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ANNUAL MEETING - JUNE 1964Preliminary observations on ICNAF NORWESTLANT 2
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Phytoplankton samples were collected from 17 Baffin and 11 Sackville stations as part of the Norwestlant-2 phase of the 1963 ICNAF survey of Greenland waters. Samples were taken with closing water-bottles from depths of 0, 10, 20, 30 and 50 metres, were preserved in 5% formalin and were stored in 150-ml polyethylene bottles. Quantitative estimates of the phytoplankton were made after sedimentation in 5 and 25 ml counting chambers, using Dr Utermohl's reverse microscope. Numerical estimations were made with 10x, 25x and 40x (oil immersion) objectives and 6x, 8x, 12.5x and 25x oculars. The different counting chambers and magnifications were adapted to the size of the plankters and their abundance in each sample. Efficiency of the analysis was increased by the use of front phase equipment and photomicrography.

Standing crops of phytoplankton within the Davis Strait and Labrador Sea regions covered by the collections are given in the attached tables, which include numbers of organisms estimated per litre of water for each sampled depth as well as temperature, salinity, oxygen and nutrient data pertaining to each sample.

The area under investigation is characterized by freely communicating water masses representing a marked Atlantic influence manifested by a warm oceanic element (mostly Coccolithinae and some dinoflagellates) and an Arctic influence indicated by a mainly diatom population among which Pennatae usually outnumber Centricae. The Atlantic element is well marked between Cape Farewell and Labrador and especially so in the central part of the Labrador Sea.

It can be traced northward into central Davis Strait, and be shown gradually to diminish in importance towards northern Davis Strait. Towards the Labrador coast there is an increasing Arctic element of diatoms, indicative of mixed Labrador Current conditions, that is of mixed arctic and West Greenland water.

This material is still being analysed. It is intended that it be combined with material from other cruises in a general account of the taxonomy, distribution and production of phytoplankton of Baffin Bay, Davis Strait and the Labrador Sea.

Table 1, St. 1, Sackville, May 26, 1963, Lat. 51°N; Long. 44°W

Depth (metres)	0	10	20	30	50
Temperature (°C)	10.7	10.98	10.95	10.93	10.98
Salinity (‰)	35.14	35.22	35.25	35.25	35.27
Phosphate (µg at/l)	.52	.58	.38	.48	.52
Nitrate (")	.22	.18	.21	.21	.22
Nitrite (")	11.0	13.0	9.0	8.0	9.0
Silicate (")	6.0	7.0	4.0	3.0	4.0
Oxygen (ml/l)	-	6.35	6.04	6.16	5.82
Oxygen (% sat.)	-	106.2	101.0	103.0	97.5
Number of ml examined	5, 25	5, 25	5, 25	5, 25	25
<i>Chaetoceros curvisetus</i>	240	0	1,200	840	0
<i>C. borealis</i>	80	0	40	0	0
<i>C. peruvianus</i>	80	0	0	0	40
<i>C. densus</i>	0	0	120	0	0
<i>Fragillaria nana</i>	1,280	0	0	1,200	0
<i>Nitzschia delicatissima</i>	1,440	320	1,200	1,280	320
<i>Thalassiothrix longissima</i>	240	400	0	120	80
<i>Coccolithus huxleyi</i>	76,320	13,400	1,400	0	0
<i>Calyptrophaera sphaeroidea</i>	400	2,400	3,000	600	280
<i>Pontosphaera grani</i>	6,560	400	200	1,200	480
<i>P. sp.</i>	200	280	0	600	0
<i>Syracospaera pirus</i>	3,920	2,000	2,000	1,040	400
<i>S. dentata</i>	0	240	200	0	0
<i>Distephanus sp.</i>	40	0	0	0	0
<i>Cladopyxis claytoni</i>	2,860	4,000	400	120	0
<i>Cochlodinium sp.</i>	40	0	40	0	0
<i>Ceratium sp.</i>	40	0	0	0	0
<i>Goniaulax (gracilis) borealis</i>	8,880	3,400	5,000	1,200	280
<i>Gymnodinium spirale</i>	1,520	80	0	0	0
<i>G. sp.</i>	400	880	280	120	40
<i>Oxytoxum nanum</i>	1,260	1,000	0	0	0
<i>Peridinium globulus</i>	120	40	80	0	0
<i>Mesodinium rubrum</i> and other ciliata	400	320	0	120	0

Table 2, St. 3, Sackville, May 27, 1963; Lat. $53^{\circ}48'N$; Long. $44^{\circ}W$

Depth (metres)	0	10	20	30	50
Temperature ($^{\circ}C$)	6.9	6.9	6.8	6.8	6.9
Salinity (‰)	34.83	34.82	34.82	34.82	34.82
Phosphate ($\mu\text{g at/l}$)	.72	.62	.83	.70	.79
Nitrate ("")	.27	.29	.28	.33	.27
Nitrite ("")	11.0	12.0	12.0	13.0	10.0
Silicate ("")	8.0	9.0	7.0	7.0	7.0
Oxygen (ml/l)	-	6.69	5.75	5.32	5.77
Oxygen (% sat.)	-	101.7	87.0	80.5	87.7
Number of ml examined	25	25	25	5, 25	25
<i>Chaetoceros atlanticus</i>	80	320	0	0	0
<i>C.</i> <i>peruvianus</i>	0	2,160	560	0	0
<i>C.</i> sp.	1,600	1,040	3,600	4,000	1,880
<i>C. convolutus f. trisetosa</i>	440	240	80	80	0
<i>Eucampia</i> sp. (<i>cornuta</i>)	0	0	0	320	280
<i>Cyclotella</i> sp.	0	1,200	80	0	0
<i>Nitschia delicatissima</i>	1,280	15,120	9,240	3,520	3,840
<i>N.</i> sp.	9,200	240	320	0	0
<i>Rhizosolenia bergoni</i>	40	120	200	80	0
<i>Thalassiothrix longissima</i>	0	240	0	80	80
<i>T.</i> <i>frauendorfii</i>	0	0	200	80	200
<i>Thalassiosira gravida</i>	480	1,760	1,080	640	400
<i>Tropidoneis antarctica</i>	0	40	0	0	0
<i>Leptocylindrus danicus</i>	0	0	0	200	0
<i>Coccolithus huxleyi</i>	320	22,560	0	13,000	15,800
<i>Calyptrosphaera sphaeroidea</i>	4,800	7,200	420	600	200
<i>Pontosphaera grani</i>	1,760	2,960	480	240	280
<i>Syracosphaera pirus</i>	960	1,840	5,040	600	1,680
<i>Helladosphaera aurysineae</i>	0	1,560	240	800	0
<i>Ophiaster hydroides</i>	0	560	120	0	280
<i>Amphidinium</i> sp.	0	0	0	200	0
<i>Exuviaella baltica</i>	0	560	520	320	40
<i>Gymnodinium</i> sp. <i>holozoic</i>	1,040	80	640	280	80
<i>Goniaulax</i> (<i>gracilis</i>) <i>borealis</i>	2,080	53,680	6,080	1,920	6,400
<i>G.</i> <i>scrippsae</i>	80	0	0	0	0
<i>Gyrodinium</i> sp.	960	1,680	400	0	560
<i>Oxytoxum nanum</i>	80	3,600	800	600	1,080
<i>Dinophysis hastata</i>	0	40	0	0	0
<i>Kofoidinium</i> sp.	0	240	0	0	0
<i>Discoasteromonas*</i>	0	80	0	0	0
<i>Phalacroma</i> sp.	0	40	0	0	40
<i>Peridinium globulus</i>	0	80	40	80	120
<i>P.</i> <i>minusculum</i>	0	40	0	0	0
<i>Gyrodinium</i> sp.	0	0	0	0	280
<i>Cochlodinium</i> sp.	0	0	40	0	0
<i>Cladopyxis claytoni</i>	0	80	120	80	0
Unidentified flagellates	0	240	280	80	560
Ciliata	320	1,040	80	80	280
<i>Codonellopsis pusilla</i>	0	40	0	0	0

* Indicates a species whose description is not yet completed.

Table 3, St. 5, Sackville, May 28, 1963, Lat. 56°36'N; Long. 44°W

Depth (metres)	0	10	20	30	50
Temperature (°C)	4.0	4.57	3.97	3.86	3.86
Salinity (‰)	34.74	34.71	34.72	34.72	34.72
Phosphate (µg at/l)	.96	.88	.96	.93	.96
Nitrate (")	.21	.26	.27	.20	.23
Nitrite (")	11.0	13.0	15.0	16.0	16.0
Silicate (")	9.0	9.0	8.0	8.0	8.0
Oxygen (ml/l)	-	7.47	7.38	7.33	7.29
Oxygen (% sat.)	-	107.2	104.2	103.2	72.90
Number of ml examined	5, 25	25	25	25	25
<i>Chaetoceros convolutus f. trisetosa</i>	120	80	0	0	0
<i>C.</i> <i>peruvianus</i>	80	240	40	360	160
<i>Rhizosolenia alata f. gracillima</i>	0	200	120	0	120
<i>Tropidoneis antarctica</i>	80	0	40	0	120
<i>Eucampia zodiacus</i>	0	0	0	80	40
<i>Thalassiothrix longissima</i>	0	0	40	0	80
<i>Coccolithus huxleyi</i>	7,800	200	840	1,520	0
<i>Syracospaera pirus</i>	200	480	120	320	0
<i>Helladosphaera aurysineae</i>	1,400	600	0	0	0
<i>Pontosphaera grani</i>	560	1,600	120	0	0
<i>Ophiaster hydroideus</i>	0	880	80	0	0
<i>Ceratium fusus</i>	0	0	0	0	40
<i>Cladopyxis claytoni</i>	0	0	0	240	120
<i>Gyrodinium baffini*</i>	240	40	0	0	0
<i>G. sp.</i>	680	800	120	1,600	1,080
<i>Gymnodinium sp.</i>	0	1,400	0	240	400
<i>Exuviaella sp.</i>	80	40	0	0	0
<i>Oxytoxum nanum</i>	0	80	80	200	40
<i>Goniaulax (gracilis) borealis</i>	3,040	5,320	800	2,080	3,200
<i>Massartia sp.</i>	0	400	0	0	0
<i>Peridinium breve</i>	40	120	0	0	0
<i>P. nasutum</i>	0	40	0	0	0
<i>Lohmanniella sp.</i>	80	280	200	160	120
<i>Ciliata</i>	0	0	120	0	0
<i>Cytarocyliis denticulata</i>	0	0	0	0	40

* Indicates a species whose description is not yet completed.

Table 4, St. 8, Sackville, May 28, 1963, Lat. 58°45'N; Long. 44°02.5'W

	0	10	20	30	50
Depth (metres)	0	10	20	30	50
Temperature (°C)	3.2	3.39	3.51	4.01	4.58
Salinity (‰)	34.48	34.46	34.51	34.63	34.82
Phosphate (µg at/l)	-	.23	.41	.56	.85
Nitrate ("")	.14	.16	.16	.15	.25
Nitrite ("")	2.0	5.0	6.0	6.0	9.0
Silicate ("")	2.0	4.0	2.0	3.0	4.0
Oxygen (ml/l)	-	8.34	8.05	7.77	7.39
Oxygen (% sat.)	-	115.5	112.1	109.7	102.7
Number of ml examined	5, 25	5, 25	5, 25	5, 25	25
<i>Chaetoceros diadema</i>	320	1,280	0	0	0
C. <i>decipiens</i>	200	18,160	3,960	8,120	3,200
C. <i>debilis</i>	560	0	0	0	0
C. <i>septentrionalis</i>	6,320	3,520	1,120	0	880
C. <i>karianus</i>	80	0	0	0	0
C. <i>convolutus</i>	520	0	0	400	1,120
C. <i>teres</i>	240	0	0	0	0
C. <i>peruvianus</i>	80	0	200	0	0
C. <i>curvisetus</i>	2,640	16,400	4,320	2,480	1,000
C. <i>lorenzianus</i>	840	1,120	0	0	720
C. <i>borealis</i>	0	200	640	0	0
C. <i>atlanticus</i>	0	1,200	600	0	0
C. <i>laciniatus</i>	0	640	0	0	0
C. <i>diversus</i>	0	0	160	0	0
C. <i>furcellatus</i>	0	0	0	880	0
C. <i>socialis</i>	15,560	2,080	0	5,440	1,360
C. <i>concavicornis</i>	4,200	0	0	0	600
C. <i>radicans</i>	0	80	1,320	0	0
<i>Coscinodiscus</i> sp.	320	0	0	0	420
<i>Coscinosira polychorda</i>	120	800	0	400	80
C. <i>oestrupi</i>	0	720	0	0	240
<i>Bacteriosira fragilis</i>	0	1,440	0	0	0
<i>Eucampia zodiacus</i>	880	320	0	1,000	80
<i>Porosira glacialis</i>	0	400	80	80	0
<i>Fragillaria oceanica</i>	4,600	10,960	2,760	52,800	0
Achnantes <i>taeniata</i>	0	1,340	0	0	0
<i>Nitschia pungens</i>	840	0	0	1,400	0
N. <i>seriata</i>	3,320	1,520	2,960	4,640	1,360
N. <i>delicatissima</i>	480	0	200	0	0
<i>Rhizosolenia alata</i> f. <i>gracillima</i>	1,200	1,200	200	0	360
R. <i>alata</i> f. <i>inermis</i>	280	960	0	680	0
R. <i>alata</i> f. <i>longissima</i>	120	0	400	0	0
<i>Tropidoneis antarctica</i>	1,480	2,140	1,200	1,280	440
<i>Thalassiothrix longissima</i>	280	120	400	0	0
T. <i>frauenfeldti</i>	0	960	0	0	0

<u>Sackville, St. 8, 1963</u>	0	10	20	30	50
Thalassiosira gravida	359,000	201,200	222,000	121,800	46,000
T. rotula	50,000	30,200	82,000	115,200	32,000
T. baltica	0	7,600	42,000	0	6,800
T. bioculata	0	0	480	0	0
Syracosphaera pirus	400	0	0	0	0
Pontosphaera grani	240	240	400	0	0
Salpingella sp.	0	0	120	0	0
Distephanus speculum	0	0	0	0	40
Cladopyxis claytoni	0	2,200	80	80	0
Gyrodinium groendlandicum	80	400	80	0	0
G. sp.	0	560	0	0	0
Gymnodinium sp.	0	0	80	200	0
Gyrodinium spirale	40	0	440	120	120
Goniaulax (gracilis) borealis	80	2,200	80	0	0
Kofoidinium sp.	40	40	80	0	0
Paulsenella chaetoceratis	0	0	400	0	480
Peridinium globulus	40	0	0	0	0
Oxytoxum parvum	0	0	80	0	0
Ciliata	280	40	0	0	0
Mezodinium rubrum	40	0	0	0	0

Table 5, St. 9, Sackville, May 29, 1963, Lat. 58°30'N; Long. 43°W

	0	10	20	30	50
Number of ml examined	5, 25	5, 25	5, 25	5, 25	5, 25
Depth (metres)					
Temperature (°C)	4.6	4.74	4.76	4.78	4.69
Salinity (‰)	34.90	34.87	34.86	34.87	34.86
Phosphate (µg at/l)	-	-	-	-	-
Nitrate (")	-	-	-	-	-
Nitrite (")	-	-	-	-	-
Silicate (")	-	-	-	-	-
Oxygen (ml/l)	-	-	-	-	-
Oxygen (% sat.)	-	-	-	-	-
Asterionella gracillima	0	0	160	0	0
Chaetoceros convolutus	200	280	0	480	0
C. f. triseta	80	0	0	0	0
C. decipiens	2,120	3,640	4,200	2,720	1,560
C. curvisetus	1,200	360	7,640	4,160	2,680
C. peruvianus	40	0	80	0	0
C. septentrionalis	0	480	0	2,240	0
C. atlanticus	0	0	120	480	0
C. subtilis	0	0	200	0	0
Fragillaria nana	0	1,040	0	0	0
Nitzschia seriata	1,120	3,120	2,320	3,680	360
Thalassiothrix longissima	0	80	0	0	80
Tropidoneis antarctica	0	680	120	800	240
Eucampia cornuta	240	80	120	1,840	0
Bacteriosira fragilis	240	200	0	0	0
Rhizosolenia alata f. inermis	80	120	0	40	80
R. styliformis f. longiseta	0	160	0	80	0
Thalassiosira gravida	204,000	62,400	80,000	241,000	202,000
T. rotula	103,200	79,200	120,000	142,800	360,000
T. nordenskjöldi	0	0	320	0	0
T. baltica	22,000	13,600	5,600	0	25,600
T. bioculata	0	80	0	0	160
Coscinosira oestrupi	0	0	120	0	0
C. polychorda	0	0	0	0	120
Cladopyxis claytoni	0	200	400	0	0
Gyrodinium spirale	120	0	80	40	40
G. groenlandicum	0	440	360	0	120
G. sp.	40	0	0	0	0
Massartia sp.	0	120	0	40	0
Oxytoxum nanum	0	0	240	0	0
Kofoidinium sp.	0	0	0	0	40
Goniaulax (gracilis) borealis	0	80	0	560	0
Peridinium minusculum	40	80	40	0	0
P. sp.	0	40	0	0	0
Phalacroma sp.	0	40	0	40	0

Sackville, St. 9, 1963

	0	10	20	30	50
Pontosphaera grani	120	120	1,200	0	240
Coccolithus huxleyi	0	0	80	0	280
Laboea acuta	0	80	0	40	40
L. conica	0	0	80	0	0
Ciliata	0	200	80	0	200

Table 6, St. 10, Sackville, May 31, 1963, Lat. $57^{\circ}50.5'N$; Long. $40^{\circ}54'W$

	0	10	20	30	50
Number of ml examined	5, 25	25	5, 25	25	25
Depth (metres)					
Temperature ($^{\circ}C$)	4.6	4.65	4.63	4.62	4.62
Salinity ($^{o}/_{\infty}$)	34.94	34.82	34.78	34.78	34.78
Phosphate ($\mu g at/l$)	.87	.88	1.00	1.00	1.04
Nitrate (")	.22	.22	.22	.22	.29
Nitrite (")	12.0	13.0	13.0	13.0	13.0
Silicate (")	9.0	9.0	7.0	8.0	8.0
Oxygen (ml/l)	-	7.18	7.00	6.97	7.11
Oxygen (% sat.)	-	103.0	100.4	100.0	102.0
Chaetoceros concavicornis	280	0	0	0	0
C. peruvianus	120	80	80	160	0
Eucampia cornuta	0	0	0	0	80
Rhizosolenia styliformis f. longiseta	80	0	0	0	320
Tropidoneis antarctica	80	240	80	0	0
Calciopappus caudatus	0	0	80	80	0
Coccolithus huxleyi	1,000	1,600	680	200	1,120
Syracosphaera pirus	40	3,920	640	400	680
Pontosphaera grani	80	1,200	1,360	600	1,280
Cochlodinium sp.	0	40	0	280	680
Gyrodinium groenlandicum	680	240	1,160	680	200
G. sp.	0	2,960	3,860	560	80
Oxytoxum nanum	0	40	0	0	200
Kofoidinium sp.	80	80	280	40	0
Goniaulax borealis (gracilis)	560	1,360	2,120	1,280	2,200
Gyrodinium baffini	0	0	40	0	0
Exuviaella sp.	0	0	200	0	360
Massartia sp.	80	0	80	0	120
Laboea sp.	80	0	0	0	0
Mezodinium sp.	120	240	120	200	280

Table 7, St. 13, Sackville, June 2, 1963, Lat. $55^{\circ}24.5'N$; Long. $48^{\circ}45'W$

Depth (metres)	0	10	20	30	50
Temperature ($^{\circ}C$)	4.8	4.89	4.89	4.88	4.77
Salinity (‰)	34.67	34.67	34.67	34.67	34.68
Phosphate ($\mu\text{g at/l}$)	.76	.69	.86	.88	.91
Nitrate ("")	-	-	-	-	-
Nitrite ("")	-	-	-	-	-
Silicate ("")	10.0	10.0	9.0	7.0	8.0
Oxygen (ml/l)	-	7.50	7.47	7.46	7.38
Oxygen (% sat.)	-	105.3	104.9	104.8	103.4
Number of ml examined	25	25	25	25	25
 Cyclotella sp.	0	0	0	0	80
Chaetoceros peruvianus	320	1,040	80	640	360
Leptocylindrus danicus	0	0	0	0	320
Rhizosolenia alata f. gracillima	280	80	560	880	0
Thalassiothrix longissima	120	0	0	0	0
Corethron hystrix	80	0	80	0	0
Tropidoneis antarctica	160	80	0	0	40
Fragillaria sp.	0	2,240	0	0	0
Coccolithus huxleyi	1,000	4,000	0	0	0
Calyptrrosphaera sphaeroidea	0	40	0	80	0
Helladosphaera aurisineae	4,240	6,960	2,000	7,120	0
Pontosphaera grani	440	1,360	640	0	560
Syracosphaera pirus	680	1,840	1,160	80	0
Ophiaster hydroideus	0	0	240	0	0
Cochlodinium sp.	0	0	0	80	0
Cladopyxis claytoni	760	400	240	800	0
Gyrodinium sp.	960	480	2,480	3,600	1,440
Massartia sp.	80	0	0	0	0
Goniaulax (gracilis) borealis	4,280	18,820	18,160	15,600	5,120
Oxytoxum nanum	120	400	40	240	400
Phalacroma sp.	0	40	0	0	0
Peridinium minusculum	40	0	0	0	0
P. globulus	0	80	0	0	0
P. sp.	0	0	240	0	0
Kofoidinium sp.	80	80	40	0	0
Unidentified flagellates	680	840	400	1,200	560
Ciliata	480	1,600	400	320	240

Table 8, St. 16, Sackville, June 2, 1963, Lat. 54°16'N; Long. 52°55'W

Depth (metres)	0	10	20	30	50
Temperature (°C)	2.0	2.04	2.30	2.34	3.27
Salinity (‰)	33.67	33.82	34.19	34.24	34.65
Phosphate (µg at/l)	.12	.13	.18	.28	.75
Nitrate (")	.02	.08	.03	.09	.10
Nitrite (")	2.0	2.0	3.0	2.0	13.0
Silicate (")	3.0	2.0	2.0	2.0	7.0
Oxygen (ml/l)	-	9.31	8.91	8.61	7.66
Oxygen (% sat.)	-	123.4	119.9	116.7	106.1
Number of ml examined	5, 25	5, 25	5, 25	5, 25	25
<i>Achnantes taeniata</i>	57,200	24,240	10,160	7,120	0
<i>Fragillaria oceanica</i>	98,320	76,800	4,080	21,520	0
<i>F. cylindrus</i>	20,400	640	26,640	0	0
<i>Coscinosira polychorda</i>	8,040	13,440	7,600	6,540	960
<i>C. oestrupi</i>	0	0	560	1,200	0
<i>Bacteriosira fragilis</i>	2,080	1,280	0	0	0
<i>Chaetoceros furcellatus</i>	20,400	32,320	12,080	7,600	11,680
<i>C. curvisetus</i>	8,080	24,560	12,000	1,520	0
<i>C. teres</i>	720	1,440	0	0	0
<i>C. decipiens</i>	640	3,040	480	640	0
<i>C. borealis</i>	240	2,240	0	0	0
<i>C. laciniosus</i>	800	600	0	640	0
<i>C. constrictus</i>	0	480	0	0	0
<i>C. convolutus f. setrisetosa</i>	0	0	80	0	0
<i>C. diadema</i>	0	0	1,440	640	18,080
<i>C. socialis</i>	0	0	8,400	2,320	0
<i>Eucampia zodiacus</i>	5,600	5,120	2,880	1,320	120
<i>Navicula pelagica</i>	2,400	0	5,200	0	0
<i>Nitzschia pungens</i>	0	80	1,280	640	120
<i>N. seriata</i>	1,120	40	2,380	0	0
<i>N. frigida</i>	960	0	0	0	0
<i>Thalassiosira gravida</i>	65,600	180,000	64,000	6,640	8,800
<i>T. nordenskjöldi</i>	103,800	21,200	27,680	0	2,000
<i>T. rotula</i>	73,800	50,200	28,600	0	1,520
<i>T. bioculata</i>	480	0	12,080	0	0
<i>Rhizosolenia alata</i>	80	80	0	80	0
<i>Tropidoneis antarctica</i>	960	1,440	2,160	1,360	2,000
Undetermined flagellates	80	200	0	80	80
<i>Amphidinium sp.</i>	240	0	0	0	0
<i>Gyrodinium sp.</i>	560	80	0	0	800
<i>G. groenlandicum</i>	1,360	0	0	0	0
<i>Gymnodinium sp.</i>	400	560	0	0	0
<i>Gyrodinium spirale</i>	240	0	400	40	0
<i>Goniaulax (gracilis) borealis</i>	800	1,000	640	0	0
<i>Cytoxum nanum</i>	0	40	40	0	0

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	0	10	20	30	50
Kofoidinium sp.	0	80	0	40	40
Phalacroma sp.	0	0	0	0	40
Peridinium minusculum	40	40	0	0	0
P. sp.	40	0	0	0	0
Goniiodoma sp.	40	0	0	0	0
Exuviaella baltica	800	0	800	0	0
Coccolithineae	20,960	0	0	0	0
Trochiscia ogaki*	40	0	0	0	0
Lohmanniella oviformis and other ciliata	<u>7,920</u>	320	1,440	400	0
Nauplii	0	40	0	40	0

* Indicates a species whose description is not yet completed.

Table 9, St. 17, Sackville, June 8, 1963, Lat. 59°06'N; Long. 45°42'W

	0	10	20	30	50
Depth (metres)					
Temperature (°C)	4.9	4.98	4.98	4.95	4.96
Salinity (‰)	34.80	34.89	34.89	34.89	34.89
Phosphate (µg at/l)	.42	.47	.66	.67	.72
Nitrate ("")	.19	.20	.20	.20	.20
Nitrite ("")	-	-	-	-	-
Silicate ("")	4.0	4.0	4.0	3.0	4.0
Oxygen (ml/l)	-	7.44	7.52	7.42	7.45
Oxygen (% sat.)	-	107.7	108.8	103.5	104.9
Number of ml examined	5, 25	5, 25	5, 25	5, 25	5, 25
<i>Chaetoceros concavicornis</i>	640	480	800	0	0
<i>C.</i> <i>curvisetus</i>	5,120	1,160	1,880	1,680	600
<i>C.</i> <i>convolutus</i>	0	0	320	0	0
<i>C.</i> <i>diadema</i>	0	0	240		0
<i>C.</i> <i>decipiens</i>	1,520	640	320		200
<i>C.</i> <i>septentrionalis</i>	0	320	0		840
<i>C.</i> <i>socialis</i>	21,600	0	0	0	0
<i>Eucampia zodiacus</i>	400	480	120	0	0
<i>Rhizosolenia alata</i> f. <i>gracillima</i>	720	280	800	200	680
<i>R.</i> <i>alata</i> f. <i>inermis</i>	40	520	800	0	0
<i>Tropidoneis antarctica</i>	960	2,480	1,200	1,000	800
<i>Thalassiosira gravida</i>	89,040	2,960	0	1,560	1,280
<i>T.</i> <i>rotula</i>	2,160	0	400	680	720
<i>T.</i> <i>nordenskjöldi</i>	960	400	0	0	0
<i>Coscinodiscus</i> sp.	0	320	0	0	200
<i>Nitzschia closterium</i>	80	0	0	0	0
<i>N.</i> <i>longissima</i>	0	0	0	0	40
<i>N.</i> <i>seriata</i>	2,800	4,360	640	3,120	3,960
<i>Dactyliosolen mediterraneus</i>	2,000	120	0	0	0
<i>Distephanus</i> sp.	40	0	0	0	0
<i>Bodo</i> sp.	80	40	0	0	0
<i>Helladosphaera aurysineae</i>	480	120	80	0	0
<i>Pontosphaera grani</i>	560	440	0	0	0
<i>Gyrodinium baffini</i>	240	0	0	0	0
<i>G.</i> <i>groenlandicum</i>	200	0	0	200	0
<i>G.</i> sp.	480	440	480	120	0
<i>Goniaulax</i> (<i>gracilis</i>) <i>borealis</i>	120	240	120	240	0
<i>Exuviaella</i> sp.	0	320	0	240	0
<i>Oxytoxum nanum</i>	40	0	40	0	0
<i>Paulsenella chaetoceratis</i>	400	0	0	0	0
<i>Kofoidinium</i> sp.	0	120	0	80	0
<i>Peridinium</i> sp.	40	320	40	120	0
<i>Ciliata</i>	80	0	0	0	0

Table 10, St. 19, Sackville, June 12, 1963, Lat. 52°51'N; Long. 49°W

	0	10	20	30	50
Depth (metres)	0	10	20	30	50
Temperature (°C)	7.6	7.56	7.53	7.49	7.33
Salinity (‰)	34.81	34.80	34.80	34.80	34.81
Phosphate (µg at/l)	.20	.47	.50	.50	.64
Nitrate (")	.08	.23	.10	.22	.16
Nitrite (")	4.0	11.0	10.0	10.0	13.0
Silicate (")	5.0	5.0	3.0	3.0	4.0
Oxygen (ml/l)	-	7.02	7.02	6.89	6.82
Oxygen (% sat.)	-	108.0	108.0	105.8	104.6
Number of ml examined	25	25	5, 25	5, 25	25
<i>Chaetoceros atlanticus</i>	0	0	0	0	80
C. <i>concavicornis</i>	0	0	240	0	240
C. <i>peruvianus</i>	400	0	0	0	0
C. <i>convolutus f. trisetosa</i>	0	80	0	0	480
<i>Nitzschia delicatissima</i>	14,000	3,200	22,720	241,600	50,600
<i>Thalassiotrix longissima</i>	40	1,360	400	21,600	0
<i>Tropidoneis antarctica</i>	5,280	2,400	5,200	4,000	1,360
<i>Dactyliosolen mediterraneus</i>	0	240	80	0	80
<i>Corethron hystrix</i>	40	240	560	0	0
<i>Rhizosolenia alata f. inermis</i>	0	400	240	80	80
R. <i>styliformis f. longissima</i>	0	0	120	0	0
<i>Exuviaella</i> sp.	960	1,600	1,280	11,200	4,480
<i>Goniaulax (gracilis) borealis</i>	4,000	12,800	36,400	800	10,600
G. <i>scrippsae</i>	0	40	0	0	0
<i>Gyrodinium groenlandicum</i>	0	1,280	0	0	0
G. sp.	0	480	0	0	0
<i>Gymnodinium</i> sp.	400	320	800	80	1,200
<i>Massartia</i> sp.	880	240	1,600	1,200	0
<i>Oxytoxum nanum</i>	480	2,000	4,400	1,200	0
O. <i>pseudotesselatum</i>	0	0	0	40	0
<i>Kofoidinium</i> sp.	0	80	80	40	0
<i>Gyrodinium</i> sp.	0	40	0	80	0
<i>Cochlodinium</i> sp.	0	0	0	320	0
<i>Cladopyxis claytoni</i>	0	0	80	80	420
<i>Phalacroma ruudi</i>	0	560	0	0	0
<i>Coccolithus huxleyi</i>	2,160	2,800	11,200	240	1,200
<i>Calyptrrosphaera sphaeroidea</i>	80	480	0	0	3,000
<i>Helladosphaera ursinae</i>	0	0	4,000	40	640
<i>Syracosphaera pirus</i>	560	2,320	1,000	880	800
<i>Pontosphaera grani</i>	3,960	3,200	1,400	640	1,600
<i>Peridinium laticeps</i>	0	40	0	0	0
P. <i>minusculum</i>	0	0	0	0	40
P. <i>globulus f. okamurai</i>	0	0	0	0	40
<i>Tintinnus norvegicus</i>	40	0	0	0	0
<i>Lonnanniella</i> sp.	0	0	400	0	0

Table II, St. 23, Sackville, June 13, 1963, Lat. 50°37'N; Long. 47°36'W

	0	10	20	30	50
Depth (metres)					
Temperature (°C)	7.0	6.90	6.86	6.78	4.73
Salinity (‰)	34.58	34.57	34.57	34.57	34.59
Phosphate ($\mu\text{g at/l}$)	.12	.16	.30	.29	.75
Nitrate ("")	.13	.13	.10	.12	.15
Nitrite ("")	5.0	6.0	6.0	4.0	9.0
Silicate ("")	4.0	4.0	4.0	3.0	5.0
Oxygen (ml/l)	-	7.33	7.25	7.22	7.30
Oxygen (% sat.)	-	110.9	109.7	108.7	109.4
Number of ml examined	5, 25	5, 25	5, 25	5, 25	25
Cyclotella sp.	400	200	0	0	120
Chaetoceros convolutus f. triseta	240	0	0	0	80
C. atlanticus	0	320	0	0	0
C. danicus	0	0	0	80	320
C. peruvianus	0	0	80	0	80
C. furcellatus	0	0	2,000	80	1,080
Eucampia cornuta	2,400	520	600	0	600
E. zodiacus	0	0	0	0	40
Bacteriosira fragilis	0	0	0	0	80
Rhizosolenia alata f. inermis	40	1,000	3,000	0	80
R. styliformis f. longiseta	240	80	800	0	200
Corethron hystrix	0	80	80	0	280
Dactyliosolen mediterraneus	240	0	0	0	80
Leptocylindrus danicus	0	0	0	320	160
Nitzschia longissima	0	40	0	0	0
N. delicatissima	22,480	23,800	25,000	9,200	400
N. seriata	1,440	0	0	0	80
N. pungens	0	80	26,200	0	30,000
Navicula pelagica	0	0	0	840	200
Thalassiothrix longissima	1,120	280	320	0	800
Tropidoneis antarctica	400	1,600	1,280	3,400	1,400
Thalassiosira bioculata	20,880	6,840	12,880	1,600	13,280
T. nordenskjöldi	0	720	80	200	3,120
T. gravida	400	440	0	440	800
Bodo sp.	120	0	80	0	80
Solenicola marina	80	1,200	120	1,000	280
Coccolithus huxleyi	2,960	400	0	0	0
Helladosphaera aurysinae	280	7,000	2,000	0	0
Syracosphaera pirus	120	40	120	0	0
S. sp.	960	600	0	0	0
Pontosphaera grani	1,600	880	120	0	0
Dinophysis sp.	0	0	0	0	40
Exuviaella sp.	80	1,200	0	1,040	4,400
Goniaulax (gracilis) borealis	4,400	6,480	40,160	12,400	8,200
G. sp.	0	0	40	0	0

Sackville, St. 23, 1963

	0	10	20	30	50
Gymnodinium filum	0	0	0	0	4,000
Gyrodinium groenlandicum	1,000	1,600	80	0	80
G. spirale	0	280	120	120	0
G. sp.	80	0	0	160	0
G. sp. (holozoic)	640	560	280	1,880	80
Gymnodinium splendens	0	0	40	0	0
Cladopyxis claytoni	400	0	0	0	0
C. bacillifera	0	80	0	0	0
Kofoidinium sp.	80	80	0	320	1,200
Oxytoxum nanum	0	480	3,000	320	0
Massartia sp.	560	520	0	240	2,400
Peridinium globulus	40	40	40	120	120
Ceratium lineatum	0	0	120	0	0
Ciliata	200	400	280	120	0

Table 12, St. 2, Baffin, May 26, 1963, Lat. 57°27'N; Long. 58°50.3'W

	0	10	20	30	50
Depth (metres)					
Temperature (°C)	4.0	3.32	3.38	3.44	3.54
Salinity (‰)	34.86	34.73	34.74	34.76	34.81
Phosphate (µg at/l)	1.84	0.69	0.65	0.77	0.77
Nitrate ("")	0.09	0.09	0.08	0.09	0.10
Nitrite ("")	6.3	10.7	9.3	10.5	9.7
Silicate ("")	11.0	8.0	8.0	8.0	8.0
Oxygen (ml/l)	7.53	7.63	7.57	7.56	7.47
Oxygen (% sat.)	106.4	106.3	105.0	105.3	103.9
Number of ml examined	5, 25	25	25	25	25
Achnantes taeniata	22,200	840	0	0	0
Fragillaria oceanica	22,000	0	0	9,280	0
Chaetoceros decipiens	3,000	0	400	640	0
C. atlanticus	40	0	120	920	0
C. furcellatus	1,000	0	1,960	2,560	1,320
C. subtilis	25,200	0	0	3,840	7,560
C. curvisetus	0	0	120	2,040	2,120
C. densus	0	0	0	160	1,040
C. socialis	0	0	0	240	0
C. concavicornis	0	0	0	0	360
C. affinis	0	0	0	0	400
C. lorenzianus	1,200	0	0	0	0
C. karianus	0	0	80	0	0
C. convolutus f. trisetosa	0	0	80	0	0
C. laciniosus	0	0	0	800	0
Cyclotella sp.	400	0	0	0	0
Coscinosira polychorda	1,000	0	2,680	800	280
C. oestrupi	0	0	600	280	120
Eucampia zodiacus	0	80	0	0	0
Lauderia glacialis	0	80	0	0	0
Melosira granulata	0	120	0	0	0
Nitzschia pungens	0	640	120	240	600
N. seriata	0	0	840	0	960
Navicula vanhoffeni	1,200	0	0	0	0
Tropidoneis antarctica	2,000	0	1,080	480	480
Thalassiosira bioculata	0	0	480	0	0
T. gravida	28,000	0	14,720	7,880	8,440
T. nordenskjöldi	1,200	0	1,440	2,920	800
T. rotula	0	0	480	0	1,320
T. decipiens	0	400	0	640	0
Exuviaella baltica	0	80	0	0	0
Gymnodinium sp.	0	1,160	160	0	0
Gyrodinium rubrum	0	80	0	0	80
Gymnodinium (baffini)*	600	80	40	0	120
Goniaulax borealis (gracilis)	400	0	320	0	1,160

Baffin, St. 2, 1963	0	10	20	30	50
Glenodinium sp.	0	40	0	80	0
Oxytoxum nanum	200	0	0	0	0
Cochlodinium sp.	0	0	0	40	0
Undetermined coccoliths	0	40	0	0	0
Radiolaria	40	0	0	0	0
Ciliata	200	80	80	80	80

* Indicates a species whose description is not yet completed.

Table 13, St. 5, Baffin, May 27, 1963, Lat. 59°25'N, Long. 53°09.2'W

Depth (metres)	0	10	20	40	50
Temperature (°C)	4.5	4.15	4.06	4.08	4.06
Salinity (‰)	34.88	34.85	34.84	34.85	34.86
Phosphate (µg at/l)	1.04	.76	.84	.90	.89
Nitrate (")	-	-	-	-	-
Nitrite (")	-	-	-	-	-
Silicate (")	10.0	9.0	9.0	8.0	7.0
Oxygen (ml/l)	7.25	6.85	7.08	6.95	6.93
Oxygen (% sat.)	103.7	82.9	100.1	98.3	98.0
Number of ml examined	25	25	25	25	25
<i>Cyclotella</i> sp.	0	0	0	80	0
<i>Chaetoceros furcellatus</i>	0	0	0	0	240
<i>Tropidoneis antarctica</i>	0	40	80	240	0
<i>Distephanus speculum</i>	0	0	40	80	0
<i>Chilomonas marina</i>	80	0	0	0	0
<i>Bodo</i> sp.	40	0	40	400	0
Unidentified flagellates	0	480	40	400	0
<i>Pontosphaera</i> sp.	0	760	2,080	720	840
<i>Coccolithus huxleyi</i>	0	0	360	0	360
<i>Exuviaella baltica</i>	0	280	240	240	120
<i>Gymnodinium</i> sp.	120	0	120	600	880
<i>Gyrodinium groenlandicum</i>	0	40	0	640	0
<i>Peridinium</i> sp.	0	0	40	0	0
<i>Pronoctiluca pelagica</i>	0	40	0	0	0
<i>Ciliata</i>	40	200	0	40	80
<i>Laboea conica</i>	0	0	440	200	0

Table 14, St. 6, Baffin, May 28, 1963, Lat. 60°N; Long. 51°15'W

	0	10	20	30	50
Depth (metres)					
Temperature (°C)	4.1	4.12	4.21	4.36	4.20
Salinity (‰)	34.74	34.72	34.77	34.82	34.83
Phosphate ($\mu\text{g at/l}$)	.56	.57	.53	.54	.77
Nitrate ("")	-	-	-	-	-
Nitrite ("")	-	-	-	-	-
Silicate ("")	8.0	10.0	9.0	8.0	7.0
Oxygen (ml/l)	5.49	4.84	5.97	6.43	5.54
Oxygen (% sat.)	77.8	68.5	84.8	91.3	78.6
Number of ml examined	5, 25	5, 25	5, 25	5, 25	25
Asterionella formosa	0	0	0	0	80
Chaetoceros atlanticus	240	0	0	0	0
C. concavicornis	80	80	0	0	0
C. furcellatus	280	600	11,800	0	3,840
C. curvisetus	0	0	0	2,000	3,240
C. lorenzianus	0	640	0	11,800	0
C. debilis	0	840	0	0	0
C. similis	240	2,200	0	8,400	3,840
C. constrictus	0	0	0	120	1,000
C. diadema	0	0	0	1,040	0
Cyclotellia sp.	0	760	300	400	0
Eucampia sp.	680	1,040	1,920	0	5,720
Fragillaria nana	0	0	26,000	0	400
F. cylindrus	0	0	1,120	0	0
Rhizosolenia alata	0	0	40	0	0
R. styliformis v. imbricata	280	80	40	0	0
Thalassiothrix longissima	0	40	0	0	0
Tropidoneis antarctica	0	1,000	240	80	120
Nitschia seriata	0	0	3,400	760	1,560
Coccilithus huxleyi	120	0	0	0	0
Pontosphaera grani	2,640	1,760	0	0	0
Coccilithus sp.	0	0	2,000	3,760	0
Bodo sp.	200	1,100	2,300	600	40
Pheocystis sp.	0	80	400	0	0
Amphidinium sp.	0	0	0	0	40
Cladopyxis claytoni	120	80	120	1,200	120
Gymnodinium sp. (holophytic)	640	1,360	2,000	2,500	1,200
G. sp. (holozoic)	40	40	1,600	1,800	640
Gyrodinium groenlandicum	0	520	2,500	80	2,000
G. sp.	180	400	320	600	200
G. (holozoic small)	1,480	840	0	0	120
Ceratium tripos	0	0	40	0	0
Exuviaella baltica	320	360	3,000	1,100	1,140
Massartia sp.	0	80	120	0	40
Oxytoxum nanum	0	0	0	200	0
Phalacroma rotundatum	0	40	0	0	0

Baffin, St. 6, 1963

	0	10	20	30	50
Peridinium globulus	0	40	0	0	0
P. minusculum	40	0	80	0	80
P. sp.	40	0	0	0	0
Kofoidinium sp.	0	160	0	160	0
Ciliata	0	0	120	400	480
Laboea conica	600	200	0	0	0
L. delicatissima	800	200	0	0	0
L. acuminata	0	80	0	0	0

Table 15, St. 10, Baffin, May 28, 1963, Lat. 60°49'N; Long. 48°34.5'W

	0	5	10	20	30
Depth (metres)	0	5	10	20	30
Temperature (°C)	0.1	-	-0.3	-0.8	-0.9
Salinity (‰)	33.01	-	32.96	32.97	32.99
Phosphate (µg at/l)	.18	-	Trc	Trc	.12
Nitrate ("")	-	-	-	-	-
Nitrite ("")	-	-	-	-	-
Silicate ("")	2.0	-	2.0	2.0	2.0
Oxygen (ml/l)	9.39	-	9.06	8.93	8.74
Oxygen (% sat.)	118.1	-	112.8	110.7	107.1
Number of ml examined	5, 25	5, 25	5, 25	5, 25	5, 25
<i>Chaetoceros atlanticus</i>	120	0	160	0	0
C. <i>borealis</i>	0	0	0	360	0
C. <i>furcellatus</i>	2,400	0	6,300	0	4,000
C. <i>septentrionalis</i>	400	0	160	0	0
C. <i>curvisetus</i>	1,160	9,600	3,760	0	2,760
C. <i>decipiens</i>	960	360	1,200	720	1,040
C. <i>debilis</i>	0	2,400.	0	1,600	400
C. <i>socialis</i>	27,000	10,000	88,400	65,600	62,600
C. <i>subtilis</i>	0	0	11,800	0	0
C. <i>teres</i>	760	0	80	400	240
C. <i>wighamii</i>	0	0	0	0	2,400
<i>Coscinosira polychorda</i>	800	2,760	0	1,440	1,880
C. <i>oestrupi</i>	0	0	200	0	0
<i>Achnantes taeniata</i>	6,520	2,520	0	0	0
<i>Fragillaria oceanica</i>	31,800	1,160	39,600	0	12,000
<i>Bacteriosira fragilis</i>	360	0	880	3,480	720
<i>Navicula grani</i>	8,480	0	0	0	0
N. <i>vanhoffeni</i>	1,040	0	3,640	7,600	0
<i>Rhizosolenia styliformis</i>	80	0	120	0	0
R. <i>alata</i>	0	0	0	0	480
<i>Eucampia zodiacus</i>	0	0	0	520	0
<i>Porosira glacialis</i>	840	0	400	800	0
<i>Thalassiosira bioculata</i>	87,200	3,400	24,200	8,260	0
T. <i>gravid</i> a	20,600	20,000	43,400	25,600	36,400
T. <i>rotula</i>	0	19,400	35,000	8,000	6,000
T. <i>nordenskjöldi</i>	47,200	92,800	23,400	91,400	29,800
<i>Tropidoneis antarctica</i>	80	0	0	120	80
<i>Detonula confervacea</i>	0	0	0	4,440	0
<i>Coscinoscus vailesi</i>	0	0	80	40	80
C. <i>contralis</i>	0	0	120	0	0
<i>Gymnodinium</i> sp.	400	400	0	0	40
<i>Gyrodinium rubrum</i>	0	40	40	0	0
G. <i>spirale</i>	200	40	680	0	120
G. <i>groenlandicum</i>	40	80	880	680	0
Kofoidinium sp.	0	0	0	0	40
<i>Goniaulax (gracilis) borealis</i>	1,200	0	0	600	0

<u>Baffin</u> , St. 10, 1963	0	5	10	20	30
Peridinium sp.	0	0	0	80	0
Oxytoxum parvum	40	0	0	0	0
Ciliata	80	0	0	120	80
Laboea sp.	0	80	80	0	0

Table 16, St. 9, Baffin, May 28, 1963, Lat. 60°50'N; Long. 49°24'W

Depth (metres)	0	10	20	30	40
Temperature (°C)	0	0.9	-0.2	0	-0.3
Salinity (‰)	33.22	33.94	33.29	33.47	33.22
Phosphate (µg at/l)	.14	.83	Trc	.50	Trc
Nitrate (")	-	.10	.03	.07	Trc
Nitrite (")	Trc	11.0	Trc	5.2	Trc
Silicate (")	3.0	8.0	3.0	4.0	4.0
Oxygen (ml/l)	8.23	6.47	5.69	4.63	8.34
Oxygen (% sat.)	103.4	81.5	70.8	53.8	103.9
Number of ml examined	5, 25	5, 25	5, 25	5, 25	5, 25
<i>Chaetoceros curvisetus</i>	2,400	4,600	8,720	31,600	9,400
<i>C. decipiens</i>	0	1,240	1,520	5,800	0
<i>C. subtilis</i>	18,600	0	0	122,240	0
<i>C. affinis</i>	1,200	0	1,680	640	0
<i>C. teres</i>	1,800	200	520	0	240
<i>C. atlanticus</i>	3,000	480	420	400	0
<i>C. diadema</i>	80	320	400	17,800	0
<i>C. debilis</i>	1,280	320	0	0	0
<i>C. borealis</i>	400	400	0	0	0
<i>C. socialis</i>	2,400	6,400	25,000	98,600	11,200
<i>C. lorenzianus</i>	1,200	240	320	0	0
<i>C. convolutus f. trisetosa</i>	0	0	0	80	0
<i>Coscinodiscus sp.</i>	0	0	40	280	0
<i>Coscinosira polychorda</i>	0	600	1,080	16,000	10,400
<i>Bacteriosira fragilis</i>	560	0	0	0	0
<i>Nitschia pungens</i>	0	0	1,080	0	0
<i>N. frigida</i>	1,440	0	0	240	0
<i>Navicula grani</i>	1,840	2,000	0	0	0
<i>Fragillaria oceanica</i>	124,400	12,600	0	6,800	5,400
<i>F. cylindrus</i>	80	0	0	0	0
<i>Lauderia glacialis</i>	0	0	0	2,400	0
<i>Rhizosolenia alata</i>	120	80	0	200	0
<i>Skeletonema costatum</i>	0	0	0	640	0
<i>Thalassiosira gravida</i>	109,200	39,400	32,280	128,800	39,600
<i>T. rotula</i>	131,200	14,400	22,640	76,000	6,400
<i>T. nordenskjöldi</i>	96,400	91,800	7,680	14,800	6,600
<i>T. decipiens</i>	1,800	0	520	0	0
<i>T. bioculata</i>	54,000	400	29,040	162,400	0
<i>Tropidoneis antarctica</i>	400	2,580	200	600	40
<i>Gymnodinium sp.</i>	1,000	800	0	80	0
<i>Gyrodinium sp.</i>	400	0	0	0	0
<i>G. spirale</i>	200	0	0	40	0
<i>G. rubrum</i>	200	0	0	0	0
<i>G. groenlandicum</i>	0	1,400	40	360	0
<i>Dinophysis acuta</i>	0	0	40	0	0

Baffin, St. 9, 1963

	0	10	20	30	40
Oxytoxum nanum	0	0	0	40	0
Paulsenella chaetoceratis	0	0	40	0	0
Peridinium globulus	0	0	0	40	0
Ciliata	0	0	320	0	200
Laboea conica	40	0	80	0	80

Table 17, St. 14, Baffin, May 29, 1963, Lat. $61^{\circ}40.5'N$; Long. $51^{\circ}45'W$

	0	10	20	30	50
Depth (metres)	0	10	20	30	50
Temperature ($^{\circ}C$)	3.2	3.3	3.3	3.6	3.9
Salinity (‰)	34.48	34.50	34.49	34.64	34.74
Phosphate ($\mu\text{g at/l}$)	.33	.33	.34	.58	.75
Nitrate ("")	-	-	-	-	-
Nitrite ("")	-	-	-	-	-
Silicate ("")	3.0	3.0	3.0	4.0	6.0
Oxygen (ml/l)	8.22	8.55	8.03	7.61	7.06
Oxygen (% sat.)	113.4	118.4	111.2	106.1	99.3
Number of ml examined	25	25	25	25	25
Chaetoceros convolutus	120	0	0	0	0
C. furcellatus	3,720	4,160	5,280	800	6,080
C. curvisetus	16,400	2,240	11,200	80	1,280
C. gracilis	2,960	0	0	0	0
C. socialis	6,800	11,160	7,680	760	9,600
C. decipiens	1,320	720	0	240	480
Bacteriosira fragilis	0	400	0	0	0
Eucampia zodiacus	240	1,800	400	360	1,720
Fragillaria oceanica	6,520	13,200	14,680	10,560	0
Navicula vanhoffeni	680	0	0	0	0
Nitschia seriata	240	0	1,760	0	1,080
N. pungens	0	40	80	0	0
Rhizosolenia styliformis	80	0	0	80	0
R. alata	0	280	0	0	0
Tropidoneis antarctica	120	640	400	1,160	0
Porosira glacialis	200	0	0	0	120
Thalassiosira gravida	2,960	15,600	2,480	9,040	7,000
T. nordenstjöldi	3,760	2,480	1,360	4,240	3,480
T. bioculata	0	560	0	0	80
T. rotula	400	0	1,280	1,560	200
Skeletonema costatum	400	400	0	0	0
Exuviaella baltica	320	40	200	0	0
Cladopyxis claytoni	280	80	120	80	0
Gyrodinium rubrum	0	0	280	0	0
G. spirale	0	240	0	0	120
G. groenlandicum	0	880	1,600	80	280
Gymnodinium sp.	0	320	600	0	200
Ceratium lineatum	0	40	0	0	0
Peridinium pallidum	0	40	0	0	0
P. minusculum	0	40	0	0	0
P. trochoideum	0	40	0	0	0
Pontosphaera grani	400	120	320	40	480
Unidentified flagellates	80	0	0	80	40
Ciliata	0	0	0	0	40
Mezodinium rubrum	120	0	0	0	80
Lohmanniella oviformis	0	0	200	2,000	0
Ptychocylis obtusa	0	0	40	0	0

Table 18, St. 18, Baffin, May 30, 1963, Lat. 60°48'N; Long. 57°30'W

	0	10	20	30	50
Depth (metres)					
Temperature (°C)	3.5	3.1	3.18	3.2	3.1
Salinity (‰)	34.67	34.55	34.57	34.55	34.56
Phosphate (µg at/l)	.54	.28	.27	.41	.29
Nitrate ("")	-	-	-	-	-
Nitrite ("")	-	-	-	-	-
Silicate ("")	4.0	4.0	3.0	2.0	2.0
Oxygen (ml/l)	7.95	8.01	7.88	7.76	8.02
Oxygen (% sat.)	110.7	110.2	108.5	107.0	110.5
Number of ml examined	25	25	25	25	25
<i>Chaetoceros decipiens</i>	320	200	0	0	0
<i>C. furcellatus</i>	1,560	3,000	3,200	0	6,680
<i>C. curvisetus</i>	0	2,640	1,640	0	2,280
<i>C. convolutus f. trisetosa</i>	0	0	0	160	0
<i>Eucampia zodiacus</i>	0	720	320	0	720
<i>Cyclotella</i> sp.	0	0	0	600	80
<i>Rhizosolenia alata</i>	0	0	40	0	0
<i>Tropidoneis antarctica</i>	440	360	640	1,840	2,080
<i>Thalassiosira gravida</i>	1,560	800	160	120	3,000
<i>T. nordenskjöldi</i>	0	0	4,600	0	0
<i>Nitzschia seriata</i>	0	640	600	0	0
<i>N. frigida</i>	0	0	0	6,640	0
<i>Cladopyxis claytoni</i>	0	0	40	80	0
<i>Gyrodinium groenlandicum</i>	1,080	2,000	4,240	4,000	1,000
<i>G.</i> sp.	400	80	0	0	400
<i>G.</i> spirale	0	0	400	400	120
<i>Gymnodinium</i> sp.	800	400	600	600	120
<i>Exuviaella</i> sp.	480	0	1,080	120	120
<i>Kofoidinium</i> sp.	40	0	0	40	0
<i>Peridinium</i> sp.	80	0	40	0	40
<i>Goniaulax gracilis (borealis)</i>	0	0	80	0	0
<i>Pontosphaera huxleyi</i>	280	5,000	1,080	240	1,560
<i>P.</i> grani	0	400	560	680	1,000
<i>Ophiaster hydriodeus</i>	40	120	40	0	280
Unidentified flagellates	0	120	0	240	0
<i>Pheocystis poucheti</i>	0	0	0	0	80
Ciliata	320	80	80	200	40
{ <i>Mezodinium rubrum</i> }	0	0	0	0	0
{ <i>Laboea</i> sp.}	0	280	0	280	0

Table 19, St. 11, Baffin, May 29, 1963, Lat. 61°57'N; Long. 50°02'W

	0	10	20	30
Depth (metres)	0	10	20	30
Temperature (°C)	1.1	0.8	0.8	0.6
Salinity (‰)	33.20	33.15	33.15	33.15
Phosphate (µg at/l)	.21	Trc	Trc	Trc
Nitrate (")	-	-	-	-
Nitrite (")	-	-	-	-
Silicate (")	2.0	2.0	2.0	1.0
Oxygen (ml/l)	8.62	8.74	8.97	8.76
Oxygen (% sat.)	114.2	112.1	115.0	111.6
Number of ml examined	5, 25	5, 25	5, 25	5, 25
<i>Chaetoceros debilis</i>	1,200	0	640	0
C. <i>teres</i>	600	0	0	0
C. <i>decipiens</i>	520	0	0	2,680
C. <i>curvisetus</i>	1,000	27,520	26,280	23,560
C. <i>septentrionalis</i>	0	0	600	0
C. <i>socialis</i>	0	9,400	6,000	20,400
C. <i>constrictus</i>	1,200	0	0	5,840
C. <i>furcellatus</i>	0	0	0	5,880
<i>Coscinosira oestrupi</i>	0	600	0	0
<i>Porosira glacialis</i>	0	40	0	0
<i>Thalassiothrix longissima</i>	0	0	0	40
<i>Thalassiosira bioculata</i>	0	0	7,720	0
T. <i>gravida</i>	13,800	800	0	1,840
T. <i>rotula</i>	2,000	0	0	0
T. <i>nordenskjöldi</i>	11,800	1,760	1,160	8,080
<i>Tropidoneis antarctica</i>	0	120	240	200
<i>Ceratium macroceros</i>	0	0	0	40
<i>Gymnodinium</i> sp.	0	0	120	200
<i>Gyrodinium rubrum</i>	280	680	0	480
G. <i>spirale</i>	720	320	120	120
G. <i>groendlandicum</i>	0	0	200	200
<i>Oxytoxum nanum</i>	40	40	80	80
<i>Peridinium minusculum</i>	0	80	0	0
P. <i>conicum</i>	240	0	40	0
P. <i>pallidum</i>	0	0	40	0
P. <i>grani</i>	0	0	40	0
P. sp.	40	0	0	0
<i>Ciliata</i>	40	640	240	3,740
<i>Laboea conica</i>	200	0	240	0
L. <i>strobila</i>	240	0	0	0
<i>Lohmanniella oviformis</i>	200	0	0	0
<i>Cyttarocylis denticulata</i>	40	40	0	0
Nauplii	40	0	0	40

Table 20, St. 23, Baffin, June 1, 1963, Lat. $63^{\circ}11.9'N$; Long. $57^{\circ}19.5'W$

Depth (metres)	0	10	20	30	50
Temperature ($^{\circ}C$)	2.3	2.2	2.2	2.2	2.5
Salinity (‰)	34.05	34.14	34.14	34.15	34.27
Phosphate ($\mu\text{g at/l}$)	Trc	Trc	Trc	.12	.13
Nitrate ("")	-	-	-	-	-
Nitrite ("")	-	-	-	-	-
Silicate ("")	6.0	4.0	4.0	2.0	2.0
Oxygen (ml/l)	8.21	8.10	8.10	8.19	8.02
Oxygen (% sat.)	110.5	108.6	108.6	109.8	108.5
Number of ml examined	25	25	25	25	25
<i>Chaetoceros curvisetus</i>	48,600	28,800	2,920	15,600	-
<i>C. furcellatus</i>	600	13,280	400	1,160	-
<i>C. socialis</i>	50,000	29,320	4,280	2,760	-
<i>C. septentrionalis</i>	0	80	0	0	-
<i>C. diadema</i>	3,960	440	0	560	-
<i>C. debilis</i>	0	0	0	1,920	-
<i>Coscinosira oestrupi</i>	760	0	0	0	-
<i>Porosira glacialis</i>	200	0	0	0	-
<i>Thalassiosira gravida</i>	4,280	3,600	0	760	-
<i>T. rotula</i>	6,000	4,520	0	0	-
<i>T. nordenskjöldi</i>	14,200	6,260	2,520	0	-
<i>T. bioculata</i>	120	160	0	0	-
<i>Tropidoneis antarctica</i>	0	0	160	80	-
<i>Gyrodinium groenlandicum</i>	440	120	240	0	-
<i>G. spirale</i>	0	320	80	880	-
<i>Gymnodinium sp.</i>	480	0	120	280	-
<i>Peridinium sp.</i>	40	0	120	80	-
<i>Pontosphaera grani</i>	120	280	320	680	-
<i>Pheocystis</i>	0	80	0	0	-
<i>Ciliata</i>	200	320	80	40	-

Table 21, St. 30, Baffin, June 2, 1963, Lat. $64^{\circ}05.3'N$; Long. $52^{\circ}46.8'W$

Depth (metres)	0	10	20	30	50
Temperature ($^{\circ}C$)	1.4	1.0	1.0	1.0	1.0
Salinity (‰)	33.64	33.61	33.61	33.62	33.67
Phosphate ($\mu\text{g at/l}$)	.22	.19	.10	.23	.26
Nitrate ("")	-	-	-	-	-
Nitrite ("")	-	-	-	-	-
Silicate ("")	3.0	3.0	3.0	2.0	2.0
Oxygen (ml/l)	8.26	8.34	8.29	8.60	8.60
Oxygen (% sat.)	108.0	107.6	107.0	111.0	111.0
Number of ml examined	25	25	25	25	5, 25
<i>Chaetoceros curvisetus</i>	3,520	0	7,760	13,760	149,800
<i>C. furcellatus</i>	10,920	0	15,520	31,520	117,800
<i>C. laciniatus</i>	240	0	0	600	0
<i>C. debilis</i>	480	0	4,840	0	0
<i>C. diadema</i>	0	0	320	1,440	0
<i>C. socialis</i>	0	0	21,880	440	105,000
<i>Nitzschia pungens</i>	200	0	560	0	0
<i>Thalassiosira bioculata</i>	1,400	120	120	0	800
<i>T. nordenskjöldi</i>	1,960	560	14,200	3,240	15,000
<i>T. gravida</i>	80	0	440	0	5,400
<i>T. rotula</i>	0	0	360	3,080	13,600
<i>Porosira glacialis</i>	0	0	200	1,680	320
<i>Eucampia zodiacus</i>	0	760	0	600	600
<i>Tropidoneis antarctica</i>	0	80	0	0	120
<i>Exuviaella baltica</i>	240	280	0	0	0
<i>Gyrodinium</i> sp.	2,470	1,480	880	0	460
<i>Oxytoxum nanum</i>	320	0	0	0	0
<i>Ciliata</i>	840	120	320	120	0

Table 22, St. BT-41, Baffin, June 6, 1963, Lat. $64^{\circ}34.2'N$; Long $52^{\circ}58'W$

Depth (metres)	0	10	20	30	50
Temperature ($^{\circ}C$)					
Salinity (‰)					
Phosphate ($\mu\text{g at/l}$)					
Nitrate (")					
Nitrite (")					
Silicate (")					
Oxygen (ml/l)					
Oxygen (% sat.)					
Number of ml examined	5, 25	25	25	25	25
<i>Chaetoceros curvisetus</i>	174,400	2,640	1,880	2,160	0
<i>C. furcellatus</i>	296,200	2,520	880	10,080	0
<i>C. decipiens</i>	3,000	0	0	240	0
<i>C. debilis</i>	28,000	0	0	0	0
<i>C. septentrionalis</i>	6,000	0	0	0	0
<i>C. socialis</i>	128,800	0	0	1,560	0
<i>Porosira glacialis</i>	1,000	0	0	0	0
<i>Coscinosira oestrupi</i>	9,800	0	0	240	0
<i>Thalassiosira gravida</i>	25,000	0	80	600	0
<i>T. nordenskjöldi</i>	20,600	520	0	0	0
<i>T. rotula</i>	25,200	0	0	0	0
<i>T. bioculata</i>	3,000	0	0	0	0
<i>Tropidoneis antarctica</i>	400	0	0	200	0
<i>Nitzschia</i> sp.	0	40	0	0	0
<i>Coccolithineae</i>	2,000	0	1,040	280	200
Dinoflagellates	1,120	1,860	1,240	0	280
Ciliata	0	160	120	80	120

Table 23, St. 40, Baffin, June 8, 1963, Lat. 65°06.2'N; Long. 53°W

Depth (metres)	0	10	20	30	50
Temperature (°C)	1.8	.9	1.5	1.2	1.0
Salinity (‰)	33.65	33.63	33.63	33.63	33.64
Phosphate (µg at/l)	.27	.23	.27	.29	.34
Nitrate (")	.04	.06	.06	.05	.06
Nitrite (")	Trc	Trc	Trc	Trc	Trc
Silicate (")	5.0	4.0	4.0	2.0	2.0
Oxygen (ml/l)	8.14	8.16	8.01	8.23	8.28
Oxygen (% sat.)	107.7	105.3	104.8	107.0	107.0
Number of ml examined	25	25	25	25	25
Chaetoceros diadema	0	40	0	0	0
Tropidoneis antarctica	0	0	0	80	0
Gyrodinium groenlandicum	40	520	240	120	0
G. spirale	280	520	40	80	0
G. sp.	600	0	160	320	0
Gymnodinium sp.	0	400	80	0	0
Peridinium grani	0	0	0	40	0
Exuviaella baltica	40	0	40	40	0
Ciliata	80	40	80	80	80

Table 24, St. 34, Baffin, June 7, 1963, Lat. 65°06'N; Long. 56°30'W

Depth (metres)	0	10	20	30	50
Temperature (°C)	1.2	.9	.9	1.1	.8
Salinity (‰)	33.69	33.73	33.79	33.83	33.84
Phosphate (µg at/l)	.27	.13	.14	.15	.31
Nitrate ("")	-	-	-	-	-
Nitrite ("")	-	-	-	-	-
Silicate ("")	3.0	3.0	3.0	2.0	2.0
Oxygen (ml/l)	8.51	8.38	8.49	8.45	8.35
Oxygen (% sat.)	110.7	108.3	109.7	109.9	107.6
Number of ml examined	25	25	25	25	25
Thalassiosira gravida	0	0	80	0	600
T. rotula	0	0	0	0	600
Gymnodinium sp.	0	40	0	40	120
Peridinium sp.	40	40	0	0	0
Pontosphaera grani	80	0	240	0	40
Unidentified flagellates	0	40	0	0	0
Ciliata	120	240	0	0	0

Table 25, St. 33, Baffin, June 7, 1963, Lat. 65°05.5'N; Long. 57°45'W

	0	10	20	30	50
Depth (metres)					
Temperature (°C)	-0.6	-0.9	-0.8	-1.4	-0.7
Salinity (‰)	33.07	33.12	33.27	33.30	33.60
Phosphate (µg at/l)	Trc	Trc	Trc	Trc	.18
Nitrate (")	-	-	Trc	Trc	.13
Nitrite (")	Trc	Trc	Trc	Trc	1.5
Silicate (")	3.0	4.0	2.0	2.0	2.0
Oxygen (ml/l)	-	-	-	-	-
Oxygen (% sat.)	-	-	-	-	-
Number of ml examined	5, 25	5, 25	5, 25	5, 25	25
<i>Chaetoceros curvisetus</i>	760	3,320	360	200	360
<i>C.</i> <i>concavicornis</i>	400	80	0	0	0
<i>C.</i> <i>furcellatus</i>	5,160	15,160	2,120	0	7,920
<i>C.</i> <i>socialis</i>	5,000	26,320	0	10,520	30,520
<i>C.</i> <i>laciniatus</i>	0	1,440	0	0	0
<i>C.</i> <i>decipiens</i>	0	400	0	0	0
<i>C.</i> <i>diadema</i>	0	0	0	0	1,960
<i>Bacteriosira fragilis</i>	520	0	0	0	0
<i>Coscinosira polychorda</i>	680	2,360v	680	520	0
<i>Achnantes taeniata</i>	0	4,060	0	0	0
<i>Fragillaria oceanica</i>	3,440	0	0	1,400	0
<i>Eucampia zodiacus</i>	320	320	0	0	0
<i>Tropidoneis antarctica</i>	120	0	0	0	0
<i>Thalassiothrix frauenfeldti</i>	360	0	0	0	0
<i>Thalassiosira gravida</i>	3,960	1,560	440	1,560	8,240
<i>T.</i> <i>nordenskjöldi</i>	0	12,600	2,480	4,840	20,200
<i>T.</i> <i>rotula</i>	0	400	400	0	3,440
<i>T.</i> <i>bioculata</i>	0	80	2,120	0	0
<i>Exuviaella baltica</i>	80	80	0	0	0
<i>Gyrodinium spirale</i>	280	80	680	40	0
<i>G.</i> <i>rubrum</i>	0	80	0	40	0
<i>Oxytoxum nanum</i>	0	40	0	80	0
<i>Gymnodinium sp.</i>	0	0	280	0	1,280
<i>Coccolithineae</i>	520	0	0	280	0
<i>Trochiscia ogaki*</i>	120	0	0	0	0
<i>Ciliata</i>	360	280	0	200	120

* Indicates a species whose description is not yet completed.

Table 26, St. BT-54, Baffin, June 8, 1963, Lat. 65°20'N; Long 54°40'W

Depth (metres)	0	10	20	30	50
Temperature (°C)					
Salinity (‰)					
Phosphate (µg at/l)					
Nitrate (")					
Nitrite (")					
Silicate (")					
Oxygen (ml/l)					
Oxygen (% sat.)					
Number of ml examined	25	25	25	25	25
Tropidoneis antarctica	0	0	0	120	0
Gyrodinium groenlandicum	40	400	40	240	120
G. rubrum	480	80	0	40	40
G. sp.	0	1,200	640	0	680
G. spirale	200	80	200	0	160
Peridinium depressum	40	40	0	0	0
P. globulus	0	0	40	0	40
P. sp.	0	0	40	0	0
Ciliata	0	240	0	0	40
Laboea spiralis	840	40	0	0	0
L. delicatissima	240	400	0	0	120
L. conica	80	160	0	40	0
Mezodinium rubrum	0	80	0	0	0
Cyttarocylis denticulata	0	80	0	0	0
Lohmanniella oviformis	0	0	40	0	0
Ptychocylis obtusa	0	40	0	0	0

Table 27, St. 45, Baffin, June 10, 1963, Lat. 66°33.5'N; Long. 56°38'W

Depth (metres)	0	10	20	30	50
Temperature (°C)	.7	.7	.6	.6	.6
Salinity (‰)	33.75	33.73	33.73	33.72	33.73
Phosphate (µg at/l)	Trc	Trc	Trc	Trc	Trc
Nitrate (")	.03	Trc	.03	Trc	Trc
Nitrite (")	Trc	Trc	Trc	Trc	Trc
Silicate (")	4.0	4.0	4.0	2.0	2.0
Oxygen (ml/l)	7.02	7.02	6.99	7.67	6.92
Oxygen (% sat.)	90.3	90.2	89.5	98.2	88.6
Number of ml examined	25	25	25	25	25
<i>Chaetoceros concavicornis</i>	400	40	80	240	0
<i>C.</i> <i>furcellatus</i>	5,200	7,640	7,960	0	1,520
<i>C.</i> <i>teres</i>	200	0	0	0	0
<i>C.</i> <i>curvisetus</i>	760	1,160	6,320	8,640	0
<i>C.</i> <i>decipiens</i>	0	0	0	80	0
<i>C.</i> <i>socialis</i>	15,560	0	22,520	80	0
<i>C.</i> <i>borealis</i>	0	520	200	520	680
<i>C.</i> <i>diadema</i>	0	480	0	0	0
<i>Fragillaria oceanica</i>	6,720	0	0	0	2,640
<i>Leptocylindrus dancus</i>	0	0	640	0	0
<i>Nitzschia seriata</i>	0	1,920	400	0	0
<i>Rhizosolenia alata</i>	0	0	80	0	0
<i>Tropidoneis antarctica</i>	80	400	480	0	0
<i>Thalassiosira nordenskjöldi</i>	8,720	5,280	8,160	28,480	5,920
<i>T.</i> <i>gravida</i>	2,920	3,440	5,840	9,960	16,040
<i>Coscinosira polychorda</i>	200	120	920	360	840
<i>C.</i> <i>oestrupi</i>	640	920	8,400	760	0
<i>Bacteriosira fragilis</i>	0	0	0	360	0
<i>Gyrodinium groenlandicum</i>	480	0	80	0	40
<i>G.</i> <i>spirale</i>	0	0	0	40	0
<i>G.</i> <i>rubrum</i>	40	280	480	40	280
<i>G.</i> sp. (holozoic)	680	480	800	600	1,000
<i>Gymnodinium</i> sp.	0	1,240	19,600	1,200	480
<i>Paulsenella chatoceratis</i>	0	80	0	0	0
<i>Oxytoxum</i> sp.	120	0	0	0	40
<i>Peridinium minusculum</i>	0	40	0	0	0
<i>P.</i> <i>grani</i>	80	0	0	80	0
<i>Phaeocystis pouchetti</i>	0	1,160	400	0	0
<i>Salpingoeca natans</i>	0	0	200	480	0
<i>Bodo</i> sp.	40	0	0	0	0
<i>Corbicula socialis</i>	0	14,480	0	0	0
<i>Ciliata</i>	680	80	280	280	200
<i>Ptychocylis arctica</i>	40	0	40	0	0
<i>Cyttarocylis denticulata</i>	0	0	0	0	80
<i>Nauplii</i>	0	40	80	0	0

Table 28, St. BT-65, Baffin, June 9, 1963, Lat. 66°38'N; Long. 54°16.5'W

	0	10	20	30	50
Number of ml examined	25	25	25	25	25
Chaetoceros concavicornis	0	0	0	400	0
C. furcellatus	0	0	0	1,520	0
Nitzschia closterium	40	0	0	0	0
Thalassiosira sp.	0	0	80	800	0
Tropidoneis antarctica	0	120	40	0	0
Gyrodinium groenlandicum	40	200	0	0	0
G. rubrum	0	120	0	320	120
G. spirale	0	80	200	0	0
G. sp.	1,440	1,120	880	0	240
Gymnodinium sp.	920	840	880	680	240
Oxytoxum nanum	40	80	40	160	0
O. pseutessellatum*	0	40	0	0	0
Peridinium pallidum	0	0	0	40	40
P. minusculum	0	0	40	0	40
Cladopyxis claytoni	80	0	200	0	0
Ciliata	420	280	240	400	280

* Indicates a species whose description is not yet completed.