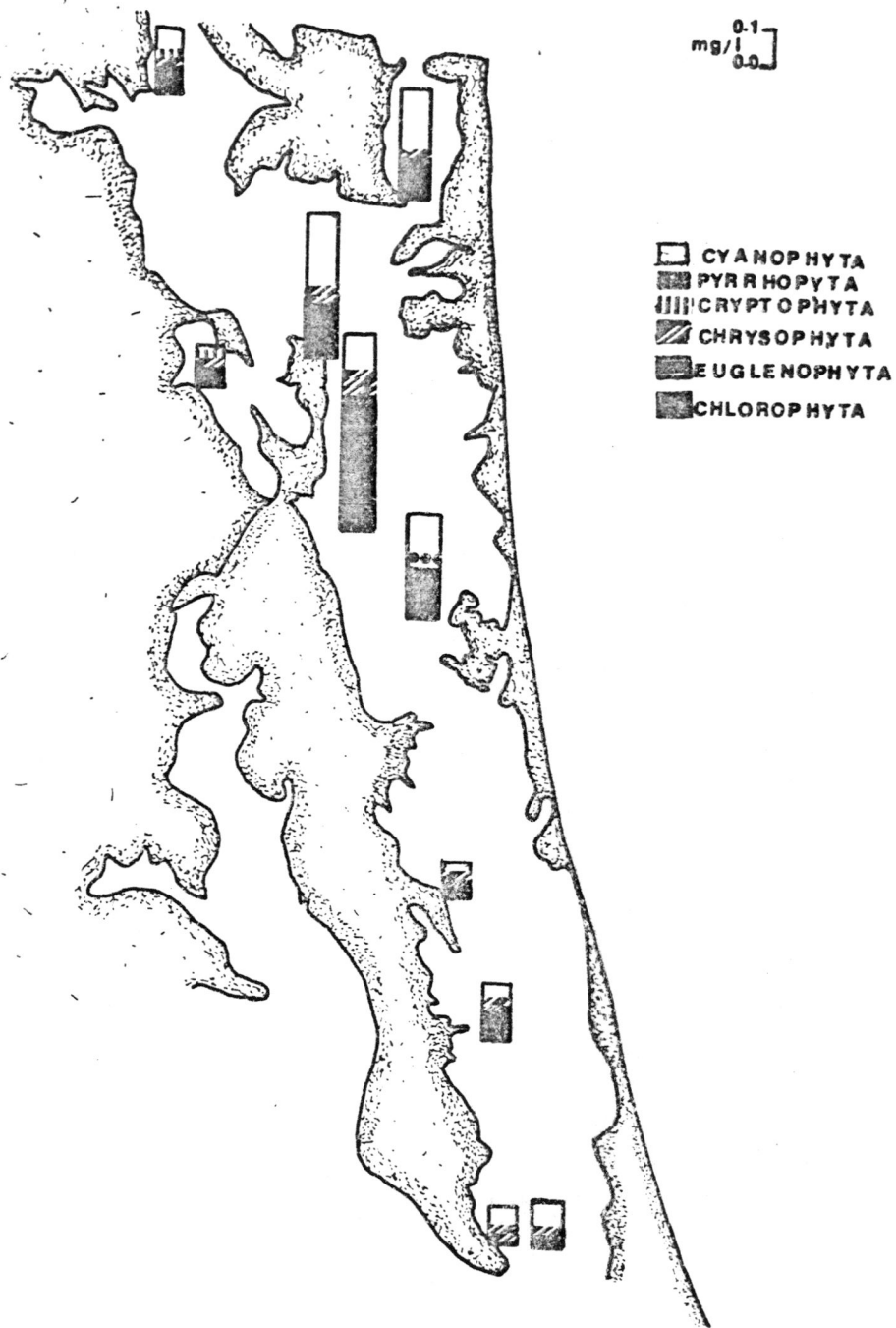


FIG. 5. BIOMASS OF PHYTOPLANKTON IN CURRITUCK SOUND ON
3 DECEMBER 1977.

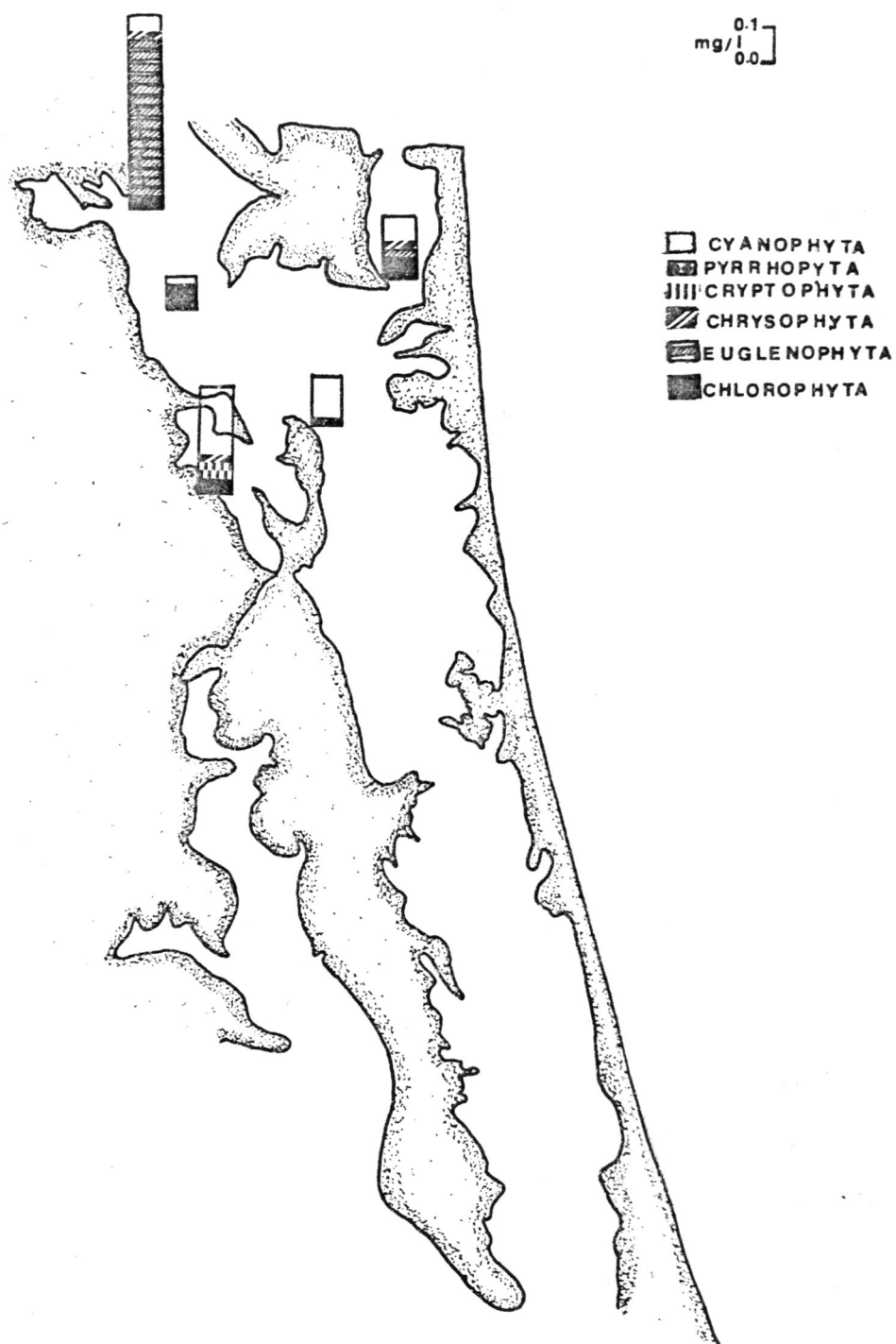


FIG. 6. BIOMASS OF PHYTOPLANKTON IN CURRITUCK SOUND ON
15 JANUARY 1978.

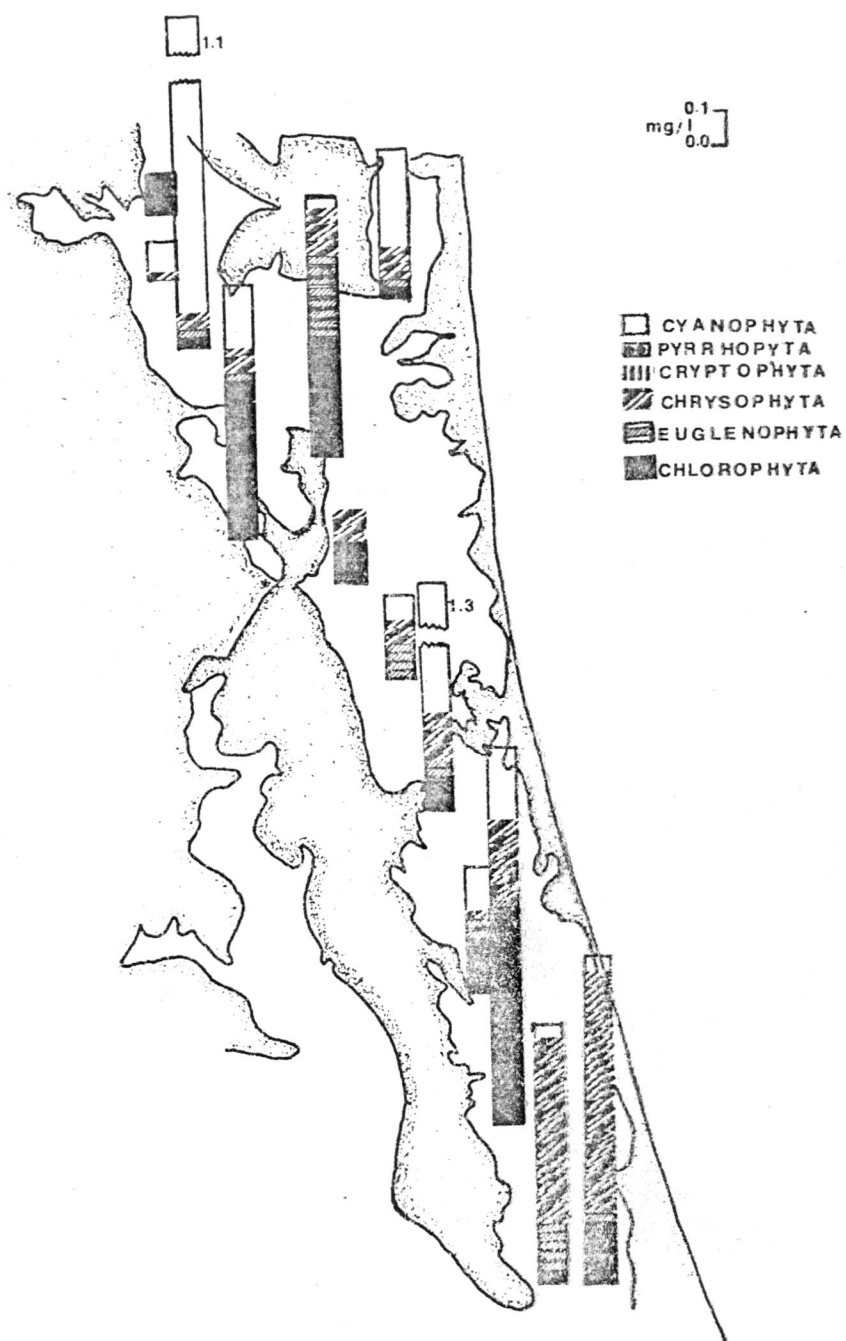


FIG. 7. BIOMASS OF PHYTOPLANKTON IN CURPITUCK SOUND ON
25 FEBRUARY 1978.

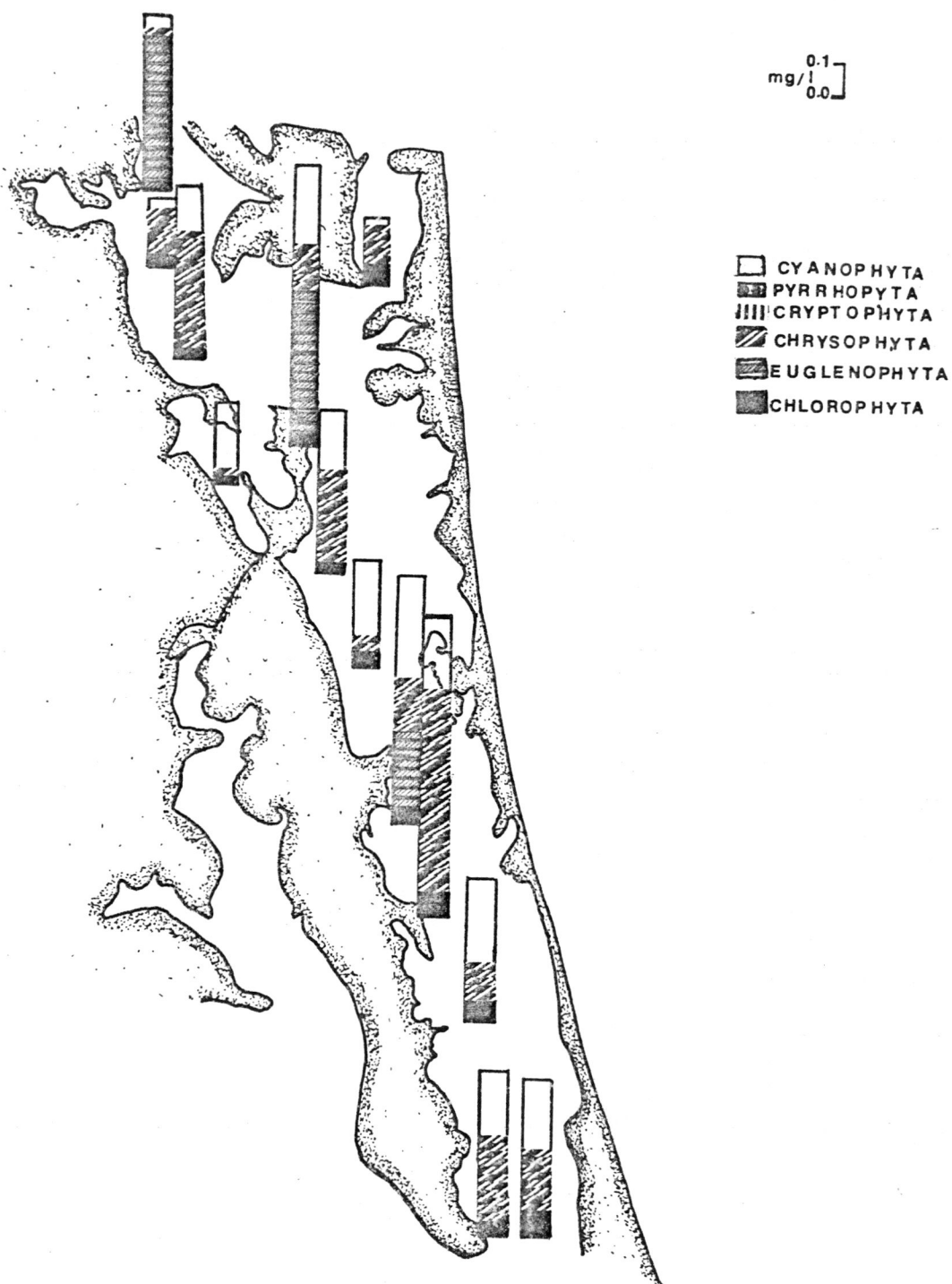


FIG. 8. BIOMASS OF PHYTOPLANKTON IN CURRITUCK SOUND ON
18 MARCH 1978.

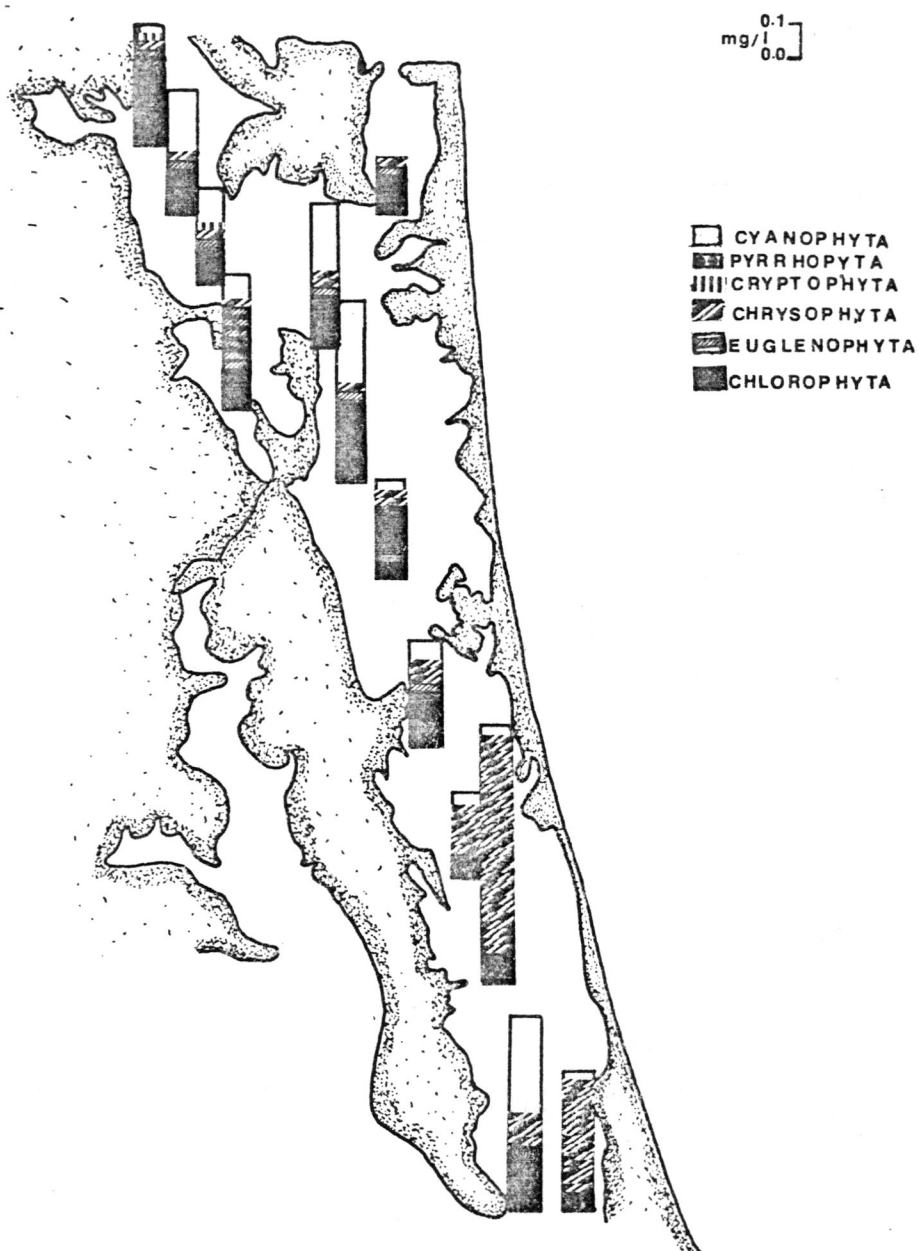


FIG. 9. BIOMASS OF PHYTOPLANKTON IN CURRITUCK SOUND ON
29 APRIL 1978.

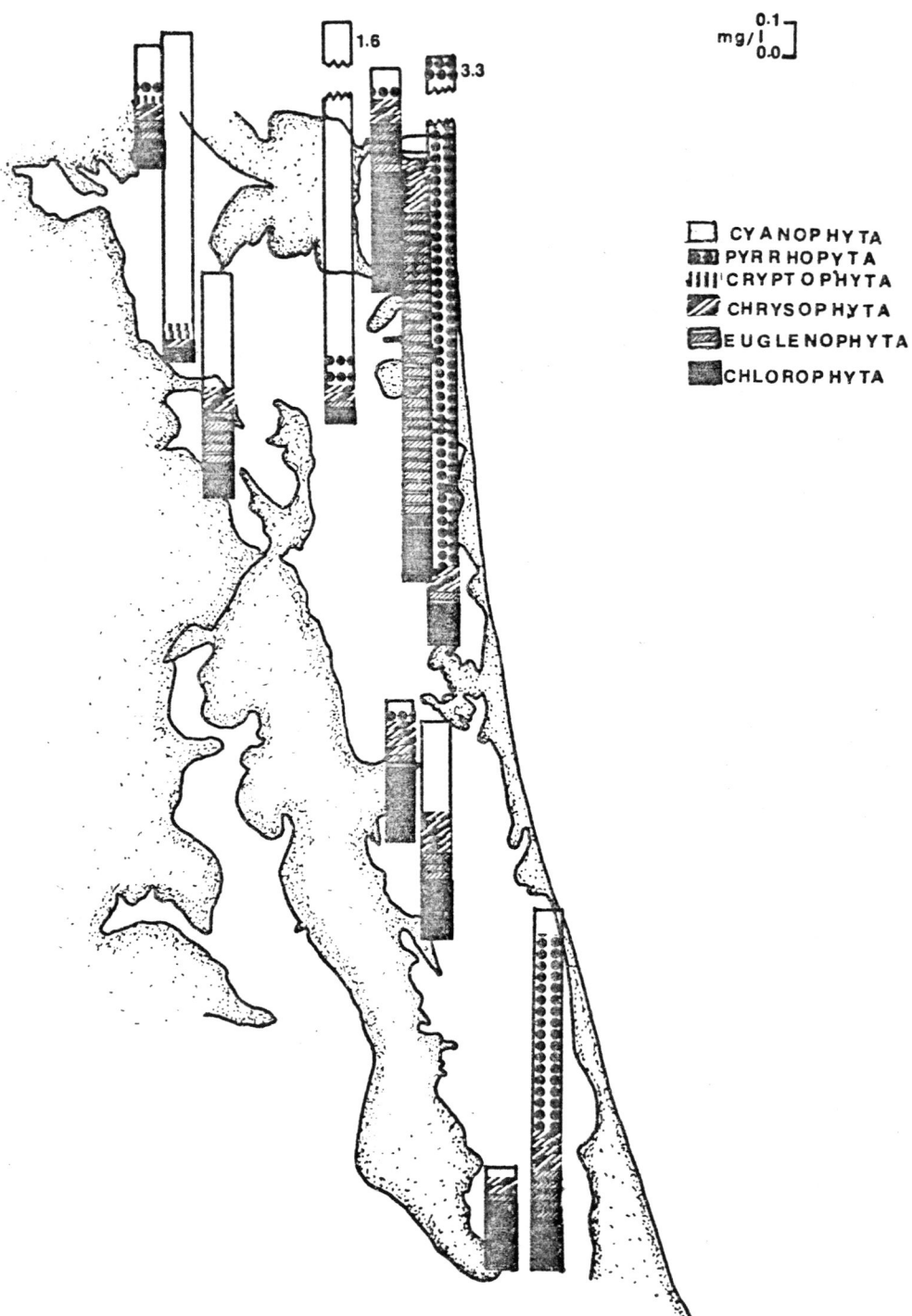


FIG. 10. BIOMASS OF PHYTOPLANKTON IN CURRITUCK SOUND ON
26 MAY 1978

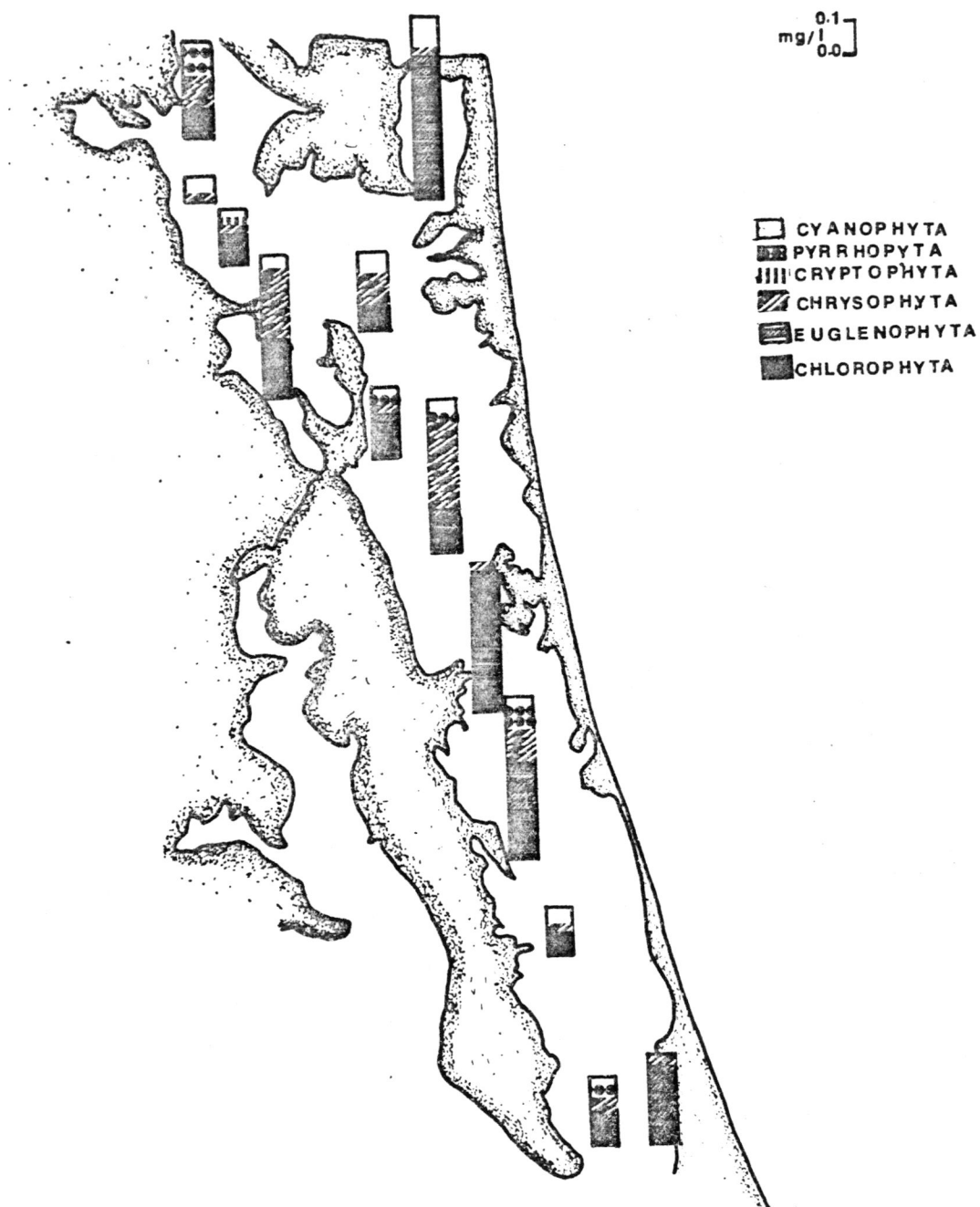


FIG. 11. BIOMASS OF PHYTOPLANKTON IN CURRITUCK SOUND ON
24 JUNE 1978.

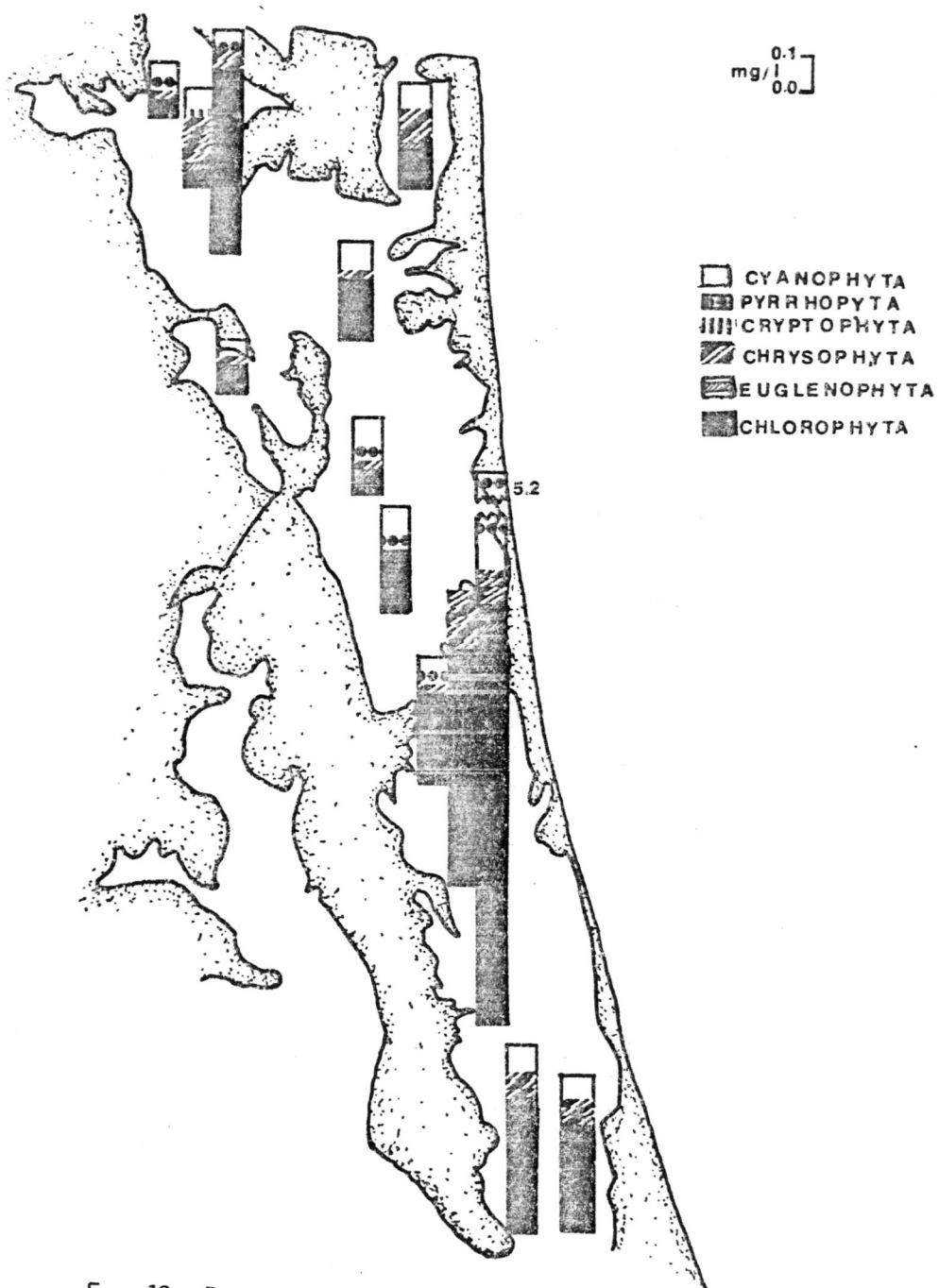


FIG. 12. BIOMASS OF PHYTOPLANKTON IN CURRITUCK SOUND ON
25 JULY 1978.

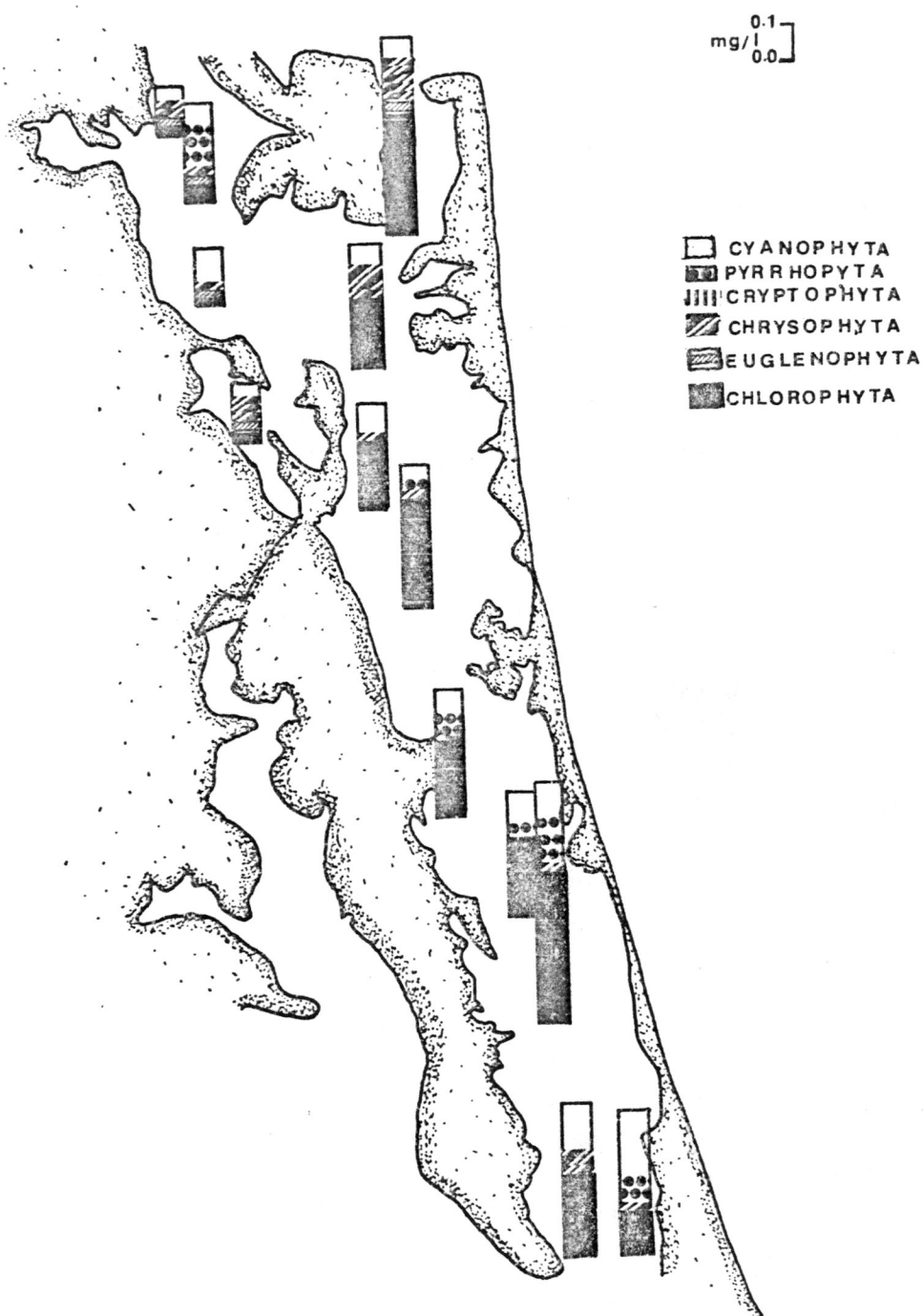


FIG. 13. BIOMASS OF PHYTOPLANKTON IN CURRITUCK SOUND ON
20 AUGUST 1978.

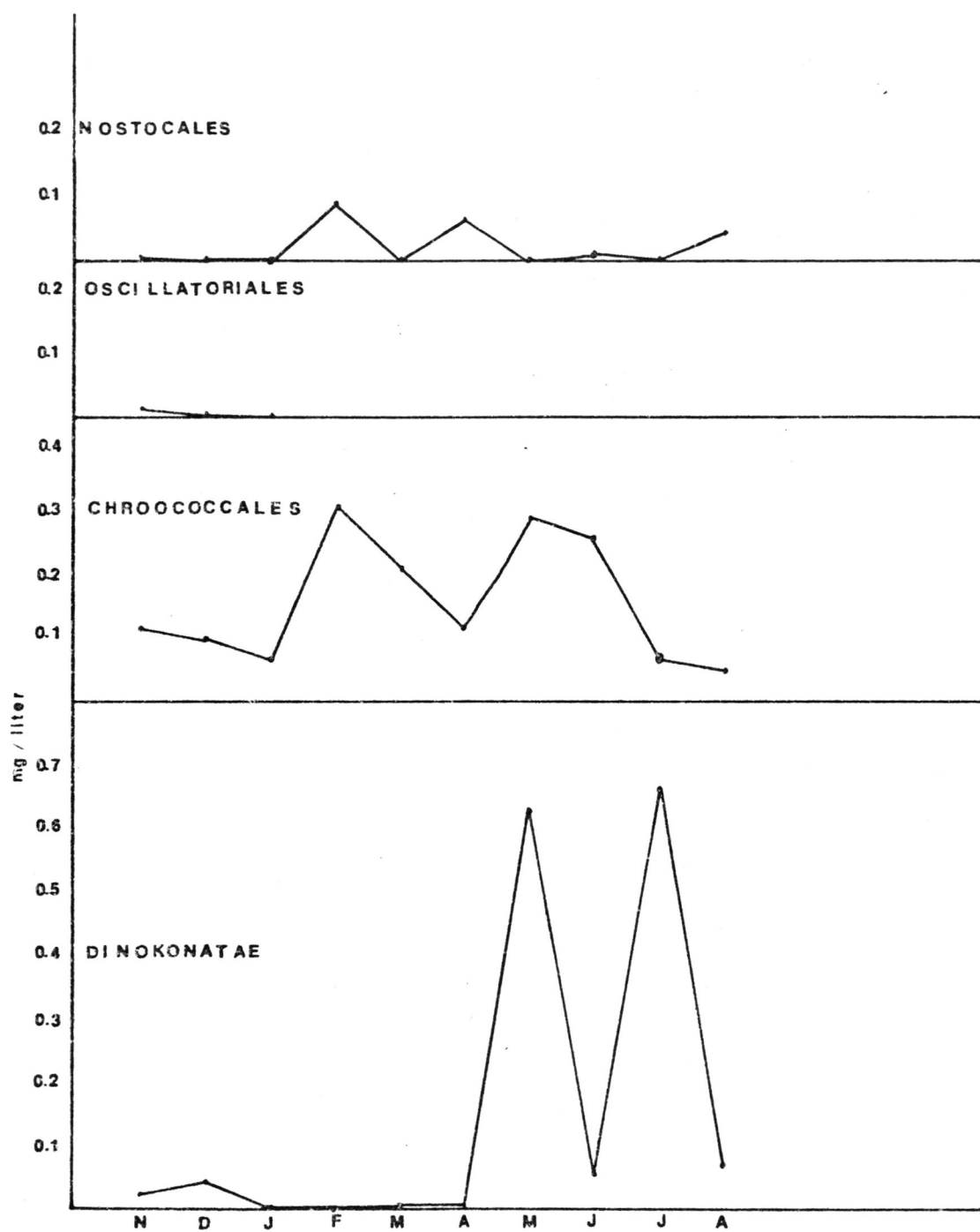


FIG. 14. MEAN BIOMASS OF MAJOR TAXA IN CURRITUCK SOUND.

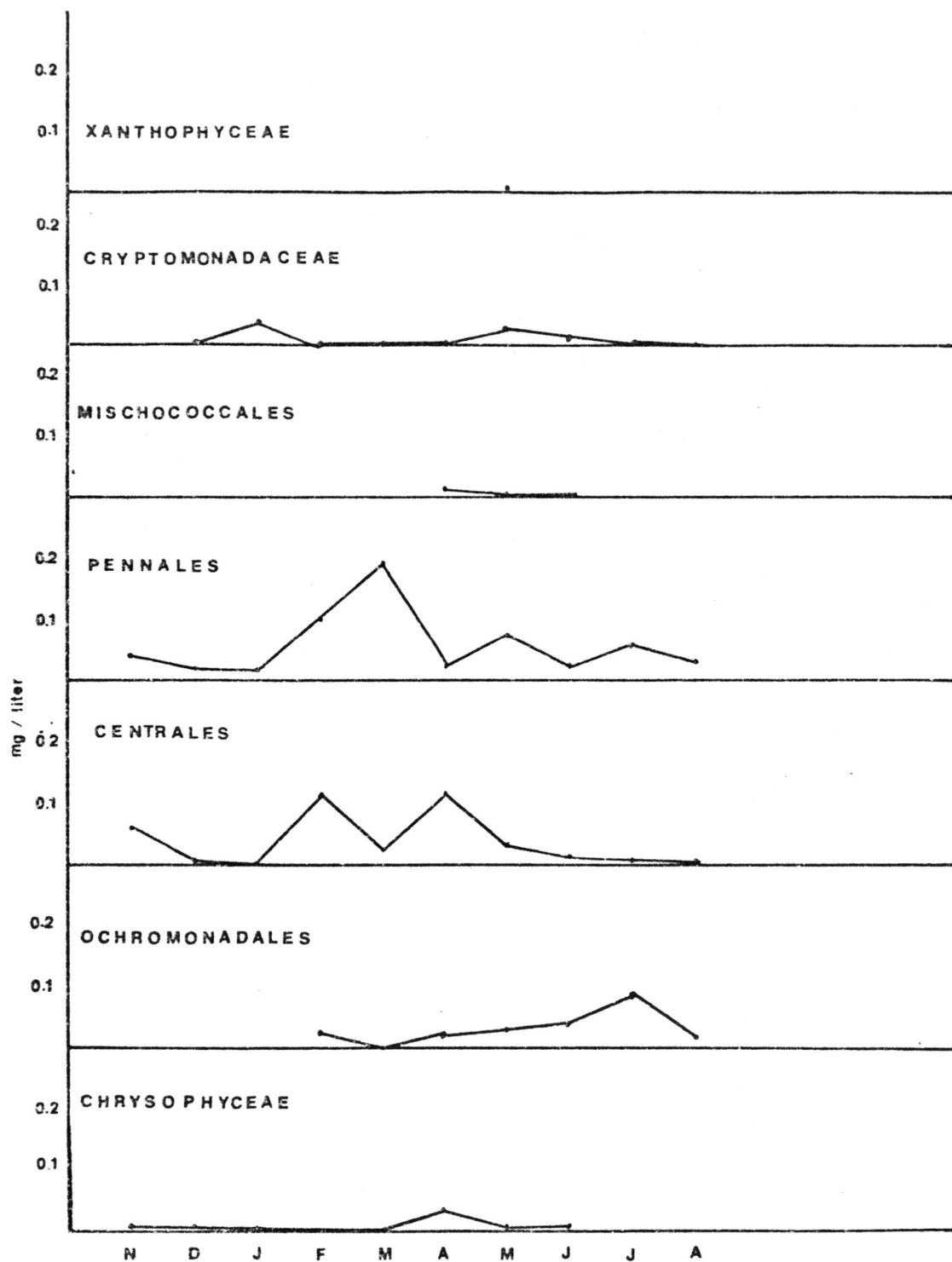


FIG. 15. MEAN BIOMASS OF MAJOR TAXA IN CURRITUCK SOUND.

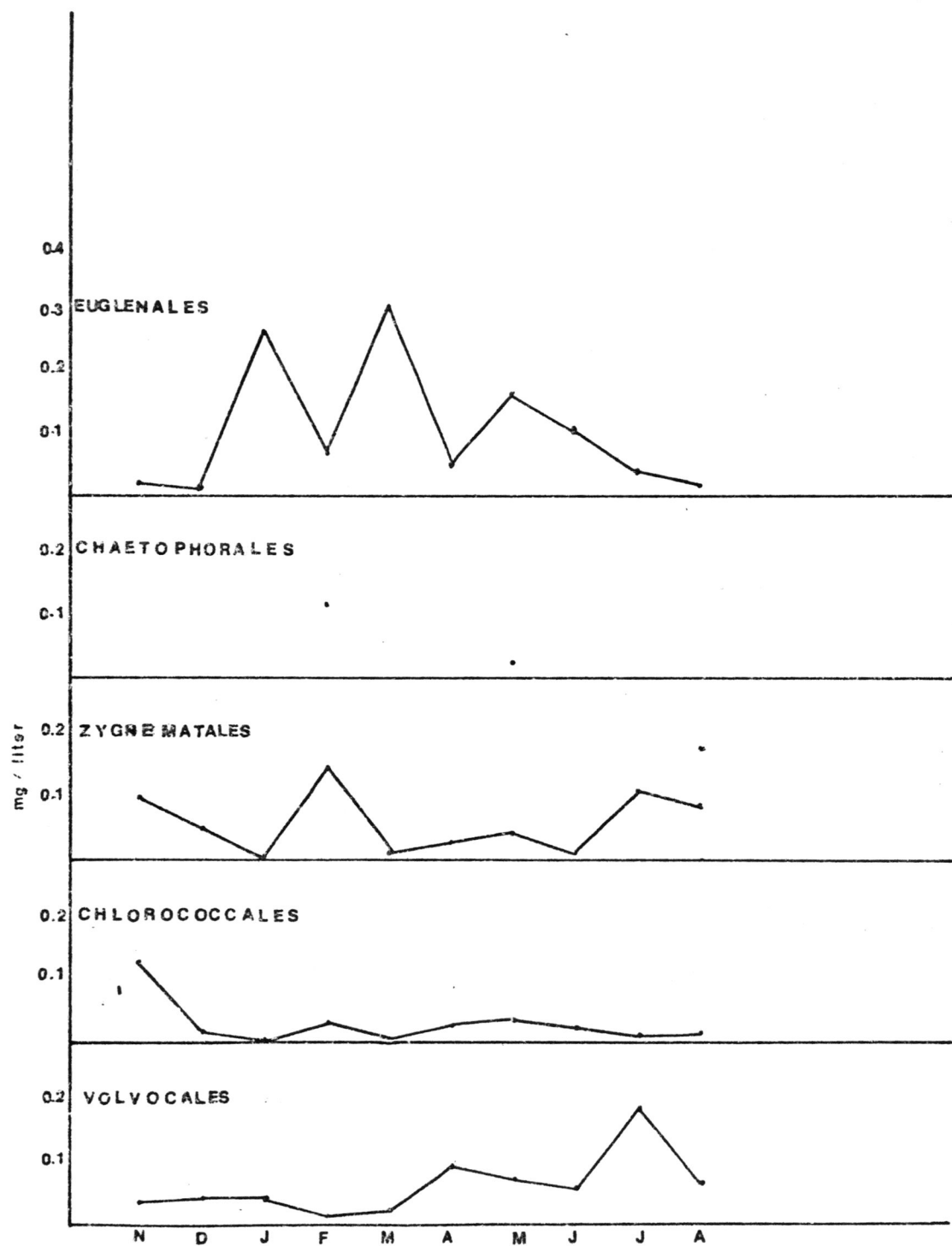


FIG. 16. MEAN BIOMASS OF MAJOR TAXA IN CURRITUCK SOUND.

and reaching a maximum of 25 mph on the date of sample collection. Winds were reported at 17 to 20 mph maximum for the 2 day period preceeding collection day. Carey (1979) noted that southerly winds fill the sound. Therefore, the cyanophytes may have entered the water column by stirring of bottom sediments, increased current flow due to wind activity, and by influx of water from the Albemarle Sound, North Landing River, and the numerous marsh areas within the sound.

Secchi disk readings reached a minimum in February. This could be attributed to increased phytoplankton biomass but more probably was due to increased suspended sediments. Compensation point is the depth at which plankton photosynthesis balances respiration. Normally this is considered to occur at a depth where the light intensity (Z) is reduced to approximately 1% of that at the surface (Campbell, 1973). The monthly mean depths of 1% surface radiation ($Z_{1\%} = 2.5 \times \text{Secchi disk depth}$) in the Currituck are given in Figure 17. The factor of 2.5 was derived from analysis of data taken in the Back Bay-Currituck Sound studies (Sincock, 1965) in which Secchi depths were compared with submarine photometer studies. Fluctuation of the average depth for 1% incident light during the study period was directly related to periods of increased wind activity as in February. Epiphytic species such as Cocconeis, Amphora, and Stigeoclonium were found in greater numbers during periods of increased wind activity as were benthic forms such as Navicula. Water temperature averaged 3.9°C in February. Although this temperature was higher than in January, it was probably not great enough to cause a significant increase in phytoplankton biomass. Ortho phosphate and

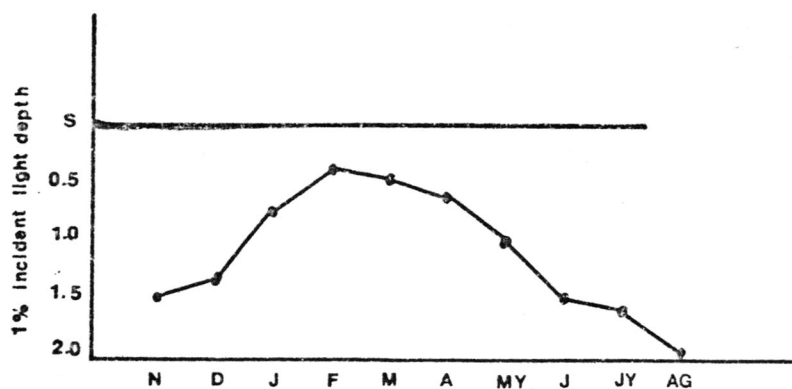


FIG. 17. MONTHLY VARIATION IN THE AVERAGE DEPTH AT WHICH 1% INCIDENT LIGHT WAS CALCULATED TO HAVE OCCURRED, USING SECCHI DISC DEPTH DATA FROM ALL STATIONS AT EACH CRUISE.

total phosphorus increased during February along with total Kjeldahl-N, ammonia-N, and nitrate-N. However, the N:P ratio remained high (38:1) and greater than the accepted 10:1 requirement for optimal growth of freshwater phytoplankton. Witherspoon (1979) also noted a February increase in biomass in the middle reach of the Chowan River at the Colerain, North Carolina station which he attributed to longer residence time and slower moving waters.

The maximum biomass peak of $12.6 \text{ mg} \cdot \text{l}^{-1}$ occurred in May, 1978 (Fig. 10) (Table 1). Bloom (maximum biomass peaks for study period) species consisted of Coelosphaerium, Aphanocapsa, and Merismopedia in the northern sound. Species of Euglena, Trachelomonas, Lepocinclis, and Gymnodinium were dominant in the middle reach of the sound. In the southern portion, various dinoflagellates along with diatoms such as Surirella and Melosira dominated the plankton. On the collection date in May, winds were estimated from the northeast at 17 to 23 mph. Data from the Norfolk weather station lists winds from the north at 10.8 mph with gusts of 15 mph. For two days prior to collection date winds were from the north at 17 mph. Wind speed and direction coupled with run off was possibly responsible for the blue-green biomass increase in the northern sound. Numerous farm drainage ditches and marshes empty into the northern sound. Spring rains possibly flushed species of blue-greens and euglenophytes from these habitats into the sound. Also in May, temperature of the water reached 23°C .

Blue-green algae contain gas vacuoles that tend to accumulate gas within them as temperatures rise. These benthic and tychoplanktonic species could very well have become buoyant as a result of gas accumulation in

Table 1. Summary of physical, chemical, and phytoplanktonic data (November, 1977 - August, 1978). Nutrient concentrations are reported in $\mu\text{g-atoms l}^{-1}$, water temperature in $^{\circ}\text{C}$, Secchi disk transparency in meters.

Parameter	Mean	Range
Water temperature	17.6	2.00 - 32.0
Secchi disk transparency	0.5	0.15 - 1.3
Salinity	1.0	0.10 - 16.0
pH	6.8	6.00 - 7.0
Kjeldahl-N	68.0	26.00 - 71.0
Ammonia-N	3.0	0.40 - 10.0
Nitrate-N	6.0	0.30 - 15.0
Nitrite-N	0.1	0.01 - 0.3
Particulate-N	23.0	0.00 - 79.0
Total-P	2.0	0.60 - 7.0
Ortho-P	0.2	0.02 - 1.0
Particulate-P	1.0	0.00 - 4.0
N:P ratio	23:1	6:1 - 53:1
Phytoplankton numbers (cells·ml ⁻¹)	8.3×10^7	$2.7 \times 10^7 - 1.3 \times 10^8$
Biomass (mg·l ⁻¹)	5.9	3.1 - 12.6

these vacuoles and entered the water column by flotation or by wind dispersal and runoff from the drainage ditches and marsh areas of the sound. Cyanophytes also have high surface-to-volume ratios which reduce sinking rates and allows greater chance of nutrient uptake, thereby allowing these species to outcompete other species for available nutrients. The presence of phycobilin accessory pigments enable them to utilize a variety of light wavelengths by absorption through a variety of pigment systems. Thus once incorporated into the plankton community by winds, runoff, and increase in gases in the vacuoles, the cyanophytes were able to outcompete other algal species for the necessary nutrients and light.

Sincock (1965) noted that northeastern winds had the greatest fetch on the sound and that turbidity was greater when winds were from this direction. Data from the present study showed slight improvement in compensation depth for May. More milfoil beds existed in the northern sound and probably dampened the effect of the wind in this area. The appearance of benthic and epiphytic diatoms in the southern sound was probably due to suspension of bottom sediments, influx from marsh areas and the Albemarle Sound, and separation from substrates induced by the wind. During May, nitrite-N and ammonia-N reached their lowest concentration (Table 1). However, nitrate-N was increasing. Nitrogen:P ratios were within a 13:1 range throughout the sound. Therefore, a combination of more favorable N:P ratios, increased water temperature, and wind conditions probably led to the May biomass peak.

The mid summer biomass peak occurred in July with members of the

Volvocales such as Chlamydomonas, Pandorina, and Eudorina along with species of dinoflagellates such as Ceratium hirundinella and Gymnodinium dominating the bloom. Greater biomass occurred in the southern portion of the sound during July (Fig. 13). Larger species of phytoplankton such as Ceratium hirundinella, which were present almost entirely in the southern sound, were responsible for the greater biomass there. Nitrate-N reached its minimum concentration in June, 1978 prior to the July increase in phytoplankton biomass. The minimum levels for total-P and ortho-P were recorded in July, 1978 at the time of this phytoplankton increase.

In July, winds were calm, water temperature ranged from 28 to 29°C, compensation depth was greatly improved and salinity averaged 0.2‰. Greater numbers of Ceratium hirundinella and Gymnodinium spp. present in July could have resulted from a lack of competition. Blue-green biomass was at its minimum in July. The lack of wind to resuspend these blue-greens from bottom sediments and marsh areas could lead to increased numbers of dinoflagellates by the lack of competition for nutrients. It is also possible that blue-greens secrete substances that inhibit dinoflagellates and other algal species. If so, a decrease in blue-green algal populations could be associated with the increase in dinoflagellate population.

Phytoplankton density peaked in August, 1978 at 1.26×10^8 organisms per liter. Desmids and blue-green algae were dominant throughout the sound. Compensation depth reached its maximum in August (Fig. 17) as did nitrate-N (Table 1). Particulate-P was at a minimum in August. Winds

were calm at this time. The density peak for June represents Volvocales, Chlorococcales, Chroococcales and Pennales. The April increase was composed of members of the Volvocales and Centrales. A steady increase in water temperature and decrease in turbidity and wind during these periods could result in increased density.

Special Studies: Coinjock Bay and Transect L A study of Coinjock Bay (Fig. 18) in September, 1978 and transect L in October, 1978 revealed blooms of desmids and blue-greens with a noticeable increase in diatoms in the October study as compared to September. The number of phytoplankton in Coinjock Bay was 8.1×10^7 organisms/ liter and biomass was $10.8 \text{ mg} \cdot \text{l}^{-1}$. Both numbers and biomass were higher at stations one, three, four, and five. Nitrite-N, Kjeldahl-N, and total-P were higher at these stations than in the other areas sampled in Coinjock Bay. Although winds were estimated at 23-25 mph from the northeast, turbidity was low. Norfolk wind data for this sampling period was 18.7 mph from the east with gusts up to 23 mph. Numbers were 1.99×10^8 organisms/liter and biomass $12.9 \text{ mg} \cdot \text{l}^{-1}$ in the transect L study. Sampling sites with higher biomass were stations one, five, six, and seven. Kjeldahl-N and total-P were also higher at these stations. However, densities and biomass were fairly uniform across the sound. Both desmids and blue-greens reached peaks during these two studies. Since desmid density increased from spring through fall, they were probably able to adapt to the shallow waters of the sound and reproduce. The pH of 6.8 for the sound posed no problem to desmid adjustment. Prescott (1968) stated that filtrates from Oscillatoria and other blue-green algae increased cell division rates of Cosmarium. If so, once desmids became part of

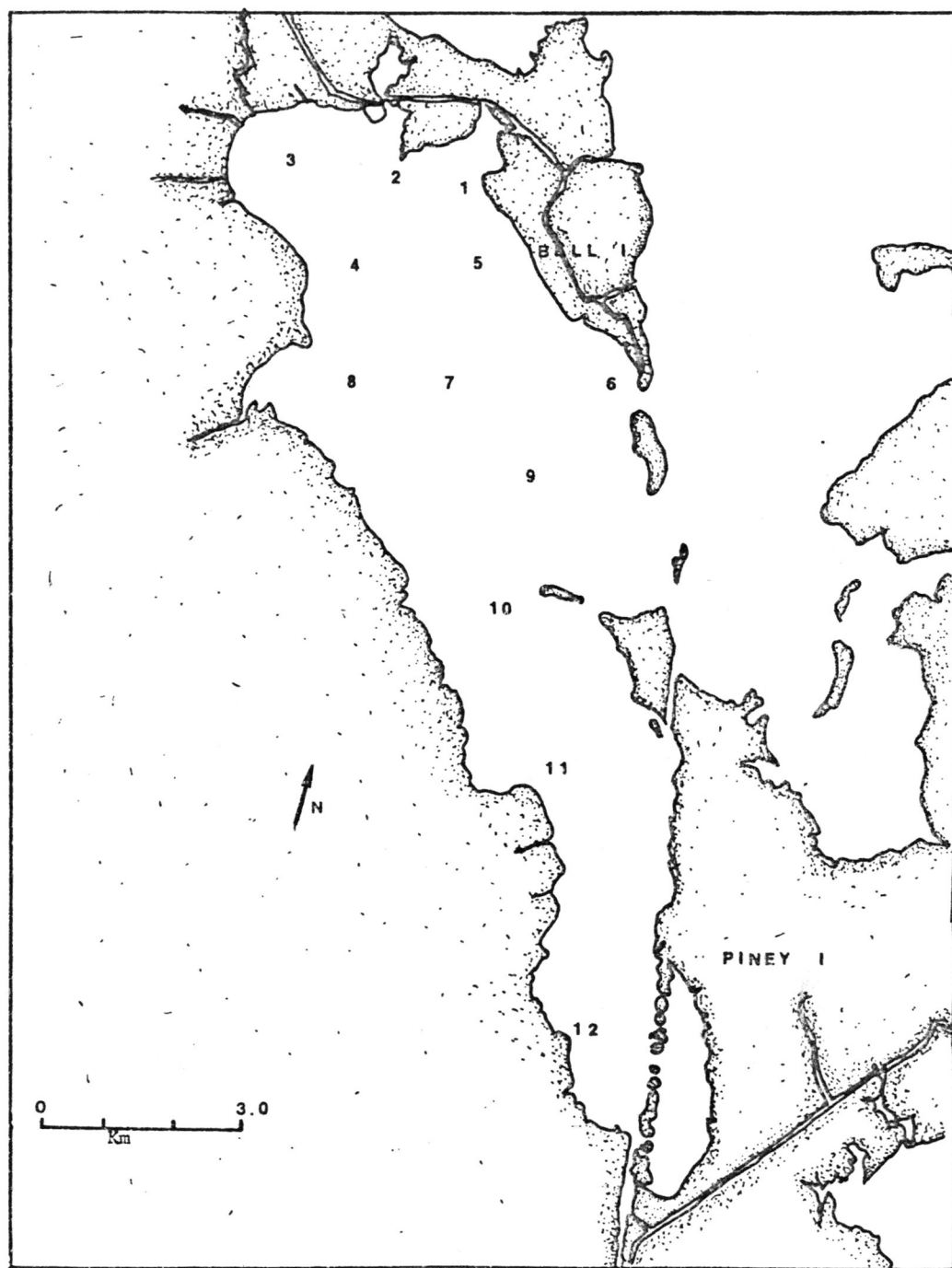


FIG. 18. MAP OF COINJOCK BAY STUDY AREA FOR SEPTEMBER, 1978 INDICATING THE SAMPLING SITES.

the plankton, population growth was stimulated by cyanophytes already present. Decreases in densities of other algal species during these two study periods could be due to competition with blue-greens and desmids for available nutrients and light. Increased reproduction rates coupled with long residence times could account for the increased numbers during the September and October studies.

Origins of Phytoplankton in the Water Column

The presence of benthic, tycho planktonic (organisms which live within the littoral zone but are not epiphytic (Prescott, 1977)), and epiphytic species throughout the study period indicated the influence of wind action in this shallow estuary. With increased wind velocity and duration, the numbers of benthic, tycho planktonic, and epiphytic species became more numerous in water samples often increasing ten fold. During the 10 month study, tycho planktonic species totaled 75% of the population, benthic species 2%, and epiphytic species 1% (Table 2). Influxes of salt water either by storm overwash or by way of the Albemarle Sound brought euryhaline species such as Calycomonas, Skeletonema, Katodinium, and Amphiphora into the sound. These phytoplankton species had short, temporary residence times and were not considered part of the endemic phytoplankton population. Since these are normally euryhaline species, it is unlikely that they would grow and reproduce under the conditions of Currituck Sound. Also species of desmids found in the sound from spring through fall are not considered to be native to the sound. Desmids are found in acid or soft-water habitats such as sphagnum bogs or areas of shallow water which contain

Table 2. Percentages of algal species by habitat in Currituck Sound.
 Percentage is based on density for 10 month period.

Algal Type	Northern Sound	Southern Sound	Entire Sound
Euplanktonic	13.0	9.0	22.0
Tychoplanktonic	36.0	39.0	75.0
Benthic	1.0	1.0	2.0
Epiphytic	0.0	1.0	1.0

organic acids. Optimum pH range for most desmids is 5.4 to 6.8 (Prescott, 1968). Therefore, it is probable that they entered the sound from the surrounding tributaries and marsh areas during run off periods following heavy rain. It is also possible that some species of blue-greens and euglenophytes entered the sound following heavy rains from the numerous drainage ditches which empty into it.

The Naviculaceae were the best represented family of diatoms with 23 species identified. Many members of this family are benthic species and were probably suspended into the plankton by stirring of the bottom sediments and littoral regions by wind action. Species of Cocconeis, an epiphytic diatom, were present in greater densities during periods of increased wind velocity. Patrick (1966) stated that many species of freshwater diatoms found in plankton were the same as those found in the littoral zone and were derived from that source.

Difference between Populations in the Northern and Southern Sound

Trends of blue-green algal dominance in the northern sound and a greater diatom population in the southern sound were also noted during the course of this study. The Mann-Whitney test (Zar, 1974) confirmed at the 0.05 significance level that blue-green and diatom densities were not the same in the northern and southern regions of the sound.

Stepwise multiple regression analysis was performed between the dependent variables, phytoplankton numbers and biomass, and the nutrients and physical parameters measured (Tables 3-6). Although significant relations are shown by multiple regression analysis, these are weak and do not explain the differences in the populations between the northern

Table 3. Stepwise multiple regression for the diatom population in the northern sound. (r^2 values; $P \leq 0.05$)

	Numbers per liter	Biomass
Biomass	0.33	
Dissolved NO ₂	0.13	
Particulate-N	0.278	
Temperature	0.167	0.057
Dissolved NO ₃	0.038	
Total-P		0.555
Oxygen		0.326

Table 4. Stepwise multiple regression for the cyanophyte population in the northern sound. (r^2 values; $P \leq 0.05$)

	Numbers per liter	Biomass
Temperature		0.657
Salinity	0.47	0.26
Total Kjeldahl-N	0.27	

Table 5. Stepwise multiple regression for cyanophyte population in the southern sound. (r^2 values; $P \leq 0.05$)

	Numbers per liter	Biomass
Numbers per liter		0.59
Biomass	0.59	
Sodium	0.16	
Oxygen	0.11	0.04
Temperature	0.06	0.14
Dissolved NO ₂		0.03

Table 6. Stepwise multiple regression for diatom population in the southern sound. (r^2 values; $P \leq 0.05$)

	Numbers per liter	Biomass
Numbers per liter		0.86
Biomass	0.86	
Total-P	0.015	
Particulate-N	0.036	
Particulate-P	0.068	0.01
Dissolved NO ₂	0.019	0.05
Temperature		0.009

and southern sound. Possible explanations for blue-green dominance in the northern sound are greater numbers of input sources, shallower depth, wind stress, slow currents, and the presence of numerous marsh islands in the middle reach of the sound which constrict the flow of water into the southern area. North Landing River, marshes, small creeks, and numerous drainage ditches are fresh water input sources for the northern sound. These are ideal habitats for blue-green algae. The northern sound is more shallow than the southern sound thereby increasing wind stress on the sediment in this region. Since many species of blue-green algae were benthic or tycho planktonic (Table 7), it is possible that they were separated from their substrates during periods of increased wind activity. Likewise, runoff and warmer temperatures in the drainage ditches and marshes could bring about flotation of blue-green algae and their eventual entrance into the sound. Once incorporated into the plankton, blue-greens were probably better equipped to compensate for loss or sinking rates and were better competitors for the available nutrients and light. Numbers and biomass were low in the winter months and began to increase in February and remained dominant through the fall months.

Relationships between Phytoplankton and some

Chemical and Physical Parameters

Statistical analyses to test for correlations between phytoplankton numbers and biomass and the physical and chemical parameters measured during this study showed weak negative but significant correlations at the 0.05 significance level for total Kjeldahl-N, ammonia-N, total-P,

ortho-P, and Secchi disk transparency (Table 8). Stepwise multiple regression analysis of biomass and numbers with the independent variables were also performed (Table 9). All factors measured explained 21.3% of the variation in phytoplankton numbers. A total of 11.3% of variation in biomass was explained. Kuenzler et al. (1979) found that factors significantly ($P < 0.05$) related to chl a were particulate-N, surplus-P (accumulated phosphorus, not being used in metabolism or in structural components), uptake rate of carbon, and phosphorus accumulation rate. Salinity, temperature, inorganic nutrients and nitrogen uptake rates were not correlated with any of the variables. They also found that uptake rates and algal biomass indicators did not appear to be related to the abundance of inorganic nutrients. They stated that since no predictive or causal relationships resulted for the Pamlico River, such studies might be futile. They further stated that for systems like the Pamlico River Estuary, algal biomass measured at one sampling period might be the result of the inorganic nutrient levels of the previous sampling period thereby giving low correlation coefficients. It is my opinion that the low correlations for the Currituck Sound reflect this same possibility.

Comparisons with Other Systems in

North Carolina

Minimum cell numbers of 5.58×10^7 were recorded in February, 1978 and minimum biomass of $2.36 \text{ mg} \cdot \text{l}^{-1}$ in December, 1977. Numbers of phytoplankton were similar to those reported by Hobbie (1971) while phytoplankton biomass was similar to values reported by Witherspoon (1979) (Table 7). However, bloom species and periodicity in Currituck Sound

Table 7. Dominant phytoplanktonic types and abundance in Currituck Sound compared with other North Carolina estuaries. Warm period includes May to October, the cool period November to April.

Season	Currituck Sound ^a	Newport River ^b	Gales Creek ^c
Dominant phytoplanktonic taxa ¹ warm	CYAN CHLO DINO	DIAT DINO	DIAT CRYP DINO XANT
cool	CYAN EUGL CHLO	DIAT DINO	DIAT DINO CHRS
Approximate range of cell densities (cell·l ⁻¹)	10 ⁷ - 10 ⁸	10 ⁶	10 ² - 10 ⁷

Continued

Table 7. continued

	Season	Pamlico River ^d	Calico Creek ^e	Chowan River ^f	Neuse River ^g
Dominant phytoplanktonic taxa	warm	DINO CRYP CHLO	DIAT CHLO PRAS	CYAN ¹ DIAT DINO DIAT ² CRYP CHLO	CYAN DINO DIAT
	cool	DINO DIAT	DIAT CHLO	CYAN ¹ DIAT DIAT ² CRYP	DINO
Approximate range of cell densities (cell·l ⁻¹)		10 ⁶ - 10 ⁸	10 ⁶ - 10 ¹¹	10 ³ - 10 ⁴	10 ³ - 10 ⁶

^athis study; ^bThayer, 1969; ^cCampbell, 1973; ^dHobbie, 1971; Davis, Brinson, Burke, 1978; Kuenzler, Stanley, Koenings, 1979; ^fWitherspoon, 1979; ^gHobbie, Smith, 1975; ¹Lower Chowan, ²Upper Chowan River; CYAN = Cyanophyta, CHLO = Chlorophyta, DINO = dinoflagellates, CRYP = Cryptophyta, EUGL = Euglenophyta, CHRS = Chrysophyta, XANT = xanthophytes, DIAT = diatoms, PRAS = prasinophytes.

Table 8. Pearson correlations for the 10 month study of the entire sound.
Levels of significance ≤ 0.05 .

	Numbers per liter	Biomass
Ammonia-N	-0.17	
Total Kjeldahl-N	-0.18	
Total-P	-0.29	
Particulate-P	-0.18	
Secchi disk transparency		-0.19

Table 9. Stepwise multiple regression for the entire sound during the
10 month study. (r^2 values; $P \leq 0.05$)

	Numbers per liter	Biomass
Total-P	0.06	
Total Kjeldahl-N	0.05	0.006
Particulate-N	0.04	0.01
Dissolved NO_3	0.01	
Temperature	0.02	
Particulate-P	0.01	0.007
Ammonia-N	0.003	0.01
Secchi disk transparency		0.04
Biomass	0.02	
Numbers per liter		0.02
Macrophyte density		0.02

did not correspond to either the Pamlico River Estuary or the Chowan River.

Phytoplankton in Currituck Sound was distributed among six phyla with Cyanophyta the most abundant. These six phyla included a total of 204 species in 67 genera and 14 orders (Appendix A). Cyanophytes dominated the algal population throughout the 10 month study period ranging between 43.6% to 83.9% of the total population. Chlorophyta increased and remained at this higher level through fall. Cyanophyta and Chlorophyta were codominant in the summer months with Cyanophyta reaching a peak in fall. Chrysophyta were dominant in spring and winter months with diatoms peaking in May. Euglenophyta composed less than 2% of the population and reached a maximum in spring. Dinoflagellates did not appear until spring and formed blooms in both spring and summer (0.67 to $0.69 \text{ mg} \cdot \text{l}^{-1}$). Cryptophyta were present in the sound at all times but composed less than 1% of the population.

The dominant cyanophytes were Merismopedia elegans, M. tenuissima, Aphanocapsa, and Anabaena. Dominant Chlorophyta were Pandorina, Crucigenia, and Scenedesmus, with desmids such as Cosmarium, Staurostrum, and Closterium becoming the most dominant green algae in late spring through fall months. Dinoflagellates such as Ceratium hirundinella and Gymnodinium fuscum reached highest biomass and numbers in May and July.

In the Chowan River (Witherspoon, 1979), biomass maxima occurred in spring and fall, were high in summer and reached a minimum in winter. Witherspoon reported a blue-green bloom in spring as water temperature began to rise. As for Currituck Sound, the blue-green increase was thought to occur by flotation of these species as gas accumulates in gas

vacuoles with increasing water temperatures. Peridinium was the most important species throughout the Chowan River during late summer and early fall of 1975.

In the Pamlico River Estuary (Hobbie, 1971; Kuenzler et al., 1979), phytoplankton peaks were reported in late winter, early spring, and late summer. Campbell (1973) found similar patterns in Gales Creek. Hobbie (1975) reported algal blooms in the upper reaches of the Neuse River in summer and fall and in the middle reaches in winter and spring. In the Pamlico River Estuary and Neuse River Estuary, blue-greens dominate upstream similar to dominance of blue-greens in the northern portion of Currituck Sound. In Gales Creek (Campbell, 1973), flagellates dominated upstream areas with diatoms dominating downstream. These waters had decreasing nutrient gradients and increasing salinity gradients downstream. Bloom forming species are smaller forms of algae than those reported for other systems. According to Hobbie and Smith (1975) chlorophyll a values greater than $25\mu\text{g}\cdot\text{l}^{-1}$ delimit blooms. On this basis, blooms were not observed in Currituck Sound since all chlorophyll a data (Carey, unpublished) for the sound indicated levels below this value. Low levels of phosphorus throughout the study period could be the limiting factor for phytoplankton when other factors such as turbidity and temperature are not limiting. In most of the other studies reviewed here, nitrogen not phosphorus was reported as the limiting factor to algal growth.

SUMMARY AND CONCLUSIONS

Unlike other estuaries along the North Carolina coastline, the Currituck Sound is a shallow bar-built estuary with no direct opening to the sea. Shallowness of the sound results in turbulent currents generated by wind tides that greatly influence the circulation. This creates conditions for rapid interchange of nutrients and organisms between the water column and surficial sediments.

Cyanophyta were the dominant algae in Currituck Sound, not dinoflagellates and diatoms that are normally associated with the Pamlico River and other estuaries of the Southeast. Although phytoplankton numbers and biomass are similar to those reported for other systems, phytoplankton periodicity was different. Blue-greens dominated the upper regions of the Pamlico River, Neuse River, and Chowan River in summer months; whereas, blue-greens were codominant with greens in Currituck Sound during the summer.

Blue-green dominance is explained better by examination of species types and habitats than by water chemistry. A large percentage of cyanophytes were benthic or tychoplanktonic species. Once they became separated from their substrate and entered the water column, they were capable of withstanding sinking losses and were more successful competitors for the available nutrients and light.

Also unlike other estuaries along the North Carolina Coast, phytoplankton abundance in Currituck Sound appears to be phosphorus limited. That is, the nitrogen:phosphorus ratios were always higher than the 10:1 accepted optimum ratio for freshwater plankton. Only on

one occasion did this ratio fall within the bounds of the accepted proportions. In May, 1978, phytoplankton biomass reached its peak when the N:P ratio was within a 13:1 range for the entire sound.

In conclusion, physical processes dominate over biological and chemical processes in controlling phytoplankton variability in the water column. Wind mixing is of particular importance and low phosphorus levels may prevent dense blooms of blue-green algae.

LITERATURE CITED

- American Public Health Association (APHA). 1975. Standard Methods for the Examination of Water and Waste-water. 14th ed. American Public Health Association, New York. 874 pp.
- Bourn, W. S. 1932. Ecological and physiological studies on certain aquatic angiosperms. Contrib. Boyce Thompson Inst. 4:425-496.
- Campbell, P. H. 1973. Studies on brackish water phytoplankton. Sea Grant Publication, SG-73-07, University of North Carolina, Raleigh. 407 pp.
- Carey, D. F., Jr. 1979. Notes on the hydrology of Currituck Sound and Coinjock Bay, North Carolina. Unpublished.
- Cleve-Euler, A. 1951. Die Diatomeen von Schweden und Finnland. Almqvist und Wiksells Boktryckeri AB, Stockholm. 959 pp.
- Crowell, T. E., J. H. Steenis and J. L. Sincock. 1967. Recent observations of Eurasian watermilfoil in Currituck Sound, North Carolina and other coastal southeastern states. North Carolina Wildlife Resources Commission. Raleigh, N. C. 8 pp.
- Davis, G. J., M. M. Brinson, and W. A. Burke. 1978. Organic carbon and deoxygenation in the Pamlico River Estuary. Water Resources Res. Inst. of Univ. of N. C., Report No. 131. Raleigh, N. C. 123 pp.
- Environmental Protection Agency (EPA). 1976. Methods for Chemical Analysis of Water and Wastes. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. 298 pp.
- Hobbie, J. E. 1971. Phytoplankton species and populations in the Pamlico River Estuary of North Carolina. Water Resources Res. Inst. of Univ. of N. C. Report No. 56. Raleigh, N. C. 147 pp.
- Hobbie, J. E. and N. W. Smith. 1975. Nutrients in the Neuse River Estuary. Sea Grant Publication, SG-75-21. University of North Carolina, Raleigh. 183 pp.
- Kearson, L. L. 1976. Observations of the flora of Currituck Sound during August, 1973. Statewide Fisheries Research Report, North Carolina Wildlife Resources Commission. 28 pp.
- Kuenzler, E. J., D. W. Stanley, and J. P. Koenings. 1979. Nutrient kinetics of phytoplankton in the Pamlico River, North Carolina. Water Resources Res. Inst. of Univ. of N. C., Report No. 139. Raleigh, N. C. 163 pp.

- Lund, J., C. Kipling, and E. LeCren. 1958. The inverted microscope method of estimating algal numbers and the statistical basis of estimations by counting. *Hydrobiologia* 11: 143-170.
- McAtee, W. L. 1919. Notes on the flora of Church's Island, North Carolina. *J. Elisha Mitchell Sci. Soc.* 61-75.
- Patrick, R. and C. W. Reimer. 1966. *The Diatoms of the United States.* Livingston publishing Co., Pennsylvania 688 pp.
- Pestalozzi, G. H. 1969. Das phytoplankton des süsswassers. Die Binnengewässer. Band XVI:4 1135 pp.
- Prescott, G. W. 1951. *Algae of the Western Great Lakes Area.* The Cranbrook Press, Michigan. 947 pp.
- Prescott, G. W. 1968. *The Algae: A Review.* Houghton-Mifflin Co., New York, Atlanta, Illinois. 436 pp.
- Prescott, G. W. 1977. *The Freshwater Algae.* Wm. C. Brown Co., Iowa. 348 pp.
- Sanders, J. G. and E. J. Kuenzler. 1979. Phytoplankton population dynamics and productivity in a sewage enriched tidal creek in North Carolina. *Estuaries* 2:87-96.
- Sincock, J. L. 1965. Back Bay-Currituck Sound data report. U. S. Wildlife Service, Laurel, Md. 4 Vols. 1600 pp.
- Thayer, G. W. 1971. Phytoplankton production and the distribution of nutrients in a shallow unstratified estuarine system near Beaufort, N. C. *Chesapeake Science* 12:240-253.
- Whitford, L. A. and G. J. Schumacher. 1973. *A Manual of Freshwater Algae.* Sparks Press, Raleigh, N. C., 324 pp.
- Whitney, E. W., A. G. Montgomery, E. C. Martin, and E. O. Gangstad. 1973. The effects of 2,4-D application on the biota and water quality in Currituck Sound, North Carolina. *Hyacinth Control J.* 11:13-17.
- Willen E. 1976. A simplified method of phytoplankton counting. *Br. Phycol. J.* 11:265-278.
- Witherspoon, A. M., C. Balducci, O. E. Boody, and J. Overton. 1979. Response of phytoplankton to water quality in the Chowan River system. *Water Resources Res. Inst. of Univ. of N. C., Report No. 129.* Raleigh, N. C. 204 pp.
- Zar, J. H. 1974. *Biostatistical Analysis.* Prentice-Hall, Inc., Englewood Cliffs, N. J. 620 pp.

Appendix A. List of Phytoplankton Species

CHLOROPHYTA

Volvocales

Chlamydomonas gleogama KorschikoffChlamydomonas sp. (a)*Chlamydomonas sp. (b)Gonium sp.Pandorina morum MuellerPandorina sp. (a)Eudorina sp.

Chlorococcales

Scenedesmus abundans var. brevicauda G. M. SmithScenedesmus acuminatus (Lag.) ChodatScenedesmus anomalus G. M. SmithScenedesmus arcuatus var. platydisca G. M. SmithScenedesmus bijuga var. alterans (Reinsch) HansgrigScenedesmus dimorphus (Turp.) Kutz.Scenedesmus quadricauda (Turp.) Breb.Scenedesmus quadricauda var. maximus W. & G. S. WestCrucigenia irregularis Wille.Crucigenia quadrata MorrenCrucigenia tetrapedia (Kirch.) W. & G. S. WestTetraedron caudatum var. longispinatum LemmermannTetraedron quadricuspdatum ReinschTetraedron trigonium (Nag.) Hansgrig

*(C) denotes genera that could not be identified to species level.

Chlorococcales Cont'd.

Tetrastrum glabrum (Roll) Ahlstrom & TiffanyPediastrum boryanum (Turp.) MeneghiniPediastrum duplex MeyenPediastrum glanduliferum BennettPediastrum tetras (Ehren.) RalfsHydrodictyon reticulatum (L.) Lag.

Zygnematales

Closterium abruptum var. brevis W. & G. S. WestClosterium acutum BrebissonClosterium archeranum CleveClosterium cornu Ehr.Closterium ehrenbergii MeneghiniClosterium incurvum Breb.Closterium leibleinii Kutz.Closterium libellula var. interruptum (W. & W.) Donat.Closterium navicula (Breb.) Lutkem.Closterium peracerosum var. elegans G. S. WestClosterium praelongum Breb.Closterium ralfsii var. hydridum RabenhorstClosterium rostratum Ehr.Closterium sigmoideum (Lagerh.) NordstedtClosterium subulatum (Kutz.) Breb.Closterium tumidum JohnsonCosmarium bicuneatum var. tatricum (Racib.) SchmidleCosmarium botrytis Meneghini

Zygnematale Cont'd.

- Cosmarium circulare Reinsch
- Cosmarium contractum var. incrassatum Scott & Prescott
- Cosmarium costatum Nordstedt
- Cosmarium difficile var. subleave Lutkem.
- Cosmarium exiguum Archer
- Cosmarium hammeri Reinsch
- Cosmarium lundelli var. ellipticum W. West
- Cosmarium nasatum Nordstedt
- Cosmarium ovale Ralfs
- Cosmarium ordinatum (Boerg.) W. & G. S. West
- Cosmarium phaseolus f. minor Boldt.
- Cosmarium pseudobroomei Wolle
- Cosmarium pseudoconnatum Nordstedt
- Cosmarium pseudoprotuberance Kirchner
- Cosmarium raciborskii Lagerheim
- Cosmarium schleiphakeanum Grunov.
- Cosmarium sexangulare var. minus Roy and Biss
- Cosmarium subreniforme Nordstedt
- Cosmarium subspeciosum var. validus Nordstedt
- Cosmarium subprotumidum Nordstedt
- Cosmarium tinctum Ralfs
- Cosmarium trilobulatum Reinsch
- Cosmarium turpinii var. eximum W. West
- Cosmarium undulatum var. crenulatum Wolle

Zygnematales Cont'd.

Cosmarium sp. (a)Cosmarium sp. (b)Staurastrum americanum (W. & W.) G. M. SmithStaurastrum aspinosum var. annulatum W. & G. S. WestStaurastrum brachiatum RalfsStaurastrum cyrtocerum Breb.Staurastrum echinatum Breb.Staurastrum leptocladum var. sinuatum WolleStaurastrum manfeldtii var. fluminense SchumacherStaurastrum paradoxum var. cingulum W. & G. S. WestStaurastrum pentacerum (Wolle) G. M. SmithStaurastrum protectum var. planctonicum G. M. SmithStaurastrum rugosum Irene-MarieStaurastrum subcruciatum Cooke & Wille.Staurastrum tetracerum RalfsStaurastrum vestitum RalfsEuastrum bidenatum NageliEuastrum sp. (a)Euastrum sp. (b)Arthodesmus sp.Desmidium sp.

Unidentified green unicell

Unidentified green colony

Unidentified green filament

EUGLENOPHYTA

Euglenales

- Euglena acus Ehr.
- Euglena caudata Hubner
- Euglena ehrenbergii Klebs
- Euglena hemichromata Skuja
- Euglena intermedia (Klebs) Schmitz
- Euglena proxima Dangeard
- Euglena sp. (a)
- Euglena sp. (b)
- Lepocinclis sp.
- Eutrepita sp.
- Trachelomonas armata var. steinii Lemmermann
- Trachelomonas charkowiensis var. affine (Skv.) Deflandre
- Trachelomonas hispida var. crenulatocellis (Mask.) Lemmermann
- Trachelomonas rugulosa (Stein) Deflandre
- Trachelomonas volvocina Ehr.
- Trachelomonas sp.
- Phacus brevicauda (Klebs) Lemmermann
- Phacus lemmermanni (Swir.) Skvortzow

CHRYSOPHYTA

Chrysomonadales

- Calycomonas ovalis Wulff

Tribonematales

- Tribonema sp.

Ochromonadales

Synura sp.

Mischococcales

Pseudotetraedron neglectum Pascher

Centrales

Cyclotella sp.Coscinodiscus sp.Stephanodiscus dubius (Fricke) HustedtMelosira distans var. humilis A. CleveMelosira granulata (Ehr.) RalfsMelosira italica var. granulata GrunowMelosira varians C. A. AgardhSkeletonema costatum (Grev.) Cl.

Pennales

Neidium sp.Pinnularia sp.Mastigloia sp.Synedra sp.Amphiphora sp.Diploneis didyma (Ehr.) Bellis & WhiteDiploneis elliptica (Kutz.) CleveDiploneis puella (Schum.) CleveCocconeis disculus (Schum.) CleveCocconeis pediculus Ehr.Cocconeis placentula Ehr.

Pennales Cont'd.

Cocconeis scutellum Ehr.

Navicula capitata Ehr.

Navicula clematis (Grunow) Bellis & White

Navicula crucicula W. Sm.

Navicula cryptocephala Kutz.

Navicula elegans W. Sm.

Navicula exigua (Greg.) O. Muller

Navicula lanceolata Donk.

Navicula minima Grunow

Navicula muralis Grunow

Navicula mutica var. tropica Hustedt

Navicula notha Wallace

Navicula protracta Grunow

Navicula radiosa Kutz.

Navicula rhynchocephala Kutz.

Navicula viridis var. rostellata (Kutz.) Cleve

Fragilaria sp.

Tabellaria sp.

Pleurosigma sp.

Amphora sp.

Amphora pediculus Grunow

Cymbella sp.

Nitzschia sp.

Achnanthes sp.

Epithemia sp.

Pennales Cont'd.

Surirella sp.Rhoicosphenia curvata Kutz.Eunotia sp.Asterionella formosa HassallStauroneis sp.

Unidentified diatom

Unidentified xanthophyte filament

CRYPTOPHYTA

Cryptomonadales

Cryptomonas erosa Ehr.Cryptomonas ovata Ehr.

PYRRHOPHYTA

Dinokontae

Gymnodinium fuscum (Ehr.) SteinGymnodinium limneticum LackeyGymnodinium neglectum (Schilling) LinemannGymnodinium palustre SchillingGymnodinium sp.Peridinium volzii LemmermannCeratium hirundinella (O.F.M.) SchrankGlenodinium penardiiforme (Linde) SchillerHemidinium nasutum (Linde) SchillerKatodinium sp.

Unidentified dinoflagellate

CYANOPHYTA

Chroococcales

- Coelosphaerium sp.
- Aphanocapsa sp.
- Gleocapsa sp.
- Chroococcus disperus (V. Keiss) Lemmermann
- Chroococcus pallidus Nag.
- Merismopedia elegans A. B.
- Merismopedia glauca (Ehr.) Nag.
- Merismopedia punctata Meyen
- Merismopedia tenuissima Lemmermann

Nostocales

- Anabaena catenula (Kutz.) Born & Flah.
- Anabaena inaequalis (Kutz.) Born & Flah.
- Anabaena oscillarioides Bory
- Anabaena sphaerica Born & Flah.
- Anabaena spiroides var. crassa Lemmermann
- Anabaena sp.

Oscillatoriales

- Oscillatoria acuminata Gomont
- Oscillatoria aghardii Gomont
- Oscillatoria nigra-viridis Gomont
- Oscillatoria sp. (a)
- Oscillatoria sp. (b)
- Spirulina laxa G. M. Smith

Oscillatoriales Cont'd.

Spirulina princeps West & West

Unidentified blue-green unicell

Unidentified blue-green colony

Appendix B Table 1. Numbers per liter and biomass (mg/liter) of phytoplankton at Station I on 5 November 1977.

Speices	No./liter	mg/liter
<u>Pandorina morum</u>	1.7×10^5	4.9×10^{-2}
<u>Tetraedron trigonium</u>	3.5×10^4	6.2×10^{-4}
<u>Crucigenia quadrata</u>	7.0×10^4	3.7×10^{-3}
<u>Scenedesmus quadricauda</u>	1.4×10^5	3.6×10^{-3}
<u>Closterium ehrenbergii</u>	3.5×10^4	4.3×10^{-3}
<u>Closterium ralfsii</u> var <u>hydridum</u>	3.5×10^4	5.6×10^{-3}
<u>Cosmarium sexangulare</u> var <u>minus</u>	7.0×10^4	2.6×10^{-3}
<u>Staurastrum aspinosum</u> var <u>annulatum</u>	3.5×10^4	6.2×10^{-2}
<u>Trachelomonas volvocina</u>	7.0×10^4	3.9×10^{-2}
<u>Trachelomonas charkowiensis</u> var <u>affine</u>	3.5×10^4	1.4×10^{-2}
<u>Synura</u> sp.	7.0×10^4	1.1×10^{-2}
<u>Cyclotella</u> sp.	3.5×10^4	1.9×10^{-3}
<u>Cocconeis disculus</u>	1.4×10^5	1.5×10^{-2}
<u>Navicula protracta</u>	3.5×10^4	4.9×10^{-2}
<u>Navicula elegans</u>	3.5×10^4	1.9×10^{-3}
<u>Amphora</u> sp.	3.5×10^4	1.8×10^{-2}
<u>Nitzschia</u> sp.	3.5×10^4	1.1×10^{-2}
<u>Coelosphaerium</u> sp.	2.1×10^5	8.5×10^{-2}
<u>Merismopedia elegans</u>	2.9×10^6	6.2×10^{-2}
<u>Merismopedia tenuissima</u>	3.5×10^6	3.5×10^{-2}
<u>Spirulina princeps</u>	3.8×10^5	3.2×10^{-3}

Appendix B Table 2. Numbers per liter and biomass (mg/liter) of phytoplankton at Station J on 5 November 1977.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	4.7×10^4	3.9×10^{-3}
<u>Pandorina morum</u>	7.0×10^4	2.8×10^{-2}
<u>Crucigenia quadrata</u>	9.3×10^4	5.0×10^{-3}
<u>Scenedesmus dimorphus</u>	4.7×10^4	3.2×10^{-3}
<u>Trachelomonas volvocina</u>	4.7×10^4	1.9×10^{-2}
<u>Euglena acus</u>	4.7×10^4	1.8×10^{-2}
<u>Peridinium volzii</u>	2.3×10^4	3.9×10^{-3}
<u>Diploneis puella</u>	7.0×10^4	6.2×10^{-2}
<u>Coelosphaerium sp.</u>	4.7×10^4	1.9×10^{-2}
<u>Merismopedia elegans</u>	2.4×10^6	5.1×10^{-2}
<u>Merismopedia tenuissima</u>	1.1×10^6	1.1×10^{-2}
<u>Aphanocapsa sp.</u>	2.1×10^5	6.0×10^{-2}
<u>Spirulina laxa</u>	9.3×10^4	7.8×10^{-4}

Appendix B Table 3. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K on 5 November 1977.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	2.8×10^5	8.0×10^{-2}
<u>Crucigenia irregularis</u>	1.2×10^5	1.3×10^{-2}
<u>Closterium navicula</u>	9.3×10^4	5.8×10^{-3}
<u>Trachelomonas volvocina</u>	3.1×10^4	5.9×10^{-3}
<u>Euglena</u> sp. (a)	6.2×10^4	1.2×10^{-2}
<u>Gymnodinium fuscum</u>	6.2×10^4	2.1×10^{-2}
<u>Synura</u> sp.	3.1×10^4	2.5×10^{-3}
<u>Diploneis puella</u>	6.2×10^4	4.6×10^{-2}
<u>Coelosphaerium</u> sp.	1.6×10^5	6.5×10^{-2}
<u>Merismopedia elegans</u>	3.1×10^6	6.6×10^{-2}
<u>Merismopedia tenuissima</u>	1.1×10^6	1.1×10^{-2}
<u>Aphanocapsa</u> sp.	1.9×10^5	1.4×10^{-1}

Appendix B Table 4. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L on 5 November 1977.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	2.8×10^4	1.5×10^{-3}
<u>Pandorina morum</u>	2.0×10^5	5.7×10^{-2}
<u>Tetraedron trigonium</u>	8.4×10^4	1.5×10^{-3}
<u>Crucigenia quadrata</u>	2.8×10^4	1.5×10^{-3}
<u>Scenedesmus anomalus</u>	8.4×10^4	1.8×10^{-3}
<u>Cosmarium sexangulare</u> var minus	1.4×10^5	9.4×10^{-3}
<u>Pediastrum boryanum</u>	2.8×10^4	1.2×10^{-2}
<u>Euglena</u> sp. (a)	1.1×10^5	2.7×10^{-2}
<u>Cocconeis placentula</u>	5.6×10^4	7.0×10^{-2}
<u>Diploneis puella</u>	2.8×10^4	5.3×10^{-3}
<u>Navicula rhynchocephala</u>	2.8×10^4	3.1×10^{-3}
<u>Merismopedia elegans</u>	2.9×10^6	6.3×10^{-2}
<u>Merismopedia tenuissima</u>	8.4×10^4	8.3×10^{-4}
<u>Spirulina princeps</u>	4.7×10^5	3.9×10^{-3}
<u>Anabena</u> sp. (a)	1.7×10^5	1.4×10^{-3}

Appendix B Table 5. Numbers per liter and biomass (mg/liter) of phytoplankton at Station M on 5 November 1977.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	1.5×10^5	9.4×10^{-3}
<u>Pandorina</u> <u>morum</u>	6.4×10^4	1.8×10^{-2}
<u>Tetraedron</u> <u>quadricuspidatum</u>	2.1×10^4	2.2×10^{-3}
<u>Cosmarium</u> <u>sexangulare</u> var <u>minus</u>	4.3×10^4	3.5×10^{-3}
<u>Cosmarium</u> sp.	6.4×10^4	5.9×10^{-2}
<u>Euastrum</u> sp. (a)	2.1×10^4	4.7×10^{-2}
<u>Staurostrum</u> <u>cyrtocerum</u>	6.4×10^4	8.8×10^{-2}
<u>Euglena</u> sp. (a)	2.1×10^4	6.0×10^{-3}
<u>Phacus</u> <u>brevicauda</u>	4.3×10^4	1.8×10^{-3}
<u>Trachelomonas</u> <u>volvocina</u>	4.3×10^4	5.2×10^{-3}
<u>Cocconeis</u> <u>disculus</u>	1.1×10^5	1.0×10^{-2}
<u>Navicula</u> <u>rhynchocephala</u>	2.8×10^4	2.0×10^{-3}
<u>Amphora</u> <u>pediculus</u>	2.1×10^4	7.6×10^{-3}
<u>Merismopedia</u> <u>tenuissima</u>	2.2×10^6	2.2×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	6.4×10^5	1.4×10^{-2}
<u>Oscillatoria</u> sp. (a)	1.3×10^5	1.1×10^{-3}

Appendix B Table 6. Numbers per liter and biomass (mg/liter) of phytoplankton at Station N on 5 November 1977.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	2.8×10^5	8.0×10^{-2}
<u>Tetraedron quadricuspidatum</u>	5.1×10^4	9.1×10^{-4}
<u>Crucigenia quadrata</u>	2.5×10^4	2.6×10^{-3}
<u>Scenedesmus quadricauda</u>	1.8×10^5	3.8×10^{-3}
<u>Pediastrum boryanum</u>	2.5×10^4	8.0×10^{-3}
Unidentified green colony	7.6×10^4	1.6×10^{-3}
<u>Trachelomonas volvocina</u>	4.6×10^4	8.8×10^{-3}
<u>Synura</u> sp.	2.5×10^4	2.8×10^{-3}
<u>Calycomonas ovalis</u>	5.1×10^4	1.7×10^{-4}
<u>Mastigloia</u> sp.	5.1×10^4	1.3×10^{-2}
<u>Merismopedia elegans</u>	2.5×10^6	5.3×10^{-2}
<u>Merismopedia tenuissima</u>	2.0×10^6	2.0×10^{-2}
<u>Spirulina princeps</u>	8.1×10^5	6.8×10^{-3}

Appendix B Table 7. Numbers per liter and biomass (mg/liter) of phytoplankton at Station O on 5 November 1977.

Species	No./liter	mg/liter
<u>Tetraedron quadricuspidatum</u>	3.3×10^5	6.2×10^{-3}
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	1.7×10^5	2.9×10^{-3}
<u>Euglena</u> sp. (a)	5.6×10^4	2.0×10^{-3}
<u>Synura</u> sp.	5.6×10^4	8.5×10^{-3}
<u>Coscinodiscus</u> sp.	1.2×10^6	7.2×10^{-2}
<u>Diploneis elliptica</u>	3.9×10^5	4.7×10^{-2}
<u>Amphora pediculus</u>	5.6×10^4	2.4×10^{-2}
<u>Merismopedia elegans</u>	5.9×10^6	1.2×10^{-1}
<u>Merismopedia tenuissima</u>	2.5×10^6	2.5×10^{-2}
<u>Aphanocapsa</u> sp.	5.6×10^5	1.3×10^{-1}
<u>Spirulina laxa</u>	1.3×10^6	1.1×10^{-2}
<u>Oscillatoria</u> sp. (a)	5.8×10^6	4.8×10^{-2}

Appendix B Table 8. Numbers per liter and biomass (mg/liter) of phytoplankton at Station P on 5 November 1977.

Species	No./liter	mg/liter
<u>Conium</u> sp.	5.6×10^4	3.1×10^{-3}
<u>Pandorina</u> <u>morum</u>	1.1×10^5	3.1×10^{-2}
<u>Tetraedron</u> <u>trigonum</u>	2.8×10^4	5.0×10^{-4}
<u>Tetraedron</u> <u>quadricuspidatum</u>	5.6×10^4	1.0×10^{-3}
<u>Crucigenia</u> <u>quadrata</u>	5.6×10^4	3.0×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u>	1.1×10^5	2.3×10^{-3}
<u>Euastrum</u> sp. (a)	8.4×10^4	1.9×10^{-1}
<u>Stauroastrum</u> <u>aspinosum</u> var. <u>annulatum</u>	8.4×10^4	1.9×10^{-1}
<u>Trachelomonas</u> sp. (a)	5.6×10^4	8.2×10^{-3}
<u>Gymnodinium</u> <u>fuscum</u>	5.6×10^4	9.6×10^{-3}
<u>Calycomonas</u> <u>ovalis</u>	1.1×10^5	3.7×10^{-4}
<u>Stephanodiscus</u> <u>dubius</u>	8.4×10^4	3.5×10^{-3}
<u>Fragilaria</u> sp.	2.8×10^4	3.7×10^{-3}
<u>Diploneis</u> <u>puella</u>	2.8×10^4	1.9×10^{-2}
<u>Navicula</u> <u>clematis</u>	2.8×10^4	2.7×10^{-3}
<u>Merismopedia</u> <u>elegans</u>	3.0×10^6	6.4×10^{-2}
<u>Merismopedia</u> <u>tenuissima</u>	4.8×10^5	4.7×10^{-3}
<u>Spirulina</u> <u>laxa</u>	8.6×10^5	7.2×10^{-3}
<u>Anabena</u> sp. (a)		

Appendix B Table 9. Numbers per liter and biomass (mg/liter) of phytoplankton at Station Q on 5 November 1977.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	1.0×10^5	1.9×10^{-2}
<u>Crucigenia quadrata</u>	5.1×10^4	2.7×10^{-3}
<u>Scenedesmus quadricauda</u>	3.0×10^5	6.4×10^{-2}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	2.5×10^4	4.8×10^{-2}
<u>Calycomonas ovalis</u>	5.1×10^4	1.7×10^{-4}
<u>Melosira varians</u>	2.5×10^6	2.7×10^{-1}
<u>Synedra</u> sp. (a)	2.5×10^4	5.8×10^{-3}
<u>Cocconeis disculus</u>	2.5×10^4	1.5×10^{-2}
<u>Skeletonema costatum</u>	7.6×10^4	2.5×10^{-3}
<u>Cymbella</u> sp.	1.0×10^5	1.5×10^{-2}
<u>Navicula clematis</u>	2.5×10^4	3.3×10^{-3}
<u>Merismopedia elegans</u>	1.5×10^6	3.2×10^{-2}
<u>Merismopedia tenuissima</u>	2.5×10^6	2.5×10^{-2}
<u>Anabena</u> sp. (a)	1.8×10^5	1.5×10^{-3}
<u>Spirulina laxa</u>	5.3×10^5	4.4×10^{-3}

Appendix B Table 10. Numbers per liter and biomass (mg/liter) of phytoplankton at Station R on 5 November 1977.

Species	No./ liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.2×10^5	4.3×10^{-3}
<u>Pandorina morum</u>	7.0×10^4	2.0×10^{-2}
<u>Crucigenia quadrata</u>	4.6×10^4	4.8×10^{-3}
<u>Scenedesmus quadricauda</u>	7.0×10^4	1.8×10^{-3}
<u>Staurostrum aspinosum var. annulatum</u>	2.3×10^4	1.1×10^{-3}
Unidentified green colony	7.0×10^4	2.5×10^{-3}
<u>Trachelomonas volvocina</u>	4.6×10^4	1.3×10^{-2}
<u>Calycomonas ovalis</u>	2.3×10^4	7.7×10^{-5}
<u>Melosira italica</u>	2.3×10^4	5.3×10^{-3}
<u>Cocconeis scutellum</u>	4.6×10^4	8.7×10^{-3}
<u>Navicula muralis</u>	2.3×10^4	1.0×10^{-3}
<u>Merismopedia elegans</u>	2.3×10^6	4.9×10^{-2}
<u>Merismopedia tenuissima</u>	1.3×10^6	1.3×10^{-2}
<u>Spirulina laxa</u>	9.5×10^5	7.9×10^{-3}
<u>Anabena spiroides var. crassa</u>	3.3×10^5	1.1×10^{-2}

Appendix B Table 11. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S on 5 November 1977.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	7.0×10^4	2.5×10^{-3}
<u>Scenedesmus quadricauda</u>	2.3×10^4	4.9×10^{-4}
<u>Gymnodinium penardiiforme</u>	2.1×10^5	3.7×10^{-2}
<u>Hemidinium nasutum</u>	9.3×10^4	9.0×10^{-3}
<u>Peridinium volzii</u>	4.6×10^4	1.4×10^{-2}
<u>Calycomonas ovalis</u>	1.2×10^5	1.6×10^{-3}
<u>Skeletonema costatum</u>	9.3×10^4	1.7×10^{-3}
<u>Amphiphora</u> sp.	2.3×10^4	7.7×10^{-3}
<u>Coelosphaerium</u> sp.	1.2×10^5	3.4×10^{-2}
<u>Merismopedia elegans</u>	1.6×10^6	3.4×10^{-2}
<u>Merismopedia tenuissima</u>	2.3×10^6	2.3×10^{-2}
<u>Spirulina princeps</u>	3.3×10^5	2.8×10^{-3}
<u>Oscillatoria nigra-viridis</u>	1.9×10^5	1.6×10^{-3}

Appendix B Table 12. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S' on 5 November 1977.

Species	No./liter	mg/liter
<u>Tetraedron quadricuspidatum</u>	2.1×10^4	3.7×10^{-4}
<u>Hemidinium nasutum</u>	8.6×10^4	9.0×10^{-3}
<u>Gymnodinium neclectum</u>	6.4×10^4	1.1×10^{-2}
<u>Calycomonas ovalis</u>	8.8×10^5	2.9×10^{-3}
<u>Skeletonema costatum</u>	2.1×10^5	7.0×10^{-3}
<u>Coscinodiscus</u> sp.	4.3×10^4	1.1×10^{-2}
<u>Coelosphaerium</u> sp.	1.1×10^5	2.1×10^{-2}
<u>Merismopedia elegans</u>	1.5×10^6	3.2×10^{-2}
<u>Merismopedia tenuissima</u>	2.2×10^6	2.2×10^{-2}
<u>Spirulina laxa</u>	7.3×10^6	6.1×10^{-2}
<u>Anabena inaequalis</u>	2.4×10^5	8.0×10^{-3}

Appendix B Table 13. Numbers per liter and biomass (mg/liter) of phytoplankton at Station I on 3 December 1977.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	1.9×10^5	3.6×10^{-2}
<u>Tetraedron quadricuspidatum</u>	1.9×10^5	3.4×10^{-3}
<u>Scenedesmus quadricauda</u>	4.2×10^5	8.9×10^{-3}
<u>Closterium incurvum</u>	9.3×10^4	1.0×10^{-4}
<u>Staurastrum aspinosum</u> var. <u>annulatum</u>	4.6×10^4	3.5×10^{-2}
Unidentified green colony	9.3×10^4	1.9×10^{-3}
<u>Trachelomonas charkowiensis</u> var. <u>affine</u>	4.6×10^4	1.5×10^{-2}
<u>Synura</u> sp.	9.3×10^4	1.0×10^{-2}
<u>Fragilaria</u> sp.	4.6×10^4	8.8×10^{-4}
<u>Mastigloia</u>	9.3×10^4	1.5×10^{-2}
<u>Cymbella</u> sp.	4.6×10^4	1.3×10^{-2}
<u>Coelosphaerium</u> sp.	1.9×10^5	7.7×10^{-2}
<u>Merismopedia elegans</u>	1.1×10^6	2.6×10^{-2}
<u>Merismopedia tenuissima</u>	1.9×10^5	1.9×10^{-3}
<u>Aphanocapsa</u> sp.	1.9×10^5	3.6×10^{-2}
Unidentified blue-green unicell	5.0×10^6	3.3×10^{-2}

Appendix B Table 14. Numbers per liter and biomass (mg/liter) of phytoplankton at Station J on 3 December 1977.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	1.4×10^5	4.0×10^{-2}
<u>Crucigenia irregularis</u>	1.4×10^5	8.0×10^{-3}
<u>Scenedesmus acuminatus</u>	3.5×10^4	4.0×10^{-3}
<u>Scenedesmus quadricauda</u>	1.0×10^5	2.1×10^{-3}
<u>Closterium incurvum</u>	7.0×10^4	7.8×10^{-5}
<u>Trachelomonas charkowiensis</u> var. <u>affine</u>	3.5×10^4	1.1×10^{-2}
<u>Cryptomonas erosa</u>	7.0×10^4	9.8×10^{-3}
<u>Pseudotetraedron neglectum</u>	9.3×10^4	1.0×10^{-2}
<u>Fragilaria</u> sp.	3.5×10^4	9.7×10^{-4}
<u>Coelosphaerium</u> sp.	3.1×10^5	1.3×10^{-2}
<u>Merismopedia elegans</u>	1.1×10^6	2.3×10^{-2}
<u>Aphanocapsa</u> sp.	1.7×10^5	4.9×10^{-2}
Unidentified blue-green unicell	3.6×10^6	2.4×10^{-2}

Appendix B Table 15. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L on 3 December 1977.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	3.9×10^5	7.5×10^{-2}
<u>Scenedesmus quadricauda</u>	1.4×10^5	3.0×10^{-3}
<u>Closterium incurvum</u>	5.6×10^4	1.9×10^{-4}
<u>Closterium sigmoideum</u>	1.1×10^5	1.2×10^{-3}
<u>Euastrum</u> sp. (a)	2.8×10^4	1.1×10^{-2}
Unidentified green unicell	2.8×10^6	5.9×10^{-2}
<u>Cocconeis scutellum</u>	2.8×10^4	1.4×10^{-2}
<u>Amphora pediculus</u>	8.4×10^4	2.1×10^{-2}
<u>Coelosphaerium</u> sp.	2.5×10^5	1.4×10^{-1}
<u>Merismopedia elegans</u>	7.5×10^5	1.6×10^{-2}
<u>Merismopedia tenuissima</u>	5.0×10^5	4.9×10^{-3}
<u>Aphanocapsa</u> sp.	5.6×10^4	4.2×10^{-2}
<u>Oscillatoria</u> sp. (b)	2.8×10^5	2.3×10^{-3}

Appendix B Table 16. Numbers per liter and biomass (mg/liter) of phytoplankton at Station M on 3 December 1977.

Species	No./liter	mg/liter
<u>Tetraedron quadricuspidatum</u>	8.4×10^4	8.8×10^{-3}
<u>Crucigenia quadrata</u>	4.0×10^4	1.3×10^{-3}
<u>Scenedesmus quadricauda</u>	5.6×10^4	1.2×10^{-3}
<u>Closterium sigmoideum</u>	5.6×10^4	5.0×10^{-4}
<u>Closterium peracerosum</u>	1.7×10^5	2.4×10^{-2}
<u>Cosmarium sexangulare</u>	2.8×10^4	4.7×10^{-3}
<u>Euastrum</u> sp. (a)	2.8×10^4	1.1×10^{-2}
<u>Euglena polymorpha</u>	1.1×10^4	2.0×10^{-3}
<u>Trachelomonas volvocina</u>	5.6×10^4	1.6×10^{-2}
<u>Synura</u> sp.	2.8×10^4	4.3×10^{-3}
<u>Cryptomonas erosa</u>	2.0×10^4	1.8×10^{-3}
<u>Stephanodiscus dubius</u>	5.6×10^4	2.8×10^{-3}
<u>Coelosphaerium</u> sp.	2.8×10^4	5.4×10^{-3}
<u>Merismopedia elegans</u>	2.0×10^5	4.3×10^{-3}
<u>Merismopedia tenuissima</u>	3.9×10^5	3.9×10^{-3}
<u>Aphanocapsa</u> sp.	5.6×10^4	6.7×10^{-3}
Unidentified blue-green unicell	2.9×10^6	1.9×10^{-2}

Appendix B Table 17. Numbers per liter and biomass (mg/liter) of phytoplankton at Station N on 3 December 1977.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	9.3×10^4	7.8×10^{-3}
<u>Pandorina morum</u>	1.4×10^5	4.0×10^{-2}
<u>Tetraedron quadricuspidatum</u>	2.8×10^5	2.9×10^{-2}
<u>Scenedesmus quadricauda</u>	3.3×10^5	8.4×10^{-3}
<u>Closterium sigmoideum</u>	9.3×10^4	1.6×10^{-3}
<u>Closterium incurvum</u>	9.3×10^4	1.0×10^{-4}
<u>Cosmarium schliephakeanum</u>	1.9×10^5	8.6×10^{-3}
<u>Euastrum sp. (a)</u>	4.6×10^4	1.9×10^{-2}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	9.3×10^4	2.4×10^{-1}
<u>Cocconeis disculus</u>	9.3×10^4	1.9×10^{-2}
<u>Navicula pusilla</u>	9.3×10^4	5.5×10^{-2}
<u>Coelosphaerium sp.</u>	9.3×10^4	5.2×10^{-2}
<u>Merismopedia elegans</u>	2.0×10^6	4.3×10^{-2}
Unidentified blue-green unicell	4.7×10^6	3.1×10^{-2}
<u>Oscillatoria sp. (a)</u>	1.4×10^5	1.2×10^{-3}

Appendix B Table 18. Numbers per liter and biomass (mg/liter) of phytoplankton at Station 0 on 3 December 1977.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.2×10^5	7.5×10^{-3}
<u>Pandorina morum</u>	1.6×10^5	4.6×10^{-2}
<u>Tetraedron quadricuspidatum</u>	2.4×10^5	4.3×10^{-3}
<u>Crucigenia quadrata</u>	4.0×10^4	4.2×10^{-3}
<u>Scenedesmus quadricauda</u>	4.0×10^5	8.5×10^{-3}
<u>Closterium incurvum</u>	8.0×10^4	6.7×10^{-5}
<u>Cosmarium schliephakeanum</u>	4.0×10^4	3.2×10^{-3}
<u>Staurastrum aspinosum</u> var. <u>annulatum</u>	4.0×10^4	5.5×10^{-2}
<u>Gymnodinium fuscum</u>	4.0×10^4	4.5×10^{-2}
<u>Synura</u> sp.	4.0×10^4	2.2×10^{-3}
<u>Cyclotella</u> sp.	4.0×10^4	1.7×10^{-3}
<u>Cocconeis disculus</u>	4.0×10^4	1.2×10^{-2}
<u>Amphora pediculus</u>	4.0×10^4	3.9×10^{-3}
<u>Merismopedia elegans</u>	2.0×10^6	4.3×10^{-2}
<u>Merismopedia tenuissima</u>	4.4×10^5	4.3×10^{-3}
<u>Aphanocapsa</u> sp.	4.0×10^4	2.2×10^{-2}
Unidentified blue-green unicell	4.1×10^6	2.7×10^{-2}

Appendix B Table 19. Numbers per liter and biomass (mg/liter) of phytoplankton at Station Q on 3 December 1977.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.2×10^5	1.3×10^{-2}
<u>Gonium</u> sp.	5.3×10^4	1.0×10^{-3}
<u>Pandorina morum</u>	5.3×10^4	6.4×10^{-3}
<u>Tetraedron quadricuspidatum</u>	1.3×10^5	9.8×10^{-4}
<u>Tetraedron caudatum</u> var. <u>longispinatum</u>	1.3×10^4	1.4×10^{-3}
<u>Scenedesmus quadricauda</u>	1.3×10^4	3.3×10^{-4}
<u>Scenedesmus bijuga</u>	1.2×10^5	2.6×10^{-3}
<u>Closterium incurvum</u>	2.6×10^4	2.2×10^{-5}
<u>Cosmarium phaseolus</u> f. <u>minor</u>	4.0×10^4	3.2×10^{-3}
<u>Trachelomonas volvocina</u>	4.0×10^4	7.6×10^{-3}
<u>Calycomonas ovalis</u>	4.0×10^4	1.8×10^{-4}
<u>Synura</u> sp.	2.6×10^4	9.0×10^{-4}
<u>Cyclotella</u> sp.	1.2×10^5	3.2×10^{-3}
<u>Cocconeis disculus</u>	1.3×10^4	2.7×10^{-3}
<u>Merismopedia elegans</u>	1.4×10^6	3.6×10^{-2}
<u>Merismopedia tenuissima</u>	6.8×10^5	6.7×10^{-3}
<u>Chroococcus pallidus</u>	2.0×10^5	1.5×10^{-3}
<u>Aphanocapsa</u> sp.	5.3×10^4	1.0×10^{-2}
<u>Oscillatoria</u> sp. (b)	1.6×10^5	1.3×10^{-3}

Appendix B Table 20. Numbers per liter and biomass (mg/liter) of phytoplankton at Station R on 3 December 1977.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	7.4×10^4	4.6×10^{-3}
<u>Gonium</u> sp.	5.6×10^4	1.4×10^{-3}
<u>Pandorina morum</u>	1.9×10^5	3.6×10^{-2}
<u>Tetraedron quadricuspidatum</u>	3.7×10^4	6.6×10^{-4}
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	9.3×10^4	2.4×10^{-3}
<u>Closterium rostratum</u>	1.9×10^4	1.6×10^{-5}
<u>Cosmarium sexangulare</u>	1.9×10^4	2.4×10^{-3}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	1.9×10^4	3.1×10^{-2}
<u>Trachelomonas volvocina</u>	3.7×10^4	6.2×10^{-3}
<u>Euglena</u> sp. (b)	3.7×10^4	7.3×10^{-3}
<u>Calycomonas ovalis</u>	3.7×10^4	1.2×10^{-4}
<u>Cyclotella</u> sp.	1.3×10^5	3.5×10^{-3}
<u>Cocconeis disculus</u>	7.4×10^4	6.9×10^{-3}
<u>Merismopedia elegans</u>	1.9×10^6	4.0×10^{-2}
<u>Chroococcus disperus</u>	9.3×10^4	8.0×10^{-3}
<u>Aphanocapsa</u> sp.	5.6×10^4	1.1×10^{-2}

Appendix B Table 21. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S on 3 December 1977.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	4.3×10^4	1.3×10^{-3}
<u>Pandorina morum</u>	4.3×10^4	5.2×10^{-3}
<u>Tetraedron quadricuspidatum</u>	1.3×10^5	2.3×10^{-3}
<u>Crucigenia quadrata</u>	2.1×10^4	1.1×10^{-3}
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	1.1×10^5	2.8×10^{-3}
<u>Calycomonas ovalis</u>	1.2×10^5	6.4×10^{-4}
<u>Cyclotella</u> sp.	5.6×10^5	1.5×10^{-2}
<u>Diploneis puella</u>	4.3×10^4	9.0×10^{-3}
<u>Merismopedia elegans</u>	1.4×10^6	3.0×10^{-2}
<u>Merismopedia tenuissima</u>	2.2×10^6	2.7×10^{-2}
<u>Aphanocapsa</u> sp.	6.4×10^4	1.8×10^{-2}
<u>Oscillatoria</u> sp. (a)	8.6×10^4	7.2×10^{-4}

Appendix B Table 22. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S' on 3 December 1977.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	4.6×10^4	2.8×10^{-3}
<u>Pandorina</u> <u>morum</u>	1.6×10^5	3.1×10^{-2}
<u>Tetraedron</u> <u>quadricuspidatum</u>	1.4×10^5	2.5×10^{-3}
<u>Tetraedron</u> <u>caudatum</u> var. <u>longispinatum</u>	2.3×10^4	2.4×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u>	2.3×10^4	5.9×10^{-4}
<u>Closterium</u> <u>incurvum</u>	4.6×10^4	1.5×10^{-4}
<u>Calycomonas</u> <u>ovalis</u>	1.6×10^5	5.4×10^{-4}
<u>Coelosphaerium</u> sp.	1.4×10^5	1.7×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	2.4×10^6	5.1×10^{-2}
<u>Merismopedia</u> <u>tenuissima</u>	5.4×10^5	5.3×10^{-3}
<u>Oscillatoria</u> sp. (a)	3.5×10^5	2.9×10^{-3}
<u>Chroococcus</u> <u>disperus</u>	1.4×10^5	9.5×10^{-3}
<u>Gleocapsa</u> sp.	3.7×10^5	6.3×10^{-3}

Appendix B Table 23. Number per liter and biomass (mg/liter) of phytoplankton at Station I on 15 January 1978.

Species	No./liter	mg/liter
<u>Scenedesmus quadricauda</u>	1.6×10^5	3.4×10^{-3}
<u>Closterium incurvum</u>	8.0×10^4	7.1×10^{-5}
Unidentified green unicell	4.0×10^6	2.6×10^{-2}
<u>Trachelomonas volvocina</u>	1.6×10^5	3.1×10^{-2}
<u>Euglena caudata</u>	4.0×10^4	6.0×10^{-3}
<u>Euglena proxima</u>	8.0×10^4	7.2×10^{-3}
<u>Lepocinclis</u> sp.	4.0×10^4	4.6×10^{-1}
<u>Phacus brevicauda</u>	4.0×10^4	2.8×10^{-3}
<u>Fragilaria</u> sp.	1.6×10^5	2.1×10^{-3}
<u>Mastigloia</u> sp.	4.0×10^4	2.1×10^{-3}
<u>Aphanocapsa</u> sp.	2.4×10^5	2.9×10^{-2}
<u>Oscillatoria acuminata</u>	8.0×10^4	6.7×10^{-4}

Appendix B Table 24. Numbers per liter and biomass (mg/liter) of phytoplankton at Station J on 15 January 1978.

Species	No./liter	mg/liter
<u>Crucigenia tetrapedia</u>	8.0×10^4	4.3×10^{-3}
Unidentified green filament	8.3×10^6	8.8×10^{-2}
Unidentified blue-green colony	1.4×10^5	2.1×10^{-3}

Appendix B Table 25. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K on 15 January 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	7.0×10^4	3.9×10^{-2}
<u>Pandorina</u> sp. (b)	3.5×10^4	4.2×10^{-3}
<u>Scenedesmus quadricauda</u>	3.5×10^4	8.9×10^{-4}
<u>Closterium sigmoideum</u>	3.5×10^4	1.5×10^{-4}
<u>Trachelomonas volvocina</u>	7.0×10^4	1.3×10^{-2}
<u>Trachelomonas hispida</u> var. <u>crenulatocollis</u>	3.5×10^4	1.4×10^{-2}
<u>Diploneis puella</u>	3.5×10^4	2.1×10^{-2}
<u>Nitzschia</u> sp.	7.0×10^4	2.4×10^{-3}
<u>Aphanocapsa</u> sp.	2.8×10^5	5.4×10^{-2}
Unidentified blue-green unicell	3.8×10^6	3.3×10^{-2}

Appendix B Table 26. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L on 15 January 1978.

Species	No./liter	mg/liter
<u>Scenedesmus quadricauda</u>	1.1×10^5	2.3×10^{-3}
<u>Closterium incurvum</u>	1.7×10^5	1.4×10^{-4}
<u>Closterium sigmoideum</u>	5.6×10^4	8.1×10^{-4}
<u>Aphanocapsa</u> sp.	1.7×10^5	9.5×10^{-2}
Unidentified blue-green unicell	6.1×10^6	5.3×10^{-2}

Appendix B Table 27. Numbers per liter and biomass (mg/liter) of phytoplankton at Station M on 15 January 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	8.0×10^4	2.3×10^{-2}
<u>Tetraedton quadricuspidatum</u>	8.0×10^4	1.4×10^{-3}
<u>Scenedesmus quadricauda</u>	1.2×10^5	2.6×10^{-3}
<u>Closterium incurvum</u>	2.0×10^5	1.8×10^{-4}
Unidentified green colony	4.0×10^4	2.7×10^{-3}
<u>Calycomonas ovalis</u>	8.0×10^4	2.7×10^{-4}
<u>Cryptomonas ovata</u>	1.2×10^5	4.0×10^{-2}
<u>Mastigloia</u> sp.	4.0×10^4	2.1×10^{-3}
<u>Coelosphaerium</u> sp.	8.0×10^4	3.3×10^{-2}
<u>Merismopedia elegans</u>	1.2×10^5	2.6×10^{-3}
<u>Merismopedia tenuissima</u>	2.0×10^5	2.0×10^{-3}
<u>Aphanocapsa</u> sp.	4.8×10^5	1.4×10^{-1}
Unidentified blue-green unicell	4.5×10^6	3.9×10^{-2}

Appendix B Table 28. Numbers per liter and biomass (mg/liter) of phytoplankton at Station I on 25 February 1978.

Species	No./liter	mg/liter
<u>Scenedesmus quadricauda</u>	1.6×10^5	3.4×10^{-3}
<u>Closterium incurvum</u>	8.0×10^4	7.1×10^{-5}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	2.3×10^4	3.5×10^{-2}
<u>Euglena</u> sp. (b)	9.3×10^4	2.3×10^{-2}
<u>Synedra</u> sp.	4.6×10^4	3.7×10^{-2}
<u>Tabellaria</u> sp.	2.3×10^4	1.7×10^{-3}
<u>Diploneis elliptica</u>	7.0×10^4	3.7×10^{-2}
<u>Navicula radiosa</u>	7.0×10^4	2.1×10^{-2}
<u>Aphanocapsa</u> sp.	2.3×10^6	2.8×10^{-1}

Appendix B Table 29. Numbers per liter and biomass (mg/liter) of phytoplankton at Station J on 25 February 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	5.6×10^5	3.9×10^{-2}
<u>Scenedesmus quadricauda</u>	1.9×10^6	4.9×10^{-2}
Unidentified green filament	1.0×10^5	2.1×10^{-2}

Appendix B Table 30. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K on 25 February 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	1.3×10^5	2.8×10^{-3}
<u>Scenedesmus quadricauda</u>	1.3×10^5	2.8×10^{-3}
<u>Cosmarium exigum</u>	7.4×10^4	1.7×10^{-3}
<u>Euastrum</u> sp. (a)	1.9×10^4	4.7×10^{-3}
Unidentified green colony	3.7×10^4	7.7×10^{-4}
<u>Trachelomonas volvocina</u>	1.9×10^4	7.8×10^{-3}
<u>Synura</u> sp.	5.6×10^4	8.5×10^{-3}
<u>Cyclotella</u> sp.	1.5×10^5	4.0×10^{-3}
<u>Cocconeis disculus</u>	3.7×10^4	6.2×10^{-3}
<u>Navicula exigua</u>	1.1×10^5	1.9×10^{-2}
<u>Amphora</u> sp. (a)	3.7×10^4	2.0×10^{-2}
<u>Coelosphaerium</u> sp.	1.9×10^6	1.1
<u>Merismopedia elegans</u>	9.3×10^4	1.6×10^{-3}
<u>Oscillatoria</u> sp. (a)	1.1×10^5	1.3×10^{-3}

Appendix B Table 31. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K' on 25 February 1978.

Species	No./liter	mg/liter
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	5.1×10^4	1.3×10^{-3}
<u>Crucigenia tetrapedia</u>	2.5×10^4	8.2×10^{-4}
<u>Cyclotella</u> sp.	1.0×10^5	2.7×10^{-3}
<u>Neidium</u> sp.	2.5×10^4	7.8×10^{-3}
<u>Merismopedia elegans</u>	3.6×10^5	7.7×10^{-3}
<u>Anabena</u> sp. (a)	2.6×10^6	8.7×10^{-2}

Appendix B Table 32. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L on 25 February 1978.

Species	No./liter	mg/liter
<u>Crucigenia quadrata</u>	4.2×10^5	4.4×10^{-2}
<u>Scenedesmus quadricauda</u>	4.8×10^5	1.2×10^{-2}
<u>Closterium sigmoideum</u>	3.0×10^5	2.4×10^{-2}
<u>Closterium rostratum</u>	8.0×10^4	5.9×10^{-3}
<u>Staurastrum protectum</u> var. <u>planctonius</u>	2.0×10^5	2.5×10^{-1}
<u>Trachelomonas volvocina</u>	8.0×10^4	4.7×10^{-2}
<u>Trachelomonas armata</u> var. <u>steinii</u>	1.2×10^5	1.8×10^{-1}
<u>Phacus lemmermanni</u>	1.6×10^5	2.2×10^{-2}
<u>Cyclotella</u> sp.	4.2×10^5	6.3×10^{-3}
<u>Synedra</u> sp.	4.2×10^5	9.2×10^{-2}
<u>Cocconeis placentula</u>	1.0×10^5	4.9×10^{-2}
<u>Navicula rhynchocephala</u>	1.2×10^5	3.3×10^{-3}
<u>Coelosphaerium</u> sp.	1.0×10^5	1.2×10^{-2}
<u>Oscillatoria</u> sp. (b)	2.0×10^6	1.0×10^{-2}

Appendix B Table 33. Numbers per liter and biomass (mg/liter) of phytoplankton at Station M on 25 February 1978.

Species	No./liter	mg/liter
<u>Scenedesmus quadricauda</u>	4.8×10^5	1.0×10^{-2}
<u>Closterium sigmoideum</u>	9.3×10^4	3.7×10^{-3}
<u>Cosmarium pseudobroomei</u>	7.4×10^4	2.8×10^{-3}
<u>Phacus brevicauda</u>	9.3×10^4	4.5×10^{-3}
<u>Pseudotetraedron neglectum</u>	1.1×10^5	8.7×10^{-3}
<u>Stephanodiscus dubius</u>	4.1×10^5	6.2×10^{-3}
<u>Cocconeis placentula</u>	1.3×10^5	4.3×10^{-2}
<u>Navicula cryptocephala</u>	2.4×10^5	3.0×10^{-2}
<u>Coelosphaerium</u> sp.	3.0×10^5	1.7×10^{-1}
<u>Oscillatoria</u> sp. (b)	1.9×10^6	9.5×10^{-3}

Appendix B Table 34. Numbers per liter and biomass (mg/liter) of phytoplankton at Station N on 25 February 1978.

Species	No./liter	mg/liter
<u>Pandorina</u> sp. (b)	4.0×10^4	2.8×10^{-3}
<u>Tetraedron quadricuspidatum</u>	1.0×10^5	1.8×10^{-3}
<u>Crucigenia quadrata</u>	3.2×10^5	1.7×10^{-2}
<u>Scenedesmus quadricauda</u>	2.0×10^6	4.3×10^{-2}
<u>Closterium sigmoideum</u>	1.8×10^5	4.1×10^{-3}
<u>Euastrum</u> sp. (a)	8.0×10^4	5.4×10^{-2}
<u>Cyclotella</u> sp.	7.6×10^5	1.1×10^{-2}
<u>Synedra</u> sp.	8.0×10^4	2.9×10^{-2}
<u>Mastigloia</u> sp.	6.0×10^4	6.4×10^{-3}
<u>Achnanthes</u> sp.	1.2×10^5	3.0×10^{-2}
<u>Amphora</u> sp.	8.0×10^4	2.0×10^{-2}

Appendix B Table 35. Numbers per liter and biomass (mg/liter) of phytoplankton at Station O on 25 February 1978.

Species	No./liter	mg/liter
<u>Eudorina</u> sp.	1.1×10^5	2.1×10^{-2}
<u>Pandorina</u> <u>morum</u>	3.6×10^5	1.0×10^{-1}
<u>Crucigenia</u> <u>quadrata</u>	4.2×10^5	9.5×10^{-3}
<u>Phacus</u> <u>lemmermanii</u>	4.6×10^4	1.6×10^{-2}
<u>Trachelomonas</u> <u>volvocina</u>	1.4×10^5	8.2×10^{-2}
<u>Synura</u> sp.	9.3×10^4	1.0×10^{-2}
<u>Coscinodiscus</u> sp.	9.3×10^4	4.5×10^{-2}
<u>Cyclotella</u> sp.	1.4×10^5	7.5×10^{-3}
<u>Navicula</u> <u>exigua</u>	9.3×10^4	1.4×10^{-2}
<u>Coelosphaerium</u> sp.	1.4×10^5	2.7×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	2.3×10^6	4.9×10^{-2}

Appendix B Table 36. Numbers per liter and biomass (mg/liter) of phytoplankton at Station P on 25 February 1978.

Species	No./liter	mg/liter
<u>Pandorina</u> sp. (b)	1.9×10^5	2.3×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u>	3.7×10^5	7.9×10^{-3}
<u>Closterium</u> <u>peracerosum</u>	1.9×10^5	3.0×10^{-3}
<u>Staurastrum</u> <u>aspinosum</u> var. <u>annulatum</u>	4.6×10^4	5.5×10^{-2}
<u>Trachelomonas</u> <u>volvocina</u>	1.9×10^5	3.6×10^{-2}
<u>Calycomonas</u> <u>ovalis</u>	2.3×10^5	3.5×10^{-2}
<u>Navicula</u> <u>clematis</u>	1.4×10^5	2.6×10^{-2}
<u>Epithemia</u> sp.	1.9×10^5	8.0×10^{-2}
<u>Navicula</u> <u>crucicula</u>	1.4×10^5	5.0×10^{-2}
<u>Coelosphaerium</u> sp.	4.6×10^4	8.0×10^{-3}
<u>Merismopedia</u> <u>elegans</u>	7.0×10^5	1.3
<u>Merismopedia</u> <u>tenuissima</u>	2.3×10^6	4.9×10^{-2}

Appendix B Table 37. Numbers per liter and biomass (mg/liter) of phytoplankton at Station Q on 25 February 1978.

Species	No./liter	mg/liter
<u>Tetraedron quadricuspidatum</u>	1.1×10^5	2.0×10^{-3}
<u>Crucigenia irregularis</u>	1.1×10^5	7.4×10^{-4}
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	1.1×10^5	2.8×10^{-3}
<u>Closterium sigmoideum</u>	1.7×10^5	8.5×10^{-3}
Unidentified green colony	3.7×10^6	1.2×10^{-1}
Unidentified green unicell	1.4×10^5	1.2×10^{-2}
<u>Pediastrum boryanum</u>	7.8×10^5	5.4×10^{-2}
<u>Trachelomonas armata</u> var. <u>steinii</u>	3.5×10^5	6.7×10^{-2}
<u>Coscinodiscus</u> sp.	1.1×10^5	2.9×10^{-3}
<u>Merismopedia elegans</u>	1.1×10^5	1.1×10^{-2}
<u>Merismopedia tenuissima</u>	1.2×10^6	2.6×10^{-2}

Appendix B Table 38. Numbers per liter and biomass (mg/liter) of phytoplankton at Station R on 25 February 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	8.0×10^4	3.8×10^{-3}
<u>Crucigenia quadrata</u>	2.4×10^5	1.3×10^{-2}
<u>Scenedesmus quadricauda</u>	8.2×10^5	2.1×10^{-2}
<u>Closterium rostratum</u>	5.6×10^5	1.1×10^{-2}
<u>Closterium sigmoideum</u>	1.2×10^5	1.3×10^{-3}
<u>Cosmarium phaseolus</u> f. <u>minor</u>	2.0×10^5	4.2×10^{-3}
<u>Staurastrum manfeldtii</u> var. <u>fluminense</u>	2.0×10^5	6.0×10^{-1}
<u>Trachelomonas volvocina</u>	1.2×10^5	1.4×10^{-2}
<u>Synura</u> sp.	1.6×10^5	1.8×10^{-2}
<u>Synedra</u> sp.	1.6×10^5	5.4×10^{-2}
<u>Diploneis puella</u>	4.0×10^4	1.6×10^{-2}
<u>Cocconeis pediculus</u>	1.2×10^5	1.7×10^{-1}
<u>Mastigloia</u> sp.	4.0×10^4	5.9×10^{-3}
<u>Coelosphaerium</u> sp.	3.2×10^5	1.8×10^{-1}
<u>Merismopedia elegans</u>	2.0×10^6	6.5×10^{-2}
<u>Oscillatoria</u> sp. (b)	2.4×10^5	2.0×10^{-3}

Appendix B Table 39. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S on 25 February 1978.

Species	No./liter	mg/liter
<u>Tetraedron trigonium</u>	2.6×10^5	4.6×10^{-3}
<u>Crucigenia quadrata</u>	1.9×10^5	1.4×10^{-2}
<u>Scenedesmus quadricauda</u>	1.9×10^5	4.9×10^{-3}
<u>Closterium peracerosum</u> var. <u>elegans</u>	3.3×10^5	1.1×10^{-2}
<u>Trachelomonas volvocina</u>	2.3×10^5	1.7×10^{-1}
Unidentified green colony	4.6×10^4	1.4×10^{-3}
<u>Calycomonas ovalis</u>	9.3×10^4	6.0×10^{-2}
<u>Melosira granulata</u>	4.2×10^5	2.2×10^{-2}
<u>Melosira varians</u>	2.3×10^6	3.1×10^{-1}
<u>Asterionella formosa</u>	9.3×10^4	1.6×10^{-2}
<u>Mastigloia</u> sp.	1.4×10^5	1.8×10^{-2}
<u>Eunotia</u> sp.	1.9×10^5	7.4×10^{-2}
<u>Epithemia</u> sp.	1.4×10^5	5.3×10^{-2}
<u>Merismopedia tenuissima</u>	9.3×10^4	3.8×10^{-2}
<u>Oscillatoria</u> sp. (b)	3.3×10^5	2.9×10^{-3}

Appendix B Table 40. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S' on 25 February 1978.

Species	No./liter	mg/liter
<u>Crucigenia quadrata</u>	1.7×10^5	9.1×10^{-3}
<u>Scenedesmus quadricauda</u>	1.7×10^5	8.9×10^{-2}
<u>Closterium sigmoideum</u>	7.0×10^4	7.8×10^{-4}
<u>Closterium ralfsii</u>	2.1×10^5	8.4×10^{-3}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	3.5×10^4	7.8×10^{-2}
<u>Trachelomonas volvocina</u>	3.5×10^4	2.6×10^{-2}
<u>Coscinodiscus</u> sp.	7.0×10^4	4.2×10^{-3}
<u>Stephanodiscus dubius</u>	7.0×10^4	4.2×10^{-3}
<u>Melosira granulata</u>	4.2×10^6	5.6×10^{-1}
<u>Cocconeis scutellum</u>	1.7×10^5	1.3×10^{-1}
<u>Mastigloia</u> sp.	1.0×10^5	1.5×10^{-2}
<u>Synedra</u> sp.	1.4×10^5	2.0×10^{-2}
<u>Navicula exigua</u>	3.5×10^4	8.8×10^{-3}
<u>Navicula rhynchocephala</u>	1.4×10^5	2.0×10^{-2}
<u>Navicula crucicula</u>	3.4×10^4	8.8×10^{-3}
<u>Diploneis puella</u>	2.4×10^5	8.7×10^{-2}
<u>Coelosphaerium</u> sp.	7.0×10^4	3.9×10^{-2}
<u>Merismopedia elegans</u>	1.7×10^5	3.6×10^{-3}

Appendix B Table 41. Numbers per liter and biomass (mg/liter) of phytoplankton at Station I on 18 March 1978.

Species	No./liter	mg/liter
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	8.3×10^4	9.6×10^{-4}
<u>Closterium subulatum</u>	2.8×10^4	6.2×10^{-4}
Unidentified green unicell	5.8×10^6	2.6×10^{-2}
<u>Melosira granulata</u>	1.4×10^6	1.4×10^{-2}
<u>Diploneis puella</u>	5.6×10^4	4.2×10^{-2}
<u>Navicula exigua</u>	8.4×10^4	8.2×10^{-3}
<u>Pinnularia</u> sp.	2.8×10^4	9.5×10^{-2}
<u>Oscillatoria acuminata</u>	5.6×10^4	4.7×10^{-4}

Appendix B Table 42. Numbers per liter and biomass (mg/liter) of phytoplankton at Station J on 18 March 1978.

Species	No./liter	mg/liter
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	6.2×10^4	1.3×10^{-3}
Unidentified green unicell	1.6×10^6	7.1×10^{-3}
<u>Trachelomonas volvocina</u>	4.7×10^5	4.5×10^{-1}
<u>Euglena</u> sp. (a)	1.1×10^5	5.7×10^{-2}
<u>Coscinodiscus</u> sp.	1.6×10^4	6.0×10^{-3}
<u>Stephanodiscus</u> sp.	7.8×10^4	5.9×10^{-3}
<u>Synedra</u> sp.	3.5×10^4	3.3×10^{-3}
<u>Navicula rhynchocephala</u>	7.8×10^4	2.9×10^{-2}
<u>Oscillatoria</u> sp. (a)	1.2×10^5	1.0×10^{-3}

Appendix B Table 43. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K on 18 March 1978.

Species	No./liter	mg/liter
<u>Scenedesmus quadricauda</u>	1.9×10^5	1.9×10^{-3}
Unidentified green colony	1.6×10^6	7.1×10^{-3}
<u>Euglena</u> sp. (a)	2.3×10^4	1.0×10^{-2}
<u>Phacus brevicauda</u>	2.3×10^4	2.2×10^{-2}
<u>Cyclotella</u> sp.	2.1×10^5	1.3×10^{-2}
<u>Melosira granulata</u>	1.2×10^5	1.2×10^{-3}
<u>Diploneis puella</u>	3.3×10^5	2.3×10^{-1}
<u>Navicula exigua</u>	4.6×10^4	6.0×10^{-3}
<u>Pinnularia</u> sp.	7.0×10^4	8.6×10^{-2}
<u>Aphanocapsa</u> sp.	2.3×10^6	1.6×10^{-1}

Appendix B Table 44. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K' on 18 March 1978.

Species	No./liter	mg/liter
<u>Closterium incurvum</u>	1.1×10^5	5.9×10^{-3}
<u>Closterium rostratum</u>	7.0×10^4	2.2×10^{-3}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	3.5×10^4	9.4×10^{-4}
Unidentified green unicell	1.7×10^6	2.6×10^{-2}
<u>Stephanodiscus dubius</u>	1.7×10^5	1.7×10^{-2}
<u>Pinnularia</u> sp.	1.0×10^5	1.1×10^{-1}
<u>Mastigloia</u> sp.	1.0×10^5	4.5×10^{-3}
<u>Aphanocapsa</u> sp.	1.0×10^5	2.9×10^{-2}

Appendix B Table 45. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L on 18 March 1978.

Species	No./liter	mg/liter
Unidentified green unicell	2.0×10^6	3.0×10^{-2}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	3.4×10^4	1.2×10^{-3}
<u>Trachelomonas volvocina</u>	1.0×10^5	4.5×10^{-1}
<u>Stephanodiscus dubius</u>	1.4×10^5	1.1×10^{-2}
<u>Diploneis puella</u>	1.4×10^5	5.7×10^{-2}
<u>Navicula exigua</u>	1.0×10^5	2.2×10^{-2}
<u>Pinnularia</u> sp.	3.5×10^5	6.6×10^{-2}
<u>Aphanocapsa</u> sp.	3.4×10^6	2.4×10^{-1}

Appendix B Table 46. Numbers per liter and biomass (mg/liter) of phytoplankton at Station M on 18 March 1978.

Species	No./liter	mg/liter
<u>Scenedesmus quadricauda</u>	5.6×10^5	1.2×10^{-2}
<u>Closterium navicula</u>	2.0×10^5	3.3×10^{-4}
Unidentified green unicell	1.2×10^6	5.4×10^{-3}
<u>Stephanodiscus dubius</u>	2.0×10^5	3.0×10^{-3}
<u>Melosira granulata</u>	2.0×10^5	7.5×10^{-3}
<u>Diploneis puella</u>	1.1×10^5	1.8×10^{-2}
<u>Navicula exigua</u>	1.7×10^5	5.5×10^{-3}
<u>Aphanocapsa</u> sp.	2.8×10^6	2.0×10^{-1}

Appendix B Table 47. Numbers per liter and biomass (mg/liter) of phytoplankton at Station N on 18 March 1978.

Species	No./liter	mg/liter
<u>Scenedesmus quadricauda</u>	5.6×10^4	5.5×10^{-4}
<u>Closterium subulatum</u>	1.4×10^5	6.6×10^{-4}
Unidentified green unicell	1.8×10^6	2.7×10^{-2}
<u>Staurostrum paradoxum</u> var. <u>cingulum</u>	2.8×10^4	2.0×10^{-2}
<u>Cyclotella</u> sp.	5.6×10^4	1.5×10^{-3}
<u>Melosira distans</u>	3.9×10^5	3.1×10^{-2}
<u>Synedra</u> sp.	8.4×10^4	2.5×10^{-2}
<u>Mastigloia</u> sp.	1.1×10^5	1.0×10^{-2}
<u>Diploneis puella</u>	3.3×10^5	6.9×10^{-2}
<u>Navicula rhynchocephala</u>	2.0×10^5	1.1×10^{-1}
<u>Navicula pusilla</u>	8.4×10^4	6.7×10^{-2}
<u>Pleurosigma</u> sp.	5.6×10^4	8.2×10^{-3}
<u>Aphanocapsa</u> sp.	3.0×10^6	2.1×10^{-1}

Appendix B Table 48. Numbers per liter and biomass (mg/liter) of phytoplankton at Station O on 18 March 1978.

Species	No./liter	mg/liter
<u>Scenedesmus quadricauda</u>	2.1×10^5	2.1×10^{-3}
<u>Staurastrum aspinosum</u> var. <u>annulatum</u>	3.5×10^4	2.4×10^{-2}
<u>Staurastrum paradoxum</u> var. <u>cingulum</u>	1.8×10^6	2.7×10^{-2}
<u>Synedra</u> sp.	7.0×10^4	7.3×10^{-3}
<u>Diploneis puella</u>	3.5×10^4	7.3×10^{-3}
<u>Navicula exigua</u>	7.0×10^4	1.1×10^{-2}
<u>Amphora</u> sp.	7.0×10^4	4.8×10^{-3}
<u>Mastigloia</u> sp.	7.0×10^4	4.7×10^{-3}
<u>Aphanocapsa</u> sp.	3.5×10^6	2.4×10^{-1}

Appendix B Table 49. Numbers per liter and biomass (mg/liter) of phytoplankton at Station P on 18 March 1978.

Species	No./liter	mg/liter
<u>Pandorina</u> sp. (b)	1.9×10^5	2.3×10^{-3}
<u>Scenedesmus quadricuada</u>	1.9×10^5	4.0×10^{-3}
<u>Staurastrum aspinosum</u> var. <u>annulatum</u>	4.7×10^4	2.1×10^{-3}
Unidentified green unicell	2.2×10^6	3.3×10^{-2}
<u>Euglena caudata</u>	1.4×10^5	2.6×10^{-1}
<u>Navicula clematis</u>	1.9×10^5	3.8×10^{-2}
<u>Navicula exigua</u>	2.8×10^5	8.8×10^{-2}
<u>Navicula crucicula</u>	4.2×10^5	3.4×10^{-2}
<u>Gleocapsa</u> sp.	4.7×10^6	3.3×10^{-1}

Appendix B Table 50. Numbers per liter and biomass (mg/liter) of phytoplankton at Station Q on 18 March 1978.

Species	No./liter	mg/liter
<u>Scenedesmus quadricauda</u>	2.5×10^5	5.3×10^{-3}
<u>Closterium subulatum</u>	7.1×10^5	4.8×10^{-3}
<u>Euastrum</u> sp. (a)	3.1×10^4	1.2×10^{-2}
<u>Cosmarium raciborskii</u>	3.1×10^4	7.6×10^{-3}
<u>Coscinodiscus</u> sp.	1.2×10^5	1.8×10^{-3}
<u>Cymbella</u> sp.	4.0×10^5	1.3×10^{-1}
<u>Navicula rhynchocephala</u>	3.4×10^5	2.0×10^{-2}
<u>Amphora</u> sp.	1.6×10^6	4.9×10^{-1}
<u>Merismopedia punctata</u>	3.1×10^6	2.2×10^{-1}

Appendix B Table 51. Numbers per liter and biomass (mg/liter) of phytoplankton at Station R on 18 March 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	9.3×10^4	4.9×10^{-3}
<u>Tetraedron quadricuspidatum</u>	3.1×10^4	5.5×10^{-3}
<u>Crucigenia quadrata</u>	3.7×10^5	2.0×10^{-2}
<u>Scenedesmus quadricauda</u>	2.5×10^5	5.3×10^{-3}
<u>Closterium subulatum</u>	4.0×10^5	3.3×10^{-3}
Unidentified green unicell	4.0×10^5	6.0×10^{-3}
<u>Hydrodictyon</u> sp.	3.1×10^4	2.3×10^{-2}
<u>Cyclotella</u> sp.	1.9×10^5	5.1×10^{-3}
<u>Diploneis puella</u>	1.2×10^5	4.0×10^{-2}
<u>Pinnularia</u> sp.	3.1×10^4	1.1×10^{-1}
<u>Navicula exigua</u>	1.9×10^5	1.0×10^{-2}
<u>Merismopedia elegans</u>	9.9×10^5	2.1×10^{-2}
<u>Aphanocapsa</u> sp.	3.3×10^6	2.3×10^{-1}
<u>Oscillatoria</u> sp. (b)	4.4×10^5	3.7×10^{-3}

Appendix B Table 52. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S on 18 March 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	2.2×10^5	8.4×10^{-3}
<u>Crucigenia</u> <u>tetrapedia</u>	1.2×10^5	6.4×10^{-3}
<u>Staurostrum</u> <u>manfeldtii</u> var. <u>fluminense</u>	3.1×10^4	4.4×10^{-3}
Unidentified green unicell	1.3×10^6	2.0×10^{-2}
<u>Melosira</u> <u>granulata</u>	2.8×10^5	4.2×10^{-3}
<u>Melosira</u> <u>distans</u>	2.0×10^6	1.1×10^{-1}
<u>Diploneis</u> <u>puella</u>	2.8×10^5	7.2×10^{-3}
<u>Amphiphora</u> sp.	9.3×10^4	3.8×10^{-2}
<u>Surirella</u> sp.	2.8×10^5	7.2×10^{-3}
<u>Navicula</u> <u>rhynchocephala</u>	3.1×10^4	1.8×10^{-2}
<u>Navicula</u> <u>exigua</u>	6.2×10^4	7.1×10^{-2}
<u>Coelosphaerium</u> sp.	6.2×10^4	7.4×10^{-3}
<u>Aphanocapsa</u> sp.	2.5×10^5	5.3×10^{-3}
<u>Oscillatoria</u> <u>nigra-viridis</u>	3.1×10^6	2.2×10^{-1}

Appendix B Table 53. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S' on 18 March 1978.

Species	No./liter	mg/liter
<u>Tetraedron quadricuspidatum</u>	3.5×10^4	6.2×10^{-4}
<u>Scenedesmus quadricauda</u>	1.4×10^5	3.0×10^{-3}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	1.4×10^5	3.9×10^{-2}
Unidentified green unicell	1.7×10^6	2.6×10^{-2}
<u>Diploneis puella</u>	2.4×10^5	8.7×10^{-2}
<u>Tabellaria</u> sp.	1.1×10^5	1.9×10^{-2}
<u>Cymbella</u> sp.	7.0×10^4	1.1×10^{-2}
<u>Fragilaria</u> sp.	7.0×10^4	9.0×10^{-3}
<u>Gleocapsa</u> sp.	3.5×10^6	2.4×10^{-1}

Appendix B Table 54. Numbers per liter and biomass (mg/liter) of phytoplankton at Station I on 29 April 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	4.5×10^5	7.9×10^{-3}
<u>Pandorina morum</u>	1.2×10^5	3.4×10^{-2}
<u>Crucigenia quadrata</u>	1.1×10^5	1.1×10^{-3}
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	1.9×10^5	4.0×10^{-3}
Unidentified green unicell	1.6×10^6	5.7×10^{-2}
<u>Phacus brevicauda</u>	7.8×10^4	1.9×10^{-2}
<u>Euglena</u> sp. (a)	9.3×10^4	1.5×10^{-2}
<u>Cocconeis placentula</u>	1.4×10^5	1.3×10^{-2}
<u>Navicula exigua</u>	6.2×10^4	8.7×10^{-3}
Unidentified diatom	4.0×10^4	1.0×10^{-2}

Appendix B Table 55. Numbers per liter and biomass (mg/liter) of phytoplankton at Station J on 29 April 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	3.8×10^5	1.2×10^{-2}
<u>Eudorina</u> sp.	3.5×10^5	1.4×10^{-1}
<u>Gonium</u> sp.	1.4×10^5	9.5×10^{-3}
<u>Scenedesmus</u> <u>acuminatus</u>	4.2×10^5	1.1×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u>	5.6×10^5	1.2×10^{-2}
<u>Scenedesmus</u> <u>bijuga</u> var. <u>alterans</u>	4.9×10^5	1.0×10^{-2}
Unidentified green unicell	6.3×10^5	2.8×10^{-3}
<u>Euglena</u> sp. (a)	2.4×10^5	5.2×10^{-2}
<u>Phacus</u> <u>brevicauda</u>	7.0×10^4	1.5×10^{-2}
<u>Pseudotetradron</u> <u>neglectum</u>	1.4×10^5	9.8×10^{-3}
<u>Synura</u> sp.	1.1×10^5	1.1×10^{-3}
<u>Merismopedia</u> <u>elegans</u>	5.6×10^5	1.2×10^{-3}
<u>Oscillatoria</u> sp. (b)	3.5×10^6	2.9×10^{-2}

Appendix B Table 56. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K on 29 April 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	3.0×10^5	1.1×10^{-2}
<u>Tetraedron quadricuspidatum</u>	2.1×10^4	1.4×10^{-3}
<u>Crucigenia quadrata</u>	3.4×10^5	1.8×10^{-2}
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	1.7×10^5	3.0×10^{-3}
Unidentified green unicell	3.0×10^6	4.5×10^{-2}
<u>Euglena</u> sp. (a)	1.5×10^5	2.3×10^{-2}
<u>Gymnodinium fuscum</u>	2.1×10^5	3.2×10^{-3}
<u>Cyclotella</u> sp.	1.5×10^5	4.0×10^{-3}
<u>Navicula lanceolata</u>	2.1×10^4	5.8×10^{-4}
<u>Merismopedia tenuissima</u>	3.4×10^5	7.2×10^{-3}
<u>Aphanocapsa</u> sp.	2.2×10^6	1.5×10^{-1}

Appendix B Table 57. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K' on 29 April 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	6.4×10^5	9.6×10^{-3}
<u>Scenedesmus quadricauda</u>	1.1×10^5	2.3×10^{-3}
<u>Crucigenia quadrata</u>	2.2×10^5	1.2×10^{-2}
<u>Pandorina morum</u>	5.6×10^4	1.6×10^{-2}
<u>Closterium navicula</u>	8.4×10^4	1.3×10^{-2}
Unidentified green unicell	3.4×10^6	5.1×10^{-2}
<u>Euglena</u> sp. (a)	2.5×10^5	3.0×10^{-2}
<u>Cyclotella</u> sp.	8.4×10^4	1.3×10^{-3}
<u>Cocconeis placentula</u>	2.8×10^4	2.6×10^{-3}
<u>Navicula exigua</u>	2.8×10^4	8.4×10^{-4}
<u>Aphanocapsa</u> sp.	3.0×10^6	2.1×10^{-1}

Appendix B Table 58. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L on 29 April 1978.

Species	No./liter	mg/liter
<u>Eudorina</u> sp.	1.6×10^5	4.6×10^{-2}
<u>Tetraedron quadricuspidatum</u>	9.3×10^4	9.3×10^{-4}
<u>Crucigenia quadrata</u>	1.2×10^6	7.4×10^{-2}
<u>Scenedesmus anomalus</u>	1.2×10^5	6.4×10^{-3}
<u>Euastrum bidentatum</u>	6.2×10^4	1.7×10^{-2}
Unidentified green unicell	1.5×10^6	6.7×10^{-3}
<u>Euglena</u> sp. (a)	2.5×10^5	2.1×10^{-2}
<u>Diploneis puella</u>	9.3×10^4	4.2×10^{-2}
<u>Navicula exigua</u>	9.3×10^4	2.6×10^{-3}
<u>Aphanocapsa</u> sp.	3.2×10^6	2.2×10^{-1}

Appendix B Table 59. Numbers per liter and biomass (mg/liter) of phytoplankton at Station M on 29 April 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	3.4×10^5	2.8×10^{-2}
<u>Pandorina morum</u>	2.2×10^5	4.2×10^{-2}
<u>Crucigenia quadrata</u>	3.7×10^5	2.0×10^{-2}
<u>Scenedesmus quadricauda</u>	5.0×10^5	1.1×10^{-2}
<u>Euastrum</u> sp. (a)	3.1×10^4	5.2×10^{-3}
Unidentified green unicell	3.1×10^6	4.7×10^{-2}
<u>Euglena acus</u>	3.1×10^4	1.9×10^{-1}
<u>Diploneis puella</u>	1.9×10^5	2.8×10^{-2}
<u>Gleocapsa</u> sp.	6.2×10^4	4.7×10^{-2}
<u>Merismopedia elegans</u>	9.9×10^5	2.1×10^{-2}
<u>Aphanocapsa</u> sp.	1.2×10^5	8.4×10^{-3}
<u>Oscillatoria</u> sp. (b)	1.2×10^5	1.0×10^{-3}

Appendix B Table 60. Numbers per liter and biomass (mg/liter) of phytoplankton at Station N on 29 April 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	2.0×10^5	1.4×10^{-2}
<u>Eudorina</u> sp.	5.6×10^4	6.7×10^{-3}
<u>Pandorina</u> sp. (b)	3.3×10^5	1.3×10^{-1}
<u>Scenedesmus acuminatus</u>	4.5×10^5	2.4×10^{-2}
<u>Scenedesmus quadricauda</u>	8.4×10^4	3.3×10^{-3}
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	2.8×10^5	6.0×10^{-3}
<u>Pediastrum boryanum</u>	5.6×10^4	4.2×10^{-3}
Unidentified green unicell	2.8×10^6	1.2×10^{-2}
<u>Staurostrum paradoxum</u> var. <u>cingulum</u>	2.8×10^4	2.0×10^{-2}
<u>Selenastrum westii</u>	5.6×10^4	1.1×10^{-3}
<u>Phacus brevicauda</u>	1.4×10^5	1.9×10^{-2}
<u>Pseudotetraedron neglectum</u>	4.7×10^5	1.1×10^{-2}
<u>Cyclotella</u> sp.	3.6×10^5	5.4×10^{-3}
<u>Diploneis puella</u>	5.6×10^4	3.8×10^{-3}
<u>Navicula exigua</u>	5.6×10^4	1.8×10^{-4}
<u>Cymbella</u> sp.	2.8×10^4	5.1×10^{-3}
<u>Gleocapsa</u> sp.	2.8×10^4	8.0×10^{-3}
<u>Aphanocapsa</u> sp.	2.9×10^6	2.0×10^{-1}
<u>Merismopedia punctata</u>	1.9×10^6	4.0×10^{-2}
<u>Oscillatoria</u> sp. (b)	2.8×10^5	2.3×10^{-3}

Appendix B Table 61. Numbers per liter and biomass (mg/liter) of phytoplankton at Station O on 29 April 1978.

Species	No./liter	mg/liter
<u>Crucigenia quadrata</u>	4.7×10^5	2.5×10^{-2}
<u>Scenedesmus quadricauda</u>	4.5×10^5	4.4×10^{-3}
<u>Cosmarium pseudoprotuberance</u>	1.1×10^5	4.1×10^{-3}
<u>Staurostrum paradoxum</u> var. <u>cingulum</u>	5.6×10^4	2.2×10^{-2}
Unidentified green unicell	2.8×10^6	1.2×10^{-2}
<u>Pediastrum boryanum</u>	2.8×10^4	7.1×10^{-3}
<u>Synura</u> sp.	8.4×10^4	1.3×10^{-2}
<u>Calycomonas ovalis</u>	1.6×10^6	1.6×10^{-2}
<u>Diploneis puella</u>	2.8×10^4	1.9×10^{-2}
<u>Navicula exigua</u>	5.6×10^4	1.4×10^{-3}
<u>Cymbella</u> sp.	5.6×10^4	5.2×10^{-3}
<u>Merismopedia elegans</u>	8.4×10^4	1.0×10^{-2}
<u>Oscillatoria</u> sp. (a)	6.4×10^5	5.4×10^{-3}

Appendix B Table 62. Numbers per liter and biomass (mg/liter) of phytoplankton at Station P on 29 April 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	8.0×10^4	2.0×10^{-3}
<u>Eudorina</u> sp.	8.0×10^4	1.5×10^{-2}
<u>Pandorina</u> <u>morum</u>	2.4×10^5	9.8×10^{-2}
<u>Crucigenia</u> <u>quadrata</u>	4.8×10^5	2.6×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u>	5.2×10^5	5.1×10^{-3}
Unidentified green unicell	2.0×10^6	8.9×10^{-3}
<u>Euglena</u> sp. (a)	4.0×10^4	1.4×10^{-2}
<u>Pseudotetraedron</u> <u>neglectum</u>	2.4×10^6	2.4×10^{-2}
<u>Stephanodiscus</u> <u>dubius</u>	4.0×10^6	6.0×10^{-2}
<u>Spirulina</u> <u>laxa</u>	2.2×10^6	2.2×10^{-2}
<u>Aphanocapsa</u> sp.	4.0×10^5	2.8×10^{-2}
<u>Gleocapsa</u> sp.	1.6×10^5	5.7×10^{-3}
<u>Oscillatoria</u> sp. (a)	1.2×10^6	1.0×10^{-2}

Appendix B Table 63. Numbers per liter and biomass (mg/liter) of phytoplankton at Station Q on 29 April 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	1.1×10^5	5.7×10^{-3}
<u>Tetraedron quadricuspidatum</u>	7.0×10^4	2.8×10^{-2}
<u>Crucigenia tetrapedia</u>	1.4×10^5	7.5×10^{-3}
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	7.7×10^5	7.6×10^{-3}
<u>Pediastrum boryanum</u>	3.5×10^6	1.6×10^{-2}
<u>Calycomonas ovalis</u>	2.0×10^6	2.0×10^{-2}
<u>Gymnodinium neclectum</u>	1.7×10^5	3.4×10^{-2}
<u>Coscinodiscus</u> sp.	2.6×10^6	3.9×10^{-2}
<u>Cymbella</u> sp.	2.1×10^5	4.0×10^{-2}
<u>Pinnularia</u> sp.	1.7×10^5	1.7×10^{-2}
<u>Merismopedia punctata</u>	9.8×10^5	9.7×10^{-3}
<u>Oscillatoria</u> sp. (a)	3.5×10^5	2.9×10^{-3}

Appendix B Table 64. Numbers per liter and biomass (mg/liter) of phytoplankton at Station R on 29 April 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	1.6×10^5	8.3×10^{-3}
<u>Pandorina</u> <u>morum</u>	8.0×10^4	3.2×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u>	1.6×10^5	4.1×10^{-3}
<u>Scenedesmus</u> <u>bijuga</u> var. <u>alterans</u>	1.2×10^5	2.6×10^{-3}
<u>Cosmarium</u> <u>subreniforme</u>	4.0×10^4	1.2×10^{-3}
<u>Staurostrum</u> <u>paradoxum</u> var. <u>cingulum</u>	4.0×10^4	5.7×10^{-3}
Unidentified green unicell	1.0×10^6	1.5×10^{-2}
<u>Pseudotetraedron</u> <u>neglectum</u>	2.8×10^5	1.5×10^{-2}
<u>Synura</u> sp.	4.0×10^4	6.1×10^{-3}
<u>Melosira</u> <u>distans</u>	4.1×10^6	5.5×10^{-1}
<u>Cyclotella</u> sp.	9.6×10^5	1.4×10^{-2}
<u>Coscinodiscus</u> sp.	8.0×10^4	3.0×10^{-2}
<u>Diploneis</u> <u>puella</u>	1.2×10^5	6.4×10^{-2}
<u>Mastigloia</u> sp.	8.0×10^4	6.1×10^{-3}

Appendix B Table 65. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S on 29 April 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.5×10^6	8.4×10^{-2}
<u>Tetraedron quadricuspidatum</u>	4.2×10^5	7.5×10^{-3}
<u>Tetraedron trigonium</u>	3.3×10^5	3.3×10^{-3}
<u>Scenedesmus quadricauda</u>	1.9×10^5	1.9×10^{-3}
<u>Cosmarium subreniforme</u>	9.3×10^4	2.8×10^{-3}
<u>Cosmarium</u> sp. (b)	5.6×10^5	2.6×10^{-2}
<u>Staurostrum manfeldtii</u> var. <u>fluminense</u>	9.3×10^4	7.0×10^{-2}
<u>Skeletonema costatum</u>	9.3×10^5	2.8×10^{-2}
<u>Melosira granulata</u>	7.9×10^5	3.3×10^{-2}
<u>Asterionella formosa</u>	9.3×10^4	1.7×10^{-2}
<u>Aphanocapsa</u> sp.	4.7×10^6	5.8×10^{-2}
<u>Oscillatoria nigra-viridis</u>	1.6×10^6	1.9×10^{-1}
Unidentified blue-green unicell	8.4×10^5	6.3×10^{-2}

Appendix B Table 66. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S' on 29 April 1978.

Species	No./liter	mg/liter
<u>Eudorina</u> sp.	1.6×10^5	4.6×10^{-2}
<u>Scenedesmus quadricauda</u>	8.0×10^4	7.9×10^{-4}
<u>Scenedesmus acuminatus</u>	8.0×10^4	1.7×10^{-3}
<u>Closterium abruptum</u> var. <u>brevis</u>	8.0×10^4	7.1×10^{-4}
Unidentified green unicell	3.2×10^5	1.4×10^{-2}
<u>Synura</u> sp.	1.6×10^5	1.8×10^{-2}
<u>Pseudotetraedron neglectum</u>	4.0×10^5	2.1×10^{-2}
<u>Cyclotella</u> sp.	4.8×10^5	7.2×10^{-3}
<u>Melosira distans</u>	4.0×10^6	3.0×10^{-1}
<u>Diploneis puella</u>	1.2×10^5	1.3×10^{-2}
<u>Merismopedia elegans</u>	3.2×10^5	6.8×10^{-3}
<u>Chroococcus disperus</u>	2.4×10^5	2.0×10^{-3}

Appendix B Table 67. Numbers per liter and biomass (mg/liter) of phytoplankton at Station I on 26 May 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	1.0×10^5	3.6×10^{-2}
<u>Eudorina</u> sp.	7.0×10^4	1.3×10^{-2}
<u>Gonium</u> sp.	2.1×10^5	1.1×10^{-2}
<u>Pandorina</u> <u>morum</u>	2.4×10^5	1.3×10^{-1}
<u>Tetraedron</u> <u>quadricuspidatum</u>	4.5×10^5	8.0×10^{-2}
<u>Crucigenia</u> <u>quadrata</u>	4.2×10^5	2.2×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u>	2.8×10^5	4.8×10^{-2}
<u>Scenedesmus</u> <u>acuminatus</u>	1.7×10^5	8.7×10^{-3}
<u>Scenedesmus</u> <u>arcuatus</u> var. <u>platydisca</u>	7.0×10^4	3.8×10^{-3}
<u>Closterium</u> <u>peracerosum</u> var. <u>elegans</u>	1.7×10^5	3.8×10^{-3}
<u>Euglena</u> sp. (b)	2.1×10^5	1.5×10^{-1}
<u>Euglena</u> sp. (a)	1.4×10^5	3.0×10^{-2}
<u>Gymnodinium</u> <u>fuscum</u>	1.0×10^5	8.4×10^{-3}
<u>Pseudotetraedron</u> <u>neglectum</u>	5.6×10^5	9.5×10^{-3}
<u>Coscinodiscus</u> sp.	3.1×10^5	2.5×10^{-2}
<u>Cyclotella</u> sp.	1.5×10^6	2.3×10^{-2}
<u>Navicula</u> <u>exigua</u>	3.5×10^4	1.4×10^{-3}
<u>Nitzschia</u> sp.	1.1×10^6	1.9×10^{-2}
<u>Merismopedia</u> <u>tenuissima</u>	3.6×10^6	3.6×10^{-2}
<u>Aphanocapsa</u> sp.	1.7×10^5	3.3×10^{-2}
<u>Oscillatoria</u> sp. (b)	1.0×10^5	1.1×10^{-3}

Appendix B Table 68. Numbers per liter and biomass (mg/liter) of phytoplankton at Station J on 26 May 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	8.4×10^5	6.1×10^{-3}
<u>Tetraedron quadricuspidatum</u>	1.7×10^5	3.8×10^{-3}
<u>Crucigenia irregularis</u>	4.2×10^5	2.2×10^{-2}
<u>Scenedesmus dimorphus</u>	2.8×10^5	1.5×10^{-2}
<u>Scenedesmus quadricauda</u>	1.0×10^5	1.7×10^{-3}
<u>Closterium peracerosum</u> var. <u>elegans</u>	1.0×10^5	3.8×10^{-2}
Unidentified green unicell	5.6×10^5	2.5×10^{-3}
<u>Trachelomonas volvocina</u>	3.5×10^4	2.8×10^{-3}
<u>Trachelomonas armata</u> var. <u>steinii</u>	1.4×10^5	6.7×10^{-2}
<u>Phacus brevicauda</u>	3.5×10^4	3.9×10^{-3}
<u>Gymnodinium</u> sp. (a)	2.8×10^5	3.7×10^{-2}
<u>Gymnodinium neclectum</u>	1.0×10^5	2.9×10^{-2}
<u>Cryptomonas erosa</u>	5.2×10^5	2.9×10^{-2}
<u>Pinnularia</u> sp.	3.5×10^4	4.0×10^{-2}
<u>Merismopedia elegans</u>	3.7×10^6	3.7×10^{-2}
<u>Chroococcus disperus</u>	1.7×10^5	1.4×10^{-2}
<u>Aphanocapsa</u> sp.	7.0×10^4	3.5×10^{-2}

Appendix B Table 69. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K on 26 May 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	1.1×10^6	4.9×10^{-3}
<u>Chlamydomonas</u> <u>gleogama</u>	1.4×10^5	5.9×10^{-3}
<u>Tetraedron</u> <u>trigonum</u>	1.1×10^6	2.4×10^{-3}
<u>Scenedesmus</u> <u>arcuatus</u> var. <u>platydisca</u>	2.8×10^5	7.2×10^{-3}
Unidentified green filament	4.5×10^4	2.0×10^{-2}
<u>Cryptomonas</u> <u>ovata</u>	3.8×10^5	3.4×10^{-2}
Unidentified xanthophyte filament	3.5×10^5	1.5×10^{-3}
<u>Coscinodiscus</u> sp.	7.0×10^4	2.4×10^{-3}
<u>Diploneis</u> <u>puella</u>	3.5×10^4	3.7×10^{-3}
<u>Pinnularia</u> sp.	7.0×10^4	1.0×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	5.6×10^5	9.5×10^{-3}
<u>Aphanocapsa</u> sp.	4.7×10^6	9.0×10^{-1}

Appendix B Table 70. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L on 26 May 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	4.0×10^5	1.8×10^{-3}
<u>Chlamydomonas</u> sp. (b)	1.5×10^6	1.1×10^{-2}
<u>Pandorina morum</u>	1.2×10^5	2.3×10^{-2}
<u>Scenedesmus quadricauda</u>	3.2×10^5	3.2×10^{-3}
Unidentified green colony	2.0×10^5	3.1×10^{-3}
<u>Euglena</u> sp. (a)	4.0×10^4	1.2×10^{-2}
<u>Trachelomonas armata</u> var. <u>steinii</u>	8.0×10^4	6.4×10^{-3}
<u>Gymnodinium fuscum</u>	1.2×10^5	1.1×10^{-1}
<u>Coscinodiscus</u> sp.	2.0×10^5	1.0×10^{-2}
<u>Achnanthes</u> sp.	4.0×10^4	1.2×10^{-2}
<u>Mastigloia</u> sp.	1.0×10^6	2.1×10^{-2}
<u>Pinnularia</u> sp.	8.0×10^4	4.5×10^{-3}
<u>Coelosphaerium</u> sp.	5.6×10^5	3.1×10^{-1}
<u>Chroococcus disperus</u>	7.2×10^5	6.0×10^{-2}
<u>Merismopedia elegans</u>	5.3×10^6	1.1×10^{-1}
<u>Merismopedia tenuissima</u>	4.2×10^6	4.1×10^{-2}
<u>Aphanocapsa</u> sp.	2.0×10^6	1.1
<u>Oscillatoria</u> sp. (b)	1.6×10^5	4.0×10^{-3}

Appendix B Table 71. Numbers per liter and biomass (mg/liter) of phytoplankton at Station M on 26 May 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	1.1×10^6	1.0×10^{-2}
<u>Chlamydomonas</u> sp. (b)	4.0×10^5	6.0×10^{-3}
<u>Tetraedron quadricuspidatum</u>	2.2×10^5	4.9×10^{-4}
<u>Crucigenia tetrapedia</u>	1.3×10^6	1.3×10^{-2}
<u>Scenedesmus quadricauda</u>	8.9×10^5	1.5×10^{-2}
<u>Trachelomonas armata</u> var. <u>steinii</u>	3.9×10^5	1.6×10^{-1}
<u>Pseudotetraedron neglectum</u>	4.5×10^5	9.4×10^{-3}
<u>Synura</u> sp.	2.2×10^5	1.2×10^{-2}
<u>Calycomonas ovalis</u>	3.3×10^5	4.6×10^{-3}
<u>Navicula clematis</u>	4.5×10^5	4.4×10^{-2}
<u>Coelosphaerium</u> sp.	2.2×10^5	1.2×10^{-1}
<u>Merismopedia tenuissima</u>	8.8×10^6	8.7×10^{-2}
<u>Aphanocapsa</u> sp.	2.8×10^5	1.6×10^{-1}
<u>Oscillatoria</u> sp (a)	1.7×10^5	4.3×10^{-3}

Appendix B Table 72. Numbers per liter and biomass (mg/liter) of phytoplankton at Station N on 26 May 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (b)	3.1×10^5	5.0×10^{-3}
<u>Gonium</u> sp.	1.7×10^5	8.9×10^{-3}
<u>Pandorina</u> <u>morum</u>	2.8×10^5	1.1×10^{-1}
<u>Crucigenia</u> <u>quadrata</u>	1.8×10^5	9.6×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u>	2.1×10^5	3.6×10^{-3}
<u>Scenedesmus</u> <u>bijuga</u> var. <u>alterans</u>	2.4×10^5	2.4×10^{-3}
<u>Closterium</u> <u>peracerosum</u> var. <u>elegans</u>	2.1×10^5	1.1×10^{-3}
<u>Closterium</u> <u>rostratum</u>	1.1×10^6	6.0×10^{-3}
<u>Staurastrum</u> <u>paradoxum</u> var. <u>cingulum</u>	3.5×10^4	5.7×10^{-2}
<u>Trachelomonas</u> <u>armata</u> var. <u>steinii</u>	2.8×10^5	9.2×10^{-1}
<u>Euglena</u> sp. (a)	1.4×10^5	1.3×10^{-2}
<u>Tribonema</u> sp.	3.5×10^4	5.7×10^{-3}
<u>Gymnodinium</u> <u>fuscum</u>	7.0×10^4	1.3×10^{-2}
<u>Cyclotella</u> sp.	2.1×10^5	5.6×10^{-3}
<u>Synedra</u> sp.	7.0×10^4	3.1×10^{-2}
<u>Cocconeis</u> <u>scutellum</u>	2.4×10^5	8.9×10^{-2}
<u>Navicula</u> <u>exigua</u>	3.5×10^4	1.9×10^{-3}
<u>Coelosphaerium</u> sp.	7.0×10^4	2.0×10^{-2}
<u>Aphanocapsa</u> sp.	2.4×10^5	4.6×10^{-2}
<u>Oscillatoria</u> <u>acuminata</u>	7.0×10^4	1.4×10^{-3}

Appendix B Table 73. Numbers per liter and biomass (mg/liter) of phytoplankton at Station 0 on 26 May 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	1.4×10^5	7.3×10^{-3}
<u>Pandorina</u> <u>morum</u>	2.8×10^5	8.0×10^{-2}
<u>Tetraedron</u> <u>quadricuspidatum</u>	4.7×10^4	8.4×10^{-4}
<u>Crucigenia</u> <u>quadrata</u>	9.8×10^5	2.2×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u>	9.3×10^4	9.2×10^{-4}
<u>Scenedesmus</u> <u>acuminatus</u>	7.0×10^4	1.2×10^{-3}
<u>Closterium</u> <u>rostratum</u>	1.6×10^5	9.6×10^{-4}
<u>Staurastrum</u> <u>paradoxum</u> var. <u>cingulum</u>	2.3×10^4	6.4×10^{-3}
<u>Euglena</u> <u>caudata</u>	1.6×10^5	2.1×10^{-2}
<u>Phacus</u> <u>brevicauda</u>	2.8×10^5	2.2×10^{-2}
<u>Gymnodinium</u> <u>fuscum</u>	4.7×10^4	3.0
<u>Synura</u> sp.	9.3×10^4	1.4×10^{-2}
<u>Cyclotella</u> sp.	1.6×10^5	3.1×10^{-3}
<u>Fragilaria</u> sp.	1.4×10^5	5.6×10^{-3}
<u>Cocconeis</u> <u>disculus</u>	2.3×10^4	6.3×10^{-3}
<u>Pinnularia</u>	7.0×10^4	3.6×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	2.4×10^6	4.1×10^{-2}
<u>Oscillatoria</u> sp. (a)	4.7×10^4	1.3×10^{-3}

Appendix B Table 74. Numbers per liter and biomass (mg/liter) of phytoplankton at Station P on 26 May 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	3.7×10^5	6.5×10^{-3}
<u>Pandorina</u> <u>morum</u>	3.1×10^5	5.9×10^{-2}
<u>Tetraedron</u> <u>quadricuspidatum</u>	1.4×10^5	2.5×10^{-3}
<u>Crucigenia</u> <u>quadrata</u>	1.4×10^5	7.5×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u>	1.1×10^5	1.1×10^{-3}
<u>Scenedesmus</u> <u>acuminatus</u>	3.5×10^4	7.5×10^{-4}
<u>Closterium</u> <u>rostratum</u>	8.0×10^5	4.5×10^{-3}
<u>Staurostrum</u> <u>paradoxum</u> var. <u>cingulum</u>	1.1×10^5	1.3×10^{-1}
<u>Hydrodictyon</u> sp.	7.0×10^4	2.7×10^{-2}
<u>Euglena</u> <u>caudata</u>	1.1×10^5	2.0×10^{-2}
<u>Gymnodinium</u> <u>fuscum</u>	9.3×10^4	2.1×10^{-3}
<u>Gymnodinium</u> <u>palustre</u>	1.2×10^5	5.2×10^{-2}
<u>Stephanodiscus</u> sp.	1.8×10^5	2.7×10^{-3}
<u>Cocconeis</u> <u>scutellum</u>	1.1×10^6	2.5×10^{-2}
<u>Nitzschia</u> sp.	7.0×10^4	3.9×10^{-2}
<u>Epithemia</u> sp.	3.5×10^4	2.5×10^{-2}
<u>Merismopedia</u> <u>punctata</u>	3.6×10^6	3.6×10^{-2}

Appendix B Table 75. Numbers per liter and biomass (mg/liter) of phytoplankton at Station Q on 26 May 1978.

Species	No./liter	mg/liter
<u>Eudorina</u> sp.	1.7×10^5	3.5×10^{-2}
<u>Pandorina</u> <u>morum</u>	1.4×10^5	2.7×10^{-2}
<u>Gonium</u> sp.	1.4×10^5	5.4×10^{-3}
<u>Crucigenia</u> <u>quadrata</u>	3.5×10^5	4.0×10^{-3}
<u>Crucigenia</u> <u>irregularis</u>	1.4×10^5	9.4×10^{-4}
<u>Scenedesmus</u> <u>quadricauda</u>	7.0×10^4	1.5×10^{-3}
<u>Scenedesmus</u> <u>bijuga</u> var. <u>alterans</u>	1.1×10^5	2.3×10^{-3}
<u>Scenedesmus</u> <u>acuminatus</u>	3.5×10^4	7.5×10^{-4}
<u>Scenedesmus</u> <u>arcuatus</u> var. <u>platydisca</u>	7.0×10^4	1.5×10^{-3}
<u>Closterium</u> <u>peracerosum</u> var. <u>elegans</u>	5.6×10^5	1.9×10^{-2}
<u>Staurastrum</u> <u>brachiatum</u>	7.0×10^4	8.0×10^{-2}
<u>Trachelomonas</u> <u>armata</u> var. <u>steinii</u>	1.1×10^5	8.2×10^{-2}
<u>Euglena</u> sp. (a)	1.1×10^5	7.8×10^{-3}
<u>Phacus</u> <u>brevicauda</u>	1.4×10^5	7.8×10^{-3}
<u>Synura</u> sp.	7.0×10^4	1.4×10^{-2}
<u>Melosira</u> <u>italica</u>	8.7×10^5	2.6×10^{-2}
<u>Coscinodiscus</u> sp.	3.5×10^4	3.9×10^{-2}
<u>Diploneis</u> <u>puella</u>	1.7×10^5	3.9×10^{-2}
<u>Navicula</u> <u>rhynchocephala</u>	7.0×10^4	6.9×10^{-2}
<u>Amphora</u> sp. (a)	7.0×10^4	1.2×10^{-2}
<u>Merismopedia</u> <u>tenuissima</u>	3.6×10^6	3.6×10^{-2}
<u>Aphanocapsa</u> sp.	3.8×10^5	2.1×10^{-1}
<u>Oscillatoria</u> <u>acuminata</u>	3.5×10^4	3.6×10^{-4}

Appendix B Table 76. Numbers per liter and biomass (mg/liter) of phytoplankton at Station R on 26 May 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	1.7×10^5	8.9×10^{-3}
<u>Pandorina morum</u>	1.7×10^5	3.3×10^{-2}
<u>Crucigenia irregularis</u>	2.8×10^6	1.9×10^{-2}
<u>Crucigenia quadrata</u>	2.2×10^5	5.0×10^{-3}
<u>Scenedesmus quadricauda</u>	4.5×10^5	9.6×10^{-3}
<u>Closterium rostratum</u>	7.8×10^5	5.0×10^{-3}
<u>Cosmarium subreniforme</u>	4.5×10^5	2.2×10^{-3}
<u>Synura</u> sp.	2.0×10^5	2.2×10^{-2}
<u>Melosira italica</u>	1.3×10^6	3.9×10^{-2}
<u>Cyclotella</u> sp.	1.7×10^5	3.8×10^{-3}
<u>Melosira granulata</u>	5.0×10^5	2.2×10^{-2}
<u>Navicula crucicula</u>	1.7×10^5	4.6×10^{-2}
<u>Surirella</u> sp.	5.6×10^4	3.4×10^{-1}
<u>Amphora</u> sp.	5.6×10^4	9.6×10^{-2}
<u>Aphanocapsa</u> sp.	2.2×10^5	1.2×10^{-1}

Appendix B Table 77. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S on 26 May 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (b)	1.6×10^5	7.1×10^{-4}
<u>Eudorina</u> sp.	2.5×10^5	4.8×10^{-2}
<u>Gonium</u> sp.	1.2×10^5	6.3×10^{-3}
<u>Pandorina</u> morum	2.2×10^5	6.3×10^{-2}
<u>Crucigenia</u> irregularis	3.2×10^6	5.9×10^{-2}
<u>Scenedesmus</u> quadricauda	5.0×10^5	8.5×10^{-3}
<u>Scenedesmus</u> abundans var. brevicauda	3.1×10^5	3.1×10^{-3}
<u>Closterium</u> peracerosum var. elegans	4.7×10^5	1.2×10^{-2}
<u>Euglena</u> sp. (a)	6.2×10^4	1.1×10^{-2}
<u>Calycomonas</u> ovalis	1.9×10^5	3.8×10^{-2}
<u>Melosira</u> granulata	9.3×10^4	2.1×10^{-3}
<u>Stephanodiscus</u> dubius	5.9×10^5	2.4×10^{-2}
<u>Cocconeis</u> disculus	6.2×10^4	1.4×10^{-3}
<u>Coelosphaerium</u> sp.	9.3×10^4	1.1×10^{-3}
<u>Anabena</u> sp. (a)	9.3×10^4	1.2×10^{-3}
Unidentified blue-green unicell	1.2×10^6	1.0×10^{-2}

Appendix B Table 78. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S' on 26 May 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	1.0×10^5	6.8×10^{-3}
<u>Pandorina</u> <u>morum</u>	2.4×10^5	1.3×10^{-1}
<u>Crucigenia</u> <u>tetrapedia</u>	7.0×10^4	3.7×10^{-3}
<u>Scenedesmus</u> <u>bijuga</u> var. <u>alterans</u>	7.0×10^4	1.2×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u>	1.4×10^5	1.4×10^{-3}
<u>Closterium</u> <u>peracerosum</u> var. <u>elegans</u>	2.1×10^5	1.2×10^{-3}
<u>Staurastrum</u> <u>brachiatum</u>	3.5×10^4	1.4×10^{-2}
<u>Euglena</u> sp. (a)	7.0×10^4	5.7×10^{-3}
<u>Phacus</u> <u>brevicauda</u>	1.0×10^5	1.4×10^{-1}
<u>Synura</u> sp.	2.1×10^5	4.2×10^{-2}
Unidentified dinoflagellate	3.5×10^4	6.0×10^{-1}
<u>Stephanodiscus</u> <u>dubius</u>	1.3×10^6	6.7×10^{-2}
<u>Cocconeis</u> <u>pediculus</u>	7.0×10^4	1.3×10^{-2}
<u>Merismopedia</u> <u>tenuissima</u>	3.6×10^6	3.6×10^{-2}
<u>Aphanocapsa</u> sp.	1.0×10^5	3.7×10^{-2}

Appendix B Table 79. Numbers per liter and biomass (mg/liter) of phytoplankton at Station I on 24 June 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	9.3×10^4	3.6×10^{-3}
<u>Tetraedron quadricuspidatum</u>	1.4×10^5	2.5×10^{-3}
<u>Crucigenia quadrata</u>	1.4×10^5	7.5×10^{-3}
<u>Closterium peracerosum</u> var. <u>elegans</u>	2.3×10^5	2.4×10^{-3}
<u>Cosmarium subreniforme</u>	2.8×10^5	3.7×10^{-3}
Unidentified green colony	2.0×10^6	6.4×10^{-3}
<u>Trachelomonas armata</u> var. <u>steinii</u>	4.7×10^5	4.5×10^{-1}
<u>Euglena proxima</u>	4.7×10^5	2.1×10^{-3}
<u>Synura</u> sp.	9.3×10^4	1.4×10^{-2}
<u>Cyclotella</u> sp.	2.8×10^5	7.5×10^{-3}
<u>Merismopedia elegans</u>	2.0×10^6	6.4×10^{-3}
<u>Merismopedia glauca</u>	6.3×10^6	2.7×10^{-2}
<u>Anabena catenula</u>	2.8×10^5	3.4×10^{-2}

Appendix B Table 80. Numbers per liter and biomass (mg/liter) of phytoplankton at Station J on 24 June 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	5.0×10^5	1.7×10^{-2}
<u>Gonium</u> sp.	6.2×10^4	2.4×10^{-3}
<u>Crucigenia quadrata</u>	2.5×10^5	5.6×10^{-3}
<u>Scenedesmus quadricauda</u>	2.5×10^5	2.1×10^{-3}
<u>Closterium peracerosum</u> var. <u>elegans</u>	1.2×10^5	3.3×10^{-3}
<u>Cosmarium subreniforme</u>	6.2×10^4	5.1×10^{-3}
Unidentified green unicell	8.1×10^5	7.1×10^{-3}
<u>Trachelomonas rugulosa</u>	6.2×10^4	1.8×10^{-2}
<u>Euglena proxima</u>	1.6×10^5	2.8×10^{-2}
<u>Gymnodinium fuscum</u>	9.3×10^4	1.1×10^{-1}
<u>Melosira granulata</u>	5.3×10^5	8.9×10^{-3}
<u>Cyclotella</u> sp.	1.1×10^6	4.6×10^{-2}
<u>Navicula lanceolata</u>	3.1×10^4	2.2×10^{-2}
<u>Pleurosigma</u> sp.	3.1×10^4	3.6×10^{-3}
<u>Merismopedia elegans</u>	3.2×10^6	1.4×10^{-2}

Appendix B Table 81. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K on 24 June 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	8.0×10^4	1.8×10^{-3}
<u>Pandorina</u> <u>morum</u>	1.2×10^5	4.6×10^{-3}
<u>Pandorina</u> sp. (a)	1.2×10^5	2.3×10^{-2}
<u>Tetraedron</u> <u>quadricuspidatum</u>	8.0×10^4	1.7×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u>	2.4×10^5	2.4×10^{-3}
<u>Tetrastrum</u> <u>glabrum</u>	1.6×10^5	7.1×10^{-4}
<u>Cosmarium</u> <u>botrytis</u>	8.0×10^4	1.7×10^{-2}
Unidentified green unicell	8.8×10^5	3.9×10^{-3}
<u>Trachelomonas</u> <u>rugulosa</u>	4.0×10^4	2.2×10^{-2}
<u>Trachelomonas</u> <u>armata</u> var. <u>steinii</u>	4.0×10^4	3.9×10^{-2}
<u>Cryptomonas</u> <u>erosa</u>	8.0×10^4	1.6×10^{-2}
<u>Synura</u> sp.	4.0×10^4	8.0×10^{-3}
<u>Navicula</u> <u>exigua</u>	4.0×10^4	1.2×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	4.8×10^6	2.1×10^{-2}
<u>Oscillatoria</u> sp. (b)	4.0×10^4	5.4×10^{-4}

Appendix B Table 82. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K' on 24 June 1978.

Species	No./liter	mg/liter
<u>Crucigenia quadrata</u>	3.7×10^5	2.5×10^{-2}
<u>Gonium</u> sp.	4.7×10^4	2.5×10^{-3}
<u>Closterium rostratum</u>	9.3×10^4	1.3×10^{-3}
Unidentified green unicell	4.7×10^5	4.1×10^{-4}
<u>Pseudotetraedron neglectum</u>	2.3×10^5	2.3×10^{-3}
<u>Synura</u> sp.	9.3×10^4	7.4×10^{-3}
<u>Cocconeis disculus</u>	4.7×10^4	7.9×10^{-3}
<u>Merismopedia elegans</u>	5.9×10^6	3.8×10^{-2}
<u>Oscillatoria aghardii</u>	9.3×10^4	1.2×10^{-3}
<u>Anabena</u> sp. (a)	9.3×10^4	1.2×10^{-3}

Appendix B Table 83. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L on 24 June 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	1.9×10^5	7.3×10^{-3}
<u>Pandorina</u> <u>morum</u>	9.3×10^4	1.8×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u>	4.7×10^4	4.0×10^{-4}
<u>Closterium</u> <u>rostratum</u>	9.3×10^4	1.0×10^{-3}
<u>Closterium</u> <u>peracerosum</u> var. <u>elegans</u>	3.3×10^5	4.0×10^{-2}
<u>Closterium</u> <u>navicula</u>	4.7×10^4	2.7×10^{-3}
Unidentified green unicell	1.0×10^6	4.5×10^{-3}
<u>Pseudotetraedron</u> <u>neglectum</u>	1.9×10^5	1.3×10^{-3}
<u>Synura</u> sp.	9.3×10^4	1.4×10^{-2}
<u>Cyclotella</u> sp.	2.8×10^5	7.5×10^{-3}
<u>Diploneis</u> <u>puella</u>	1.4×10^5	9.7×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	4.7×10^6	4.0×10^{-2}
<u>Oscillatoria</u> sp. (b)	9.3×10^4	2.3×10^{-3}
<u>Anabena</u> <u>spiroides</u>	1.9×10^5	9.5×10^{-3}

Appendix B Table 84. Numbers per liter and biomass (mg/liter) of phytoplankton at Station M on 24 June 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	4.0×10^5	1.1×10^{-2}
<u>Gonium</u> sp.	3.1×10^5	1.2×10^{-2}
<u>Tetraedron quadricuspidatum</u>	3.1×10^5	1.7×10^{-2}
<u>Crucigenia quadrata</u>	6.2×10^5	3.3×10^{-2}
<u>Cosmarium undulatum</u> var. <u>crenulatum</u>	9.3×10^4	2.1×10^{-3}
Unidentified green unicell	1.1×10^6	9.6×10^{-3}
<u>Euglena acus</u>	3.1×10^4	4.8×10^{-3}
<u>Lepocinclis</u> sp.	3.1×10^4	1.0×10^{-1}
<u>Trachelomonas armata</u> var. <u>steinii</u>	3.1×10^4	8.8×10^{-3}
<u>Trachelomonas rugulosa</u>	9.3×10^4	1.8×10^{-2}
<u>Cyclotella</u> sp.	3.1×10^4	4.7×10^{-4}
<u>Synedra</u> sp.	1.2×10^5	3.8×10^{-2}
<u>Fragilaria</u> sp.	1.1×10^6	1.5×10^{-1}
<u>Tabellaria</u> sp.	9.3×10^4	1.1×10^{-2}
<u>Navicula exigua</u>	1.2×10^5	4.8×10^{-3}
<u>Merismopedia elegans</u>	3.1×10^6	2.6×10^{-2}

Appendix B Table 85. Numbers per liter and biomass (mg/liter) of phytoplankton at Station N on 24 June 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	2.4×10^5	9.2×10^{-3}
<u>Pandorina</u> <u>norum</u>	1.1×10^5	3.1×10^{-2}
<u>Tetraedron</u> <u>quadricuspidatum</u>	2.1×10^5	6.3×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u>	3.5×10^5	6.0×10^{-3}
<u>Scenedesmus</u> <u>dimorphus</u>	3.5×10^5	7.5×10^{-3}
<u>Closterium</u> <u>rostratum</u>	1.1×10^5	4.9×10^{-4}
<u>Closterium</u> <u>navicula</u>	2.1×10^5	2.6×10^{-3}
<u>Pediastrum</u> <u>boryanum</u>	3.5×10^4	2.2×10^{-2}
Unidentified green unicell	1.9×10^6	1.1×10^{-2}
<u>Staurastrum</u> <u>subericiatum</u>	7.0×10^4	3.0×10^{-2}
<u>Phacus</u> <u>brevicauda</u>	7.0×10^4	1.7×10^{-2}
<u>Synura</u> sp.	1.1×10^5	5.5×10^{-3}
<u>Cyclotella</u> sp.	4.5×10^5	6.8×10^{-3}
<u>Diploneis</u> <u>puella</u>	7.0×10^4	2.1×10^{-2}
<u>Navicula</u> <u>exigua</u>	3.5×10^4	1.9×10^{-3}
<u>Merismopedia</u> <u>elegans</u>	3.8×10^6	3.2×10^{-2}

Appendix B Table 86. Numbers per liter and biomass (mg/liter) of phytoplankton at Station O on 24 June 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	9.3×10^4	4.9×10^{-3}
<u>Crucigenia</u> <u>quadrata</u>	1.9×10^5	1.3×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u>	1.9×10^5	1.6×10^{-3}
<u>Closterium</u> <u>rostratum</u>	4.7×10^4	1.0×10^{-3}
<u>Cosmarium</u> <u>undulatum</u> var. <u>crenulatum</u>	4.7×10^4	5.7×10^{-4}
<u>Staurastrum</u> <u>aspinosum</u> var. <u>annulatum</u>	9.3×10^4	2.6×10^{-2}
Unidentified green unicell	1.2×10^6	5.4×10^{-3}
<u>Pediastrum</u> <u>boryanum</u>	1.4×10^5	6.0×10^{-2}
<u>Euglena</u> <u>hemichromata</u>	4.7×10^4	1.2×10^{-2}
<u>Gymnodinium</u> <u>neclectum</u>	9.3×10^4	3.2×10^{-2}
<u>Synura</u> sp.	1.4×10^6	2.8×10^{-1}
<u>Cyclotella</u> sp.	2.3×10^5	3.5×10^{-3}
<u>Merismopedia</u> <u>elegans</u>	4.7×10^6	4.0×10^{-2}
<u>Anabena</u> <u>spiroides</u>	9.3×10^4	2.9×10^{-3}

Appendix B Table 87. Numbers per liter and biomass (mg/liter) of phytoplankton at Station P on 24 June 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	5.2×10^5	2.0×10^{-2}
<u>Pandorina</u> <u>morum</u>	3.1×10^6	3.7×10^{-1}
<u>Tetraedron</u> <u>quadricuspidatum</u>	2.1×10^5	3.7×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u>	5.6×10^5	1.2×10^{-2}
<u>Cosmarium</u> <u>subreniforme</u>	2.8×10^5	8.4×10^{-3}
Unidentified green unicell	1.0×10^6	8.7×10^{-3}
<u>Phacus</u> <u>brevicauda</u>	7.0×10^4	2.0×10^{-2}
<u>Cyclotella</u> sp.	1.7×10^5	7.1×10^{-2}
<u>Stephanodiscus</u> <u>dubius</u>	6.3×10^5	9.5×10^{-3}
<u>Mastigloia</u> sp.	2.8×10^4	9.3×10^{-3}
<u>Diploneis</u> <u>puella</u>	8.0×10^4	1.0×10^{-2}
<u>Amphora</u> sp.	2.8×10^5	6.2×10^{-3}

Appendix B Table 88. Numbers per liter and biomass (mg/liter) of phytoplankton at Station Q on 24 June 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	3.7×10^5	1.4×10^{-2}
<u>Pandorina</u> <u>morum</u>	4.7×10^5	5.7×10^{-2}
<u>Tetraedron</u> <u>quadricuspidatum</u>	4.7×10^5	1.4×10^{-3}
<u>Tetraedron</u> <u>trigonum</u>	4.7×10^4	3.5×10^{-4}
<u>Crucigenia</u> <u>quadrata</u>	1.0×10^6	2.3×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u> var. <u>maxima</u>	4.7×10^4	6.0×10^{-3}
Unidentified green unicell	1.3×10^6	5.8×10^{-3}
<u>Pediastrum</u> <u>boryanum</u>	4.7×10^4	4.3×10^{-2}
<u>Trachelomonas</u> <u>armata</u> var. <u>steinii</u>	4.7×10^4	1.3×10^{-1}
<u>Gymnodinium</u> <u>fuscum</u>	9.3×10^4	8.6×10^{-2}
<u>Calycomonas</u> <u>ovalis</u>	1.4×10^5	9.4×10^{-3}
<u>Synura</u> sp.	4.7×10^4	9.4×10^{-3}
<u>Cyclotella</u> sp.	1.0×10^6	1.5×10^{-2}
<u>Melosira</u> <u>granulata</u>	7.4×10^5	5.0×10^{-3}
<u>Synedra</u> sp.	4.7×10^4	7.0×10^{-3}
<u>Fragilaria</u> sp.	4.2×10^5	1.9×10^{-2}
<u>Navicula</u> <u>exigua</u>	4.7×10^4	1.2×10^{-3}
<u>Merismopedia</u> <u>elegans</u>	4.8×10^6	2.0×10^{-2}

Appendix B Table 89. Numbers per liter and biomass (mg/liter) of phytoplankton at Station R on 24 June 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (b)	4.7×10^4	3.8×10^{-3}
<u>Gonium</u> sp.	2.3×10^5	4.4×10^{-2}
<u>Pandorina</u> sp. (a)	2.3×10^5	8.8×10^{-3}
<u>Tetraedron quadricuspidatum</u>	1.4×10^5	1.1×10^{-3}
<u>Crucigenia quadrata</u>	9.3×10^5	9.3×10^{-3}
<u>Scenedesmus quadricauda</u>	1.9×10^5	1.6×10^{-3}
Unidentified green unicell	1.6×10^6	7.1×10^{-3}
<u>Hydrodictyon</u> sp.	1.4×10^5	1.1×10^{-3}
<u>Synura</u> sp.	9.3×10^4	1.9×10^{-2}
<u>Cyclotella</u> sp.	5.6×10^5	9.6×10^{-3}
<u>Nitzschia</u> sp.	1.4×10^5	4.6×10^{-3}
<u>Merismopedia elegans</u>	5.0×10^6	2.1×10^{-2}
<u>Anabena spiroides</u> var. <u>crassa</u>	1.9×10^5	1.3×10^{-2}

Appendix B Table 90. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S on 24 June 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (b)	2.1×10^5	1.0×10^{-2}
<u>Eudorina</u> sp.	7.0×10^4	2.0×10^{-2}
<u>Gonium</u> sp.	1.8×10^5	6.9×10^{-3}
<u>Pandorina</u> morum	1.1×10^5	2.1×10^{-2}
<u>Scenedesmus</u> quadricauda	1.4×10^5	1.4×10^{-3}
<u>Scenedesmus</u> bijuga var. <u>alterans</u>	1.4×10^5	3.0×10^{-3}
<u>Cosmarium</u> trilobulatum	3.5×10^4	3.3×10^{-3}
Unidentified green unicell	7.0×10^5	3.1×10^{-3}
<u>Trachelomonas</u> armata var. <u>steinii</u>	3.5×10^4	3.8×10^{-2}
<u>Gymnodinium</u> fuscum	3.5×10^4	3.6×10^{-2}
<u>Calycomonas</u> ovalis	3.5×10^4	5.3×10^{-3}
<u>Melosira</u> granulata	1.5×10^5	2.3×10^{-3}
<u>Rhoicosphenia</u> sp.	3.5×10^4	3.6×10^{-2}
<u>Aphanocapsa</u> sp.	3.5×10^6	1.5×10^{-2}
<u>Oscillatoria</u> sp. (b)	1.5×10^5	3.6×10^{-3}
<u>Anabena</u> sp. (b)	3.5×10^4	2.3×10^{-4}

Appendix B Table 91. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S' on 24 June 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	2.8×10^5	1.1×10^{-2}
<u>Pandorina morum</u>	1.1×10^5	2.1×10^{-2}
<u>Scenedesmus quadricauda</u>	2.1×10^5	1.8×10^{-3}
<u>Scenedesmus acuminatus</u>	1.4×10^5	1.8×10^{-3}
<u>Scenedesmus bijuga</u> var. <u>alterans</u>	1.4×10^5	1.8×10^{-3}
<u>Closterium archerianum</u>	7.0×10^4	1.0×10^{-3}
Unidentified green unicell	2.8×10^5	2.4×10^{-3}
<u>Trachelomonas armata</u> var. <u>steinii</u>	7.0×10^4	2.0×10^{-1}
<u>Synura</u> sp.	7.0×10^4	1.1×10^{-2}
<u>Melosira granulata</u>	1.4×10^5	4.0×10^{-3}
<u>Synedra</u> sp.	3.5×10^4	6.8×10^{-3}
<u>Nitzschia</u> sp.	1.4×10^5	7.5×10^{-3}
<u>Merismopedia elegans</u>	3.4×10^6	1.4×10^{-2}

Appendix B Table 92. Numbers per liter and biomass (mg/liter) of phytoplankton at Station I on 25 July 1978.

Species	No./liter	mg/liter
<u>Eudorina</u> sp.	5.6×10^4	3.1×10^{-2}
<u>Gonium</u> sp.	2.8×10^5	1.1×10^{-2}
<u>Pandorina</u> <u>morum</u>	5.6×10^4	1.1×10^{-2}
<u>Tetradron</u> <u>quadricuspidatum</u>	1.7×10^5	1.3×10^{-3}
<u>Crucigenia</u> <u>quadrata</u>	4.5×10^5	2.4×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u>	2.2×10^5	5.6×10^{-3}
<u>Closterium</u> <u>peracerosum</u> var. <u>elegans</u>	2.2×10^5	1.1×10^{-3}
<u>Cosmarium</u> <u>subreniforme</u>	2.2×10^5	6.6×10^{-3}
<u>Euglena</u> <u>caudata</u>	1.1×10^5	7.7×10^{-3}
<u>Cyclotella</u> sp.	1.7×10^5	4.5×10^{-3}
<u>Diploneis</u> <u>puella</u>	5.6×10^4	5.3×10^{-2}
<u>Pinnularia</u> sp.	5.6×10^4	4.7×10^{-4}
<u>Merismopedia</u> <u>elegans</u>	2.8×10^6	6.0×10^{-2}
<u>Anabena</u> sp. (a)	8.4×10^4	1.1×10^{-3}

Appendix B Table 93. Numbers per liter and biomass (mg/liter) of phytoplankton at Station J on 25 July 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (b)	2.8×10^5	7.5×10^{-3}
<u>Eudorina</u> sp.	7.0×10^4	3.9×10^{-2}
<u>Gonium</u> sp.	3.1×10^4	1.2×10^{-3}
<u>Pandorina morum</u>	7.0×10^4	2.0×10^{-2}
<u>Crucigenia quadrata</u>	5.0×10^5	2.7×10^{-2}
<u>Scenedesmus quadricauda</u>	1.2×10^5	2.6×10^{-3}
<u>Gymnodinium neclectum</u>	9.3×10^4	2.6×10^{-2}
<u>Cyclotella</u> sp.	9.3×10^4	3.9×10^{-3}
<u>Melosira italica</u>	3.7×10^5	9.0×10^{-3}
<u>Pleurosigma</u> sp.	3.1×10^4	1.2×10^{-3}
<u>Amphora</u> sp.	3.1×10^4	1.9×10^{-2}
<u>Merismopedia elegans</u>	3.2×10^6	6.8×10^{-2}

Appendix B Table 94. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K on 25 July 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (b)	1.7×10^5	4.5×10^{-1}
<u>Eudorina</u> sp.	7.0×10^4	3.9×10^{-2}
<u>Conium</u> sp.	2.1×10^5	8.0×10^{-3}
<u>Pandorina</u> morum	7.0×10^4	2.0×10^{-2}
<u>Crucigenia</u> quadrata	1.4×10^5	7.5×10^{-3}
<u>Scenedesmus</u> quadricauda	1.4×10^5	7.5×10^{-3}
<u>Euglena</u> caudata	1.0×10^5	1.5×10^{-2}
<u>Gymnodinium</u> fuscum	3.5×10^4	6.6×10^{-3}
<u>Fragilaria</u> sp.	7.0×10^4	7.9×10^{-3}
<u>Diploneis</u> puella	7.0×10^4	2.1×10^{-2}
<u>Merismopedia</u> elegans	3.6×10^6	7.7×10^{-2}

Appendix B Table 95. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K' on 25 July 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	3.5×10^4	2.2×10^{-3}
<u>Scenedesmus quadricauda</u>	1.4×10^5	3.0×10^{-3}
<u>Gonium</u> sp.	1.4×10^5	5.4×10^{-3}
<u>Pandorina morum</u>	7.0×10^4	2.0×10^{-2}
<u>Closterium peracerosum</u> var. <u>elegans</u>	7.0×10^4	5.1×10^{-4}
<u>Cosmarium subreniforme</u>	3.5×10^4	4.7×10^{-4}
<u>Euglena caudata</u>	3.5×10^4	8.8×10^{-3}
<u>Trachelomonas armata</u> var. <u>steinii</u>	7.0×10^4	2.0×10^{-2}
<u>Cryptomonas erosa</u>	3.5×10^4	7.6×10^{-3}
<u>Cyclotella</u> sp.	1.7×10^5	4.5×10^{-3}
<u>Amphiphora</u> sp.	7.0×10^4	1.3×10^{-1}
<u>Merismopedia elegans</u>	3.9×10^6	8.3×10^{-2}

Appendix B Table 96. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L on 25 July 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	3.7×10^5	1.9×10^{-2}
<u>Pandorina morum</u>	3.7×10^5	1.1×10^{-1}
<u>Crucigenia quadrata</u>	1.9×10^5	4.3×10^{-3}
<u>Scenedesmus quadricauda</u>	2.8×10^5	6.0×10^{-3}
<u>Euglena caudata</u>	9.3×10^4	2.2×10^{-2}
<u>Navicula exigua</u>	4.7×10^4	2.5×10^{-2}
<u>Merismopedia elegans</u>	4.7×10^6	1.0×10^{-1}

Appendix B Table 97. Numbers per liter and biomass (mg/liter) of phytoplankton at Station M on 25 July 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	6.2×10^4	3.2×10^{-3}
<u>Pandorina</u> <u>morum</u>	9.3×10^4	3.8×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u>	2.2×10^5	2.2×10^{-3}
<u>Cosmarium</u> <u>subreniforme</u>	3.1×10^4	4.1×10^{-4}
<u>Euglena</u> <u>caudata</u>	6.2×10^4	1.6×10^{-2}
<u>Diploneis</u> <u>puella</u>	1.2×10^5	2.3×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	3.2×10^6	6.8×10^{-2}
Unidentified blue-green unicell	6.2×10^4	3.1×10^{-3}

Appendix B Table 98. Numbers per liter and biomass (mg/liter) of phytoplankton at Station N on 25 July 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	1.7×10^5	6.5×10^{-3}
<u>Pandorina</u> <u>morum</u>	1.1×10^5	3.1×10^{-2}
<u>Tetraedron</u> <u>quadricuspidatum</u>	5.6×10^4	1.3×10^{-3}
<u>Scenedesmus</u> <u>acuminatus</u>	1.1×10^5	5.1×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u>	1.1×10^5	1.1×10^{-3}
<u>Closterium</u> <u>peracerosum</u> var. <u>elegans</u>	8.4×10^4	7.1×10^{-4}
<u>Euglena</u> <u>caudata</u>	1.1×10^5	3.5×10^{-2}
<u>Gymnodinium</u> <u>fuscum</u>	2.2×10^5	4.7×10^{-2}
<u>Katyodinium</u> sp.	1.1×10^5	1.5×10^{-2}
<u>Melosira</u> <u>italica</u>	5.6×10^4	1.1×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	2.8×10^6	6.0×10^{-2}

Appendix B Table 99. Numbers per liter and biomass (mg/liter) of phytoplankton at Station O 25 July 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	7.0×10^4	1.9×10^{-3}
<u>Eudorina</u> sp.	1.4×10^5	7.8×10^{-2}
<u>Gonium</u> sp.	7.0×10^4	3.7×10^{-3}
<u>Pandorina morum</u>	1.4×10^5	5.7×10^{-2}
<u>Scenedesmus acuminatus</u>	2.8×10^5	6.0×10^{-3}
<u>Closterium peracerosum</u> var. <u>elegans</u>	4.2×10^5	5.6×10^{-3}
<u>Euglena caudata</u>	1.4×10^5	3.8×10^{-2}
<u>Gymnodinium neclectum</u>	1.4×10^5	2.8×10^{-2}
<u>Merismopedia elegans</u>	3.6×10^6	7.7×10^{-2}
<u>Anabena spiroides</u> var. <u>crassa</u>	7.0×10^4	1.4×10^{-3}

Appendix B Table 100. Numbers per liter and biomass (mg/liter) of phytoplankton at Station P on 25 July 1978.

Species	No./liter	mg/liter
<u>Eudorina</u> sp.	1.2×10^5	6.7×10^{-2}
<u>Gonium</u> sp.	1.2×10^5	6.3×10^{-3}
<u>Pandorina morum</u>	7.0×10^4	1.3×10^{-2}
<u>Tetraedron quadricuspidatum</u>	9.3×10^4	7.0×10^{-4}
<u>Closterium rostratum</u>	2.3×10^5	6.4×10^{-3}
<u>Cosmarium subreniforme</u>	1.6×10^5	4.8×10^{-3}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	1.4×10^5	7.8×10^{-2}
<u>Pediastrum boryanum</u>	3.7×10^5	3.4×10^{-2}
Unidentified green colony	7.0×10^4	5.1×10^{-2}
<u>Merismopedia tenuissima</u>	2.4×10^6	5.1×10^{-2}
<u>Aphanocapsa</u> sp.	1.2×10^5	1.2×10^{-3}
<u>Oscillatoria</u> sp. (a)	7.0×10^4	5.9×10^{-4}

Appendix B Table 101. Numbers per liter and biomass (mg/liter) of phytoplankton at Station Q on 25 July 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	4.2×10^5	2.3×10^{-2}
<u>Gonium</u> sp.	5.6×10^5	2.1×10^{-2}
<u>Pandorina morum</u>	2.2×10^6	4.2×10^{-1}
<u>Closterium incurvum</u>	3.3×10^5	2.6×10^{-3}
<u>Closterium sigmoideum</u>	8.8×10^5	6.9×10^{-2}
<u>Closterium rostratum</u>	9.8×10^5	3.2×10^{-2}
<u>Closterium abruptum</u>	4.2×10^5	1.4×10^{-2}
<u>Cosmarium botrytis</u>	1.6×10^5	1.9×10^{-2}
<u>Euastrum</u> (a)	1.9×10^5	1.0×10^{-1}
<u>Synura</u> sp.	6.0×10^5	1.3×10^{-1}
<u>Skeletonema costatum</u>	1.9×10^5	2.8×10^{-2}
<u>Navicula exigua</u>	1.4×10^5	1.6×10^{-3}

Appendix B Table 102. Numbers per liter and biomass (mg/liter) of phytoplankton at Station R on 25 July 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	8.4×10^5	4.4×10^{-2}
<u>Pandorina morum</u>	1.5×10^6	4.3×10^{-1}
<u>Closterium abruptum</u>	5.6×10^5	1.1×10^{-2}
<u>Staurastrum protectum</u> var. <u>planctonicum</u>	2.8×10^5	5.9×10^{-1}
<u>Euglena caudata</u>	2.3×10^5	6.2×10^{-2}
<u>Phacus brevicauda</u>	2.8×10^5	6.3×10^{-2}
<u>Gymnodinium fuscum</u>	3.3×10^5	9.5×10^{-2}
<u>Pseudotetraedron neglectum</u>	3.7×10^4	8.4×10^{-4}
<u>Synura</u> sp.	4.7×10^5	9.5×10^{-2}
<u>Ceratium hirundinella</u>	2.3×10^5	3.7
<u>Merismopedia elegans</u>	2.2×10^6	4.7×10^{-2}

Appendix B Table 103. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S on 25 July 1978.

Species	No./liter	mg/liter
<u>Eudorina</u> sp.	3.1×10^5	1.7×10^{-1}
<u>Pandorina morum</u>	4.2×10^5	8.0×10^{-2}
<u>Scenedesmus quadricauda</u>	5.6×10^5	1.2×10^{-2}
<u>Closterium incurvum</u>	3.6×10^6	8.4×10^{-2}
<u>Closterium peracerosum</u> var. <u>elegans</u>	5.9×10^5	4.7×10^{-3}
<u>Euglena caudata</u>	1.7×10^5	3.8×10^{-2}
<u>Calycomonas ovalis</u>	5.2×10^5	7.9×10^{-2}
<u>Aphanocapsa</u> sp.	2.2×10^6	4.7×10^{-2}
<u>Oscillatoria</u> sp. (b)	7.7×10^5	1.0×10^{-2}

Appendix B Table 104. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S' on 25 July 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.5×10^5	1.0×10^{-2}
<u>Gonium</u> sp.	4.5×10^4	1.7×10^{-3}
<u>Pandorina morum</u>	6.4×10^5	1.8×10^{-1}
<u>Scenedesmus quadricauda</u>	3.2×10^5	3.2×10^{-3}
<u>Closterium abruptum</u>	1.9×10^5	3.4×10^{-3}
<u>Closterium peracerosum</u> var. <u>elegans</u>	1.1×10^6	1.7×10^{-2}
<u>Staurastrum aspinosum</u> var. <u>annulatum</u>	8.6×10^4	7.8×10^{-3}
<u>Cosmarium subreniforme</u>	4.9×10^5	1.5×10^{-2}
<u>Euglena caudata</u>	1.7×10^5	6.3×10^{-2}
<u>Synura</u> sp.	1.9×10^5	3.8×10^{-2}
<u>Navicula rhynchocephala</u>	8.6×10^4	4.9×10^{-2}
<u>Merismopedia elegans</u>	2.3×10^6	4.9×10^{-2}
<u>Chroococcus disperus</u>	9.0×10^5	7.5×10^{-3}

Appendix B Table 105. Numbers per liter and biomass (mg/liter) of phytoplankton at Station I on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.1×10^5	6.9×10^{-3}
<u>Scenedesmus acuminatus</u>	5.6×10^4	3.9×10^{-2}
<u>Closterium rostratum</u>	5.6×10^4	3.9×10^{-4}
<u>Closterium leibleinii</u>	5.6×10^4	6.1×10^{-2}
<u>Cosmarium phaseolus f. minor</u>	1.6×10^6	4.8×10^{-2}
<u>Cosmarium sexangulare var. minor</u>	5.9×10^6	1.8×10^{-1}
<u>Euastrum sp. (b)</u>	1.1×10^5	2.1×10^{-2}
Unidentified green colony	1.1×10^5	2.1×10^{-2}
<u>Euglena acus</u>	5.6×10^4	7.8×10^{-3}
<u>Synura sp.</u>	1.1×10^5	1.7×10^{-2}
<u>Navicula rhynchocephala</u>	5.6×10^4	4.0×10^{-3}
<u>Pleurosigma sp.</u>	5.6×10^4	9.4×10^{-2}
<u>Amphora sp.</u>	5.6×10^4	1.5×10^{-2}
<u>Merismopedia elegans</u>	7.8×10^5	1.7×10^{-2}
<u>Merismopedia tenuissima</u>	3.0×10^6	3.0×10^{-2}
<u>Anabena catenula</u>	3.9×10^5	1.3×10^{-2}
<u>Anabena sp. (a)</u>	1.2×10^6	1.0×10^{-2}

Appendix B Table 106. Numbers per liter and biomass (mg/liter) of phytoplankton at Station J on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	6.0×10^4	2.1×10^{-3}
<u>Crucigenia quadrata</u>	4.0×10^4	2.1×10^{-3}
<u>Crucigenia tetrapedia</u>	8.0×10^4	4.3×10^{-3}
<u>Scenedesmus quadricauda</u>	4.0×10^4	8.5×10^{-4}
<u>Closterium tumidum</u>	6.0×10^4	1.9×10^{-3}
<u>Cosmarium phaseolus f. minor</u>	2.0×10^5	7.0×10^{-3}
<u>Trachelomonas volvocina</u>	4.0×10^4	2.8×10^{-3}
<u>Euglena proxima</u>	2.0×10^4	2.2×10^{-3}
<u>Pseudotetradron neglectum</u>	1.0×10^5	1.8×10^{-3}
<u>Synura sp.</u>	4.0×10^4	2.2×10^{-3}
<u>Coscinodiscus sp.</u>	8.0×10^4	1.3×10^{-2}
<u>Cyclotella sp.</u>	6.0×10^4	1.6×10^{-3}
<u>Tabellaria sp.</u>	4.0×10^4	7.5×10^{-3}
<u>Cocconeis placentula</u>	2.0×10^4	1.9×10^{-3}
<u>Diploneis puella</u>	2.0×10^4	1.4×10^{-2}
<u>Merismopedia elegans</u>	2.1×10^6	4.5×10^{-2}
<u>Merismopedia tenuissima</u>	9.4×10^5	9.3×10^{-3}
<u>Anabena catenula</u>	1.5×10^6	5.0×10^{-2}
<u>Navicula viridis var. rostellata</u>	3.0×10^4	2.4×10^{-3}

Appendix B Table 107. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.0×10^5	3.6×10^{-3}
<u>Crucigenia quadrata</u>	1.3×10^5	7.0×10^{-3}
<u>Crucigenia tetrapedia</u>	5.1×10^4	2.7×10^{-3}
<u>Scenedesmus quadricauda</u>	2.5×10^4	5.3×10^{-4}
<u>Closterium tumidum</u>	2.5×10^5	5.0×10^{-3}
<u>Trachelomonas volvocina</u>	2.5×10^4	1.7×10^{-3}
<u>Cosmarium schiephakeanum</u>	7.6×10^4	5.1×10^{-3}
<u>Trachelomonas charkowiensis</u> var. <u>affine</u>	2.5×10^4	3.0×10^{-3}
<u>Synura</u> sp.	2.5×10^4	1.4×10^{-3}
<u>Stephanodiscus dubius</u>	2.5×10^4	1.5×10^{-3}
<u>Tabellaria</u> sp.	2.5×10^4	1.5×10^{-3}
<u>Mastigloia</u> sp.	2.5×10^4	2.0×10^{-3}
<u>Merismopedia elegans</u>	2.8×10^6	6.0×10^{-2}
<u>Merismopedia tenuissima</u>	1.4×10^6	1.4×10^{-2}
<u>Anabena catenula</u>	1.4×10^6	4.7×10^{-2}

Appendix B Table 108. Numbers per liter and biomass (mg/liter) of phytoplankton at Station K' on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	7.0×10^4	2.5×10^{-3}
<u>Crucigenia quadrata</u>	7.0×10^4	3.7×10^{-3}
<u>Crucigenia tetrapedia</u>	7.0×10^4	2.1×10^{-3}
<u>Pandorina morum</u>	1.6×10^5	1.9×10^{-2}
<u>Closterium navicula</u>	1.4×10^5	1.4×10^{-3}
<u>Closterium acutum</u>	4.6×10^4	3.2×10^{-4}
<u>Closterium abruptum</u> var. <u>brevis</u>	9.3×10^4	3.5×10^{-3}
<u>Cosmarium sexangulare</u> var. <u>minor</u>	9.3×10^4	2.8×10^{-3}
<u>Trachelomonas volvocina</u>	2.3×10^4	2.8×10^{-3}
<u>Euglena acus</u>	4.6×10^4	1.0×10^{-2}
<u>Gymnodinium neclectum</u>	1.2×10^5	1.1×10^{-1}
<u>Stephanodiscus dubius</u>	7.0×10^4	3.3×10^{-3}
<u>Diploneis puella</u>	2.3×10^4	1.6×10^{-2}
<u>Synedra</u> sp.	2.3×10^4	2.8×10^{-2}
<u>Merismopedia elegans</u>	2.3×10^6	4.9×10^{-2}
<u>Merismopedia tenuissima</u>	8.0×10^5	7.9×10^{-3}
<u>Anabena catenula</u>	1.1×10^6	9.2×10^{-3}
<u>Coelosphaerium</u> sp.	2.3×10^4	4.4×10^{-3}

Appendix B Table 109. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	4.6×10^4	1.2×10^{-3}
<u>Pandorina</u> sp. (a)	4.6×10^4	5.5×10^{-3}
<u>Tetraedron</u> <u>quadricuspidatum</u>	2.3×10^4	4.1×10^{-4}
<u>Scenedesmus</u> <u>quadricauda</u> var. <u>maxima</u>	2.3×10^4	1.1×10^{-3}
<u>Cosmarium</u> <u>cornu</u>	7.0×10^4	5.3×10^{-3}
<u>Cosmarium</u> <u>contractum</u> var. <u>incrassatum</u>	2.3×10^4	2.5×10^{-2}
<u>Cosmarium</u> <u>raciborskii</u>	9.3×10^4	2.8×10^{-3}
<u>Cosmarium</u> <u>circulare</u>	2.3×10^4	1.3×10^{-2}
<u>Euastrum</u> sp. (b)	2.3×10^4	6.2×10^{-3}
<u>Stauroastrum</u> <u>aspinosum</u> var. <u>annulatum</u>	2.3×10^4	1.6×10^{-2}
<u>Pediastrum</u> <u>glanduliferum</u>	2.3×10^4	9.4×10^{-3}
<u>Synura</u> sp.	4.6×10^4	2.5×10^{-3}
<u>Cocconeis</u> <u>disculus</u>	1.2×10^5	1.8×10^{-2}
<u>Navicula</u> <u>capitata</u>	4.6×10^4	4.4×10^{-2}
<u>Navicula</u> <u>mutica</u> var. <u>tropica</u>	4.6×10^4	2.7×10^{-3}
<u>Pinnularia</u> sp.	2.3×10^4	2.6×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	1.9×10^6	4.0×10^{-2}
<u>Merismopedia</u> <u>tenuissima</u>	2.4×10^6	2.4×10^{-2}
<u>Spirulina</u> <u>laxa</u>	1.9×10^5	1.6×10^{-3}
<u>Anabena</u> <u>catenula</u>	3.5×10^5	2.9×10^{-3}

Appendix B Table 110. Numbers per liter and biomass (mg/liter) of phytoplankton at Station M on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.2×10^5	3.7×10^{-3}
<u>Pandorina morum</u>	4.0×10^4	4.8×10^{-3}
<u>Tetraedron caudatum</u>	6.0×10^4	1.1×10^{-3}
<u>Crucigenia quadrata</u>	4.0×10^4	9.0×10^{-4}
<u>Crucigenia tetrapedia</u>	4.0×10^4	9.0×10^{-4}
<u>Scenedesmus quadricauda</u>	6.0×10^4	1.3×10^{-3}
<u>Closterium navicula</u>	4.0×10^4	3.6×10^{-4}
<u>Cosmarium schliephakeanum</u>	2.0×10^4	3.6×10^{-3}
<u>Staurastrum aspinosum</u> var. <u>annulatum</u>	2.0×10^4	8.4×10^{-3}
<u>Euglena acus</u>	4.0×10^4	6.7×10^{-3}
<u>Phacus longicauda</u>	8.0×10^4	2.3×10^{-2}
<u>Synedra</u> sp.	2.0×10^4	4.8×10^{-3}
<u>Fragilaria</u> sp.	1.0×10^5	1.5×10^{-2}
<u>Cocconeis placentula</u>	1.6×10^5	2.7×10^{-2}
<u>Diploneis puella</u>	2.0×10^4	7.8×10^{-3}
<u>Navicula radiosa</u> var. <u>tenella</u>	2.0×10^4	1.1×10^{-3}
<u>Merismopedia elegans</u>	9.0×10^5	1.9×10^{-2}
<u>Merismopedia tenuissima</u>	2.1×10^6	2.1×10^{-2}

Appendix B Table III. Numbers per liter and biomass (mg/liter) of phytoplankton at Station N on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	2.8×10^5	1.8×10^{-2}
<u>Eudorina</u> sp.	8.4×10^4	3.4×10^{-2}
<u>Pandorina morum</u>	1.4×10^5	1.7×10^{-2}
<u>Tetraedron quadricuspidatum</u>	5.6×10^4	1.0×10^{-3}
<u>Scenedesmus quadricauda</u>	8.4×10^4	1.8×10^{-3}
<u>Closterium navicula</u>	1.7×10^5	3.8×10^{-3}
<u>Closterium abruptum</u> var. <u>brevius</u>	1.7×10^5	8.5×10^{-3}
<u>Cosmarium sexangulare</u>	4.2×10^5	1.3×10^{-2}
<u>Cosmarium raciborskii</u>	2.8×10^5	8.4×10^{-3}
<u>Cosmarium turpinii</u> var. <u>eximium</u>	5.6×10^4	9.4×10^{-3}
<u>Pediastrum boryanum</u>	2.8×10^4	6.8×10^{-2}
<u>Cocconeis disculus</u>	1.1×10^5	1.6×10^{-2}
<u>Navicula exigua</u>	5.6×10^4	6.6×10^{-3}
<u>Merismopedia elegans</u>	2.5×10^6	5.3×10^{-2}
<u>Merismopedia tenuissima</u>	2.8×10^6	2.8×10^{-2}
<u>Spirulina laxa</u>	6.7×10^5	5.6×10^{-3}
<u>Anabena catenula</u>	6.1×10^5	5.1×10^{-3}

Appendix B Table 112. Numbers per liter and biomass (mg/liter) of phytoplankton at Station O on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	2.1×10^5	1.2×10^{-2}
<u>Pandorina morum</u>	4.2×10^5	8.0×10^{-2}
<u>Tetraedron quadricuspidatum</u>	1.0×10^5	1.8×10^{-3}
<u>Closterium subulatum</u>	5.9×10^5	3.0×10^{-3}
<u>Cosmarium raciborskii</u>	3.6×10^6	1.1×10^{-1}
<u>Cosmarium contractum</u> var. <u>incrassatum</u>	2.2×10^6	6.6×10^{-2}
<u>Cosmarium</u> sp.	3.5×10^5	8.7×10^{-3}
<u>Pediastrum boryanum</u>	3.5×10^4	4.9×10^{-2}
<u>Gymnodinium limneticum</u>	3.5×10^4	7.5×10^{-3}
<u>Stephanodiscus dubius</u>	3.5×10^4	2.6×10^{-3}
<u>Cocconeis disculus</u>	3.5×10^4	6.6×10^{-3}
<u>Merismopedia elegans</u>	2.3×10^6	4.9×10^{-2}
<u>Anabena</u> sp. (a)	2.5×10^6	2.1×10^{-2}

Appendix B Table 113. Numbers per liter and biomass (mg/liter) of phytoplankton at Station P on 20 August 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	8.4×10^4	4.7×10^{-2}
<u>Pandorina morum</u>	5.6×10^4	2.5×10^{-3}
<u>Chlamydomonas gleogama</u>	2.5×10^5	3.0×10^{-2}
<u>Pandorina</u> sp. (a)	5.6×10^4	3.1×10^{-3}
<u>Scenedesmus quadricauda</u>	2.8×10^4	6.0×10^{-4}
<u>Closterium libellula</u> var. <u>interruptum</u>	3.9×10^5	2.4×10^{-2}
<u>Cosmarium lundelli</u> var. <u>ellipticum</u>	7.5×10^5	5.0×10^{-2}
<u>Cosmarium pseudoprotruberans</u>	1.7×10^6	5.1×10^{-2}
<u>Merismopedia elegans</u>	2.8×10^6	6.0×10^{-2}

Appendix B Table 114. Numbers per liter and biomass (mg/liter) of phytoplankton at Station Q on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.2×10^5	4.3×10^{-3}
<u>Eudorina</u> sp.	1.6×10^5	8.9×10^{-2}
<u>Pandorina morum</u>	2.8×10^5	5.4×10^{-2}
<u>Tetraedron quadricuspidatum</u>	8.0×10^4	1.4×10^{-3}
<u>Scenedesmus acuminatus</u>	1.6×10^5	9.8×10^{-3}
<u>Closterium incurvum</u>	4.4×10^6	2.9×10^{-2}
<u>Closterium subulatum</u>	3.2×10^5	6.4×10^{-3}
<u>Cosmarium sexangulare</u>	6.0×10^5	1.8×10^{-2}
<u>Cosmarium raciborskii</u>	3.6×10^5	1.1×10^{-2}
<u>Cosmarium subreniforme</u>	2.4×10^5	7.2×10^{-3}
<u>Gymnodinium neglectum</u>	4.0×10^4	1.7×10^{-2}
<u>Merismopedia elegans</u>	1.8×10^6	3.8×10^{-2}
<u>Oscillatoria</u> sp. (a)	3.1×10^6	2.6×10^{-2}
<u>Anabena spiroides</u> var. <u>crassa</u>	1.1×10^6	3.7×10^{-2}

Appendix B Table 115. Numbers per liter and biomass (mg/liter) of phytoplankton at Station R on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	7.0×10^4	2.5×10^{-3}
<u>Eudorina</u> sp.	4.2×10^5	1.7×10^{-1}
<u>Pandorina morum</u>	4.9×10^5	9.4×10^{-2}
<u>Tetraedron quadricuspidatum</u>	7.0×10^4	5.4×10^{-4}
<u>Scenedesmus quadricauda</u>	7.3×10^6	5.7×10^{-2}
<u>Closterium abruptum</u> var. <u>brevius</u>	7.0×10^4	1.5×10^{-3}
<u>Closterium subulatum</u>	2.1×10^5	4.0×10^{-3}
<u>Cosmarium subreniforme</u>	2.1×10^5	6.9×10^{-2}
<u>Cosmarium pseudoconnatum</u>	5.6×10^5	1.7×10^{-2}
<u>Arthrodesmus</u>	7.0×10^4	1.2×10^{-3}
<u>Gymnodinium neglectum</u>	3.5×10^5	1.5×10^{-1}
<u>Navicula exigua</u>	7.0×10^4	4.1×10^{-3}
<u>Merismopedia elegans</u>	1.8×10^6	3.8×10^{-2}
<u>Oscillatoria</u> sp. (a)	2.3×10^6	1.9×10^{-2}
<u>Anabena</u> sp. (b)	1.5×10^6	5.0×10^{-2}

Appendix B Table 116. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S on 20 August 1978.

Species	No./liter	mg/liter
<u>Eudorina</u> sp.	2.8×10^5	8.0×10^{-2}
<u>Pandorina</u> <u>morum</u>	3.4×10^5	6.5×10^{-2}
<u>Tetraedron</u> <u>quadricuspidatum</u>	5.6×10^4	1.0×10^{-3}
<u>Crucigenia</u> <u>irregularis</u>	1.1×10^5	2.3×10^{-3}
<u>Scenedesmus</u> <u>quadricauda</u> var. <u>maximus</u>	5.6×10^4	4.4×10^{-3}
<u>Closterium</u> <u>subulatum</u>	1.1×10^5	2.2×10^{-3}
<u>Closterium</u> <u>abruptum</u> var. <u>brevius</u>	6.6×10^6	5.9×10^{-2}
<u>Cosmarium</u> <u>pseudoprotruberans</u>	1.2×10^6	3.6×10^{-2}
<u>Calycomonas</u> <u>ovalis</u>	3.9×10^5	5.9×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	1.6×10^6	3.6×10^{-2}
<u>Spirulina</u> <u>laxa</u>	5.0×10^5	4.2×10^{-3}
<u>Anabena</u> sp. (b)	3.1×10^6	1.0×10^{-1}

Appendix B Table 117. Numbers per liter and biomass (mg/liter) of phytoplankton at Station S' on 20 August 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	5.6×10^4	2.0×10^{-3}
<u>Eudorina</u> sp.	2.2×10^4	1.2×10^{-2}
<u>Pandorina morum</u>	2.2×10^4	4.2×10^{-3}
<u>Tetraedron quadricuspidatum</u>	5.6×10^4	1.0×10^{-3}
<u>Tetraedron trigonium</u>	5.6×10^4	4.2×10^{-4}
<u>Closterium abruptum</u> var. <u>brevius</u>	5.6×10^6	5.0×10^{-2}
<u>Closterium navicula</u>	1.1×10^5	3.9×10^{-3}
<u>Cosmarium pseudoprotruberans</u>	1.1×10^6	3.3×10^{-2}
<u>Gymnodinium lemneticum</u>	1.1×10^5	6.6×10^{-2}
<u>Synura</u> sp.	1.7×10^5	2.6×10^{-2}
<u>Cocconeis pediculus</u>	5.6×10^4	6.0×10^{-3}
<u>Merismopedia elegans</u>	1.4×10^6	1.4×10^{-2}
<u>Merismopedia tenuissima</u>	1.1×10^6	1.7×10^{-1}

Appendix C Table 1. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 1 on 23 September 1978.

Species	No./liter	mg/liter
<u>Tetraedron quadricuspidatum</u>	3.4×10^5	6.1×10^{-3}
<u>Euastrum</u> sp. (a)	7.0×10^5	4.7×10^{-2}
<u>Cosmarium hammeri</u>	2.0×10^6	2.9×10^{-1}
<u>Cosmarium raciborskii</u>	2.2×10^6	2.1×10^{-1}
<u>Coelosphaerium</u> sp.	1.7×10^6	9.5×10^{-1}
<u>Anabena inaequalis</u>	5.7×10^6	1.9×10^{-1}

Appendix C Table 2. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 2 on 23 September 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	7.1×10^5	2.5×10^{-2}
<u>Conium</u> sp.	4.7×10^4	1.8×10^{-3}
<u>Pandorina</u> sp. (a)	3.4×10^5	4.1×10^{-2}
<u>Pandorina morum</u>	1.6×10^4	2.4×10^{-2}
<u>Eudorina</u> sp.	3.1×10^4	1.7×10^{-2}
<u>Scenedesmus quadricauda</u>	7.8×10^4	1.7×10^{-3}
<u>Scenedesmus arcuatus</u> var. <u>platydisca</u>	3.1×10^4	2.9×10^{-3}
<u>Tetraedron quadricuspidatum</u>	4.7×10^4	8.4×10^{-4}
<u>Closterium leibleinii</u>	3.1×10^4	4.2×10^{-2}
<u>Cosmarium sexangulare</u>	1.4×10^5	3.0×10^{-2}
<u>Cosmarium schliephakeanum</u>	1.9×10^5	1.3×10^{-2}
<u>Cosmarium bicuneatum</u> var. <u>tatricum</u>	2.2×10^5	5.3×10^{-2}
<u>Cosmarium nasatum</u>	1.6×10^6	2.0×10^{-1}
<u>Cosmarium ovale</u>	4.7×10^4	8.6×10^{-2}
<u>Staurastrum americanum</u>	6.2×10^4	2.4×10^{-2}
<u>Staurastrum rugosum</u>	3.1×10^4	2.6×10^{-2}
<u>Euastrum</u> sp. (a)	3.1×10^4	1.6×10^{-2}
Unidentified green colony	6.2×10^4	3.5×10^{-2}
<u>Trachelomonas volvocina</u>	1.6×10^4	4.6×10^{-3}
<u>Eutrepita</u> sp.	1.6×10^4	2.4×10^{-3}
Unidentified cluster of green cells	3.1×10^4	6.6×10^{-4}
<u>Merismopedia elegans</u>	6.2×10^4	1.3×10^{-3}
<u>Merismopedia tenuissima</u>	6.2×10^4	6.1×10^{-4}
<u>Chroococcus disperus</u>	7.8×10^4	8.3×10^{-3}
<u>Synura</u> sp.	6.2×10^4	4.9×10^{-3}
<u>Cocconeis placentula</u>	1.6×10^4	6.6×10^{-3}
<u>Fragilaria</u> sp.	4.2×10^5	1.4×10^{-2}

Appendix C Table 3. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 3 on 23 September 1978.

Species	No./liter	mg/liter
<u>Tetraedron quadricuspidatum</u>	5.1×10^4	9.1×10^{-4}
<u>Cosmarium difficle</u> var. <u>subleave</u>	1.5×10^5	2.5×10^{-2}
<u>Cosmarium subreniforme</u>	5.1×10^5	4.7×10^{-1}
<u>Cosmarium bicuneatum</u> var. <u>tatricum</u>	2.5×10^6	5.3×10^{-1}
<u>Cosmarium ordinatum</u>	3.8×10^5	1.8×10^{-1}
<u>Euastrum</u> sp. (a)	2.5×10^4	4.2×10^{-3}
<u>Stauroastrum americanum</u>	7.6×10^4	9.5×10^{-2}
<u>Eudorina</u> sp.	7.6×10^4	5.6×10^{-2}
<u>Euglena ehrenbergii</u>	2.5×10^4	4.2×10^{-2}
<u>Synura</u> sp.	2.5×10^4	6.5×10^{-3}
<u>Anabena</u> sp. (a)	2.3×10^5	7.7×10^{-3}
<u>Chroococcus disperus</u>	1.5×10^5	1.3×10^{-2}
<u>Diploneis puella</u>	2.5×10^4	4.0×10^{-2}
<u>Fragilaria</u> sp.	1.3×10^6	5.1×10^{-2}

Appendix C Table 4. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 4 on 23 September 1978.

Species	No./liter	mg/liter
<u>Pandorina</u> sp. (a)	2.1×10^5	1.2×10^{-1}
<u>Pediastrum duplex</u>	7.0×10^4	6.7×10^{-2}
<u>Crucigenia quadrata</u>	7.0×10^4	1.6×10^{-3}
<u>Scenedesmus acuminatus</u>	7.0×10^4	4.7×10^{-3}
<u>Cosmarium costatum</u>	1.4×10^5	1.5×10^{-2}
<u>Trachelomonas volvocina</u>	2.8×10^5	1.1×10^{-2}
<u>Synura</u> sp.	7.0×10^4	7.5×10^{-3}
<u>Coelosphaerium</u> sp.	1.3×10^6	7.2×10^{-1}
<u>Anabena inaequalis</u>	2.4×10^6	8.0×10^{-2}
<u>Oscillatoria</u> sp. (a)	7.4×10^6	8.7×10^{-1}
<u>Cocconeis disculus</u>	7.0×10^4	1.2×10^{-2}
<u>Mastigloia</u> sp.	7.0×10^4	2.3×10^{-3}

Appendix C Table 5. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 5 On 23 September 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	2.1×10^5	6.0×10^{-2}
<u>Pediastrum duplex</u>	8.4×10^5	8.0×10^{-2}
<u>Tetraedron quadricuspidatum</u>	1.4×10^5	4.9×10^{-3}
<u>Scenedesmus dimorphus</u>	8.4×10^5	5.6×10^{-2}
<u>Cosmarium contractum</u> var. <u>incrassatum</u>	1.4×10^4	6.9×10^{-3}
<u>Trachelomonas volvocina</u>	7.0×10^4	3.7×10^{-2}
<u>Synura</u> sp.	1.4×10^5	2.1×10^{-2}
<u>Coelosphaerium</u> sp.	7.0×10^4	3.9×10^{-2}
<u>Anabena</u> sp. (a)	4.9×10^5	1.6×10^{-2}
<u>Oscillatoria</u> sp. (a)	7.1×10^6	2.4×10^{-1}

Appendix C Table 6. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 6 on 23 September 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	3.1×10^6	9.7×10^{-2}
<u>Eudorina</u> sp.	6.2×10^4	1.8×10^{-2}
<u>Tetraedron quadricuspidatum</u>	9.3×10^4	1.7×10^{-3}
<u>Euastrum</u> sp. (a)	1.2×10^5	2.0×10^{-2}
<u>Cosmarium sexangulare</u>	2.2×10^5	5.3×10^{-2}
Unidentified green colony	6.2×10^4	6.0×10^{-2}
<u>Cosmarium schliephakeanum</u>	9.3×10^4	1.4×10^{-2}
<u>Oscillatoria acuminata</u>	3.0×10^6	1.0×10^{-1}

Appendix C Table 7. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 7 on 23 September 1978.

Speceis	No./liter	mg/liter
<u>Gonium</u> sp.	9.3×10^4	3.6×10^{-3}
<u>Pandorina</u> <u>morum</u>	5.4×10^5	1.0×10^{-1}
<u>Eudorina</u> sp.	1.9×10^5	7.7×10^{-2}
<u>Chlamydomonas</u> <u>gleogama</u>	2.3×10^4	1.3×10^{-3}
<u>Tetraedron</u> <u>quadricuspidatum</u>	2.3×10^4	8.0×10^{-4}
<u>Scenedesmus</u> <u>arcuatus</u> var. <u>platydiscus</u>	2.3×10^4	5.9×10^{-4}
<u>Crucigenia</u> <u>quadrata</u>	2.3×10^4	1.2×10^{-3}
<u>Cosmarium</u> <u>subprotumidum</u>	7.0×10^4	1.6×10^{-1}
<u>Cosmarium</u> <u>schliephakeanum</u>	1.6×10^5	3.9×10^{-2}
<u>Cosmarium</u> <u>bicuneatum</u> var. <u>tatrium</u>	3.3×10^5	4.8×10^{-2}
<u>Cosmarium</u> <u>tinctum</u>	1.6×10^6	6.0×10^{-2}
<u>Euastrum</u> sp. (a)	4.7×10^4	3.0×10^{-2}
<u>Staurastrum</u> <u>rugosum</u>	4.7×10^4	2.5×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	2.3×10^6	4.9×10^{-2}
<u>Merismopedia</u> <u>tenuissima</u>	9.5×10^5	9.4×10^{-3}
<u>Anabena</u> sp. (a)	2.3×10^5	4.8×10^{-3}
<u>Chroococcus</u> <u>disperus</u>	2.1×10^5	3.2×10^{-2}
<u>Fragilaria</u> sp.	9.3×10^4	2.2×10^{-3}
<u>Amphora</u> sp.	2.3×10^4	7.7×10^{-3}
<u>Stephanodiscus</u> <u>dubius</u>	2.3×10^4	2.4×10^{-3}

Appendix C Table 8. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 8 on 23 September 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	8.6×10^4	4.8×10^{-3}
<u>Eudorina</u> sp.	8.6×10^4	1.3×10^{-1}
<u>Tetraedron quadricuspidatum</u>	4.3×10^4	1.5×10^{-3}
<u>Cosmarium exigum</u>	8.6×10^4	4.6×10^{-2}
<u>Cosmarium costatum</u>	6.4×10^4	4.3×10^{-2}
<u>Cosmarium ordinatum</u>	1.1×10^5	1.0×10^{-1}
<u>Euastrum</u> sp. (a)	2.1×10^4	1.2×10^{-2}
<u>Stauroastrum echinatum</u>	8.6×10^4	4.3×10^{-2}
<u>Trachelomonas charkowiensis</u> var. affine	2.1×10^4	5.7×10^{-3}
<u>Synura</u> sp.	2.1×10^4	2.3×10^{-3}
<u>Merismopedia tenuissima</u>	7.7×10^5	7.6×10^{-3}
<u>Merismopedia elegans</u>	2.1×10^6	4.5×10^{-2}
<u>Oscillatoria</u> sp. (a)	6.4×10^4	7.4×10^{-4}
<u>Cocconeis disculus</u>	6.4×10^4	1.9×10^{-2}

Appendix C Table 9. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 9 on 23 September 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.3×10^6	1.9×10^{-1}
<u>Pandorina morum</u>	5.6×10^4	3.1×10^{-2}
<u>Eudorina</u> sp.	5.6×10^4	5.4×10^{-2}
<u>Tetraedron quadricuspidatum</u>	5.6×10^4	2.0×10^{-3}
<u>Scenedesmus quadricauda</u>	1.1×10^5	2.3×10^{-3}
<u>Cosmarium pseudobroomei</u>	5.6×10^4	1.7×10^{-3}
<u>Cosmarium costatum</u>	8.3×10^4	2.3×10^{-1}
<u>Cosmarium sexangulare</u>	2.2×10^5	3.7×10^{-2}
<u>Cosmarium trilobulatum</u>	5.6×10^4	9.4×10^{-3}
<u>Euastrum</u> sp. (a)	2.8×10^4	4.7×10^{-3}
<u>Merismopedia tenuissima</u>	2.8×10^6	2.8×10^{-2}
<u>Chroococcus disperus</u>	5.6×10^4	7.2×10^{-3}
<u>Oscillatoria</u> sp. (a)	4.0×10^5	3.3×10^{-3}
<u>Cocconeis scutellum</u>	5.6×10^4	3.0×10^{-2}

Appendix C Table 10. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 11 on 23 September 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	2.4×10^5	3.4×10^{-2}
<u>Pandorina morum</u>	6.4×10^4	2.6×10^{-2}
<u>Eudorina</u> sp.	3.4×10^5	1.9×10^{-1}
<u>Cosmarium undulatum</u> var. <u>crenulatum</u>	1.9×10^5	1.5×10^{-1}
<u>Cosmarium raciborskii</u>	4.1×10^5	6.0×10^{-2}
<u>Cosmarium trilobulatum</u>	8.8×10^5	2.1×10^{-1}
<u>Staurastrum tetracerum</u>	2.1×10^4	5.8×10^{-4}
<u>Staurastrum vestitum</u>	1.3×10^5	2.9×10^{-1}
<u>Desmidium</u> sp.	1.1×10^5	7.4×10^{-3}
Unidentified green colony	7.3×10^5	8.9×10^{-1}
<u>Euastrum</u> sp. (a)	1.7×10^5	5.1×10^{-2}
<u>Chroococcus disperus</u>	1.3×10^5	1.7×10^{-2}
<u>Spirulina laxa</u>	1.3×10^5	1.1×10^{-3}
<u>Merismopedia tenuissima</u>	2.2×10^6	2.2×10^{-2}
<u>Cocconeis scutellum</u>	4.3×10^4	1.3×10^{-2}

Appendix C Table 11. Numbers per liter and biomass (mg/liter) of phytoplankton at Coinjock Bay Station 12 on 23 September 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.1×10^5	4.4×10^{-3}
<u>Gonium</u> sp.	1.7×10^5	6.5×10^{-3}
<u>Pandorina morum</u>	2.8×10^5	5.4×10^{-2}
<u>Eudorina</u> sp.	8.4×10^4	4.7×10^{-2}
<u>Crucigenia tetrapedia</u>	5.6×10^4	3.0×10^{-3}
<u>Crucigenia quadrata</u>	3.1×10^5	3.2×10^{-2}
<u>Scenedesmus quadricauda</u>	1.4×10^5	3.6×10^{-3}
<u>Closterium archerianum</u> f. <u>minor</u>	5.6×10^4	1.9×10^{-3}
<u>Closterium parvulum</u>	2.8×10^4	2.0×10^{-3}
<u>Trachelomonas charkowiensis</u> var. <u>affine</u>	5.6×10^4	1.2×10^{-2}
<u>Synura</u> sp.	2.8×10^4	4.3×10^{-3}
<u>Calycomonas ovalis</u>	2.8×10^4	2.8×10^{-4}
<u>Merismopedia elegans</u>	3.0×10^6	6.4×10^{-2}
<u>Merismopedia tenuissima</u>	1.6×10^6	1.6×10^{-2}
<u>Oscillatoria</u> sp. (a)	1.6×10^6	1.3×10^{-2}
<u>Spirulina laxa</u>	1.4×10^5	1.8×10^{-3}
<u>Diploneis puella</u>	2.8×10^4	5.4×10^{-2}
<u>Diploneis didyma</u>	2.8×10^4	1.6×10^{-2}
<u>Cocconeis disculus</u>	2.8×10^4	1.3×10^{-2}
<u>Mastigloia</u> sp.	1.4×10^5	1.5×10^{-2}
<u>Cymbella</u> sp.	8.4×10^4	4.9×10^{-4}

Appendix D Table 1. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-1 on 8 October 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	1.1×10^5	4.5×10^{-2}
<u>Tetraedron quadricuspidatum</u>	1.1×10^5	2.0×10^{-3}
<u>Scenedesmus quadricauda</u>	5.6×10^4	1.4×10^{-3}
<u>Scenedesmus dimorphus</u>	5.6×10^4	4.4×10^{-3}
<u>Closterium subulatum</u>	5.6×10^4	2.8×10^{-3}
<u>Cosmarium schliephakeanum</u>	3.8×10^6	3.1×10^{-1}
<u>Cosmarium sexangulare</u>	5.7×10^6	4.6×10^{-1}
<u>Cosmarium bicuneatum</u> var. <u>tatricum</u>	3.5×10^6	2.8×10^{-1}
<u>Staurastrum tetracerum</u>	1.1×10^5	2.4×10^{-2}
<u>Gymnodinium fuscum</u>	1.1×10^5	2.9×10^{-2}
<u>Peridinium volzii</u>	5.6×10^4	3.2×10^{-2}
<u>Merismopedia elegans</u>	1.9×10^6	4.0×10^{-2}
<u>Merismopedia tenuissima</u>	3.2×10^6	3.2×10^{-2}
<u>Coelosphaerium</u> sp.	5.6×10^4	2.3×10^{-2}
<u>Anabena oscillarioides</u>	6.7×10^5	2.2×10^{-2}
<u>Spirulina laxa</u>	6.7×10^5	5.6×10^{-3}
<u>Amphora</u> sp.	1.1×10^5	1.8×10^{-2}
<u>Navicula protracta</u>	5.6×10^4	5.5×10^{-3}
<u>Neidium</u> sp.	1.1×10^5	5.3×10^{-2}
<u>Cocconeis placentula</u>	1.1×10^5	8.8×10^{-3}

Appendix D Table 2. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-2 on 8 October 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	9.3×10^4	5.2×10^{-2}
<u>Pediastrum tetras</u>	4.7×10^4	2.1×10^{-2}
<u>Tetraedron quadricuspidatum</u>	1.4×10^5	2.5×10^{-3}
<u>Crucigenia quadrata</u>	4.7×10^4	4.9×10^{-3}
<u>Closterium subulatum</u>	4.7×10^4	1.9×10^{-3}
<u>Cosmarium sexangulare</u>	4.7×10^6	3.8×10^{-1}
<u>Cosmarium phaseolus f. minor</u>	4.4×10^6	3.5×10^{-1}
<u>Cosmarium bicuneatum var. tatricum</u>	4.5×10^6	3.6×10^{-1}
<u>Staurostrum tetracerum</u>	9.3×10^4	1.5×10^{-1}
<u>Merismopedia tenuissima</u>	1.4×10^6	1.4×10^{-2}
<u>Merismopedia elegans</u>	1.2×10^6	2.6×10^{-2}
<u>Spirulina princeps</u>	9.8×10^5	8.2×10^{-3}
<u>Gymnodinium fuscum</u>	9.3×10^4	1.9×10^{-2}
<u>Stephanodiscus dubius</u>	7.9×10^5	2.1×10^{-2}
<u>Cocconeis placentula</u>	9.3×10^4	8.7×10^{-3}

Appendix D Table 3. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-3 on 8 October 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas</u> sp. (a)	1.1×10^5	2.9×10^{-3}
<u>Tetraedron</u> <u>quadricuspidatum</u>	5.6×10^4	2.0×10^{-3}
<u>Closterium</u> <u>cornu</u>	2.8×10^5	1.1×10^{-2}
<u>Cosmarium</u> <u>sexangulare</u>	5.6×10^6	3.7×10^{-1}
<u>Cosmarium</u> <u>phaseolus</u> f. <u>minor</u>	4.1×10^6	3.5×10^{-1}
<u>Cosmarium</u> <u>bicuneatum</u> var. <u>tatricum</u>	3.4×10^6	1.3×10^{-1}
<u>Merismopedia</u> <u>elegans</u>	1.0×10^6	2.1×10^{-2}
<u>Spirulina</u> <u>laxa</u>	1.7×10^5	1.4×10^{-3}
<u>Navicula</u> <u>minima</u>	1.1×10^5	2.8×10^{-3}
<u>Nitzschia</u> sp.	1.1×10^5	1.6×10^{-2}
<u>Diploneis</u> <u>puella</u>	5.6×10^4	1.2×10^{-2}
<u>Mastigloia</u> sp.	1.1×10^5	3.0×10^{-2}

Appendix D Table 4. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-4 on 8 October 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	1.1×10^5	7.5×10^{-3}
<u>Tetraedron</u> <u>quadricuspidatum</u>	1.4×10^5	4.9×10^{-3}
<u>Pediastrum</u> <u>boryanum</u>	3.5×10^4	5.4×10^{-2}
<u>Scenedesmus</u> <u>quadricauda</u>	3.5×10^4	1.3×10^{-3}
<u>Closterium</u> <u>subulatum</u>	1.1×10^5	4.4×10^{-3}
<u>Cosmarium</u> <u>sexangulare</u>	3.5×10^6	2.8×10^{-1}
<u>Cosmarium</u> <u>phaseolus</u> f. <u>minor</u>	2.9×10^6	2.3×10^{-1}
<u>Cosmarium</u> <u>bicuneatum</u> var. <u>tatricum</u>	2.5×10^6	9.4×10^{-2}
<u>Cryptomonas</u> <u>erosa</u>	3.5×10^4	3.4×10^{-3}
<u>Merismopedia</u> <u>tenuissima</u>	1.1×10^6	1.1×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	5.9×10^5	1.3×10^{-2}
<u>Spirulina</u> <u>laxa</u>	9.1×10^5	7.6×10^{-3}
<u>Navicula</u> <u>minima</u>	3.5×10^4	8.8×10^{-4}
<u>Synedra</u> sp.	3.5×10^4	2.0×10^{-2}
<u>Cocconeis</u> <u>placentula</u>	3.5×10^4	2.8×10^{-3}

Appendix D Table 5. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-5 on 8 October 1978.

Species	No./liter	mg/liter
<u>Cosmarium sexangulare</u>	5.7×10^6	4.6×10^{-1}
<u>Cosmarium phaseolus f. minor</u>	4.6×10^6	1.7×10^{-1}
<u>Cosmarium bicuneatum</u> var. <u>tatricum</u>	4.0×10^6	1.5×10^{-1}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	5.6×10^4	1.2×10^{-1}
<u>Pandorina morum</u>	3.9×10^5	1.6×10^{-1}
<u>Trachelomonas</u> sp. (a)	5.6×10^4	2.3×10^{-2}
<u>Cryptomonas erosa</u>	1.1×10^5	1.0×10^{-3}
<u>Synura</u> sp.	1.1×10^5	2.2×10^{-2}
<u>Merismopedia elegans</u>	1.5×10^6	3.2×10^{-2}
<u>Merismopedia tenuissima</u>	6.1×10^5	6.0×10^{-3}
<u>Anabena sphaerica</u>	1.7×10^5	5.7×10^{-3}
<u>Cocconeis disculus</u>	5.6×10^4	9.4×10^{-3}
<u>Mastigloia</u> sp.	1.1×10^5	3.2×10^{-2}

Appendix D Table 6. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-6 on 8 October 1978.

Species	No./liter	mg/liter
<u>Conium</u> sp.	2.2×10^5	1.1×10^{-2}
<u>Pandorina</u> <u>morum</u>	3.9×10^5	1.6×10^{-1}
<u>Closterium</u> <u>subulatum</u>	3.4×10^5	1.3×10^{-2}
<u>Cosmarium</u> <u>sexangulare</u>	6.3×10^6	5.1×10^{-1}
<u>Cosmarium</u> <u>bicuneatum</u> var. <u>tatricum</u>	5.4×10^6	4.3×10^{-1}
<u>Cosmarium</u> <u>phaseolus</u> f. <u>minor</u>	5.7×10^6	2.1×10^{-1}
<u>Cosmarium</u> <u>subreniforme</u>	5.6×10^4	9.4×10^{-3}
<u>Euastrum</u> sp. (a)	5.6×10^4	2.5×10^{-2}
<u>Staurastrum</u> <u>pentacerum</u>	5.6×10^4	7.2×10^{-2}
<u>Gymnodinium</u> <u>fuscum</u>	1.1×10^5	8.3×10^{-2}
<u>Merismopedia</u> <u>elegans</u>	1.8×10^6	3.8×10^{-2}
<u>Diploneis</u> <u>puella</u>	1.1×10^5	3.3×10^{-2}
<u>Navicula</u> <u>notha</u>	1.1×10^5	5.9×10^{-2}
<u>Cocconeis</u> <u>disculus</u>	5.6×10^4	1.7×10^{-2}
<u>Cocconeis</u> <u>placentula</u>	5.6×10^4	4.5×10^{-3}

Appendix D Table 7. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-7 on 8 October 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	1.2×10^6	4.9×10^{-1}
<u>Gonium</u> sp.	9.3×10^4	4.9×10^{-3}
<u>Crucigenia quadrata</u>	9.3×10^4	9.7×10^{-3}
<u>Cosmarium circulare</u>	4.7×10^4	2.2×10^{-1}
<u>Cosmarium subspeciosum</u>	4.7×10^4	6.8×10^{-2}
<u>Cosmarium sexangulare</u>	3.5×10^6	2.8×10^{-1}
<u>Cosmarium bicuneatum</u> var. <u>tatricum</u>	3.4×10^6	1.3×10^{-1}
<u>Cosmarium phaseolus</u> f. <u>minor</u>	4.9×10^6	3.9×10^{-1}
<u>Euastrum</u> sp (a)	9.3×10^4	4.6×10^{-2}
<u>Closterium subulatum</u>	9.3×10^4	3.6×10^{-3}
<u>Arthrodesmus</u> sp.	4.7×10^4	1.0×10^{-3}
<u>Synura</u> sp.	1.4×10^5	3.6×10^{-2}
<u>Trachelomonas volvocina</u>	4.7×10^4	5.7×10^{-3}
<u>Merismopedia elegans</u>	2.0×10^6	4.3×10^{-2}
<u>Oscillatoria acuminata</u>	9.3×10^5	7.8×10^{-3}
<u>Stauroneis</u> sp.	4.7×10^4	8.2×10^{-3}
<u>Amphora</u> sp.	9.3×10^4	3.6×10^{-2}

Appendix D Table 8. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-8 on 8 October 1978.

Species	No./liter	mg/liter
<u>Chlamydomonas gleogama</u>	1.1×10^5	8.8×10^{-3}
<u>Scenedesmus quadricauda</u>	1.1×10^5	6.8×10^{-3}
<u>Closterium navicula</u>	1.7×10^5	2.3×10^{-3}
<u>Cosmarium phaseolus f. minor</u>	5.1×10^6	1.9×10^{-1}
<u>Cosmarium bicuneatum var. tatricum</u>	5.5×10^6	2.1×10^{-1}
<u>Cosmarium sexangulare</u>	6.0×10^6	2.3×10^{-1}
<u>Staurastrum tetracerum</u>	5.6×10^4	8.0×10^{-2}
<u>Spirulina laxa</u>	3.3×10^5	2.8×10^{-3}
<u>Oscillatoria acuminata</u>	1.2×10^6	1.0×10^{-2}
<u>Merismopedia elegans</u>	1.7×10^6	3.6×10^{-2}
<u>Diploneis puella</u>	5.6×10^4	1.9×10^{-2}
<u>Cocconeis placentula</u>	5.6×10^4	4.5×10^{-3}
<u>Mastigloia sp.</u>	2.2×10^5	2.1×10^{-2}

Appendix D Table 9. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-9 on 8 October 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	1.7×10^5	6.9×10^{-2}
<u>Tetraedron quadricuspidatum</u>	5.6×10^4	2.0×10^{-3}
<u>Scenedesmus quadricauda</u>	5.6×10^4	3.0×10^{-3}
<u>Closterium navicula</u>	1.7×10^5	2.1×10^{-3}
<u>Cosmarium sexangulare</u>	6.1×10^6	2.3×10^{-1}
<u>Cosmarium bicuneatum</u> var. <u>tatricum</u>	4.9×10^6	1.8×10^{-1}
<u>Cosmarium phaseolus</u> f. <u>minor</u>	5.1×10^6	1.9×10^{-1}
<u>Euglena intermedia</u>	5.6×10^4	1.5×10^{-2}
<u>Trachelomonas volvocina</u>	1.1×10^5	2.1×10^{-2}
<u>Spirulina princeps</u>	3.9×10^5	3.3×10^{-3}
<u>Anabena inaequalis</u>	3.4×10^5	1.4×10^{-3}
<u>Merismopedia elegans</u>	1.3×10^6	2.8×10^{-2}
<u>Diploneis puella</u>	5.6×10^4	4.9×10^{-2}
<u>Mastigloia</u> sp.	5.6×10^4	5.2×10^{-3}
<u>Gymnodinium fuscum</u>	5.6×10^4	1.2×10^{-2}

Appendix D Table 10. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-10 on 8 October 1978.

Species	No./liter	mg/liter
<u>Gonium</u> sp.	1.7×10^5	1.2×10^{-2}
<u>Pandorina</u> <u>morum</u>	3.5×10^5	1.4×10^{-1}
<u>Pediastrum</u> <u>tetras</u>	3.5×10^4	2.3×10^{-3}
<u>Closterium</u> <u>libellula</u> var. <u>interruptum</u>	1.7×10^5	8.5×10^{-3}
<u>Cosmarium</u> <u>phaseolus</u> f. <u>minor</u>	3.7×10^6	1.4×10^{-1}
<u>Cosmarium</u> <u>sexangulare</u>	3.1×10^6	1.2×10^{-1}
<u>Cosmarium</u> <u>bicuneatum</u> var. <u>tatricum</u>	2.4×10^6	9.0×10^{-2}
<u>Euastrum</u> sp. (a)	3.5×10^4	1.1×10^{-2}
<u>Merismopedia</u> <u>tenuissima</u>	8.0×10^5	7.9×10^{-3}
<u>Merismopedia</u> <u>elegans</u>	1.4×10^6	3.0×10^{-2}
<u>Spirulina</u> <u>laxa</u>	8.0×10^5	6.7×10^{-3}
<u>Trachelomonas</u> <u>charkowiensis</u> var. <u>affine</u>	7.0×10^4	1.6×10^{-2}
<u>Trachelomonas</u> <u>volvocina</u>	1.1×10^5	5.5×10^{-3}
<u>Diploneis</u> <u>puella</u>	7.0×10^4	1.1×10^{-1}
<u>Cocconeis</u> <u>disculus</u>	7.0×10^4	1.3×10^{-2}

Appendix D Table 11. Numbers per liter and biomass (mg/liter) of phytoplankton at Station L-11 on 8 October 1978.

Species	No./liter	mg/liter
<u>Pandorina morum</u>	4.8×10^5	1.4×10^{-1}
<u>Eudorina</u> sp.	8.0×10^4	4.5×10^{-2}
<u>Crucigenia quadrata</u>	8.0×10^4	8.4×10^{-3}
<u>Closterium praelongum</u>	8.0×10^4	3.2×10^{-3}
<u>Arthrodesmus</u> sp.	4.0×10^4	1.4×10^{-3}
<u>Cosmarium sexangulare</u>	2.8×10^6	2.2×10^{-1}
<u>Cosmarium bicuneatum</u> var. <u>tatricum</u>	3.7×10^6	1.4×10^{-1}
<u>Cosmarium phaseolus</u> f. <u>minor</u>	4.0×10^6	1.5×10^{-1}
Unidentified green colony	1.2×10^5	1.4×10^{-2}
<u>Euglena hemichromata</u>	4.0×10^4	8.4×10^{-3}
<u>Phacus lemmermannii</u>	4.0×10^4	1.8×10^{-2}
<u>Merismopedia elegans</u>	8.4×10^5	1.8×10^{-2}
<u>Merismopedia tenuissima</u>	1.2×10^6	1.2×10^{-2}
<u>Stephanodiscus dubius</u>	1.2×10^5	6.3×10^{-3}
<u>Diploneis puella</u>	4.0×10^4	3.0×10^{-2}

Appendix D Table 12. Numbers per liter and biomass (mg/liter) of phytoplankton at Station Coinjock sag on 8 October 1978.

Species	No./liter	mg/liter
<u>Cosmarium sexangulare</u>	3.5×10^6	1.3×10^{-1}
<u>Cosmarium bicuneatum</u> var. <u>tatricum</u>	3.0×10^6	1.1×10^{-1}
<u>Cosmarium phaseolus</u> f. <u>minor</u>	2.1×10^6	7.0×10^{-2}
<u>Scenedesmus quadricauda</u>	3.5×10^4	1.7×10^{-3}
<u>Staurostrum aspinosum</u> var. <u>annulatum</u>	3.5×10^4	6.6×10^{-2}
<u>Merismopedia tenuissima</u>	7.3×10^5	7.2×10^{-3}
<u>Merismopedia elegans</u>	7.0×10^5	1.5×10^{-2}
<u>Stephanodiscus dubius</u>	7.0×10^4	1.1×10^{-2}
<u>Cyclotella</u> sp.	2.1×10^5	8.8×10^{-3}
<u>Cryptomonas ovata</u>	2.1×10^5	1.2×10^{-2}
<u>Ceratium hirundinella</u>	3.5×10^4	9.3×10^{-2}

Appendix E. Example of Biomass Calculation.

Using a Stage micrometer---

Objective field diameter at 400X=215 μ m

$$\frac{(215)^2}{(2)^2} \pi = X$$

Counting Field = $2.54 \times 10^4 \mu$

$$\frac{(2.54 \times 10^4)^2}{(2)^2} \pi = Y$$

$\frac{Y}{X} = Z$ (Ratio of entire field to one objective field)

$Z \times 20 = A$ (puts on per liter basis)

$A \div \text{No. of fields counted times No. organisms counted} = \text{No./liter}$

$\text{No./liter} \times \text{Volume of organisms in } \mu^3 = \text{Volume } (\mu^3) \text{ of organisms/liter}$

$\mu^3/\text{liter divided by } 10^9 \mu^3/\text{liter} = \text{mm}^3/\text{liter}$

Assuming specific gravity of unity:

$$\text{mm}^3/\text{liter} = \text{mg/liter}$$