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BERICHTE
aus dem
INSTITUT FÜR MEERESKUNDE
an der
CHRISTIAN-ALBRECHTS-UNIVERSITÄT · KIEL

Nr. 141



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at an anchor station in Kiel Bight during 1981/1982

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DOI 10.3289/IFM-BER-141

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ISSN 0341-8561

ABSTRACT:

An anchor station, located in coastal waters of the Kiel Bight at 54° 34' N and 10° 05' E, was run at four different seasons between fall 1981 and summer 1982. The following parameters were determined: salinity, temperature, nutrients, (nitrite, nitrate, phosphate, silicate) chlorophyll-a, phytoplankton composition, phytoplankton carbon (PPC), total cell numbers, dissolved organic carbon (DOC), total dissolved copper, dissolved organic copper, dissolved carbohydrates (monosaccharides and polysaccharides), dissolved free amino acids and microbial activity. The biological and chemical situation, characterized by the above mentioned parameters, was different during each sampling period. In wintertime only very low planktonic activity of small nanoflagellates was found; in spring the first phytoplankton bloom after the winter period, mainly composed of species of the Bacillariophyceae, had just started; in summer a planktonic lag-phase with a very low PPC concentration and small cell numbers was encountered; in autumn a typical Dinophyceae bloom was underway. While the biological related parameters were more or less concomitant to these situations, the copper values as well as carbohydrates and amino acids showed no direct dependency upon phytoplanktonic activity or inactivity.

ZUSAMMENFASSUNG:

In Küstengewässern der Kieler Bucht (54° 34' N; 10° 05' E) wurde eine Dauerstation zu vier verschiedenen Jahreszeiten von Herbst 1981 bis Sommer 1982 durchgeführt. Folgende Parameter wurden bestimmt: Salzgehalt, Temperatur, Nährstoffe (Nitrit, Nitrat, Phosphat, Silikat), Chlorophyll-a, Zusammensetzung des Planktons, Phytoplankton-Kohlenstoff (PPC), Gesamtzellzahlen, gelöster, organischer Kohlenstoff (DOC), gelöstes Gesamtkupfer, gelöstes, organisches Kupfer, gelöste Kohlenhydrate (Monosaccharide und Polysaccharide), gelöste freie Aminosäuren und mikrobiologische Aktivität. Der biologische und chemische Zustand wurde durch diese Parameter charakterisiert, und ergab für jede Jahreszeit ein anderes Bild: Im Winter wurden nur Nanoflagellaten gefunden; im Frühjahr fand gerade die erste Frühjahrsblüte statt, hauptsächlich bestehend aus Bacillariophyceenarten; der Sommer war durch eine Ruhephase des Phytoplanktonwachstums gekennzeichnet (geringe Zellzahl, geringe Konzentration an PPC); im Herbst fand wieder eine typische Dinophyceenblüte statt. Die biologisch relevanten Parameter stimmten gut mit dem jeweiligen Phytoplanktonwachstum überein, die Kupferwerte, Kohlenhydrate und Aminosäuren zeigten aber keine direkte Abhängigkeit von der Phytoplanktonaktivität bzw. -inaktivität.

INTRODUCTION:

A synoptical investigation of chemical, physical and biological Parameters were made in order to study biochemical processes probably involved in trace metal complexation. Especially the role of phytoplankton activity and its resulting exudates as well as the activity of heterotrophic microorganisms should be estimated.

The area of investigation was a high productive coastal water in the Kiel Bight, with a depth of about 23 m and a fairly high annual average DOC concentration of about $3 \text{ mg} \cdot \text{dm}^{-3}$. The water column of this region during most of the seasons is normally stratified, with a salinity range of $19-25 \cdot 10^{-3}$ in the bottom water and $14-22 \cdot 10^{-3}$ in the upper layer.

SAMPLING AND ANALYTICAL METHODS

Salinity and temperature were recorded by means of a TS-probe, calibrated by a Beckman salinometer and hydrocast thermometer readings. Hydrocast samples were also used for the analysis of nutrients according to procedures outlined in Grasshoff et al. (1983), whereas the sea water for the analysis of all the remaining parameters was pumped continuously aboard ship by the same apparatus from the surface or a depth of 5 m. This apparatus as well as the sampling procedure for the determination of organic copper has been described already in detail (Kremling et al., 1981). Discrete subsamples for the determination of chlorophyll-a and -b, microbial activity and plankton composition were drawn off before the sea water was filtered; those for the determination of total dissolved copper, DOC, dissolved amino acids and carbohydrates after the filtration.

Determination of the organic copper in the eluates and the total dissolved copper was performed by atomic absorption on a Perkin-Elmer spectrophotometer model 400 or 503, as described by Kremling et al. (1981, 1983). Chlorophyll-a and -b were extracted according to the procedure as described by Derenbach (1969) and separated and measured by fluorescence absorption according to Liebezeit (1980). DOC was measured by UV-destruction after Schreurs (1978). Plankton cell counts were obtained with an inverted microscope, and phytoplankton carbon (PPC) was derived by multiplying these cell counts with carbon conversion factors according to Strathmann (1967) and Elder (1979). The determination of dissolved free amino acids (DFAA) is based on the reaction with o-phthalaldehyde/mercaptoethanol to form fluorescent isoindole derivatives (Roth, 1971). Monosaccharides (MCHO) and polysaccharides (TCHO) are measured following the method of Johnson and Sieburth (1977). Both analytical procedures are described in Grasshoff et al. (1983). The method for the determination of microbial activity is based on the procedure described by Wright and Hobbie (1966), modified by Gocke (1977).

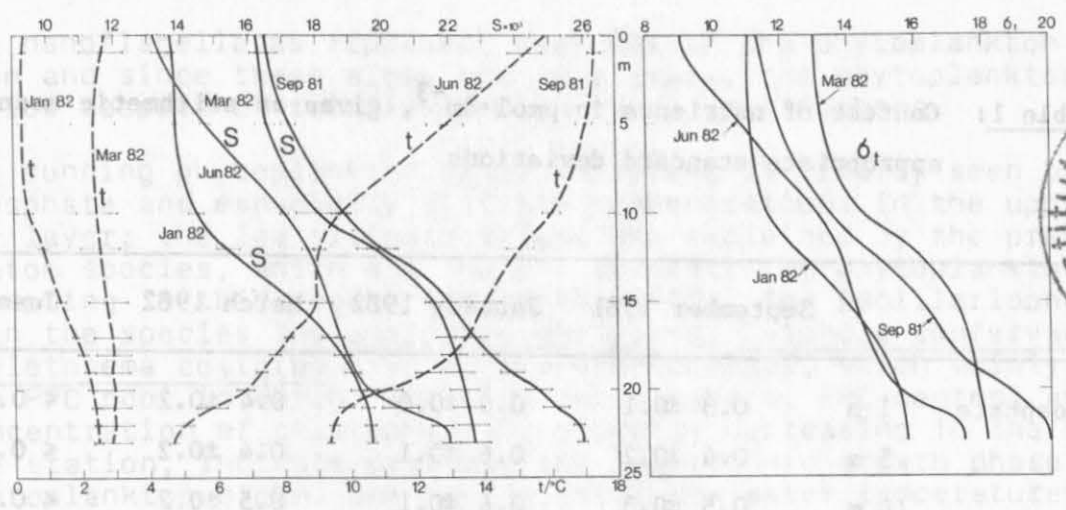


Fig.1 Depth profiles of salinity, temperature and σ_t at the four anchor stations. Standard deviations given as horizontal bars.

RESULTS

Hydrography

The hydrographic situation is shown in Fig.1. The depth profiles of salinity and temperature are drawn according to calculated arithmetic means based on 19 recordings each. The graphs very clearly reveal a stratification with a halocline between 10 and 15 m, most pronounced in September 1981, when additionally a stagnant hydrogen sulfide containing bottom layer was formed. The average temperature and salinity values are in the same range of appropriate mean values, calculated by Babenerd (1980) for the period from 1957 to 1975. As can be seen from the standard deviations in Fig. 1, the variations in salinity and temperature are in the range of $\pm 0.5 \cdot 10^{-3}$ and $\pm 0.5^\circ\text{C}$, respectively. Compared to the data reported by Rumohr (1979), Wittstock (1982) and Babenerd (1980), one can infer that only local hydrographic variations had occurred. So from a hydrographic point of view since major intrusions from the Kattegat or the more inner parts of the Baltic Sea can be considered as insignificant during the course of each station, the dissolved substances could be regarded as autochthonous.

Biology

The annual cycle of the plankton succession's in the Kiel Bight has been intensively surveyed by Smetacek and co-workers (Smetacek, 1975; Smetacek and Hendrikson, 1979; Smetacek, 1980, Babenerd 1980), that of the nutrients by v. Bodungen, (1975). Our findings are in good agreement with the reported data (see Figs.2, 3, and 4, Tables 1 and 2).

The water body during the winter station is replenished with nutrients at all depths. Simultaneously, the biological situation is characterized by a low and equally distributed chlorophyll-a concentration, PPC content and microbial activity, mainly as a result of the low water temperature and short time of exposure to sunlight.

Table 1: Content of nutrients in $\mu\text{mol}\cdot\text{dm}^{-3}$, given as arithmetic means with appropriate standard deviations

		September 1981	January 1982	March 1982	June 1982
Phosphate	1 m	0.3 \pm 0.1	0.6 \pm 0.0	0.4 \pm 0.2	< 0.01
	5 m	0.4 \pm 0.2	0.6 \pm 0.1	0.4 \pm 0.2	< 0.01
	10 m	0.5 \pm 0.3	0.6 \pm 0.1	0.5 \pm 0.2	< 0.01
	15 m	0.8 \pm 0.2	0.7 \pm 0.2	0.9 \pm 0.3	0.1 \pm 0.0
	20 m	6.4 \pm 2.5	0.8 \pm 0.1	0.9 \pm 0.2	0.3 \pm 0.1
	23 m	-	0.9 \pm 0.1	0.9 \pm 0.4	0.9 \pm 0.2
Silicate	1 m	6.6 \pm 1.6	16.0 \pm 2.6	2.5 \pm 0.8	2.2 \pm 1.3
	5 m	7.2 \pm 1.4	16.6 \pm 2.2	2.4 \pm 0.8	2.5 \pm 1.4
	10 m	11.0 \pm 2.1	17.1 \pm 2.2	4.1 \pm 3.1	3.8 \pm 1.4
	15 m	22.8 \pm 5.6	18.9 \pm 2.5	14.2 \pm 4.4	5.5 \pm 1.2
	20 m	54.2 \pm 4.6	23.0 \pm 4.5	12.7 \pm 3.4	9.1 \pm 3.0
	23 m	-	26.1 \pm 4.4	12.7 \pm 3.4	28.3 \pm 5.8
Nitrate	1 m	< 0.05	1.9 \pm 0.2	1.7 \pm 1.8	< 0.05
	5 m	< 0.05	2.1 \pm 0.1	1.8 \pm 1.7	< 0.05
	10 m	< 0.05	2.2 \pm 0.3	3.3 \pm 2.4	< 0.05
	15 m	< 0.05	2.4 \pm 0.3	8.7 \pm 3.9	< 0.05
	20 m	< 0.05	2.7 \pm 0.4	7.8 \pm 3.5	2.4 \pm 1.7
	23 m	-	2.7 \pm 0.4	7.7 \pm 3.8	16.6 \pm 6.0
Nitrite	1 m	< 0.05	0.5 \pm 0.0	0.2 \pm 0.1	< 0.05
	5 m	< 0.05	0.4 \pm 0.1	0.2 \pm 0.1	< 0.05
	10 m	< 0.05	0.4 \pm 0.1	0.3 \pm 0.1	0.1 \pm 0.1
	15 m	< 0.05	0.4 \pm 0.0	0.2 \pm 0.1	0.1 \pm 0.1
	20 m	< 0.05	0.3 \pm 0.1	0.1 \pm 0.0	0.2 \pm 0.1
	23 m	-	0.2 \pm 0.1	0.1 \pm 0.1	0.2 \pm 0.1
Number of samples at each depth		19	9	19	13

The nanoflagellates represent over 90% of the phytoplankton population and since these algae are very small, the phytoplankton biomass is low despite of relatively high total cell numbers.

The running phytoplankton bloom in spring is clearly seen by reduce phosphate and especially silicate concentrations in the upper euphotic layer; the low silicate values are explained by the prevailing diatom species, which are the one to start the phytoplankton blooms in spring in this region (Smetacek, 1975). The Bacillariophyceae with the species *Thalassiosira decipiens*, *Detonula confervacea* and *Skeletonema costatum* are the planktonic algae, which mainly supply the PPC pool in March. The high cell numbers, PPC-content and high concentration of chlorophyll-a, slightly decreasing in the course of the station, indicate probably the logarithmic growth phase of this phytoplankton bloom. Due to the still low water temperatures and, probably, scarce supply of easily degradable compounds, the microbial activity has raised only to an intermediate level between that encountered in winter respectively summer.

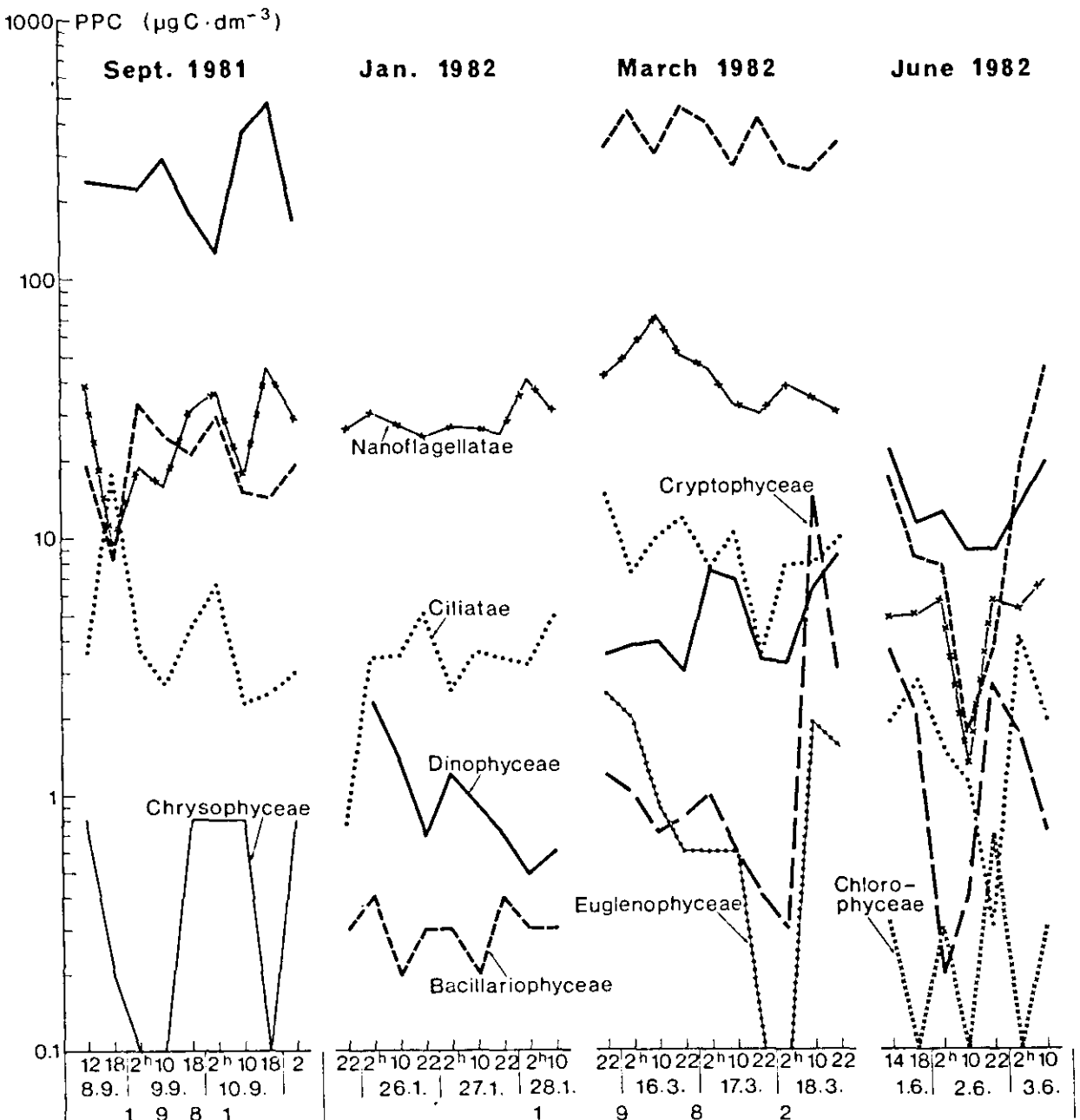


Fig. 2 Distribution of phytoplankton given as amounts of biomass

Table 2: Amount of phyto- and zooplankton biomass, given in $\mu\text{g C}\cdot\text{dm}^{-3}$ and integrated total cell numbers

Date and time	Bacillario- phyceae	Dino- phyceae	Crypto- phyceae	Chryso- phyceae	Eugleno- phyceae	Chloro- phyceae	Nano- flagellatae	Cilia- tae	Total cell numbers $\times 10^5$
Sept.1981 (autumn)									
8.9.									
12.00	19.2	238.6	-	0.8	-	-	38.4	3.5	102.2
18.00	8.3	230.1	-	0.2	-	-	8.9	17.7	31.2
9.9.									
02.00	33.1	222.7	-	-	-	-	18.7	3.7	41.4
10.00	24.1	287.2	-	0.1	-	-	15.7	2.7	39.8
19.00	21.1	180.2	-	0.8	-	-	30.7	4.5	74.2
10.9.									
02.00	29.7	128.1	-	0.8	-	-	36.4	6.6	69.4
10.00	15.0	361.9	-	0.8	-	-	17.8	2.3	47.9
18.00	14.2	473.0	-	-	-	-	44.9	2.5	86.7
11.9.									
02.00	19.1	169.3	-	0.8	-	-	28.6	3.1	64.9
Jan.1982 (winter)									
25.1.									
22.00	0.3	-	-	-	-	-	26.4	0.8	69.9
26.1.									
02.00	0.4	2.3	1.7	-	-	-	30.1	3.4	107.4
10.00	0.2	1.4	3.0	-	0.04	-	27.0	3.4	108.3
22.00	0.3	0.7	4.6	-	-	-	24.5	5.0	155.6
27.1.									
02.00	0.3	1.2	4.2	-	0.04	-	26.4	2.6	148.6
10.00	0.2	0.9	3.6	-	-	-	26.0	3.6	128.0
22.00	0.4	0.7	3.0	-	-	-	24.8	3.4	122.2
28.1.									
02.00	0.3	0.5	3.4	-	0.01	-	40.1	3.2	224.8
10.00	0.3	0.6	2.9	-	-	-	31.1	5.1	181.1

Table 2: (continued)

Date and time	Bacillario- phyceae	Dino- phyceae	Crypto- phyceae	Chryso- phyceae	Eugleno- phyceae	Chloro- phyceae	Nano- flagellatae	Cilia- tae	Total cell ⁵ numbers x 10 ⁵
March 1982 (spring)									
<u>15.3.</u>									
22.00	318.5	3.5	1.2	-	2.5	-	42.3	14.7	273.7
<u>16.3.</u>									
02.00	437.8	3.8	1.0	-	2.0	-	50.9	7.3	362.1
10.00	305.5	3.9	0.7	-	0.9	-	71.4	10.5	394.2
22.00	463.6	3.0	0.8	-	0.6	-	49.4	11.7	313.7
<u>17.3.</u>									
02.00	398.1	7.4	1.0	-	0.6	-	44.3	7.7	314.2
10.00	271.1	6.7	0.6	-	0.6	-	32.0	10.4	256.5
22.00	419.9	3.3	0.4	-	0.1	-	29.9	3.4	235.8
<u>18.3.</u>									
02.00	277.3	3.2	0.3	-	0.1	-	38.9	7.7	247.3
10.00	263.9	6.3	14.6	-	1.9	-	34.3	7.7	251.0
22.00	334.9	8.4	3.1	-	1.5	-	30.6	9.5	303.8
June 1982 (summer)									
<u>1.6.</u>									
14.00	16.6	21.4	3.6	-	-	0.3	4.8	1.9	35.3
18.00	8.4	11.0	2.0	-	-	0.1	4.9	2.7	26.6
<u>2.6.</u>									
02.00	7.7	12.2	0.2	-	-	0.3	5.6	1.5	24.8
10.00	1.7	8.7	0.4	-	-	0.1	1.3	1.1	9.5
22.00	3.6	8.7	2.6	-	-	0.7	5.6	0.3	32.2
<u>3.6.</u>									
02.00	19.1	13.0	1.7	-	-	0.1	5.2	4.1	41.6
10.00	44.1	19.3	0.7	-	-	0.3	6.7	1.9	58.2

In June we encounter a typical summerly post bloom phase with low content of PPC and chlorophyll-a as well as small total cell numbers with no prevailing phytoplankton species, including nanoflagellates. The exhausted nutrients in the euphotic layer are a consequence of passed-away phytoplankton blooms, the first of which we sampled in March. The remainders of the previously occurred phytoplankton blooms have lead to an accumulation of degradable organic substances, which together with the elevated water temperatures is consequently the reason for the high microbial activity.

In autumn the whole water column is fully depleted of the nutrients nitrate and nitrite. This and the unusual high concentration of chlorophyll-a indicate a maximum of phytoplankton increase during the preceding hydrographically stable period. But the high content of PPC and chlorophyll-a also reflects a still lively phytoplankton growth with the prevailing planktonic algae of Dinophyceae, mainly composed of the species Ceratium fusus, Ceratium tripos and Prorocentrum micans, besides Bacillariophyceae and flagellates. Since the mentioned species form few but big individuals with high biomass, the total cell numbers are relatively low. A comparable amount of organic substances and even higher water temperatures than in June are responsible for a still high microbial activity.

Our integrated DOC values are rather constant during the whole course of the year (see Table. 3); they are slightly elevated during the summer and autumn station, which could be expected in consequence of the biological situation outlined in the previous para-graph. V. Bröckel (1975) also found a uniform distribution of integrated DOC values in this area, with only small patches of higher amounts, although distinct phytoplankton blooms had occurred during that time. It looks like that in this coastal area changes of the generally high background concentrations of DOC as a direct response to biological events are very scanty.

Chemistry

During the winter station the concentration of dissolved organic copper is low and equally distributed (see Fig.3). Due to the low and uniform distribution of biological parameters, no variation of the concentration of organic copper should therefore be expected and cannot indeed be seen. The situation with respect to the biological parameters has changed during the spring station, but no immediate change concerning the concentration of organic copper is seen in the course of this phytoplankton growth (see Fig. 4). The value remains constant at the same average as during the winter time. In contrary to the expected rise the concentration of the organic copper decreases even slightly towards the end of the station, and most interestingly, in the same measure as the microbial activity increases. This behaviour can be seen more clearly at the summer anchor station. In summer the concentration of organic copper is higher by a factor of two to three than that found during the winter and spring station. It also varies to a much higher degree. The concentration of organic copper decreases at the same time and to the same extent as the microbial activity is increasing. In autumn the concentration is smaller at all than during the summer station and again diminishes in the same way as the microbial activity increases. As already indicated during the spring station, there is no direct response of the organic copper concentration to the Dinophyceae bloom.

Table 3: Concentrations of total dissolved copper, dissolved organic copper, DOC, dissolved monosaccharides (MCHO), dissolved polysaccharides (TCHO) and dissolved free amino acids (DFAA) given as mean values with appropriate standard deviation and number of samples in parenthesis.

	September 1981	January 1982	March 1982	June 1982
total dissolved copper ($\text{ng}\cdot\text{dm}^{-3}$)	590 \pm 51 (9)	650 \pm 47 (9)	644 \pm 92 (9)	786 \pm 190 (6)
dissolved organic copper ($\text{ng}\cdot\text{dm}^{-3}$)	31 \pm 8 (18)	23 \pm 3 (17)	22 \pm 5 (18)	48 \pm 36 (12)
DOC ($\text{mgC}\cdot\text{dm}^{-3}$)	2.88 \pm 0.11(17)	2.46 \pm 0.13(19)	2.43 \pm 0.22(19)	2.86 \pm 0.15(14)
MCHO ($\mu\text{gC}\cdot\text{dm}^{-3}$)	145.2 \pm 77.8(11)	172.6 \pm 91(15)	127.3 \pm 26(19)	96.8 \pm 19(14)
TCHO ($\mu\text{gC}\cdot\text{dm}^{-3}$)	592.2 \pm 305(17)	497.4 \pm 103(19)	507.4 \pm 82(19)	764.9 \pm 283(14)
DFAA ($\mu\text{gC}\cdot\text{dm}^{-3}$)	29.0 \pm 9.5 (18)	196.8 \pm 185(19)	104.4 \pm 28(19)	63.5 \pm 10 (14)

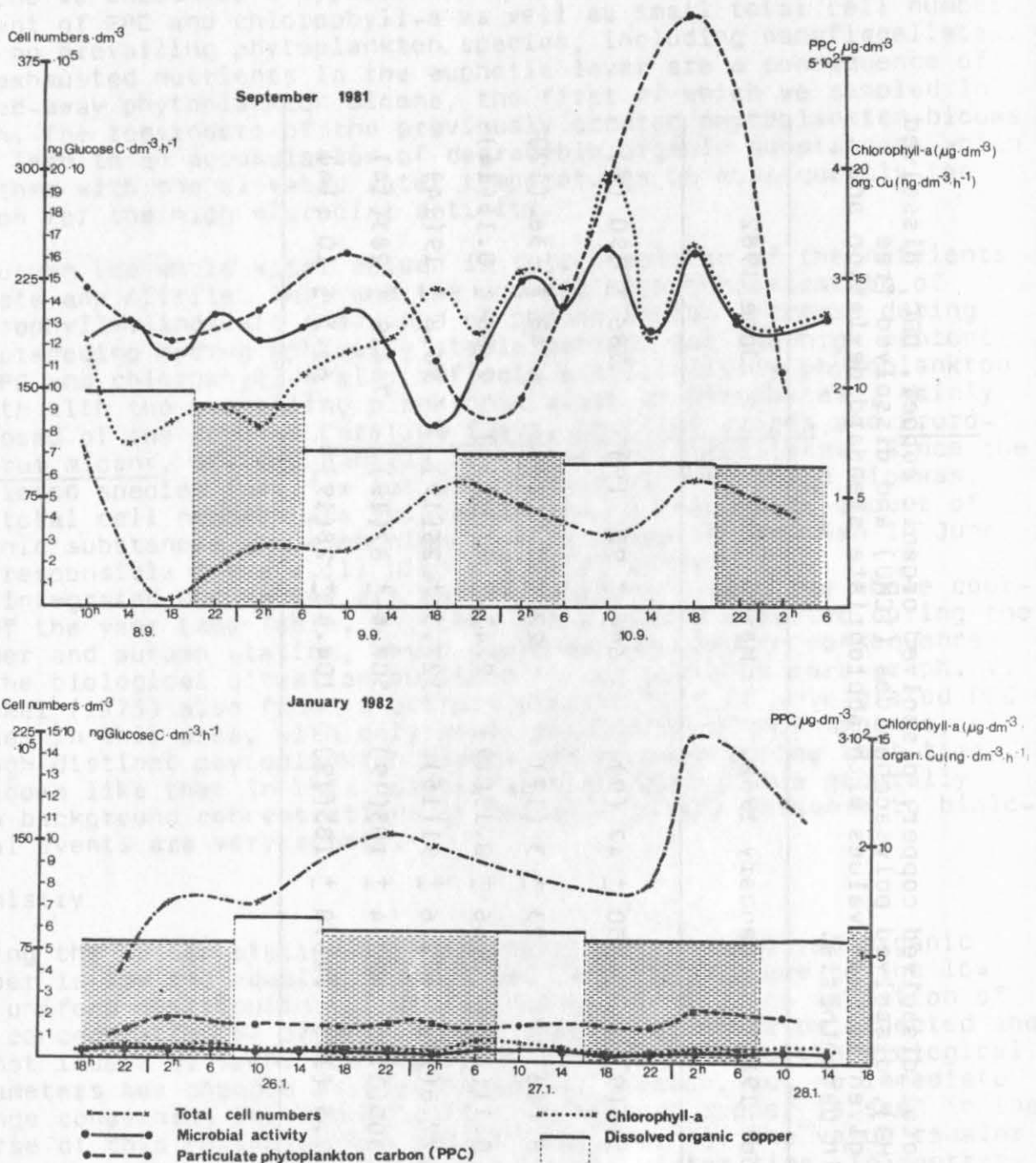


Fig. 3 Concentrations of dissolved organic copper, chlorophyll-a, phytoplankton, as well as total cell numbers and microbial activity during the anchor stations in September 1981 and January 1982. Concentrations of organic copper according to their mode of sampling are given as integrated values normalized by sample volume and sampling time, the numerical values are smaller therefore than those of the same samples given in Tab.3. Shaded area indicate night time, blank area indicate day time. All other data are measurements of discrete samples, taken at the indicated time.

The total dissolved copper values are constant at all anchor stations and only slightly elevated in June (see Table 3). This is in agreement with the described stable hydrographic situations. These generally high background values of total copper, compared to oceanic waters, also explains the missing correlation with any of the nutrients (Bruland, 1983).

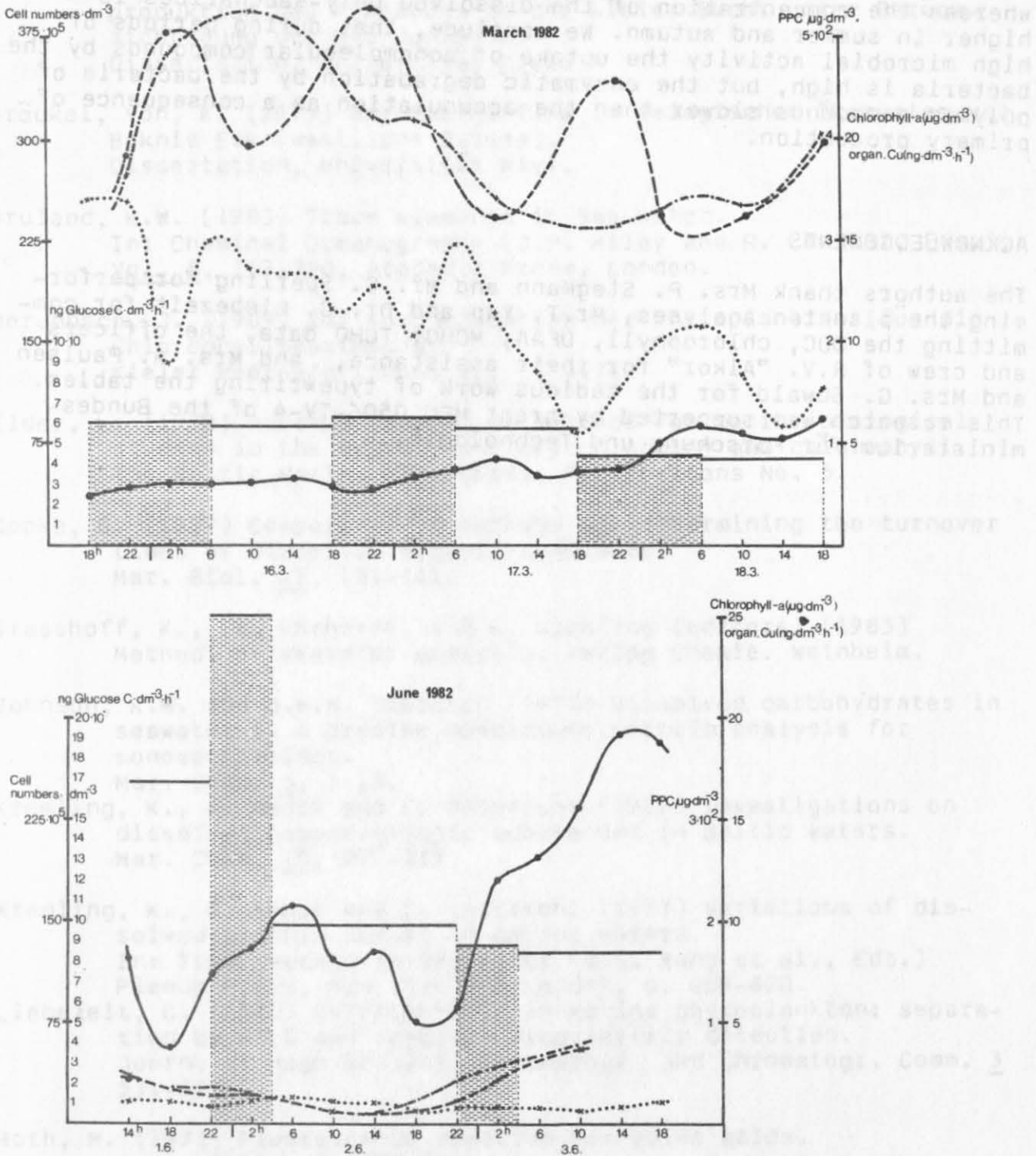


Fig. 4 The same as Fig. 3 but for the anchor stations in March 1982 and June 1982.

The concentrations of the dissolved saccharides and amino acids show great differences between the seasons. They also fluctuate in an irregular way and to a high degree during each anchor station. No correlation to other biological parameters could be established. But again, as with the organic copper concentrations a response to microbial activity can be seen in general (s. Tabl. 3). The dissolved monosaccharides and especially the free amino acids show higher values in winter and spring, just contrary to the microbial activity; whereas the concentration of the dissolved poly-saccharides is higher in summer and autumn. We conclude, that during periods of high microbial activity the uptake of monomolecular compounds by the bacteria is high, but the enzymatic degradation by the bacteria of polymer compounds slower than the accumulation as a consequence of primary production.

ACKNOWLEDGEMENTS

The authors thank Mrs. P. Stegmann and Mr. C. Sperling for performing the plankton analyses, Mr. T. Yap and Dr. G. Liebezeit for committing the DOC, chlorophyll, DFAA, MCHO, TCHO data, the officers and crew of R.V. "Alkor" for their assistance, and Mrs. A. Paulsen and Mrs. G. Suwald for the tedious work of typewriting the tables. This research was supported by grant MFU 0506-TV-4 of the Bundesministerium für Forschung und Technologie.

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DATA

The following data of each station were used to draw the figures and to calculate the average values of the tables 1 to 3 presented in the text. They are also available on computer data carriers.

Station : 1
 Date : 08.09.81
 Time : 12.30
 Latitude : 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.1	15.9	< 0.05	0.05	2.9
5	17.0	15.9	< 0.05	0.04	4.3
10	15.6	18.0	< 0.05	0.23	6.9
15	12.7	22.6	< 0.05	0.83	13.9
22	10.3	24.2	< 0.05	0.86	19.8

Station : 2
 Date : 08.09.81
 Time : 18.00
 Latitude : 54°34.4'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.4	15.8	< 0.05	0.21	6.0
5	16.4	16.9	< 0.05	0.47	8.0
10	15.4	18.1	< 0.05	0.59	13.2
15	12.9	22.1	< 0.05	1.00	20.8
22	9.7	24.6	< 0.05	3.63	44.8

September

 Stat.: 1
 Date : 01.09.11
 Time : 12.30

 Stat.: 2
 Date : 01.09.11
 Time : 18.00

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$
	<u>Bacillariophyceae</u>							
<i>Cerataulina bergonii</i>			0.414	7.15				
<i>Chaetoceros danicus</i>								
<i>Chaetoceros spec.</i>			0.595	0.11				
<i>Coscinodiscus eccentricus</i>								
<i>Coscinodiscus spec.</i>			0.010	0.62			0.100	0.62
<i>Coscinosira polychorda</i>								
<i>Detonula confervacea</i>								
<i>Ditylum brightwellii</i>			0.166	2.73			0.034	1.12
<i>Guinardia flaccida</i>			0.002	0.80				
<i>Leptocylindrus danicus</i>								
<i>Melosira nummuloides</i>								
<i>Navicula vanhoffenii</i>								
<i>Rhizosolenia fragilissima</i>								
<i>Rhizosolenia hebetata</i>								
<i>Rhizosolenia setigera</i>			2.300	6.52			1.800	5.28
<i>Skeletonema costatum</i>			0.595	0.09			0.680	0.10
<i>Thalassionema nitzschioides</i>			1.000	1.22			1.300	1.57
<i>Thalassiosira decipiens</i>								
<u>Bacillariophyceae</u>				19.24				8.29
<u>Dinophyceae</u>								
<i>Amphidinium crassum</i>								
<i>Ceratium furca</i>			0.004	0.31			0.012	0.94
<i>Ceratium fusus</i>			1.700	66.74			1.800	7.16
<i>Ceratium lineatum</i>			0.006	0.07				
<i>Ceratium tripos</i>			0.912	93.30			1.234	136.82
<i>Dinoflagellaten spp.</i>			7.900	1.65				
<i>Dinophysis acuminata</i>							0.02	0.03
<i>Dinophysis norvegica</i>			0.024	0.56			0.018	0.42
<i>Dinophysis rotundata</i>								
<i>Goniodoma ostenfeldii</i>								
<i>Gonyaulax polyedra</i>								
<i>Gymnodinium lohmannii</i>								
<i>Gymnodinium simplex</i>								
<i>Gymnodinium spp.</i>			1.346	3.10			7.400	2.89
<i>Heterocapsa triquetra</i>								
<i>Minuscula bipes</i>								
<i>Peridinium granii</i>								
<i>Peridinium grenlandicum</i>								
<i>Peridinium pellucidum</i>								
<i>Peridinium spp.</i>			0.002	0.36			0.026	3.86
<i>Prorocentrum balticum</i>								
<i>Prorocentrum micans</i>			4.700	72.56			5.000	78.15
<u>Dinophyceae</u>				238.60				230.09
<u>Cryptophyceae</u>								
<i>Cryptomonas baltica</i>								
<i>Cryptomonas spec.</i>								
<u>Cryptophyceae</u>								
<u>Crysophyceae</u>								
<i>Dictyocha speculum</i>			0.085	0.75			0.028	0.24

Stat.: 1
Date : 08.09.81
Time : 12.30

Stat.: 2
Date : 08.09.81
Time : 18.00

September

	Depth : 0 m				Depth : 5 m			
	n·dm ⁻³ x10 ⁴		µgC·dm ⁻³		n·dm ⁻³ x10 ⁴		µgC·dm ⁻³	
<u>Euglenophyceae</u>								
<i>Euglena proxima</i>								
<u>Chlorophyceae</u>								
<i>Oocystis submarina</i>								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 µ			551.900	5.52			212.300	2.12
Nanoflagellaten 3-6 µ			387.600	23.26			66.000	3.96
Nanoflagellaten 6-9 µ			56.600	9.62			16.500	2.81
Nanoflagellaten 9 µ								
Nanoflagellaten				38.40				8.89
<u>Ciliaten</u>								
Ciliaten spp.			0.937	1.86			0.271	11.49
Favella								
Heliocostomella			0.008	0.73			0.026	0.72
Lohmaniella			0.004	0.28				
Mesodinium rubrum								
Strombidium conicum								
Strombidium strobilus								
Tiarina			0.020	0.66			0.052	1.72
Tintinnopsis beroidea								
Ciliaten				3.53				17.74
<u>Plankton, total</u>			1018.830	299.77			311.493	265.01
<u>Diss. org. Cu</u> (ng·dm ⁻³)			51.3				30.3	
<u>Diss. tot. Cu</u> (ng·dm ⁻³)			484				618	
<u>V_{max}</u> (µg C·dm ⁻³ ·h ⁻¹)			0.122				0.114	
<u>Chlorophyll a</u> (µg·dm ⁻³)			12.2				8.5	
<u>Chlorophyll b</u> (µg·dm ⁻³)			1.9				0.9	
<u>DOC</u> (mg C·dm ⁻³)			2.98				2.75	
<u>DFAA</u> (µg C·dm ⁻³)			27.4				21.7	
<u>MCHO</u> (µg C·dm ⁻³)			781				273	
<u>TCHO</u> (µg C·dm ⁻³)			1050				370	

Station:
 Date:
 Time:
 Latitude:
 Longitude:

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si

Station: 2a
 Date: 08.09.81
 Time: 22.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.4	15.9	<0.05	0.15	5.9
5	16.7	16.4	<0.05	0.16	10.3
10	15.5	18.2	<0.05	0.38	13.7
15	13.1	22.3	<0.05	0.82	29.1
22	9.9	24.8	<0.05	4.88	55.4

	Station:	Station: 2a
<u>Diss. org. Cu</u> (ng·dm ⁻³)		45.7
<u>Diss. tot. Cu</u> (ng·dm ⁻³)		-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)		0.134
<u>Chlorophyll a</u> (μg·dm ⁻³)		9.2
<u>Chlorophyll b</u> (μg·dm ⁻³)		0.8
<u>DOC</u> (mg C·dm ⁻³)		2.85
<u>DFAA</u> (μg C·dm ⁻³)		32.1
<u>MCHO</u> (μg C·dm ⁻³)		-
<u>ICHO</u> (μg C·dm ⁻³)		600

Station:
 Date:
 Time:
 Latitude:
 Longitude:

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si

Station: 2a
 Date: 08.09.81
 Time: 22.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.4	15.9	<0.05	0.15	5.9
5	16.7	16.4	<0.05	0.16	10.3
10	15.5	18.2	<0.05	0.38	13.7
15	13.1	22.3	<0.05	0.82	29.1
22	9.9	24.8	<0.05	4.88	55.4

	Station:	Station: 2a
<u>Diss. org. Cu</u> (ng·dm ⁻³)		45.7
<u>Diss. tot. Cu</u> (ng·dm ⁻³)		-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)		0.134
<u>Chlorophyll a</u> (μg·dm ⁻³)		9.2
<u>Chlorophyll b</u> (μg·dm ⁻³)		0.8
<u>DOC</u> (mg C·dm ⁻³)		2.85
<u>DFAA</u> (μg C·dm ⁻³)		32.1
<u>MCHO</u> (μg C·dm ⁻³)		-
<u>ICHO</u> (μg C·dm ⁻³)		600

Station : 3
 Date : 09.09.81
 Time : 02.00
 Latitude : 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.4	15.8	< 0.05	0.48	7.0
5	16.8	16.3	< 0.05	0.43	8.0
10	15.7	18.0	< 0.05	0.49	15.7
15	13.3	22.1	< 0.05	0.90	31.2
22	10.0	24.6	< 0.05	4.39	60.9



Station : 4
 Date : 09.09.81
 Time : 10.00
 Latitude : 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.0	15.6	< 0.05	0.52	6.5
5	16.1	16.6	< 0.05	-	8.8
10	16.0	17.5	< 0.05	-	11.5
15	13.8	21.0	< 0.05	1.32	26.7
22	9.4	24.7	< 0.05	7.77	59.8

September	Stat : 3 Date : 09.09.81 Time : 02.00				Stat : 4 Date : 09.09.81 Time : 10.00			
	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$
<u>Bacillariophyceae</u>								
Cerataulina bergonii			1.400	24.97			0.345	5.96
Chaetoceros danicus							3.100	0.57
Chaetoceros spec.								
Coscinodiscus eccentricus								
Coscinodiscus spec.			0.016	0.86			0.014	0.31
Coscosira polychorda								
Detonula confervacea								
Ditylum brightwellii			0.110	1.82			0.304	5.01
Guinardia flaccida							0.021	2.45
Leptocylindrus danicus							0.510	1.12
Melosira nummuloides								
Navicula vanhoeffenii								
Rhizosolenia fragilissima							0.340	1.50
Rhizosolenia hebetata								
Rhizosolenia setigera			1.700	4.80			2.300	6.52
Skeletonema costatum								
Thalassionema nitzschioides			0.566	0.68			1.000	1.25
Thalassiosira decipiens								
<u>Bacillariophyceae</u>				33.13				24.49
<u>Dinophyceae</u>								
Amphidinium crassum								
Ceratium furca			0.006	0.47			0.016	1.25
Ceratium fusus			1.400	109.79			2.100	81.81
Ceratium lineatum								
Ceratium tripos			0.643	64.66			1.396	161.96
Dinoflagellaten spp.								
Dinophysis acuminata								
Dinophysis norvegica			0.006	0.14			0.052	1.22
Dinophysis rotundata							0.010	0.13
Goniodoma ostenfeldii								
Gonyaulax polyedra								
Gymnodinium lohmannii								
Gymnodinium simplex								
Gymnodinium spp.							0.034	1.19
Heterocapsa triquetra								
Minuscula bipes								
Peridinium granii								
Peridinium grenlandicum								
Peridinium pellucidum								
Peridinium spp.			0.024	1.53			0.016	1.82
Prorocentrum balticum			0.255	0.50				
Prorocentrum micans			2.900	45.60			2.400	36.37
<u>Dinophyceae</u>				222.73				287.17
<u>Cryptophyceae</u>								
Cryptomonas baltica								
Cryptomonas spec.								
<u>Cryptophyceae</u>								
<u>Crysophyceae</u>								
Dictyocha speculum							0.013	0.12

Stat.: 3
Date : 09.09.81
Time : 02.00

Stat.: 4
Date : 09.09.81
Time : 10.00

September

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$
	<u>Euglenophyceae</u> Euglena proxima							
<u>Chlorophyceae</u> Oocystis submarina								
<u>Nanoflagellaten</u> Nanoflagellaten 1-3 μ Nanoflagellaten 3-6 μ Nanoflagellaten 6-9 μ Nanoflagellaten 9 μ			242.000 103.800 59.000	2.42 6.23 10.02			239.900 100.600 42.500	2.40 6.04 7.22
Nanoflagellaten				18.67				15.66
<u>Ciliaten</u> Ciliaten spp. Favella Heliocostomella Lohmaniella Mesodinium rubrum Strombidium conicum Strombidium strobilus Tiarina Tintinnopsis beroidea			0.510 0.002 0.006	0.99 0.55 0.72			0.510 0.008 0.004	0.99 0.41 0.48
Ciliaten				3.65				2.70
<u>Plankton, total</u>			414.386	278.18			397.522	330.22
<u>Diss. org. Cu</u> ($ng \cdot dm^{-3}$)				30.3				24.9
<u>Diss. tot. Cu</u> ($ng \cdot dm^{-3}$)				584				565
V_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)				0.121				0.136
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)				8.2				11.7
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)				0.7				1.1
<u>DOC</u> ($mg C \cdot dm^{-3}$)				2.75				2.80
<u>DFAA</u> ($\mu g C \cdot dm^{-3}$)				27.8				27.1
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)								
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)				390				420

Station: 3a
 Date: 09.09.81
 Time: 06.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.2	15.8	<0.05	0.24	5.8
5	16.4	16.3	<0.05	0.25	5.1
10	15.4	18.1	<0.05	0.39	8.7
15	13.8	21.4	<0.05	0.90	22.8
22	9.5	24.8	<0.05	8.65	58.9

Station: 4a
 Date: 09.09.81
 Time: 14.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.2	15.8	<0.05	0.47	6.2
5	16.4	16.6	<0.05	0.51	7.5
10	16.1	17.5	<0.05	0.37	9.5
15	14.0	20.7	<0.05	0.77	27.3
22	9.2	24.7	<0.05	8.09	61.1

	Station: 3a	Station: 4a
<u>Diss. org. Cu</u> (ng·dm ⁻³)	38.5	35.9
<u>Diss. tot. Cu</u> (ng·dm ⁻³)	-	-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)	0.128	0.116
<u>Chlorophyll a</u> (μg·dm ⁻³)	10.6	12.3
<u>Chlorophyll b</u> (μg·dm ⁻³)	1.0	1.3
<u>DOC</u> (mg C·dm ⁻³)	2.88	2.75
<u>DFAA</u> (μg C·dm ⁻³)	39.8	25.2
<u>MCHO</u> (μg C·dm ⁻³)	176	102
<u>TCHO</u> (μg C·dm ⁻³)	950	350

Station: 3a
 Date: 09.09.81
 Time: 06.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	17.2	15.8	<0.05	0.24	5.8
5	16.4	16.3	<0.05	0.25	5.1
10	15.4	18.1	<0.05	0.39	8.7
15	13.8	21.4	<0.05	0.90	22.8
22	9.5	24.8	<0.05	8.65	58.9

Station: 4a
 Date: 09.09.81
 Time: 14.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	17.2	15.8	<0.05	0.47	6.2
5	16.4	16.6	<0.05	0.51	7.5
10	16.1	17.5	<0.05	0.37	9.5
15	14.0	20.7	<0.05	0.77	27.3
22	9.2	24.7	<0.05	8.09	61.1

	Station: 3a	Station: 4a
<u>Diss. org. Cu</u> ($\text{ng}\cdot\text{dm}^{-3}$)	38.5	35.9
<u>Diss. tot. Cu</u> ($\text{ng}\cdot\text{dm}^{-3}$)	-	-
<u>V_{max}</u> ($\mu\text{g C}\cdot\text{dm}^{-3}\cdot\text{h}^{-1}$)	0.128	0.116
<u>Chlorophyll a</u> ($\mu\text{g}\cdot\text{dm}^{-3}$)	10.6	12.3
<u>Chlorophyll b</u> ($\mu\text{g}\cdot\text{dm}^{-3}$)	1.0	1.3
<u>DOC</u> ($\text{mg C}\cdot\text{dm}^{-3}$)	2.88	2.75
<u>DFAA</u> ($\mu\text{g C}\cdot\text{dm}^{-3}$)	39.8	25.2
<u>MCHO</u> ($\mu\text{g C}\cdot\text{dm}^{-3}$)	176	102
<u>TCHO</u> ($\mu\text{g C}\cdot\text{dm}^{-3}$)	950	350

Station : 5
 Date : 09.09.81
 Time : 18.00
 Latitude : 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.4	15.8	< 0.05	0.31	6.4
5	16.7	16.3	< 0.05	0.31	7.3
10	15.5	17.8	< 0.05	0.41	10.4
15	13.8	20.6	< 0.05	0.71	18.8
22	9.0	24.8	< 0.05	7.62	62.7

Station : 6
 Date : 10.09.81
 Time : 02.00
 Latitude : 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.0	15.8	< 0.05	0.47	6.7
5	17.3	15.8	< 0.05	0.47	6.4
10	15.7	17.6	< 0.05	0.46	13.3
15	14.0	20.3	< 0.05	0.80	29.2
22	8.8	24.8	< 0.05	8.02	71.3

September

Stat.: 5
Date: 01.09.1
Time: 10.00Stat.: 6
Date: 10.09.1
Time: 07.00

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$
	<u>Bacillariophyceae</u>							
<i>Cerataulina bergonii</i>			0.373	6.44			0.675	11.16
<i>Chaetoceros danicus</i>								
<i>Chaetoceros spec.</i>			2.000	0.37				
<i>Coscinodiscus eccentricus</i>								
<i>Coscinodiscus spec.</i>			0.008	0.11			0.006	0.06
<i>Coscinosira polychorda</i>								
<i>Detonula confervacea</i>								
<i>Ditylum brightwellii</i>			0.137	2.28			0.276	4.55
<i>Guinardia flaccida</i>								
<i>Leptocylindrus danicus</i>			1.500	3.18			2.700	5.98
<i>Melosira nummuloides</i>								
<i>Navicula vanhoeffenii</i>								
<i>Rhizosolenia fragilissima</i>			0.255	0.93				
<i>Rhizosolenia hebetata</i>								
<i>Rhizosolenia setigera</i>			2.300	6.76			2.300	6.68
<i>Skeletonema costatum</i>							1.900	0.28
<i>Thalassionema nitzschioides</i>			0.200	0.97			0.800	0.97
<i>Thalassiosira decipiens</i>								
<u>Bacillariophyceae</u>				21.05				29.70
<u>Dinophyceae</u>								
<i>Amphidinium crassum</i>								
<i>Ceratium furca</i>			0.006	0.47			0.012	0.94
<i>Ceratium fusus</i>			1.400	54.40			0.938	36.60
<i>Ceratium lineatum</i>								
<i>Ceratium tripos</i>			0.675	62.41			0.298	31.65
<i>Dinoflagellaten spp.</i>								
<i>Dinophysis acuminata</i>								
<i>Dinophysis norvegica</i>			0.034	0.80			0.004	0.09
<i>Dinophysis rotundata</i>							0.008	0.10
<i>Goniodoma ostenfeldii</i>								
<i>Gonyaulax polyedra</i>								
<i>Gymnodinium lohmannii</i>								
<i>Gymnodinium simplex</i>								
<i>Gymnodinium spp.</i>			0.973	2.42			0.698	1.43
<i>Heterocapsa triquetra</i>								
<i>Minuscula bipes</i>								
<i>Peridinium granii</i>								
<i>Peridinium grenlandicum</i>								
<i>Peridinium pellucidum</i>								
<i>Peridinium spp.</i>			0.028	3.26			0.010	1.80
<i>Prorocentrum balticum</i>								
<i>Prorocentrum micans</i>			3.500	54.68			3.100	47.79
<u>Dinophyceae</u>				179.94				128.14
<u>Cryptophyceae</u>								
<i>Cryptomonas baltica</i>								
<i>Cryptomonas spec.</i>								
<u>Cryptophyceae</u>								
<u>Crysophyceae</u>								
<i>Dictyocha speculum</i>			0.085	0.75			0.085	0.75

September

	Stat.: 5 Date: 01.09.81 Time: 11.00				Stat.: 6 Date: 10.09.81 Time: 02.00			
	Depth: 0 m		Depth: 5 m		Depth: 0 m		Depth: 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$
<u>Euglenophyceae</u>								
Euglena proxima								
<u>Chlorophyceae</u>								
Oocystis submarina								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 μ			429.4	4.92			331.1 3.31	
Nanoflagellaten 3-6 μ			226.4	13.59			237.4 14.25	
Nanoflagellaten 6-9 μ			71.5	12.16			110.9 18.85	
Nanoflagellaten 9 μ								
Nanoflagellaten				30.67			36.41	
<u>Ciliaten</u>								
Ciliaten spp.			0.354	1.98			0.472 1.31	
Favella			0.004	1.11			0.002 0.05	
Heliocostomella			0.010	0.52			0.012 0.33	
Lohmaniella								
Mesodinium rubrum								
Strombidium conicum								
Strombidium strobilus								
Tiarina			0.028	0.92			0.150 4.95	
Tintinnopsis beroidea								
Ciliaten				4.55			6.59	
<u>Plankton, total</u>			741.771	236.20			693.802 200.84	
<u>Diss. org. Cu</u> ($ng \cdot dm^{-3}$)				24.4			26.2	
<u>Diss. tot. Cu</u> ($ng \cdot dm^{-3}$)				523			573	
V_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)				0.082			0.149	
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)				14.6			15.4	
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)				1.4			1.3	
<u>DOC</u> ($mg C \cdot dm^{-3}$)				2.75			2.98	
<u>DFAA</u> ($\mu g C \cdot dm^{-3}$)				20.3			26.0	
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)				78			223	
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)				790			560	

Station: 5a
 Date: 09.09.81
 Time: 22.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.6	15.8	<0.05	0.35	6.8
5	16.7	16.2	<0.05	0.35	8.1
10	15.9	17.5	<0.05	0.35	10.9
15	14.1	20.5	<0.05	0.76	23.3
22	9.1	24.6	<0.05	8.01	61.2

Station: 6a
 Date: 10.09.81
 Time: 06.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.0	15.8	<0.05	0.46	5.0
5	16.8	16.1	<0.05	0.46	7.6
10	16.0	17.5	<0.05	0.39	8.8
15	14.1	20.4	<0.05	0.71	22.1
22	8.9	24.9	<0.05	8.46	64.3

	Station: 5a	Station: 6a
<u>Diss. org. Cu</u> (ng·dm ⁻³)	29.6	28.3
<u>Diss. tot. Cu</u> (ng·dm ⁻³)	-	-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)	0.114	0.137
<u>Chlorophyll a</u> (μg·dm ⁻³)	12.5	14.6
<u>Chlorophyll b</u> (μg·dm ⁻³)	1.0	1.6
<u>DOC</u> (mg C·dm ⁻³)	2.8	2.85
<u>DFAA</u> (μg C·dm ⁻³)	20.1	22.6
<u>MCHO</u> (μg C·dm ⁻³)	212	215
<u>TCHO</u> (μg C·dm ⁻³)	770	420

Station : 7
 Date : 10.09.82
 Time : 10.00
 Latitude : 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	16.6	13.3	< 0.05	0.17	-
5	16.7	15.8	< 0.05	0.27	6.4
10	15.8	17.2	< 0.05	0.18	10.3
15	14.2	19.8	< 0.05	0.75	20.1
22	8.7	24.7	< 0.05	9.28	55.7

Station : 8
 Date : 10.09.81
 Time : 18.00
 Latitude : 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.5	15.3	< 0.05	0.42	7.2
5	16.8	15.9	< 0.05	0.44	6.3
10	16.1	17.2	< 0.05	0.42	9.1
15	14.5	19.4	< 0.05	0.79	23.2
22	8.5	24.5	< 0.05	8.00	64.3

September

 Stat.: 7
 Date: 10.09.81
 Time: 10.00

 Stat.: 8
 Date: 10.09.81
 Time: 18.00

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$
	<u>Bacillariophyceae</u>							
<i>Cerataulina bergonii</i>			0.166	0.49			0.345	5.95
<i>Chaetoceros danicus</i>								
<i>Chaetoceros spec.</i>								
<i>Coscinodiscus eccentricus</i>								
<i>Coscinodiscus spec.</i>			0.004	0.05			0.002	0.03
<i>Coscinosira polychorda</i>								
<i>Detonula confervacea</i>								
<i>Ditylum brightwellii</i>			0.097	1.59			0.159	2.62
<i>Guinardia flaccida</i>								
<i>Leptocylindrus danicus</i>								
<i>Melosira nummuloides</i>								
<i>Navicula vanhoffenii</i>								
<i>Rhizosolenia fragilissima</i>			0.935	3.09				
<i>Rhizosolenia hebetata</i>			0.276	7.62				
<i>Rhizosolenia setigera</i>			0.276	0.80			1.500	4.38
<i>Skeletonema costatum</i>			2.600	0.38			2.100	0.32
<i>Thalassionema nitzschioides</i>			0.787	0.95			0.742	0.90
<i>Thalassiosira decipiens</i>								
<u>Bacillariophyceae</u>				14.97				14.20
<u>Dinophyceae</u>								
<i>Amphidinium crassum</i>								
<i>Ceratium furca</i>			0.002	0.16			0.012	0.94
<i>Ceratium fusus</i>			0.918	35.52			0.848	66.14
<i>Ceratium lineatum</i>								
<i>Ceratium tripos</i>			0.303	31.30			0.419	45.66
<i>Dinoflagellaten spp.</i>								
<i>Dinophysis acuminata</i>								
<i>Dinophysis norvegica</i>			0.002	0.05			0.004	0.09
<i>Dinophysis rotundata</i>								
<i>Goniodoma ostenfeldii</i>								
<i>Gonyaulax polyedra</i>								
<i>Gymnodinium lohmannii</i>								
<i>Gymnodinium simplex</i>								
<i>Gymnodinium spp.</i>							25.060	3.09
<i>Heterocapsa triquetra</i>							0.680	1.33
<i>Minuscula bipes</i>								
<i>Peridinium granii</i>								
<i>Peridinium grenlandicum</i>								
<i>Peridinium pellucidum</i>								
<i>Peridinium spp.</i>			0.625	3.78			0.012	0.89
<i>Prorocentrum balticum</i>			2.400	4.64			6.600	12.93
<i>Prorocentrum micans</i>			18.300	285.68			21.900	341.88
<u>Dinophyceae</u>				361.94				472.95
<u>Cryptophyceae</u>								
<i>Cryptomonas baltica</i>								
<i>Cryptomonas spec.</i>								
<u>Cryptophyceae</u>								
<u>Crysophyceae</u>								
<i>Dictyocha speculum</i>			0.085	0.75				

September

Stat.: 7
Date: 10.09.81
Time: 10.00Stat.: 8
Date: 10.09.81
Time: 10.00

	Depth: 0 m		Depth: 5 m		Depth: 0 m		Depth: 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$
	<u>Euglenophyceae</u> <i>Euglena proxima</i>							
<u>Chlorophyceae</u> <i>Oocystis submarina</i>								
<u>Nanoflagellaten</u> Nanoflagellaten 1-3 μ Nanoflagellaten 3-6 μ Nanoflagellaten 6-9 μ Nanoflagellaten 9 μ			280.2 127.4 43.2	2.80 7.64 7.35			435.1 239.8 154.1	4.35 14.39 26.20
Nanoflagellaten				17.79				44.94
<u>Ciliaten</u> Ciliaten spp. Favella Heliocostomella Lohmaniella Mesodinium rubrum Strombidium conicum Strombidium strobilus Tiarina Tintinnopsis beroidea			0.425 0.008 0.004	0.83 0.22 0.48			0.010 0.002 0.008 0.850	0.71 0.55 0.41 0.60
Ciliaten				2.34				2.47
<u>Plankton, total</u>			497.021	397.04			667.705	534.56
<u>Diss. org. Cu</u> ($\mu g \cdot dm^{-3}$)				22.2				21.8
<u>Diss. tot. Cu</u> ($\mu g \cdot dm^{-3}$)				601				649
V_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)				0.164				0.161
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)				19.8				16.6
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)				2.0				1.7
<u>DOC</u> ($mg C \cdot dm^{-3}$)				3.0				3.0
<u>DFAA</u> ($\mu g C \cdot dm^{-3}$)				17.3				26.8
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)				95				66
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)				650				760

Station: 7a
 Date: 10.09.81
 Time: 14.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.4	14.0	<0.05	0.21	8.7
5	16.5	16.4	<0.05	0.32	7.8
10	16.2	17.3	<0.05	0.38	10.8
15	14.4	19.8	<0.05	0.58	23.6
22	8.7	24.6	<0.05	8.78	71.4

Station: 8a
 Date: 10.09.81
 Time: 22.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.2	14.3	<0.05	0.47	6.2
5	17.2	14.8	<0.05	0.57	7.6
10	16.1	17.1	<0.05	0.49	9.2
15	14.3	19.6	<0.05	0.60	12.2
22	8.8	24.3	<0.05	6.85	42.9

	Station: 7a	Station:
<u>Diss. org. Cu</u> (ng·dm ⁻³)	33.8	26.7
<u>Diss. tot. Cu</u> (ng·dm ⁻³)	-	-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)	0.126	0.131
<u>Chlorophyll a</u> (μg·dm ⁻³)	12.2	13.3
<u>Chlorophyll b</u> (μg·dm ⁻³)	1.2	1.0
<u>DOC</u> (mg C·dm ⁻³)	2.8	3.08
<u>DFAA</u> (μg C·dm ⁻³)	25.7	55.6
<u>MCHO</u> (μg C·dm ⁻³)	122	447
<u>TCHO</u> (μg C·dm ⁻³)	430	730

Station : 9
 Date : 11.09.81
 Time : 02.00
 Latitude : 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.1	15.0	< 0.05	< 0.02	7.4
5	17.4	15.0	< 0.05	< 0.02	8.2
10	15.9	17.4	< 0.05	< 0.02	11.7
15	14.8	19.1	< 0.05	0.20	25.1
22	9.3	24.3	< 0.05	5.90	69.1

Stat.: 9
Date: 11.09.81
Time: 02.00

Stat.:
Date:
Time:

September

Depth : 0 m

Depth : 5 m

Depth : 0 m

Depth : 5 m

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

Bacillariophyceae

Cerataulina bergonii

0.442 7.29

Chaetoceros danicus

0.428 0.08

Chaetoceros spec.

Coscinodiscus eccentricus

0.010 0.55

Coscinodiscus spec.

Coscosira polychorda

Detonula confervacea

0.289 4.78

Ditylum brightwellii

Guinardia flaccida

0.731 1.61

Leptocylindrus danicus

Melosira nummuloides

Navicula vanhoeffenii

Rhizosolenia fragilissima

Rhizosolenia hebetata

1.400 3.96

Rhizosolenia setigera

Skeletonema costatum

0.718 0.87

Thalassionema nitzschioides

Thalassiosira decipiens

Bacillariophyceae

19.14

Dinophyceae

Amphidinium crassum

0.004 0.31

Ceratium furca

1.100 43.59

Ceratium fusus

Ceratium lineatum

0.202 18.69

Ceratium tripos

Dinoflagellaten spp.

Dinophysis acuminata

0.010 0.23

Dinophysis norvegica

Dinophysis rotundata

Goniodoma ostenfeldii

Gonyaulax polyedra

Gymnodinium lohmannii

Gymnodinium simplex

Gymnodinium spp.

0.036 1.26

Heterocapsa triquetra

Minuscula bipes

Peridinium granii

Peridinium grenlandicum

Peridinium pellucidum

Peridinium spp.

0.022 1.93

Prorocentrum balticum

2.500 4.81

Prorocentrum micans

6.300 97.74

Dinophyceae

169.31

Cryptophyceae

Cryptomonas baltica

Cryptomonas spec.

Cryptophyceae

Crysophyceae

Dictyocha speculum

0.085 0.75

Station: 9a
 Date: 11.09.81
 Time: 06.00
 Latitude: 54°34.3'N
 Longitude: 10°05.6'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	16.8	15.2	<0.05	0.56	5.0
5	17.0	15.3	<0.05	0.72	5.7
10	15.9	17.0	<0.05	0.59	11.6
15	14.5	19.2	<0.05	0.78	12.0
22	8.9	24.3	<0.05	5.30	34.2

Station:
 Date:
 Time:
 Latitude:
 Longitude:

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si

	Station: 9a	Station:
<u>Diss. org. Cu</u> (ng·dm ⁻³)	27.1	
<u>Diss. tot. Cu</u> (ng·dm ⁻³)	-	
<u>V_{max}</u> (ng C·dm ⁻³ ·h ⁻¹)	0.133	
<u>Chlorophyll a</u> (μg·dm ⁻³)	13.4	
<u>Chlorophyll b</u> (μg·dm ⁻³)	1.4	
<u>DOC</u> (mg C·dm ⁻³)	-	
<u>DFAA</u> (μg C·dm ⁻³)	-	
<u>MCHO</u> (μg C·dm ⁻³)	-	
<u>ICHO</u> (μg C·dm ⁻³)	-	

Station : 10
 Date : 25.01.82
 Time : 22.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	- 0.1	13.8	1.8	0.57	14.7
5	- 0.1	13,8	2.0	0.59	14.9
10	- 0.6	15.6	1.7	0.60	15.1
15	1.4	17.9	2.0	0.75	18.5
20	2.4	19.6	1.8	0.86	20.3
22	2.7	20.0	1.8	0.89	26.5



Station : 11
 Date : 26.01.82
 Time : 02.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	- 0.2	14.1	1.7	0.57	19.3
5	- 0.2	14.4	1.9	0.59	19.2
10	- 0.2	15.4	1.8	0.59	19.3
15	1.9	18.5	2.5	0.70	22.4
20	1.8	19.5	2.8	0.79	24.7
23	2.1	20.0	3.0	0.83	28.1

Stat.: 10
Date : 25.01.82
Time : 22.00

Stat.: 11
Date : 26.01.82
Time : 02.00

January

Depth : 0 m

Depth : 5 m

Depth : 0 m

Depth : 5 m

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

Bacillariophyceae

Cerataulina bergonii

Chaetoceros danicus

Chaetoceros spec.

Coscinodiscus eccentricus

Coscinodiscus spec.

Coscosira polychorda

Detonula confervacea

Ditylum brightwellii

Guinardia flaccida

Leptocylindrus danicus

Melosira nummuloides

Navicula vanhoeffenii

Rhizosolenia fragilissima

Rhizosolenia hebetata

Rhizosolenia setigera

Skeletonema costatum

Thalassionema nitzschioides

Thalassiosira decipiens

Bacillariophyceae

Dinophyceae

Amphidinium crassum

Ceratium furca

Ceratium fusus

Ceratium lineatum

Ceratium tripos

Dinoflagellaten spp.

Dinophysis acuminata

Dinophysis norvegica

Dinophysis rotundata

Goniodoma ostenfeldii

Gonyaulax polyedra

Gymnodinium lohmannii

Gymnodinium simplex

Gymnodinium spp.

Heterocapsa triquetra

Minuscula bipes

Peridinium granii

Peridinium grenlandicum

Peridinium pellucidum

Peridinium spp.

Prorocentrum balticum

Prorocentrum micans

Dinophyceae

Cryptophyceae

Cryptomonas baltica

Cryptomonas spec.

Cryptophyceae

Crysophyceae

Dictyocha speculum

0.002 0.0002

0.008 0.023

0.014 0.005

0.406 0.074

0.158 0.178

0.281

0.004 0.016

0.234 0.046

0.298 0.037

0.398

0.006 0.853

0.002 0.003

0.817 0.572

0.026 0.659

0.060 0.251

2.339

3.628 1.669

1.669

Stat.: 10
Date: 25.01.82
Time: 22.00

Stat.: 11
Date: 25.01.82
Time: 02.00

January

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³
	<u>Euglenophyceae</u>							
<i>Euglena proxima</i>								
<u>Chlorophyceae</u>								
<i>Oocystis submarina</i>								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 µ			490.7	4.907			861.8	8.618
Nanoflagellaten 3-6 µ			125.8	7.549			125.8	7.549
Nanoflagellaten 6-9 µ			81.8	13.902			81.8	13.902
Nanoflagellaten 9 µ								
Nanoflagellaten				26.358				30.069
<u>Ciliaten</u>								
Ciliaten spp.								
<i>Favella</i>								
<i>Heliocostomella</i>								
<i>Lohmaniella</i>								
<i>Mesodinium rubrum</i>			0.002	0.005			0.038	1.994
<i>Strombidium conicum</i>								
<i>Strombidium strobilus</i>								
<i>Tiarina</i>								
<i>Tintinnopsis beroidea</i>			0.014	0.806			0.010	1.410
Ciliaten				0.811				3.404
<u>Plankton, total</u>			698.904	27.450			1074.171	37.879
<u>Diss. org. Cu</u> (ng·dm ⁻³)			15.7				25.6	
<u>Diss. tot. Cu</u> (ng·dm ⁻³)			715				681	
<u>V_{max}</u> (µg C·dm ⁻³ ·h ⁻¹)			0.005				0.004	
<u>Chlorophyll a</u> (µg·dm ⁻³)			0.54				0.49	
<u>Chlorophyll b</u> (µg·dm ⁻³)							0.05	
<u>DOC</u> (mg C·dm ⁻³)			2.62				2.52	
<u>DFAA</u> (µg C·dm ⁻³)			644.4				118.7	
<u>NCHO</u> (µg C·dm ⁻³)								
<u>TCHO</u> (µg C·dm ⁻³)			410				500	

Station:
Date:
Time:
Latitude:
Longitude:

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si

Station: 11a
Date: 26.01.81
Time: 06.00
Latitude: 54°34.4'N
Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	-0.3	13.7			
5	-0.3	13.7			
10	1.0	14.0			
15	1.5	17.4			
20	2.3	20.0			
22	2.8	20.0			

	Station:	Station: 11a
<u>Diss. org. Cu</u> (ng·dm ⁻³)		22.0
<u>Diss. tot. Cu</u> (ng·dm ⁻³)		-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)		0.0040
<u>Chlorophyll a</u> (μg·dm ⁻³)		0.52
<u>Chlorophyll b</u> (μg·dm ⁻³)		-
<u>DOC</u> (mg C·dm ⁻³)		2.37
<u>DFAA</u> (μg C·dm ⁻³)		69.8
<u>MCHO</u> (μg C·dm ⁻³)		-
<u>ICHO</u> (μg C·dm ⁻³)		450

Station : 12
 Date : 26.01.82
 Time : 10.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	- 0.2	13.7	2.1	0.50	16.6
5	- 0.1	13.6	2.1	0.53	17.2
10	- 0.1	13.7	2.4	0.64	19.8
15	1.4	17.4	2.6	0.58	21.8
20	2.7	19.7	3.2	0.86	32.8
23	2.8	20.0	-	-	-

Station : 13
 Date : 26.01.82
 Time : 22.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	- 0.4	13.6	2.1	0.55	13.2
5	- 0.4	13.6	2.2	0.55	13.4
10	- 0.5	14.0	2.3	0.62	14.3
15	1.7	18.0	2.6	0.75	17.5
20	2.6	19.6	2.7	0.83	21.6
23	2.7	19.8	-	-	-

Stat.: 12
Date: 26.01.82
Time: 10.00

Stat.: 13
Date: 26.01.82
Time: 22.00

January

Depth: 0 m		Depth: 5 m		Depth: 0 m		Depth: 5 m	
$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$

Bacillariophyceae

Cerataulina bergonii							
Chaetoceros danicus							
Chaetoceros spec.							
Coscinodiscus eccentricus		0.002	0.008			0.004	0.018
Coscinodiscus spec.							
Coscosira polychorda							
Detonula confervacea		0.020	0.014			0.036	0.026
Ditylum brightwellii							
Guinardia flaccida							
Leptocylindrus danicus							
Melosira nummuloides							
Navicula vanhoeffenii							
Rhizosolenia fragilissima							
Rhizosolenia hebetata							
Rhizosolenia setigera							
Skeletonema costatum		0.430	0.086			0.432	0.069
Thalassionema nitzschioides		0.110	0.124			0.128	0.149
Thalassiosira decipiens							

Bacillariophyceae

0.230 0.257

Dinophyceae

Amphidinium crassum							
Ceratium furca							
Ceratium fusus							
Ceratium lineatum							
Ceratium tripos							
Dinoflagellaten spp.							
Dinophysis acuminata							
Dinophysis norvegica							
Dinophysis rotundata							
Goniodoma ostenfeldii							
Gonyaulax polyedra							
Gymnodinium lohmannii							
Gymnodinium simplex						0.999	0.699
Gymnodinium spp.							
Heterocapsa triquetra							
Minuscula bipes							
Peridinium granii							
Peridinium grenlandicum							
Peridinium pellucidum							
Peridinium spp.							
Prorocentrum balticum							
Prorocentrum micans							

Dinophyceae

0.699

Cryptophyceae

Cryptomonas baltica		6.538	3.007			9.879	4.553
Cryptomonas spec.							

Cryptophyceae

3.007 4.553

Crysophyceae

Dictyocha speculum

Stat.: 12
Date : 26.01.82
Time : 10.00

Stat.: 13
Date : 26.01.82
Time : 22.00

January

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$
	<u>Euglenophyceae</u>							
<i>Euglena proxima</i>			0.006	0.041			0.006	0.041
<u>Chlorophyceae</u>								
<i>Oocystis submarina</i>								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 μ			874.4	8.744			1421.6	14.217
Nanoflagellaten 3-6 μ			144.7	8.681			100.6	6.039
Nanoflagellaten 6-9 μ			56.6	9.625			25.5	4.278
Nanoflagellaten 9 μ								
Nanoflagellaten				27.050				24.534
<u>Ciliaten</u>								
Ciliaten spp.								
<i>Favella</i>								
<i>Heliocostomella</i>								
<i>Lohmaniella</i>								
<i>Mesodinium rubrum</i>			0.048	2.518			0.377	5.040
<i>Strombidium conicum</i>								
<i>Strombidium strobilus</i>								
<i>Tiarina</i>								
<i>Tintinnopsis beroidea</i>			0.006	0.846				
Ciliaten				3.364				5.040
<u>Plankton, total</u>			1082.860	33.696			1555.580	35.124
<u>Diss. org. Cu</u> ($ng \cdot dm^{-3}$)								25.2
<u>Diss. tot. Cu</u> ($ng \cdot dm^{-3}$)				717				670
V_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)				0.004				0.004
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)				0.52				0.52
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)								0.05
<u>DOC</u> ($mg C \cdot dm^{-3}$)				2.37				2.60
<u>DFAA</u> ($\mu g C \cdot dm^{-3}$)				69.8				221.1
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)				110				134
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)				450				430

Station: 12a
 Date: 26.01.81
 Time: 14.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	-0.3	13.6			
5	-0.3	13.6			
10	-0.3	13.8			
15	1.1	17.7			
20	2.4	19.8			
22	2.5	19.8			

Station: 12b
 Date: 26.01.81
 Time: 18.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	-0.2	13.6			
5	-0.2	13.8			
10	-0.2	14.8			
15	-0.3	16.5			
20	1.3	19.3			
22	2.3	19.7			

	Station: 12a	Station: 12b
<u>Diss. org. Cu</u> (ng·dm ⁻³)	28.0	23.5
<u>Diss. tot. Cu</u> (ng·dm ⁻³)	-	-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)	0.0040	0.004
<u>Chlorophyll a</u> (μg·dm ⁻³)	0.45	0.53
<u>Chlorophyll b</u> (μg·dm ⁻³)	0.05	0.05
<u>DOC</u> (mg C·dm ⁻³)	2.60	2.37
<u>DFAA</u> (μg C·dm ⁻³)	94.6	56.9
<u>MCHO</u> (μg C·dm ⁻³)	-	306
<u>TCHO</u> (μg C·dm ⁻³)	400	580

Station : 14
 Date : 27.01.82
 Time : 02.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	- 0.4	13,6	2.2	0.54	18.8
5	- 0.4	13.6	2.1	0.55	19.1
10	- 0.5	14.1	2.2	0.62	20.0
15	1.5	17.9	2.9	0.79	24.2
20	2.5	19.5	2.2	0.75	24.0

Station : 15
 Date : 27.01.82
 Time : 10.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	- 0.4	13.6	2.3	0.57	14.8
5	- 0.4	13.7	2.4	0.58	14.8
10	- 0.6	14.0	2.5	0.55	15.0
15	1.6	17.5	3.0	0.78	18.0
20	2.3	19.1	3.0	0.84	21.4

Stat.: 14
Date: 27.01.82
Time: 02.00

Stat.: 15
Date: 27.01.82
Time: 10.00

January

Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$

<u>Bacillariophyceae</u>							
Cerataulina bergonii							
Chaetoceros danicus		0.012	0.059			0.002	0.010
Chaetoceros spec.							
Coscinodiscus eccentricus		0.002	0.012				
Coscinodiscus spec.							
Coscinosira polychorda							
Detonula confervacea		0.050	0.036				
Ditylum brightwellii							
Guinardia flaccida							
Leptocylindrus danicus							
Melosira nummuloides							
Navicula vanhoeffenii							
Rhizosolenia fragilissima							
Rhizosolenia hebetata							
Rhizosolenia setigera							
Skeletonema costatum		0.328	0.053			0.246	0.039
Thalassionema nitzschioides		0.142	0.161			0.138	0.156
Thalassiosira decipiens							
<u>Bacillariophyceae</u>							
			0.319				0.205
<u>Dinophyceae</u>							
Amphidinium crassum							
Ceratium furca							
Ceratium fusus							
Ceratium lineatum							
Ceratium tripos		0.002	0.284			0.002	0.284
Dinoflagellaten spp.							
Dinophysis acuminata							
Dinophysis norvegica							
Dinophysis rotundata							
Goniodoma ostenfeldii							
Gonyaulax polyedra							
Gymnodinium lohmannii							
Gymnodinium simplex		1.271	0.890			0.817	0.572
Gymnodinium spp.							
Heterocapsa triquetra							
Minuscula bipes							
Peridinium granii							
Peridinium grenlandicum							
Peridinium pellucidum							
Peridinium spp.							
Prorocentrum balticum							
Prorocentrum micans							
<u>Dinophyceae</u>							
			1.174				0.856
<u>Cryptophyceae</u>							
Cryptomonas baltica		9.171	4.219			7.900	3.634
Cryptomonas spec.							
<u>Cryptophyceae</u>							
			4.219				3.634
<u>Crysophyceae</u>							
Dictyocha speculum							

Stat.: 14
Date : 27.01.82
Time : 02.00

Stat.: 15
Date : 27.01.82
Time : 10.00

January

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$
	<u>Euglenophyceae</u>							
<i>Euglena proxima</i>								
<u>Chlorophyceae</u>								
<i>Oocystis submarina</i>								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 μ			1302.1	13.029			1100.8	11.009
Nanoflagellaten 3-6 μ			150.9	9.059			125.8	7.549
Nanoflagellaten 6-9 μ			21.5	4.278			44.0	7.486
Nanoflagellaten 9 μ								
Nanoflagellaten				26.385				26.043
<u>Ciliaten</u>								
<i>Ciliaten spp.</i>								
<i>Favella</i>								
<i>Heliocostomella</i>								
<i>Lohmaniella</i>								
<i>Mesodinium rubrum</i>			0.509	2.620			0.688	3.572
<i>Strombidium conicum</i>								
<i>Strombidium strobilus</i>								
<i>Tiarina</i>								
<i>Tintinnopsis beroidea</i>								
<u>Ciliaten</u>				2.620				3.572
<u>Plankton, total</u>			1485.987	34.690			1279.599	34.313
<u>Diss. org. Cu</u> ($ng \cdot dm^{-3}$)				25.6				23.2
<u>Diss. tot. Cu</u> ($ng \cdot dm^{-3}$)				611				627
V_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)				0.005				0.003
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)				0.40				0.82
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)								0.11
<u>DOC</u> ($mg C \cdot dm^{-3}$)				2.52				2.44
<u>DFAA</u> ($\mu g C \cdot dm^{-3}$)				96.4				61.9
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)				91				98
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)				480				830

Station: 14a
 Date: 27.01.82
 Time: 06.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	-0.4	13.7			
5	-0.4	13.8			
10	-0.4	14.0			
15	1.7	18.0			
20	2.3	19.4			
22	2.6	19.6			

Station: 15a
 Date: 27.01.82
 Time: 14.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	-0.3	13.7			
5	-0.3	13.7			
10	-0.3	14.6			
15	1.2	17.1			
20	2.3	19.6			

Station: 15b
 Date: 27.01.82
 Time: 18.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	-0.3	13.8			
5	-0.3	13.9			
10	-0.2	14.2			
15	1.1	16.5			
20	1.9	19.5			

	Station: 14a	Station: 15a	Station: 15b
<u>Diss. org. Cu</u> (ng·dm ⁻³)	19.6	22.4	25.9
<u>Diss. tot. Cu</u> (ng·dm ⁻³)	-	-	-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)	0.005	0.0040	0.0040
<u>Chlorophyll a</u> (μg·dm ⁻³)	0.94	0.66	0.44
<u>Chlorophyll b</u> (μg·dm ⁻³)	0.08	0.08	0.06
<u>DOC</u> (mg C·dm ⁻³)	2.47	2.29	2.55
<u>DFAA</u> (μg C·dm ⁻³)	59.2	69.5	205.2
<u>MCHO</u> (μg C·dm ⁻³)	76	169	96
<u>TCHO</u> (μg C·dm ⁻³)	420	480	480

Station : 16
 Date : 27.01.82
 Time : 22.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	- 0.2	14.0	2.1	0.54	18.4
5	- 0.2	14.0	2.2	0.54	18.8
10	- 0.4	14.0	1.9	0.61	19.3
15	1.2	17.5	2.4	0.70	21.9
20	2.4	19.6	2.8	0.81	29.1

Station : 17
 Date : 28.01.82
 Time : 02.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	- 0.3	13.8	2.1	0.96	14.4
5	- 0.4	13.8	2.2	0.96	15.0
10	- 0.4	14.2	2.3	1.05	15.9
15	1.4	16.6	2.3	1.14	18.6
20	2.3	19.0	2.9	1.20	20.8

January	Stat.: 16 Date: 27.01.82 Time: 22.00				Stat.: 17 Date: 28.01.82 Time: 02.00			
	Depth: 0 m		Depth: 5 m		Depth: 0 m		Depth: 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu gC \cdot dm^{-3}$
<u>Bacillariophyceae</u>								
Cerataulina bergonii								
Chaetoceros danicus			0.002	0.010				
Chaetoceros spec.								
Coscinodiscus eccentricus			0.002	0.008			0.002 0.012	
Coscinodiscus spec.								
Coscosira polychorda								
Detonula confervacea								
Ditylum brightwellii			0.020	0.014				
Guinardia flaccida								
Leptocylindrus danicus								
Melosira nummuloides								
Navicula vanhoeffenii								
Rhizosolenia fragilissima								
Rhizosolenia hebetata								
Rhizosolenia setigera								
Skeletonema costatum			0.214	0.081			0.136 0.052	
Thalassionema nitzschioides			0.228	0.258			0.228 0.258	
Thalassiosira decipiens								
Bacillariophyceae				0.371			0.321	
<u>Dinophyceae</u>								
Amphidinium crassum								
Ceratium furca								
Ceratium fusus								
Ceratium lineatum								
Ceratium tripos								
Dinoflagellaten spp.								
Dinophysis acuminata								
Dinophysis norvegica								
Dinophysis rotundata								
Goniodoma ostenfeldii								
Gonyaulax polyedra								
Gymnodinium lohmannii								
Gymnodinium simplex			0.726	0.509			0.726 0.509	
Gymnodinium spp.								
Heterocapsa triquetra								
Minuscula bipes								
Peridinium granii								
Peridinium grenlandicum								
Peridinium pellucidum			0.004	0.168				
Peridinium spp.								
Prorocentrum balticum								
Prorocentrum micans								
Dinophyceae				0.676			0.509	
<u>Cryptophyceae</u>								
Cryptomonas baltica			6.447	2.966			7.355 3.383	
Cryptomonas spec.								
Cryptophyceae				2.966			3.383	
<u>Crysophyceae</u>								
Dictyocha speculum								

Stat.: 16
Date: 27.01.82
Time: 22.00

Stat.: 17
Date: 28.01.82
Time: 02.00

January

	Depth : 0 m				Depth : 5 m			
	n·dm ⁻³ x10 ⁴		µgC·dm ⁻³		n·dm ⁻³ x10 ⁴		µgC·dm ⁻³	
	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³
<u>Euglenophyceae</u>								
Euglena proxima			0.002	0.014				
<u>Chlorophyceae</u>								
Oocystis submarina								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 µ			1036.8	10.568			1698.9	16.960
Nanoflagellaten 3-6 µ			113.2	6.794			232.7	13.965
Nanoflagellaten 6-9 µ			44.0	7.486			37.7	6.417
Nanoflagellaten 9 µ								
Nanoflagellaten				24.848				40.072
<u>Ciliaten</u>								
Ciliaten spp.								
Favella								
Heliocostomella								
Lohmaniella								
Mesodinium rubrum			0.412	2.471			0.291	2.104
Strombidium conicum								
Strombidium strobilus								
Tiarina								
Tintinnopsis beroidea			0.010	0.910			0.008	1.128
Ciliaten				3.380				3.232
<u>Plankton, total</u>			1222.067	32.255			2228.082	47.517
<u>Diss. org. Cu</u> (ng·dm ⁻³)			18.4				24.0	
<u>Diss. tot. Cu</u> (ng·dm ⁻³)			626				581	
$\frac{V_{max}}{C}$ (µg C·dm ⁻³ ·h ⁻¹)			0.004				0.004	
<u>Chlorophyll a</u> (µg·dm ⁻³)			0.50				0.63	
<u>Chlorophyll b</u> (µg·dm ⁻³)							0.06	
<u>DOC</u> (mg C·dm ⁻³)			2.55				2.34	
<u>DFAA</u> (µg C·dm ⁻³)			208.5				711.1	
<u>MCHO</u> (µg C·dm ⁻³)			207				229	
<u>TCHO</u> (µg C·dm ⁻³)			550				510	

Station:
Date:
Time:
Latitude:
Longitude:

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si

Station: 17a
Date: 28.01.82
Time: 06.00
Latitude: 54°34.4'N
Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	-0.4	13.9			
5	-0.4	13.9			
10	0.6	14.3			
15	1.2	16.5			
20	2.2	18.6			

	Station:	Station: 17a
<u>Diss. org. Cu</u> (ng·dm ⁻³)		21.5
<u>Diss. tot. Cu</u> (ng·dm ⁻³)		-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)		-
<u>Chlorophyll a</u> (μg·dm ⁻³)		0.63
<u>Chlorophyll b</u> (μg·dm ⁻³)		0.06
<u>DOC</u> (mg C·dm ⁻³)		2.99
<u>DFAA</u> (μg C·dm ⁻³)		106.3
<u>MCHO</u> (μg C·dm ⁻³)		174
<u>ICHO</u> (μg C·dm ⁻³)		520

Station : 18
Date : 28.01.82
Time : 10.00
Latitude : 54°34.4'N
Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃ PO ₄ Si (μmol·dm ⁻³)		
1	- 0.3	13.9	2.2	0.70	18.6
5	- 0.2	13.9	2.4	0.71	17.9
10	0.4	14.3	2.7	0.70	19.9
15	1.3	16.5	2.9	0.78	25.0
20	2.0	18.6	2.9	0.80	27.2

Stat.: 18
Date: 28.01.82
Time: 10.00

Date:
Time:

January

Depth: 0 m

Depth: 5 m

Depth: 0 m

Depth: 5 m

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

$n \cdot dm^{-3}$
 $\times 10^4$

$\mu gC \cdot dm^{-3}$

Bacillariophyceae

Cerataulina bergonii
Chaetoceros danicus
Chaetoceros spec.
Coscinodiscus eccentricus
Coscinodiscus spec.
Coscinosira polychorda
Detonula confervacea
Ditylum brightwellii
Guinardia flaccida
Leptocylindrus danicus
Melosira nummuloides
Navicula vanhoeffenii
Rhizosolenia fragilissima
Rhizosolenia hebetata
Rhizosolenia setigera
Skeletonema costatum
Thalassionema nitzschioides
Thalassiosira decipiens

0.236 0.090
0.172 0.194

Bacillariophyceae

0.284

Dinophyceae

Amphidinium crassum
Ceratium furca
Ceratium fusus
Ceratium lineatum
Ceratium tripos
Dinoflagellaten spp.
Dinophysis acuminata
Dinophysis norvegica
Dinophysis rotundata
Goniodoma ostenfeldii
Gonyaulax polyedra
Gymnodinium lohmannii
Gymnodinium simplex
Gymnodinium spp.
Heterocapsa triquetra
Minuscula bipes
Peridinium granii
Peridinium grenlandicum
Peridinium pellucidum
Peridinium spp.
Prorocentrum balticum
Prorocentrum micans

0.908 0.636

Dinophyceae

0.636

Cryptophyceae

Cryptomonas baltica
Cryptomonas spec.

6.356 2.942

Cryptophyceae

2.942

Crysophyceae

Dictyocha speculum

Stat.: 18
Date: 28.01.82
Time: 10.00

Date :
Time :

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$
	<u>Euglenophyceae</u>							
<i>Euglena proxima</i>								
<u>Chlorophyceae</u>								
<i>Oocystis submarina</i>								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 μ			1578.9	15.790				
Nanoflagellaten 3-6 μ			201.3	12.078				
Nanoflagellaten 6-9 μ			18.8	3.208				
Nanoflagellaten 9 μ								
Nanoflagellaten				31.076				
<u>Ciliaten</u>								
Ciliaten spp.								
<i>Favella</i>								
<i>Heliocostomella</i>								
<i>Lohmaniella</i>								
<i>Mesodinium rubrum</i>			0.416	3.772				
<i>Strombidium conicum</i>								
<i>Strombidium strobilus</i>								
<i>Tiarina</i>								
<i>Tintinnopsis beroidea</i>			0.010	1.410				
Ciliaten				5.182				
<u>Plankton, total</u>			1810.754	40.01				
<u>Diss. org. Cu</u> ($ng \cdot dm^{-3}$)				24.8				
<u>Diss. tot. Cu</u> ($ng \cdot dm^{-3}$)				630				
V_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)				0.011				
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)				0.66				
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)				0.06				
<u>DOC</u> ($mg C \cdot dm^{-3}$)				2.52				
<u>DFAA</u> ($\mu g C \cdot dm^{-3}$)				248.5				
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)				118				
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)				590				

Station: 18a
 Date: 28.01.82
 Time: 14.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	-0.3	13.9			
5	-0.2	13.9			
10	0.4	14.3			
15	1.3	16.5			
20	1.3	18.6			

Station: 18b
 Date: 28.01.82
 Time: 18.00
 Latitude: 54°34.4'N
 Longitude: 10°10.5'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	-0.5	14.0			
5	-0.5	14.0			
10	0.5	14.1			
15	1.4	17.4			
20	2.0	19.0			
23.5	2.1	19.1			

	Station: 18a	Station: 18b
<u>Diss. org. Cu</u> (ng·dm ⁻³)	20.0	25.1
<u>Diss. tot. Cu</u> (ng·dm ⁻³)	-	-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)	-	0.004
<u>Chlorophyll a</u> (μg·dm ⁻³)	0.61	-
<u>Chlorophyll b</u> (μg·dm ⁻³)	0.06	-
<u>DOC</u> (mg C·dm ⁻³)	2.28	2.26
<u>DFAA</u> (μg C·dm ⁻³)	166.6	125.7
<u>MCHO</u> (μg C·dm ⁻³)	204	138
<u>ICHO</u> (μg C·dm ⁻³)	460	350

Station : 19
 Date : 15.03.82
 Time : 22.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	1.9	17.5	0.3	0.46	2.1
5	1.9	17.5	0.5	0.45	2.3
10	1.8	17.6	0.4	0.57	2.1
15	2.1	22.3	8.2	1.15	17.1
20	2.7	24.0	7.0	1.02	15.8
23.5	2.8	24.3	5.7	0.92	12.3



Station : 20
 Date : 16.03.82
 Time : 02.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.0	17.2	0.3	0.20	1.9
5	2.0	17.3	0.3	0.20	1.7
10	2.0	17.1	0.7	0.20	1.5
15	2.3	22.0	8.4	0.74	14.5
20	2.8	23.7	8.4	0.75	11.2
23.5	2.9	23.7	5.2	0.75	9.9

Stat.: 19
Date: 15.03.62
Time: 22.00

Stat.: 20
Date: 16.03.62
Time: 02.00

T. coli	Stat.: 19				Stat.: 20			
	Date: 15.03.62				Date: 16.03.62			
	Time: 22.00				Time: 02.00			
	Depth: 0 m		Depth: 5 m		Depth: 0 m		Depth: 5 m	
	$n \cdot dm^{-3} \times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu g C \cdot dm^{-3}$
<u>Euglenophyceae</u>								
Euglena proxima	0.368	2.543	0.360	2.488	0.232	1.603	0.296	2.045
<u>Chlorophyceae</u>								
Oocystis submarina								
<u>Manoflagellaten</u>								
Nanoflagellaten 1-3 μ	1843.1	18.432	1660.7	16.607	2000.4	20.004	779.3	17.740
Nanoflagellaten 3-6 μ	440.3	20.421	339.6	20.382	390.0	23.401	446.6	26.800
Nanoflagellaten 6-9 μ	37.7	6.417	31.4	5.347	44.0	7.468	37.7	6.417
Nanoflagellaten 9 μ								
Manoflagellaten		51.285		42.336		50.892		50.995
<u>Ciliaten</u>								
Ciliaten spp.								
Favella								
Helicostomella								
Lohmaniella								
Mesodinium rubrum	0.160	8.394	0.160	8.394	0.168	8.813	0.112	5.876
Strombidium conicum								
Strombidium strobilus								
Tiarina								
Tintinnopsis beroidea	0.032	1.842	0.056	3.224	0.064	3.684	0.024	1.382
Ciliaten		10.236		14.738		12.497		7.257
<u>Plankton, total</u>	3580.186	475.839	2737.451	382.767	3243.531	349.743	3620.	502.898
<u>Diss. org. Cu</u> ($ng \cdot dm^{-3}$)			27.2				17.4	
<u>Diss. tot. Cu</u> ($ng \cdot dm^{-3}$)			591				823	
V_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)			0.028				0.029	
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)		14.6		16.9		12.7		8.9
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)		2.0		2.0		1.2		0.8
<u>DOC</u> ($mg C \cdot dm^{-3}$)				2.46		2.83		2.56
<u>DFAA</u> ($\mu g C \cdot dm^{-3}$)		86.1		99.6		126.4		120.3
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)		97		190		127		143
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)		400		510		490		410

Station:
Date:
Time:
Latitude:
Longitude:

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si

Station: 20a
Date: 16.03.82
Time: 06.00
Latitude: 54°34.4'N
Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.0	16.3	0.5	0.37	2.9
5	2.0	-	0.5	0.40	2.9
10	2.0	16.5	1.0	0.34	3.0
15	2.3	21.5	9.0	1.08	18.1
20	2.8	23.6	6.7	0.87	14.6
23.5	2.9	23.8	6.5	0.84	13.9

	Station:		Station: 20a	
	1 m	5 m	1 m	5 m
<u>Diss. org. Cu</u> (ng·dm ⁻³)				26.2
<u>Diss. tot. Cu</u> (ng·dm ⁻³)				-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)				0.029
<u>Chlorophyll a</u> (μg·dm ⁻³)			20.4	15.0
<u>Chlorophyll b</u> (μg·dm ⁻³)			1.9	1.1
<u>DOC</u> (mg C·dm ⁻³)			2.1	-
<u>DFAA</u> (μg C·dm ⁻³)			114.7	93.9
<u>MCHO</u> (μg C·dm ⁻³)			117	158
<u>TCHO</u> (μg C·dm ⁻³)			370	540

Station : 21
 Date : 16.03.82
 Time : 10.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.0	16.2	0.6	0.12	2.4
5	2.0	17.0	0.7	0.12	2.4
10	1.9	16.3	1.2	0.12	2.5
15	2.6	21.3	0.6	0.33	20.5
20	2.8	22.2	6.6	0.26	12.9
23.5	2.9	23.8	6.2	0.26	12.8

Station : 22
 Date : 16.03.82
 Time : 22.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.5	16.1	0.7	0.5	1.7
5	2.4	16.1	0.7	0.5	1.8
10	2.2	18.5	2.1	0.5	1.7
15	2.5	21.5	8.5	1.0	7.9
20	2.8	22.5	7.5	1.0	8.0
23.5	2.9	22.6	7.4	1.0	9.2

March	Stat.: 21 Date: 16.03.82 Time: 10.00				Stat.: 22 Date: 16.03.82 Time: 22.00			
	Depth: 0 m		Depth: 5 m		Depth: 0 m		Depth: 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$
<u>Euglenophyceae</u>								
Euglena proxima	0.116	0.802	0.124	0.857	0.124	0.857	0.092	0.636
<u>Chlorophyceae</u>								
Oocystis submarina								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 μ	1673.3	16.733	2477.0	24.471	2164.0	21.640	1849.4	18.495
Nanoflagellaten 3-6 μ	679.3	40.764	710.8	42.651	817.7	49.068	496.9	29.818
Nanoflagellaten 6-9 μ	25.1	4.278	25.1	4.298	18.8	3.208	6.3	1.069
Nanoflagellaten 9 μ								
Nanoflagellaten		61.775		71.399		73.916		49.382
<u>Ciliaten</u>								
Ciliaten spp.								
Favella								
Heliocostomella								
Lohmaniella								
Mesodinium rubrum	0.168	8.813	0.156	8.184	0.164	8.603	0.196	10.292
Strombidium conicum								
Strombidium strobilus								
Tiarina								
Tintinnopsis beroidea	0.072	4.145	0.040	2.303	0.023	1.612	0.024	1.382
Ciliaten		12.953		10.487		10.215		11.664
Plankton, total	3493.768	424.296	3941.743	392.867	3819.119	565.738	3137.401	529.050
<u>Diss. org. Cu</u> ($ng \cdot dm^{-3}$)			18.0				27.2	
<u>Diss. tot. Cu</u> ($ng \cdot dm^{-3}$)			710				644	
v_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)			0.030				0.026	
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)	14.6		13.6		14.1		12.7	
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)	1.1		1.1		1.5		1.9	
<u>DOC</u> ($mg C \cdot dm^{-3}$)	2.56		2.56		2.23		2.37	
<u>DFAA</u> ($\mu g C \cdot dm^{-3}$)	81.3		94.9		131.7		119.8	
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)	146		142		105		149	
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)	470		500		390		430	

Station: 21a
 Date: 16.03.82
 Time: 14.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	2.1	16.2	1.6	0.25	3.1
5	2.1	16.3	1.9	0.24	2.2
10	2.1	16.4	2.8	0.37	2.6
15	2.6	21.3	24.1	1.02	21.4
20	2.8	22.0	21.9	0.95	19.8
23.5	2.8	22.1	23.1	0.95	21.2

Station: 21b
 Date: 16.03.82
 Time: 18.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	2.3	16.3	0.5	0.27	2.2
5	2.2	16.6	0.9	0.31	2.2
10	2.3	16.6	1.4	0.34	2.2
15	2.6	21.6	9.2	1.08	21.0
20	2.8	22.4	6.4	0.94	15.5
23.5	2.9	22.6	6.0	0.83	14.0

	Station: 21a		Station: 21b	
	1 m	5 m	1 m	5 m
<u>Diss. org. Cu</u> ($\text{ng}\cdot\text{dm}^{-3}$)		25.1		26.2
<u>Diss. tot. Cu</u> ($\text{ng}\cdot\text{dm}^{-3}$)		-		-
<u>V_{max}</u> ($\mu\text{g C}\cdot\text{dm}^{-3}\cdot\text{h}^{-1}$)		0.031		0.028
<u>Chlorophyll a</u> ($\mu\text{g}\cdot\text{dm}^{-3}$)	14.9	13.4	14.2	11.6
<u>Chlorophyll b</u> ($\mu\text{g}\cdot\text{dm}^{-3}$)	1.4	1.0	1.1	1.5
<u>DOC</u> ($\text{mg C}\cdot\text{dm}^{-3}$)	2.65	2.65	2.37	2.23
<u>DFAA</u> ($\mu\text{g C}\cdot\text{dm}^{-3}$)	83.4	93.7	100.9	107.6
<u>MCHO</u> ($\mu\text{g C}\cdot\text{dm}^{-3}$)	165	135	189	80
<u>ICHO</u> ($\mu\text{g C}\cdot\text{dm}^{-3}$)	480	620	460	460

Station : 23
 Date : 17.03.82
 Time : 02.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.2	16.0	1.5	0.49	3.2
5	2.2	16.1	1.6	0.49	3.7
10	2.2	19.8	1.8	0.57	3.4
15	2.6	22.0	7.2	1.04	16.4
20	2.7	22.3	7.2	1.07	16.7
23.5	2.8	22.9	6.7	1.06	16.5



Station : 24
 Date : 17.03.82
 Time : 10.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.1	16.0	1.1	0.31	1.5
5	2.1	16.0	1.4	0.91	1.6
10	2.1	19.2	7.6	0.37	8.8
15	2.8	21.8	7.3	0.92	11.3
20	2.8	21.8	7.8	0.91	12.6
23.5	2.8	21.8	7.9	0.95	

Stat.: 23
Date: 17.03.82
Time: 07.00

Stat.: 24
Date: 17.03.82
Time: 10.00

Sample	Depth : 0 m				Depth : 5 m			
	n · dm ⁻³ x10 ⁴		µgC · dm ⁻³		n · dm ⁻³ x10 ⁴		µgC · dm ⁻³	
	n · dm ⁻³ x10 ⁴	µgC · dm ⁻³	n · dm ⁻³ x10 ⁴	µgC · dm ⁻³	n · dm ⁻³ x10 ⁴	µgC · dm ⁻³	n · dm ⁻³ x10 ⁴	µgC · dm ⁻³
<u>Euglenophyceae</u>								
Euglena proxima	0.084	0.583	0.088	0.608	0.124	0.857	0.080	0.533
<u>Chlorophyceae</u>								
Oocystis submarina								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 µ	1677.0	16.670	2031.8	20.319	2107.3	21.074	1723.6	17.237
Nanoflagellaten 3-6 µ	390.0	23.401	364.8	21.892	364.8	21.892	245.3	14.720
Nanoflagellaten 6-9 µ	12.5	2.139	12.5	2.139	6.3	1.069		
Nanoflagellaten 9 µ								
Nanoflagellaten		42.211		44.349		44.035		31.957
<u>Ciliaten</u>								
Ciliaten spp.								
Favella								
Heliocostomella								
Lohmaniella								
Mesodinium rubrum	0.104	5.456	0.130	6.820	0.168	8.813	0.168	8.813
Strombidium conicum								
Strombidium strobilus								
Tiarina								
Tintinnopsis beroidea	0.004	0.230	0.016	0.921	0.020	1.151	0.028	1.612
Ciliaten		5.686		7.741		9.965		11.425
<u>Plankton, total</u>	2671.457	391.915	3141.691	459.220	3194.374	463.247	2564.515	322.275
<u>Diss. org. Cu</u> (ng · dm ⁻³)			21.0				16.8	
<u>Diss. tot. Cu</u> (ng · dm ⁻³)			666				647	
<u>V_{max}</u> (µg C · dm ⁻³ · h ⁻¹)			0.034				0.042	
<u>Chlorophyll a</u> (µg · dm ⁻³)	11.4		10.3		13.4		11.4	
<u>Chlorophyll b</u> (µg · dm ⁻³)	1.2		1.3		1.4		1.1	
<u>DOC</u> (mg C · dm ⁻³)	2.20		2.32		2.23		2.61	
<u>DFAA</u> (µg C · dm ⁻³)	31.3		80.3		35.5		61.7	
<u>MCHO</u> (µg C · dm ⁻³)	106		103		42		104	
<u>TCHO</u> (µg C · dm ⁻³)								

Station: 23a
 Date: 17.03.82
 Time: 06.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.2	16.0	2.0	0.32	2.2
5	2.2	16.0	1.4	0.31	2.2
10	2.1	19.3	4.1	0.33	2.4
15	2.6	21.4	8.8	0.88	7.6
20	2.8	22.2	7.0	0.84	-
23.5	2.9	22.2	6.8	0.85	7.5

Station: 24a
 Date: 17.03.82
 Time: 14.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.6	16.2	4.7	0.55	4.4
5	2.3	16.5	4.5	0.50	4.5
10	2.2	19.5	6.7	0.56	11.8
15	2.7	21.2	7.0	0.85	14.0
20	2.7	21.9	7.4	0.94	15.4
23.5	2.8	21.9	7.6	0.95	16.4

Station: 24b
 Date: 17.03.82
 Time: 18.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.7	16.2	3.2	0.51	2.5
5	2.6	16.5	3.7	0.57	2.5
10	2.4	20.2	6.1	0.85	7.6
15	2.7	21.6	6.7	0.82	11.1
20	2.8	21.8	7.7	0.97	13.2
23.5	2.8	21.9	7.9	0.98	14.1

	Station: 23a		Station: 24a		Station: 24b	
	1 m	5 m	1 m	5 m	1 m	5 m
<u>Diss. org. Cu</u> (ng·dm ⁻³)		26.7		28.2		22.8
<u>Diss. tot. Cu</u> (ng·dm ⁻³)		-		-		-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)		0.035		0.035		0.036
<u>Chlorophyll a</u> (μg·dm ⁻³)	14.7	14.8	9.9	8.5	9.9	5.5
<u>Chlorophyll b</u> (μg·dm ⁻³)	1.2	2.1	1.1	1.3	1.1	0.7
<u>DOC</u> (mg C·dm ⁻³)	2.56	2.65	2.32	2.51	2.56	2.75
<u>DFAA</u> (μg C·dm ⁻³)	110.1	157.4	66.2	83.9	143.7	132.6
<u>MCHO</u> (μg C·dm ⁻³)	124	160	123	106	108	114
<u>TCHO</u> (μg C·dm ⁻³)	510	680	640	510	560	660

Station : 25
 Date : 17.03.82
 Time : 22.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	2.6	16.2	7.6	0.63	4.4
5	2.6	16.5	7.0	0.63	3.8
10	2.2	19.5	8.1	0.97	10.4
15	2.6	21.1	8.4	0.96	15.1
20	2.8	21.7	7.8	0.91	13.5
23.5	2.8	21.9	7.3	0.91	12.5

Station : 26
 Date : 18.03.82
 Time : 02.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	2.2	16.0	2.9	0.40	2.2
5	2.3	16.9	4.1	0.40	1.3
10	2.6	18.0	4.9	0.85	2.2
15	2.7	20.4	6.4	0.99	6.2
20	2.8	22.0	7.9	1.00	10.0
23.5	2.8	22.0	7.9	1.00	8.3

stat.: 25
Date : 17.03.82
Time : 22.00

Stat.: 26
Date : 18.03.82
Time : 02.00

Karch

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³
	<u>Euglenophyceae</u>							
Euglena proxima	0.004	0.028	0.000	0.055	0.008	0.055	0.004	0.028
<u>Chlorophyceae</u>								
Oocystis submarina								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 µ	1994.1	19.942	1365.0	13.651	1882.6	11.827	1522.3	15.224
Nanoflagellaten 3-6 µ	330.8	19.250	270.6	16.230	270.5	16.230	356.5	21.514
Nanoflagellaten 6-9 µ	6.3	1.070					12.5	2.139
Nanoflagellaten 9 µ								
Nanoflagellaten		40.260		29.880		28.057		38.877
<u>Ciliaten</u>								
Ciliaten spp.								
Favella								
Heliocostomella								
Lohmaniella								
Mesodinium rubrum	0.052	2.728	0.056	2.930	0.084	4.407	0.120	6.295
Strombidium conicum								
Strombidium strobilus								
Tiarina								
Tintinnopsis beroidea	0.016	0.921	0.008	0.461	0.012	0.691	0.024	1.382
Ciliaten		3.469		3.399		5.097		7.677
<u>Plankton, total</u>	2930.067	393.799	2357.5083	456.896	2119.928	373.242	2473.259	328.350
<u>Diss. org. Cu</u> (ng·dm ⁻³)			24				14.4	
<u>Diss. tot. Cu</u> (ng·dm ⁻³)			656				558	
<u>V_{max}</u> (µg C·dm ⁻³ ·h ⁻¹)			0.028				0.049	
<u>Chlorophyll a</u> (µg·dm ⁻³)	8.0		7.6		4.8		10.1	
<u>Chlorophyll b</u> (µg·dm ⁻³)	1.1		1.0		0.6		0.9	
<u>DOC</u> (mg C·dm ⁻³)	2.51		2.18		2.13		2.42	
<u>DFAA</u> (µg C·dm ⁻³)	106.8		115.1		100.0		112.3	
<u>MCHO</u> (µg C·dm ⁻³)	153		128		103		135	
<u>TCHO</u> (µg C·dm ⁻³)	510		550		490		490	

Station:
Date:
Time:
Latitude:
Longitude:

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si

Station: 26a
Date: 18.03.82
Time: 06.00
Latitude: 54°34.4' N
Longitude: 10°05.7' E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.1	15.9	1.0	0.45	1.9
5	2.1	16.0	1.4	0.45	2.4
10	2.5	17.3	3.5	0.63	2.8
15	2.5	21.1	7.5	1.07	14.4
20	2.7	21.6	6.2	0.93	10.7
23.5	2.7	21.9	6.8	0.94	12.8

	Station:		Station: 26a	
	1 m	5 m	1 m	5 m
<u>Diss. org. Cu</u> (ng·dm ⁻³)				14.0
<u>Diss. tot. Cu</u> (ng·dm ⁻³)				-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)				0.058
<u>Chlorophyll a</u> (μg·dm ⁻³)			8.5	10.8
<u>Chlorophyll b</u> (μg·dm ⁻³)			6.8	0.8
<u>DOC</u> (mg C·dm ⁻³)			2.37	2.08
<u>DFAA</u> (μg C·dm ⁻³)			109.4	107.2
<u>MCHO</u> (μg C·dm ⁻³)			155	121
<u>TCHO</u> (μg C·dm ⁻³)			460	550

Station : 27
 Date : 18.03.82
 Time : 10.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	2.3	15.7	1.2	0.23	1.9
5	2.3	15.7	1.2	0.23	2.0
10	2.6	17.2	4.3	0.61	3.1
15	2.5	20.7	8.0	0.70	14.3
20	2.7	21.6	6.7	0.73	10.8
23.5	2.7	21.7	7.1	0.85	11.6



Station : 28
 Date : 18.03.82
 Time : 18.00
 Latitude : 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	2.6	16.0	1.0	0.21	2.2
5	2.6	16.0	1.0	0.26	2.2
10	2.4	18.1	2.5	0.44	3.8
15	2.5	20.9	7.8	0.81	13.4
20	2.8	21.9	6.7	0.87	12.9
23.5	2.8	22.3	7.2	0.88	13.0

Stat.: 27
Date: 18.03.82
Time: 10.00

Stat.: 28
Date: 18.03.82
Time: 18.00

March

Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³

<u>Bacillariophyceae</u>							
Cerataulina bergonii							
Chaetoceros danicus							
Chaetoceros spec.							
10.266	20.765	20.398	4.566	10.791	17.589	10.587	17.257
Coscinodiscus eccentricus							
Coscinodiscus spec.							
Coscosira polychorda							
0.036	0.216	0.024	0.144				
221.426	63.660	157.694	42.947	181.166	47.531	829.088	199.635
Detonula confervacea							
Ditylum brightwellii							
Guinardia flaccida							
Leptocylindrus danicus							
Melosira nummuloides							
0.008	0.191	0.164	0.356			0.048	0.104
Navicula vanhoeffenii							
1.164	5.238	1.476	6.642	0.372	1.674	0.534	2.403
Rhizosolenia fragilissima							
Rhizosolenia hebetata							
Rhizosolenia setigera							
Skeletonema costatum							
67.100	14.333	90.398	17.868	60.062	12.163	85.919	18.226
Thalassionema nitzschioides							
0.104	0.118	0.128	0.145	0.050	0.057	0.040	0.045
Thalassiosira decipiens							
276.702	193.747	271.750	190.225	161.037	112.726	152.230	106.561
<u>Bacillariophyceae</u>							
307.260		262.861		191.095		334.911	
<u>Dinophyceae</u>							
Amphidinium crassum							
Ceratium furca							
Ceratium fusus							
Ceratium lineatum							
Ceratium tripos							
Dinoflagellaten spp.							
Dinophysis acuminata							
Dinophysis norvegica							
Dinophysis rotundata							
Goniodoma ostenfeldii							
Gonyaulax polyedra							
Gymnodinium lohmannii							
0.020	0.438	0.012	0.263	0.016	0.111	0.010	0.069
Gymnodinium simplex							
5.840	4.088	6.289	4.402	4.492	3.144	10.065	7.045
Gymnodinium spp.							
Heterocapsa triquetra							
Minuscula bipes							
Peridinium granii							
Peridinium grenlandicum							
0.036	1.764	0.016	0.784	0.018	0.882	0.010	0.490
Peridinium pellucidum							
0.004	0.180	0.020	0.899	0.018	0.810	0.014	0.630
Peridinium spp.							
Prorocentrum balticum							
Prorocentrum micans							
<u>Dinophyceae</u>							
6.470		6.349		4.974		8.410	
<u>Cryptophyceae</u>							
Cryptomonas baltica							
7.636	0.993	11.230	14.599	12.353	1.606	23.904	3.108
Cryptomonas spec.							
<u>Cryptophyceae</u>							
0.993				1.606		3.108	
<u>Crysophyceae</u>							
Dictyocha speculum							

Stat.: 27
Date: 18.03.82
Time: 10.00

Stat.: 28
Date: 18.03.82
Time: 18.00

March

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³	n·dm ⁻³ x10 ⁴	µgC·dm ⁻³
	<u>Euglenophyceae</u>							
<i>Euglena proxima</i>	0.344	2.377	0.288	1.935	0.252	1.741	0.210	1.451
<u>Chlorophyceae</u>								
<i>Oocystis submarina</i>								
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 µ	1339.9	13.400	1654.4	16.545	1547.5	15.475	1698.4	16.915
Nanoflagellaten 3-6 µ	209.3	17.362	295.6	17.740	207.5	12.456	226.4	13.588
Nanoflagellaten 6-9 µ								
Nanoflagellaten 9 µ								
Nanoflagellaten		30.762		34.284		27.931		30.573
<u>Ciliaten</u>								
Ciliaten spp.								
<i>Favella</i>								
<i>Helicostomella</i>								
<i>Lohmaniella</i>								
<i>Mesodinium rubrum</i>	0.140	7.344	0.124	6.505	0.090	4.721	0.126	6.610
<i>Strombidium conicum</i>								
<i>Strombidium strobilus</i>								
<i>Tiarina</i>								
<i>Tintinnopsis beroidea</i>	0.032	1.842	0.020	1.151	0.026	1.497	0.050	2.879
Ciliaten		9.187		7.656		6.218		
<u>Plankton, total</u>	2228.305	357.056	2510.023	327.684	2185.769	209.200	3037.157	307.951
<u>Diss. org. Cu</u> (ng·dm ⁻³)				17.9				
<u>Diss. tot. Cu</u> (ng·dm ⁻³)				499				
<u>V_{max}</u> (µg C·dm ⁻³ ·h ⁻¹)				0.054				
<u>Chlorophyll a</u> (µg·dm ⁻³)		17.6		8.4				
<u>Chlorophyll b</u> (µg·dm ⁻³)		1.6		1.4				
<u>DOC</u> (mg C·dm ⁻³)		2.56		2.84				
<u>DFAA</u> (µg C·dm ⁻³)		85.1		170.0				
<u>MCHO</u> (µg C·dm ⁻³)		113		123				
<u>TCHO</u> (µg C·dm ⁻³)		490		510				

Station: 27a
 Date: 18.03.82
 Time: 14.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	2.6	15.8	1.0	0.21	2.3
5	2.4	15.8	1.2	0.26	1.8
10	2.6	17.3	3.6	0.44	3.1
15	2.5	20.8	7.6	0.81	10.4
20	2.8	21.5	7.5	0.87	10.0
23.5	2.8	22.3	7.0	0.88	14.0

Station:
 Date:
 Time:
 Latitude:
 Longitude:

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si

	Station: 27a		Station:	
	1 m	5 m	1 m	5 m
<u>Diss. org. Cu</u> (ng·dm ⁻³)		17.5		
<u>Diss. tot. Cu</u> (ng·dm ⁻³)		-		
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)		0.052		
<u>Chlorophyll a</u> (μg·dm ⁻³)	6.5	5.8		
<u>Chlorophyll b</u> (μg·dm ⁻³)	1.2	0.6		
<u>DOC</u> (ng C·dm ⁻³)	2.70	2.08		
<u>DFAA</u> (μg C·dm ⁻³)	85.5	80.3		
<u>MCHO</u> (μg C·dm ⁻³)	95	113		
<u>TCHO</u> (μg C·dm ⁻³)	480	460		

Station : 29
 Date : 01.06.82
 Time : 14.00
 Latitude : 54°34.4'N
 Longitude: 10°05.9'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	14.7	13.5	< 0.05	< 0.02	0.9
5	12.8	14.7	< 0.05	< 0.02	1.4
10	9.7	16.9	< 0.05	< 0.02	2.1
15	8.4	18.4	< 0.05	0.10	5.1
20	7.2	19.4	1.9	0.25	8.4
22	6.2	19.9	6.1	0.90	14.8

Station : 30
 Date : 01.06.82
 Time : 18.00
 Latitude : 54°34.4'N
 Longitude: 10°05.9'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	15.1	13.6	< 0.05	< 0.02	1.5
5	11.0	14.5	< 0.05	< 0.02	3.8
10	9.8	16.6	< 0.05	< 0.02	3.0
15	8.4	18.7	< 0.05	0.10	4.9
20	7.1	19.5	0.9	0.25	8.6
22	5.3	21.9	4.9	0.90	35.2

Stat.: 29
Date: 01.06.82
Time: 14.00

Stat.: 30
Date: 01.06.82
Time: 18.00

June

Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$

<u>Bacillariophyceae</u>									
Cerataulina bergonii									
Chaetoceros danicus									
Chaetoceros spec.									
				0.160	0.26	0.002	0.01		
Coscinodiscus eccentricus									
Coscinodiscus spec.									
Coscinosira polychorda									
Detonula confervacea									
Ditylum brightwellii									
Guinardia flaccida									
Leptocylindrus danicus									
Melosira nummuloides									
Navicula vanhoeffenii									
Rhizosolenia fragilissima									
Rhizosolenia hebetata									
Rhizosolenia setigera									
Skeletonema costatum		259.677	39.99	107.647	16.58	40.573	6.25	54.267	8.36
Thalassionema nitzschioides									
Thalassiosira decipiens									
Bacillariophyceae		39.99		16.58		6.51		8.37	
<u>Dinophyceae</u>									
Amphidinium crassum									
Ceratium furca									
Ceratium fusus									
Ceratium lineatum									
Ceratium tripos		0.002	0.26						
Dinoflagellaten spp.									
Dinophysis acuminata									
Dinophysis norvegica		0.004	1.03	0.068	1.59	0.062	1.45	0.062	1.45
Dinophysis rotundata									
Goniodoma ostenfeldii									
Gonyaulax polyedra				0.004	0.16	0.006	0.24	0.022	0.88
Gymnodinium lohmannii									
Gymnodinium simplex									
Gymnodinium spp.		6.414	5.55	7.927	10.56	8.624	6.60	4.804	6.40
Heterocapsa triquetra									
Minuscula bipes		1.983	7.72	1.132	4.41	1.131	4.41	0.424	1.65
Peridinium granii									
Peridinium grenlandicum									
Peridinium pellucidum		0.006	0.37	0.038	2.36	0.014	0.87	0.008	0.50
Peridinium spp.		0.567	1.91	0.707	2.3			0.002	0.07
Prorocentrum balticum									
Prorocentrum micans		0.002	0.03						
Dinophyceae		16.87		21.38		13.57		10.95	
<u>Cryptophyceae</u>									
Cryptomonas baltica									
Cryptomonas spec.		48.023	4.56	37.665	3.58	25.895	2.46	21.187	2.01
Cryptophyceae		4.56		3.58		2.46		2.01	
<u>Erysophyceae</u>									
Dictyocha speculum									

Stat.: 29
Date: 01.06.82
Time: 14.00

Stat.: 30
Date: 01.06.82
Time: 18.00

June

	Depth : 0 m				Depth : 5 m			
	n · dm ⁻³ x10 ⁴		µgC · dm ⁻³		n · dm ⁻³ x10 ⁴		µgC · dm ⁻³	
	n · dm ⁻³ x10 ⁴	µgC · dm ⁻³	n · dm ⁻³ x10 ⁴	µgC · dm ⁻³	n · dm ⁻³ x10 ⁴	µgC · dm ⁻³	n · dm ⁻³ x10 ⁴	µgC · dm ⁻³
<u>Euglenophyceae</u>								
<i>Euglena proxima</i>								
<u>Chlorophyceae</u>								
<i>Oocystis submarina</i>	1.337	0.25	2.544	0.29	1.978	0.23	1.131	0.13
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 µ	76.272	0.84	124.766	1.37	101.225	1.11	120.058	1.32
Nanoflagellaten 3-6 µ	25.424	0.78	51.790	1.60	47.081	1.45	40.019	1.23
Nanoflagellaten 6-9 µ	4.412	0.14	18.833	1.86	23.541	2.33	23.541	2.33
Nanoflagellaten 9 µ								
Nanoflagellaten		1.76		4.83		4.89		4.88
<u>Ciliaten</u>								
<i>Ciliaten spp.</i>	0.725	4.78	0.285	1.64	1.849	5.24	0.572	2.00
<i>Favella</i>								
<i>Heliocostomella</i>								
<i>Lohmaniella</i>								
<i>Mesodinium rubrum</i>					0.141	1.98		
<i>Strombidium conicum</i>			0.002	0.02				
<i>Strombidium strobilus</i>	0.010	1.05	0.002	0.21			0.006	0.63
<i>Tiarina</i>								
<i>Tintinnopsis beroidea</i>								
Ciliaten		5.83		1.87		7.22		2.69
<u>Plankton, total</u>	420.005	69.26	353.401	48.53	252.280	34.88	266.105	29.03
<u>Diss. org. Cu</u> (ng · dm ⁻³)								90.9
<u>Diss. tot. Cu</u> (ng · dm ⁻³)			505					
<u>V_{max}</u> (µg C · dm ⁻³ · h ⁻¹)			0.082					0.038
<u>Chlorophyll a</u> (µg · dm ⁻³)	4.56		1.10		2.40		1.04	
<u>Chlorophyll b</u> (µg · dm ⁻³)								
<u>DOC</u> (mg C · dm ⁻³)	2.65		2.34		2.79		2.77	
<u>DFAA</u> (µg C · dm ⁻³)	65.3		76.7		43.7		46.2	
<u>MCHO</u> (µg C · dm ⁻³)	113.8		101.9		94.9		87.9	
<u>TCHO</u> (µg C · dm ⁻³)	561		1007		2176		621	

Station:
Date:
Time:
Latitude:
Longitude:

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si

Station: 30a
Date: 01.06.82
Time: 22.00
Latitude: 54°34.4'N
Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	14.7	13.2	<0.05	<0.02	1.3
5	12.4	14.3	<0.05	<0.02	0.9
10	9.1	17.2	<0.05	<0.02	2.7
15	8.2	18.5	<0.05	0.10	4.1
20	6.7	19.5	1.8	0.25	7.3
22	4.4	22.0	13.2	0.90	24.9

	Station:		Station: 30a	
	1 m	5 m	1 m	5 m
<u>Diss. org. Cu</u> (ng·dm ⁻³)				42.8
<u>Diss. tot. Cu</u> (ng·dm ⁻³)				642
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)				0.073
<u>Chlorophyll a</u> (μg·dm ⁻³)			1.18	0.76
<u>Chlorophyll b</u> (μg·dm ⁻³)			-	-
<u>DOC</u> (mg C·dm ⁻³)			2.81	2.91
<u>DFAA</u> (μg C·dm ⁻³)			45.7	61.3
<u>MCHO</u> (μg C·dm ⁻³)			117.8	108.9
<u>TCHO</u> (μg C·dm ⁻³)			606	704

Station : 31
 Date : 02.06.82
 Time : 02.00
 Latitude : 54°34.4'N
 Longitude: 10°05.9'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	14.6	13.3	< 0.05	< 0.02	0.9
5	11.7	15.1	< 0.05	< 0.02	0.7
10	9.2	17.2	< 0.05	< 0.02	2.4
15	8.4	18.6	< 0.05	0.10	3.8
20	6.9	19.6	0.3	0.25	4.0
22	5.3	21.9	9.2	0.90	18.6

Station : 32
 Date : 02.06.82
 Time : 10.00
 Latitude : 54°34.4'N
 Longitude: 10°05.9'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	15.5	13.2	< 0.05	< 0.02	0.5
5	12.2	14.8	< 0.05	< 0.02	1.7
10	9.7	17.2	< 0.05	< 0.02	2.2
15	8.6	18.3	< 0.05	0.10	4.1
20	7.6	19.3	0.9	0.25	4.9
22	4.7	21.8	19.6	0.90	31.1

June	Stat.: 31 Date : 02.06.82 Time : 07.00				Stat.: 32 Date : 02.06. 2 Time : 10.00			
	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3} \times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu g C \cdot dm^{-3}$
<u>Euglenophyceae</u> Euglena proxima								
<u>Chlorophyceae</u> Docystis submarina	1.979	0.23	2.261	0.27	2.826	0.34	0.843	0.10
<u>Nanoflagellaten</u> Nanoflagellaten 1-3 μ Nanoflagellaten 3-6 μ Nanoflagellaten 6-9 μ Nanoflagellaten 9 μ	77.684 51.790 37.665	0.85 1.60 3.73	112.995 47.081 30.603	1.13 1.41 3.06	207.158 63.560 16.478	2.07 1.91 1.65	58.852 16.478 2.354	0.59 0.49 0.24
<u>Nanoflagellaten</u>		6.18		5.60		5.63		1.32
<u>Ciliaten</u> Ciliaten spp. Favella Helicostomella Lohmaniella Mesodinium rubrum Strombidium conicum Strombidium strobilus Tiarina Tintinnopsis beroidea	0.995	2.57	0.282	0.73	1.561	4.86	0.565	0.88
<u>Ciliaten</u>		3.20		1.51		4.86		1.10
<u>Plankton, total</u>	253.520	37.61	247.824	27.49	461.005	56.38	95.343	13.29
<u>Diss. org. Cu</u> ($ng \cdot dm^{-3}$)			140.9				63.1	
<u>Diss. tot. Cu</u> ($ng \cdot dm^{-3}$)			815				860	
V_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)			0.086				0.079	
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)	2.24		1.12		2.28		1.10	
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)								
<u>DOC</u> ($mg C \cdot dm^{-3}$)	3.12		2.65		2.61		2.65	
<u>DFAA</u> ($\mu g C \cdot dm^{-3}$)	75.8		60.2		53.6		54.1	
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)	116.8		99.9		97.9		105.9	
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)	648		790		771		1049	

Station: 31a
 Date: 02.06.82
 Time: 06.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	14.5	13.4	<0.05	<0.02	0.5
5	12.6	15.0	<0.05	<0.02	0.8
10	9.4	17.0	<0.05	<0.02	2.0
15	8.2	18.5	<0.05	0.1	4.2
20	6.8	19.3	1.3	0.25	6.5
22	4.5	21.9	20.8	0.90	33.3

Station: 32a
 Date: 02.06.82
 Time: 14.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	15.8	13.2	<0.05	<0.02	3.4
5	13.7	14.8	<0.05	<0.02	3.7
10	10.0	17.3	<0.05	<0.02	5.7
15	9.1	18.1	<0.05	0.10	6.5
20	7.5	19.5	2.6	0.25	10.5
22	5.0	21.8	20.3	0.90	27.6

Station: 32b
 Date: 02.06.82
 Time: 18.00
 Latitude: 54°34.4'N
 Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	16.2	13.2	<0.05	<0.02	3.3
5	11.1	14.6	<0.05	<0.02	4.7
10	9.9	17.0	<0.05	<0.02	5.0
15	8.7	18.3	<0.05	0.1	6.8
20	6.9	19.3	2.5	0.25	10.5
22	4.8	22.0	19.8	0.90	320

	Station: 31a		Station: 32a		Station: 32b	
	1 m	5 m	1 m	5 m	1 m	5 m
<u>Diss. org. Cu</u> (ng·dm ⁻³)		16.6		-		20.5
<u>Diss. tot. Cu</u> (ng·dm ⁻³)		-		-		843
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)		0.086		0.042		0.055
<u>Chlorophyll a</u> (μg·dm ⁻³)	2.24	2.12	0.94	0.58	0.56	0.72
<u>Chlorophyll b</u> (μg·dm ⁻³)	-	-	-	-	-	0.08
<u>DOC</u> (mg C·dm ⁻³)	2.79	2.74	3.14	3.02	2.88	2.93
<u>DFAA</u> (μg C·dm ⁻³)	56.0	56.0	110.9	54.2	79.3	63.5
<u>MCHO</u> (μg C·dm ⁻³)	65.9	96.9	93.9	73.9	101.9	90.9
<u>TCHO</u> (μg C·dm ⁻³)	152.6	183.6	607	494	655	666

Station : 33
 Date : 02.06.82
 Time : 22.00
 Latitude : 54°34.4'N
 Longitude: 10°05.9'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	17.4	12.6	< 0.05	< 0.02	3.8
5	11.8	15.2	< 0.05	< 0.02	4.4
10	10.2	17.1	< 0.05	< 0.02	5.4
15	8.6	18.4	0.9	0.1	7.6
20	6.4	19.5	3.7	0.25	11.6
22	4.5	22.2	20.6	0.90	31.8

Station : 34
 Date : 03.06.82
 Time : 02.00
 Latitude : 54°34.4'N
 Longitude: 10°05.9'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	14.6	14.2	< 0.05	< 0.02	3.4
5	13.3	15.1	< 0.05	< 0.02	2.4
10	9.5	17.3	< 0.05	< 0.02	5.0
15	8.7	18.3	< 0.05	0.10	5.4
20	6.5	20.0	2.5	0.25	10.3
22	4.6	22.3	20.6	0.90	28.9

June

 Stat.: 33
 Date: 02.06.82
 Time: 22.00

 Stat.: 34
 Date: 03.06.82
 Time: 02.00

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$
<u>Euglenophyceae</u>								
<i>Euglena proxima</i>								
<u>Chlorophyceae</u>								
<i>Oocystis submarina</i>	3.957	0.47	6.218	0.72	3.533	0.42	0.565	0.07
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 μ	129.474	1.29	188.326	1.88	237.761	2.38	209.512	2.10
Nanoflagellaten 3-6 μ	65.914	1.98	54.144	1.62	65.914	1.98	56.498	1.69
Nanoflagellaten 6-9 μ	23.541	2.35	21.187	2.12	28.249	2.12	14.214	1.41
Nanoflagellaten 9 μ								
Nanoflagellaten		5.62		5.62		7.18		5.20
<u>Ciliaten</u>								
Ciliaten spp.	4.255	7.98	0.155	0.21	20.950	16.10	2.021	4.02
<i>Favella</i>								
<i>Heliocostomella</i>								
<i>Lohmaniella</i>								
<i>Mesodinium rubrum</i>	0.118	1.65						
<i>Strombidium conicum</i>							0.002	0.02
<i>Strombidium strobilus</i>	0.002	0.21			0.010	1.05		
<i>Tiarina</i>								
<i>Tintinnopsis beroidea</i>			0.002	0.07	0.002	0.07	0.002	0.07
Ciliaten		9.84		0.28		17.22		4.11
<u>Plankton, total</u>	392.490	56.14	322.155	21.51	557.379	68.12	418.483	43.08
<u>Diss. org. Cu</u> ($ng \cdot dm^{-3}$)				20.5				43.5
<u>Diss. tot. Cu</u> ($ng \cdot dm^{-3}$)				843				1052
V_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)				0.055				0.119
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)		0.56		0.72		1.21		0.58
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)				0.08				0.06
<u>DOC</u> ($mg C \cdot dm^{-3}$)		2.88		2.93		2.67		2.93
<u>DFAA</u> ($mg C \cdot dm^{-3}$)		79.3		63.5		60.8		84.3
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)		101.9		90.9		93.9		91.9
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)		655		666		552		121

Station:
Date:
Time:
Latitude:
Longitude:

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si

Station: 34a
Date: 03.06.82
Time: 06.00
Latitude: 54°34.4'N
Longitude: 10°05.7'E

Depth (m)	Temp. (°C)	Salinity (x 10 ³)	NO ₃	PO ₄ (μmol·dm ⁻³)	Si
1	14.8	13.6	<0.05	<0.02	3.2
5	13.7	14.6	<0.05	<0.02	2.7
10	9.8	17.0	<0.05	<0.02	4.2
15	8.7	18.2	<0.05	0.10	5.9
20	5.6	20.5	7.2	0.25	14.9
22	4.5	22.0	20.2	0.90	29.1

	Station:		Station: 34a	
	1 m	5 m	1 m	5 m
<u>Diss. org. Cu</u> (ng·dm ⁻³)				18.3
<u>Diss. tot. Cu</u> (ng·dm ⁻³)				-
<u>V_{max}</u> (μg C·dm ⁻³ ·h ⁻¹)				0.125
<u>Chlorophyll a</u> (μg·dm ⁻³)			1.32	0.72
<u>Chlorophyll b</u> (μg·dm ⁻³)			0.48	0.05
<u>DOC</u> (mg C·dm ⁻³)			3.16	3.12
<u>DFAA</u> (μg C·dm ⁻³)			55.9	72.3
<u>MCHO</u> (μg C·dm ⁻³)			86.9	64.9
<u>TCHO</u> (μg C·dm ⁻³)			661	583

Station : 35
 Date : 03.06.82
 Time : 10.00
 Latitude : 54°34.4'N
 Longitude: 10°05.9'E

Depth (m)	Temp. (°C)	Salinity ($\times 10^3$)	NO ₃	PO ₄ ($\mu\text{mol}\cdot\text{dm}^{-3}$)	Si
1	15.5	13.8	< 0.05	< 0.02	2.8
5	14.0	14.7	< 0.05	< 0.02	2.1
10	9.1	17.1	< 0.05	< 0.02	4.8
15	8.4	18.1	< 0.05	0.10	5.7
20	5.9	20.3	2.9	0.25	10.3
22	4.3	20.0	20.2	0.90	30.7

Stat.: 35
 Date: 05.06.62
 Time: 10.00

Date:
 Time:

0.116

Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$	$n \cdot dm^{-3} \times 10^4$	$\mu gC \cdot dm^{-3}$

<u>Bacillariophyceae</u>							
Cerataulina bergonii							
Chaetoceros danicus							
Chaetoceros spec.							
Coscinodiscus eccentricus							
Coscinodiscus spec.							
Coscinosira polychorda							
Detonula confervacea							
Ditylum brightwellii							
Guinardia flaccida							
Leptocylindrus danicus							
Melosira nummuloides							
Navicula vanhoeffenii							
Rhizosolenia fragilissima							
Rhizosolenia hebetata							
Rhizosolenia setigera							
Skeletonema costatum	103.543	18.64	244.839	44.07			
Thalassionema nitzschioides							
Thalassiosira decipiens							

Bacillariophyceae		18.64		44.07			
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<u>Dinophyceae</u>							
Amphidinium crassum	0.141	0.39	0.989	2.72			
Ceratium furca							
Ceratium fusus							
Ceratium lineatum							
Ceratium tripos	0.004	0.52					
Dinoflagellaten spp.							
Dinophysis acuminata							
Dinophysis norvegica	0.014	0.33	0.206	4.82			
Dinophysis rotundata							
Goniodoma ostenfeldii							
Gonyaulax polyedra	0.038	1.52	0.023	0.88			
Gymnodinium lohmannii	0.002	0.06	0.004	0.11			
Gymnodinium simplex							
Gymnodinium spp.	4.522	3.94	10.041	7.06			
Heterocapsa triquetra							
Minuscula bipes	0.949	3.86	0.565	2.20			
Peridinium granii							
Peridinium grenlandicum							
Peridinium pellucidum	0.002	0.12	0.024	1.49			
Peridinium spp.							
Prorocentrum balticum							
Prorocentrum micans							

Dinophyceae		10.74		19.28			
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<u>Cryptophyceae</u>							
Cryptomonas baltica							
Cryptomonas spec.	44.727	4.47	6.501	0.65			

Cryptophyceae		4.47		0.65			
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<u>Crysophyceae</u>							
Dictyocha speculum							

Stat.: 35
 Date: 03.06.82
 Time: 10.00

Date:
 Time:

June

	Depth : 0 m		Depth : 5 m		Depth : 0 m		Depth : 5 m	
	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$	$n \cdot dm^{-3}$ $\times 10^4$	$\mu g C \cdot dm^{-3}$
	<u>Euglenophyceae</u>							
Euglena proxima								
<u>Chlorophyceae</u>								
Oocystis submarina	1.131	0.14	2.402	0.29				
<u>Nanoflagellaten</u>								
Nanoflagellaten 1-3 μ	197.742	1.98	228.345	2.28				
Nanoflagellaten 3-6 μ	61.206	1.84	61.206	1.84				
Nanoflagellaten 6-9 μ	23.541	2.35	22.895	2.59				
Nanoflagellaten 9 μ								
Nanoflagellaten		6.17		6.71				
<u>Ciliaten</u>								
Ciliaten spp.	2.408	5.56	0.713	1.72				
Favella								
Heliocostomella								
Lohmaniella								
Mesodinium rubrum	0.014	0.20	0.006	0.08				
Strombidium conicum								
Strombidium strobilus	0.002	0.21						
Tiarina								
Tintinnopsis beroidea			0.002	0.07				
Ciliaten		5.97		1.87				
Plankton, total	440.032	46.13	588.760	72.87				
<u>Diss. org. Cu</u> ($ng \cdot dm^{-3}$)								
			35.0					
<u>Diss. tot. Cu</u> ($ng \cdot dm^{-3}$)								
			1583					
V_{max} ($\mu g C \cdot dm^{-3} \cdot h^{-1}$)								
			0.154					
<u>Chlorophyll a</u> ($\mu g \cdot dm^{-3}$)								
	0.88		0.62					
<u>Chlorophyll b</u> ($\mu g \cdot dm^{-3}$)								
			0.06					
<u>DOC</u> ($mg C \cdot dm^{-3}$)								
	2.74		3.12					
<u>DFAA</u> ($\mu g C \cdot dm^{-3}$)								
	82.3		58.5					
<u>MCHO</u> ($\mu g C \cdot dm^{-3}$)								
	115.8		107.9					
<u>TCHO</u> ($\mu g C \cdot dm^{-3}$)								
	529		864					