CENTRAL FILE

SUMMARY OF MEASUREMENTS OF PRIMARY PRODUCTIVITY MADE DURING MARMAP SURVEYS (BELOGORSK 79-01, 79-03, 79-05)

by

J. E. O'Reilly[1] and D. A. Busch[2]

U. S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Northeast Fisheries Center

[1]Division of Environmental Assessment
Sandy Hook Laboratory
Highlands, New Jersey 07732 USA

[2]Marine Ecosystem Division
Narragansett Laboratory
Narragansett, Rhode Island 02882 USA

Report No. SHL 80-15 (August 1980)

Introduction

Phytoplankton primary productivity was measured during three cooperative U. S.-U. S. S. R. MARMAP surveys of coastal/shelf water between Cape Hatteras and Nova Scotia aboard the RV Belogorsk (79-01, 79-03, 79-05).

Primary productivity was measured at 40 stations during the BE-79-01 survey, at 33 stations during BE-79-03, and at 11 stations during the BE-79-05 survey. The locations of stations occupied and the cruise tracks for these surveys are given in Figures 1, 2, 3, and 4.

Measurements of phytoplankton productivity were made in conjunction with measurements of chlorophyll a (Evans and O'Reilly, 1980), nutrients (Waldhauer et al., 1980), temperature, salinity, dissolved oxygen, water transparency (submarine quantum photometer), daily photosynthetically active radiation, and collections of zooplankton, ichthyoplankton, and phytoplankton.

Methods

Netphytoplankton carbon production, nannophytoplankton production, and the release of dissolved organic matter was measured according to the method of O'Reilly and Thomas (1979). A submersible quantum photometer was used to determine the vertical extinction of photosynthetically active radiation (400-700 nanometers) as well as sampling depths corresponding to 100, 69, 46, 25, 10, 3, and 1% of subsurface light intensity.

Duplicate "light bottles" and one "dark bottle" were filled with seawater from each sampling depth. Zooplankton larger than 300 microns were removed from productivity bottles during filling. Approximately 15 uCi-^{14}C were added to each productivity sample. Alkalinity and pH were measured at surface and at the 10% light-depth.

Measurements of primary productivity were usually made at two stations each day of the cruise. Incubations lasted five hours with morning stations ending and afternoon stations commencing at approximately local solar noon.

Following incubation under ambient light, the organic ^{14}C activity in productivity samples was filter-fractionated into netplankton (>20 microns), nannoplankton (<20 microns), and dissolved organic matter (<0.45 microns) released by phytoplankton. Rates of production for each size fraction ($mgC/m^3/d$) and daily integral rates of production ($mgC/m^2/d$) were calculated using our computer program PP1074 (O'Reilly and Thomas, 1979).

Results

Average daily rates ($mgC/m^3/d$) of netplankton productivity, nannoplankton productivity, release of dissolved organic matter (DOM), and total productivity for these three surveys are given according to date, station, sampling depth, and percent light intensity in Tables 1, 2, and 3 (79-01, 79-03, 79-05, respectively). The percent of total carbon production by nannoplankton, netplankton, and percent of released DOM is also given in these tables. Tables 1, 2, and 3 represent the output ("Section D") from our computer program PP1074 (O'Reilly and Thomas, 1979). Vertical profiles of productivity versus depth (percent light intensity) can be derived from these tables.

Integral daily rates ($mgC/m^2/d$) of netplankton and nannoplankton production, daily rates of phytoplankton release of dissolved organic matter, total daily productivity, daily photosynthetically active radiation, and euphotic depth are given according to the station number and date in Tables 4, 5, and 6.

The distribution of total daily production, euphotic depth, percent of particulate production by nannoplankton, and euphotic percent extracellular release is depicted in Figures 5 through 12.

In August during the Belogorsk 79-01 survey, intergral rates of total daily production ($gC/m^2/d$) were relatively high throughout the area surveyed, ranging between 0.91 and 5.04 $gC/m^2/d$. At seventeen of the forty stations surveyed, production exceeded 2 grams of carbon/m^2/day (Figure 5). The highest values were observed off the coasts of New Jersey, Delaware, and Virginia. Netphytoplankton were the dominant photosynthesizers at these relatively more productive stations. Euphotic percent extracellular release of carbon was relatively low (avg. = 7%) throughout the area of the shelf surveyed in August (Figure 6).

During both parts of the September Belogorsk 79-03 cruise, total daily productivity was comparable to values measured in the same areas surveyed in August (Figures 7 and 9). However, in September nannophytoplankton were the dominant producers during both legs of the BE-79-03 survey of New York Bight-Georges Bank area.

During the Belogorsk 79-05 November survey of Georges Bank, southern portion of the Gulf of Maine, and northern New York Bight, total daily primary productivity ranged between 0.7 and 2.02 $gC/m^2/d$ (Figure 11).

Acknowledgments

We wish to thank Igor Krasovsky, Ralph Bruno, and Michael Hurd for their assistance with shipboard measurements of primary productivity.

References

Evans, C. and J. E. O'Reilly. 1980. Report on chlorophyll measurements made between June 1979-June 1980 during surveys AL-79-06, BE-79-01, BE-79-03, AL-79-11, BE-79-05, EV-80-01, EV-80-02 and DE-80-03/EV-80-04. Sandy Hook Laboratory Report No. 80-14 (August 1980).

O'Reilly, J. E. and J. P. Thomas. 1979. A manual for the measurement of total daily primary productivity on MARMAP and Ocean Pulse cruises using ^{14}C simulated *in situ* sunlight incubation. Sandy Hook Laboratory Report No. 79-06 (February 1979).

Waldhauer, R., A. Matte and J. E. O'Reilly. 1980. Summary of ammonium-nitrogen measurements made during six cooperative U. S.-U. S. S. R. MARMAP surveys. Sandy Hook Laboratory Report No. 80-16 (August 1980).

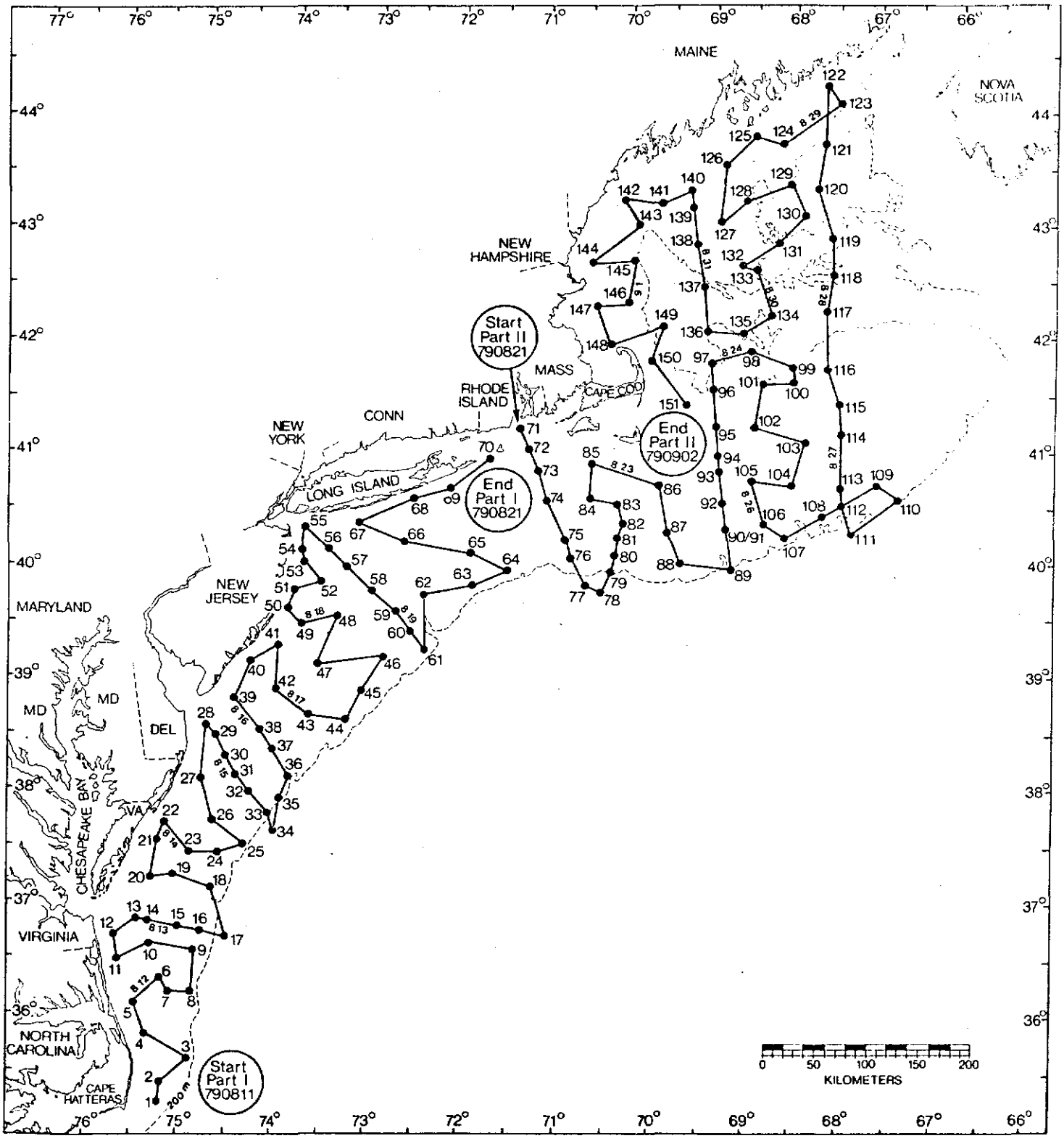


Figure 1. Cruise track and station locations sampled during Belogorsk 79-01,

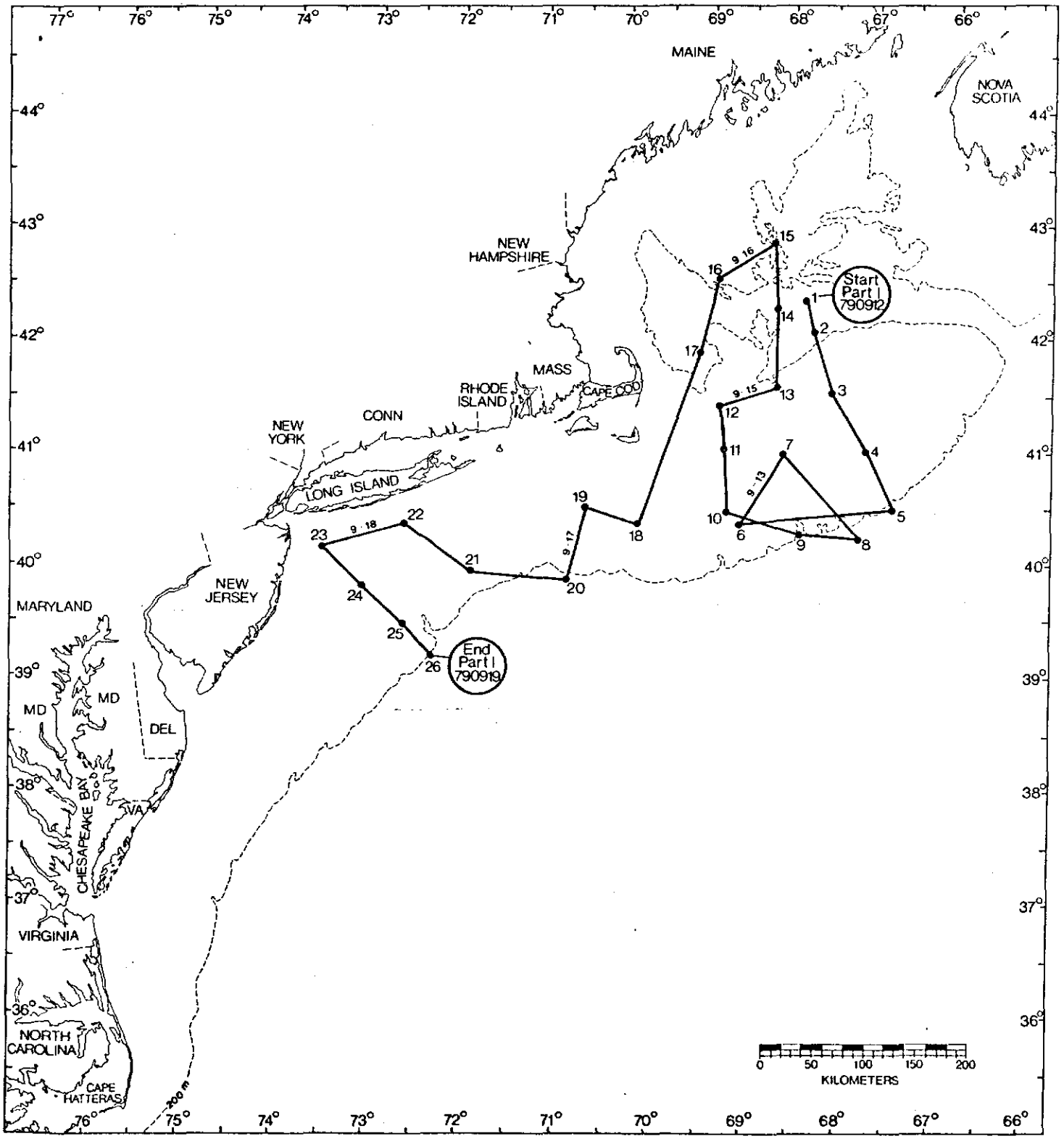


Figure 2. Cruise track and station locations sampled during Belogorsk 79-03, Part I, September 12-19, 1979.

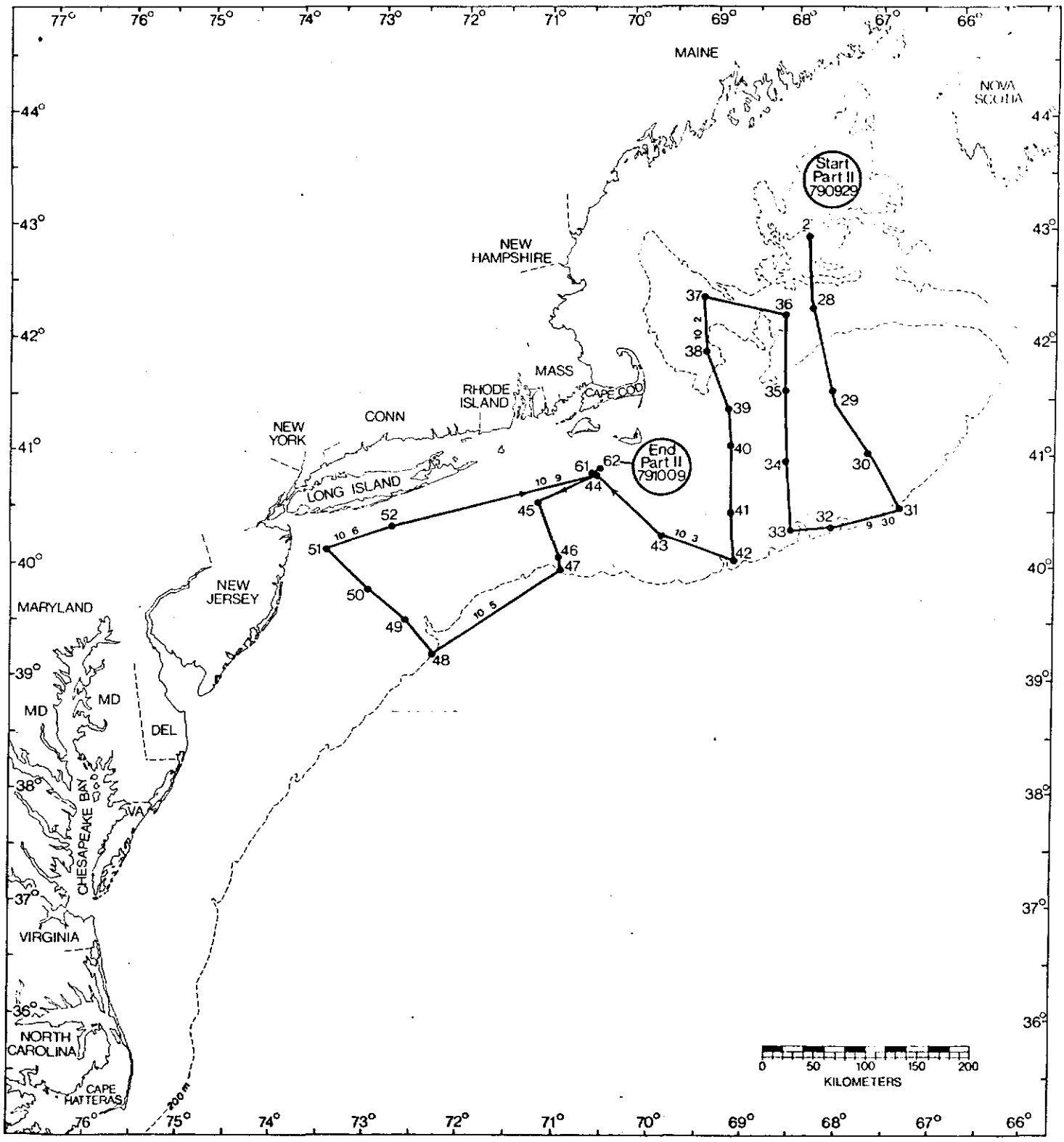


Figure 3. Cruise track and station locations sampled during Belogorsk 79-03, Part II, September 29-October 9, 1979.

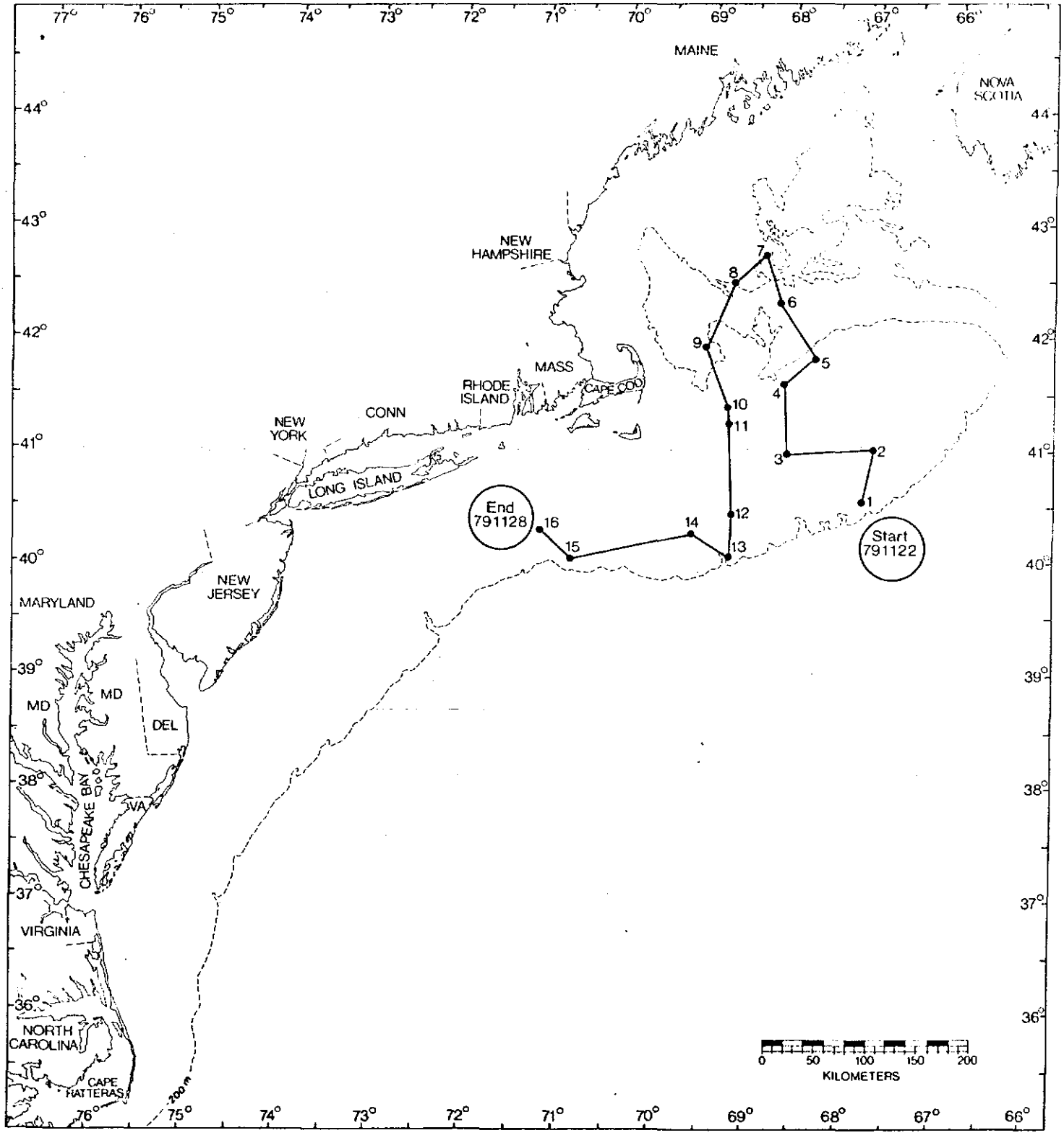


Figure 4. Cruise track and station locations sampled during Belogorsk 79-05, November 22-November 28, 1979.

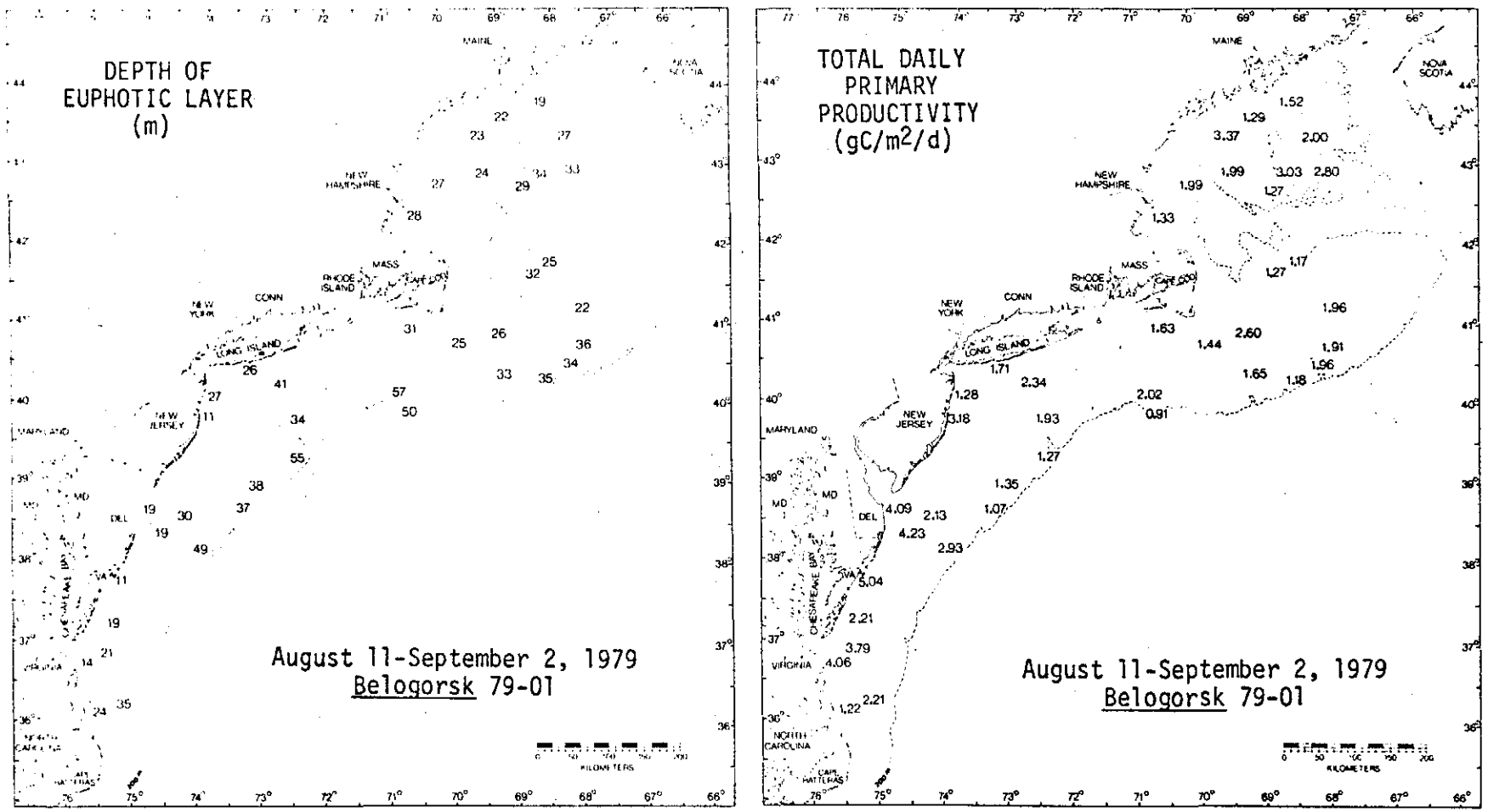
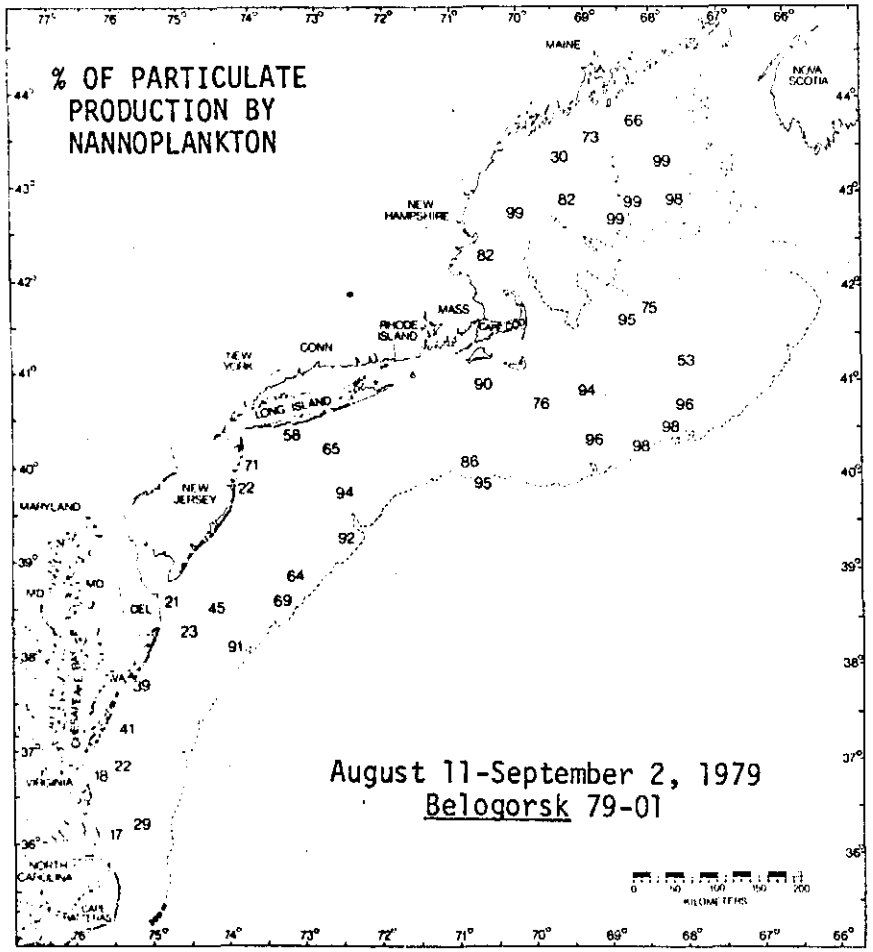

DEPTH OF
EUPHOTIC LAYER
(m)
August 11-September 2, 1979
Belogorsk 79-01
TOTAL DAILY
PRIMARY
PRODUCTIVITY
(gC/m2/d)
August 11-September 2, 1979
Belogorsk 79-01
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CAPE COD
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
MD
DEL
VA
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
CHESAPEAKE BAY
KILOMETERS

Figure 5.


% OF PARTICULATE PRODUCTION BY NANNOPLANKTON
August 11-September 2, 1979
Belogorsk 79-01
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
DEL
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
KILOMETERS

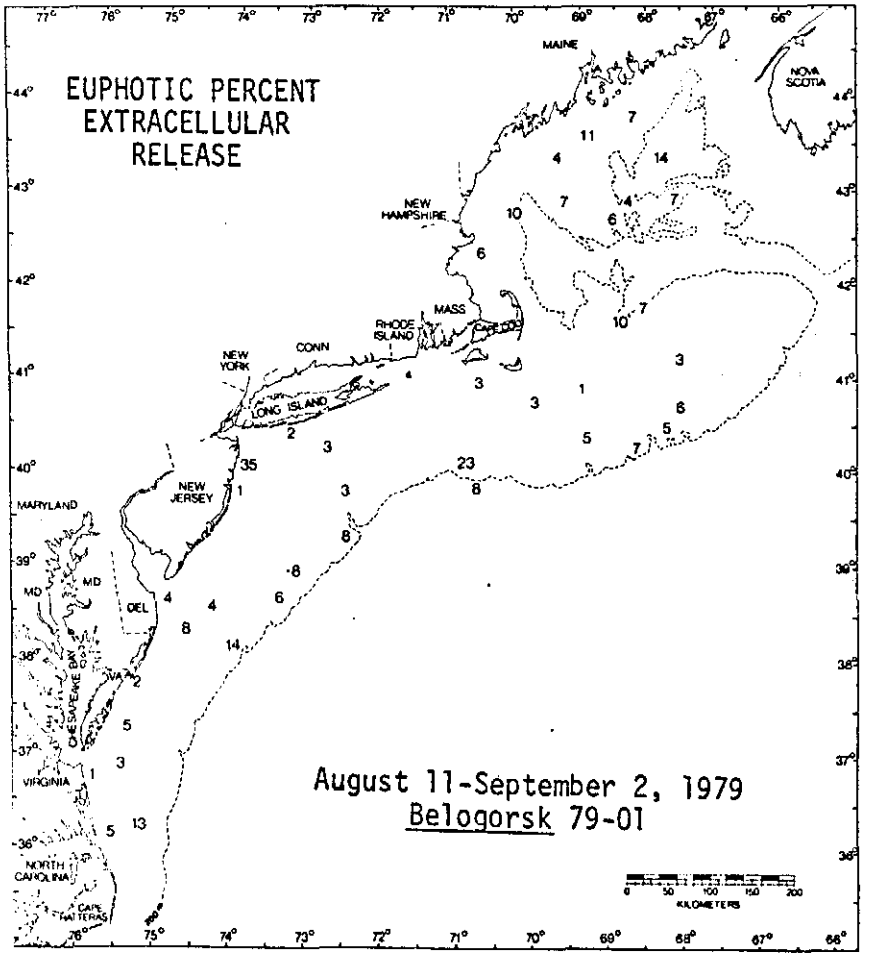
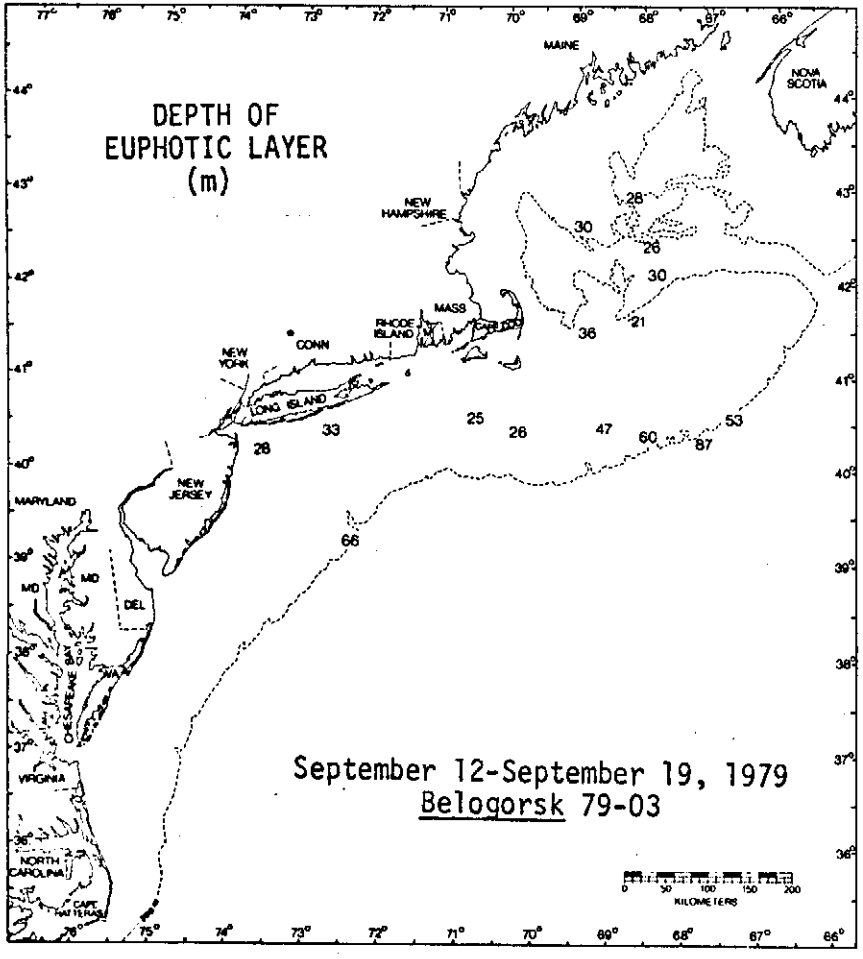

EUPHOTIC PERCENT EXTRACELLULAR RELEASE
August 11-September 2, 1979
Belogorsk 79-01
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
DEL
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
KILOMETERS

Figure 6.


DEPTH OF
EUPHOTIC LAYER
(m)
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
DEL
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
CHESAPEAKE BAY
30
28
26
30
36
21
33
28
25
26
47
60
87
53
66
September 12-September 19, 1979
Belogorsk 79-03
KILOMETERS

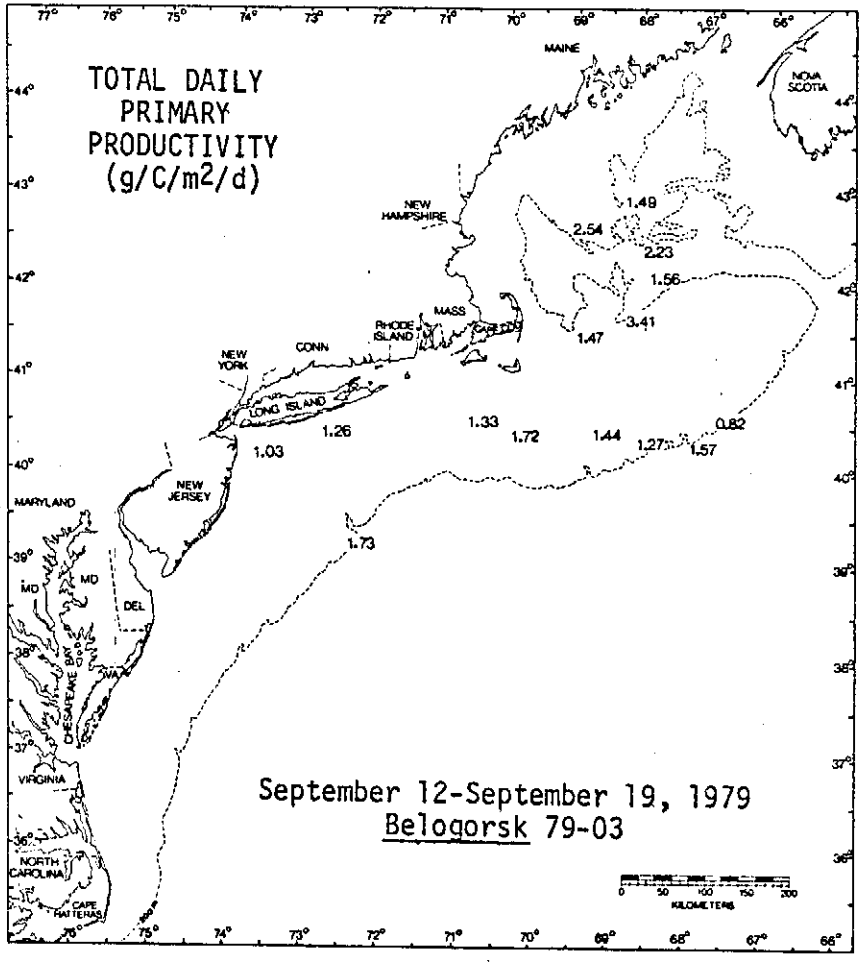
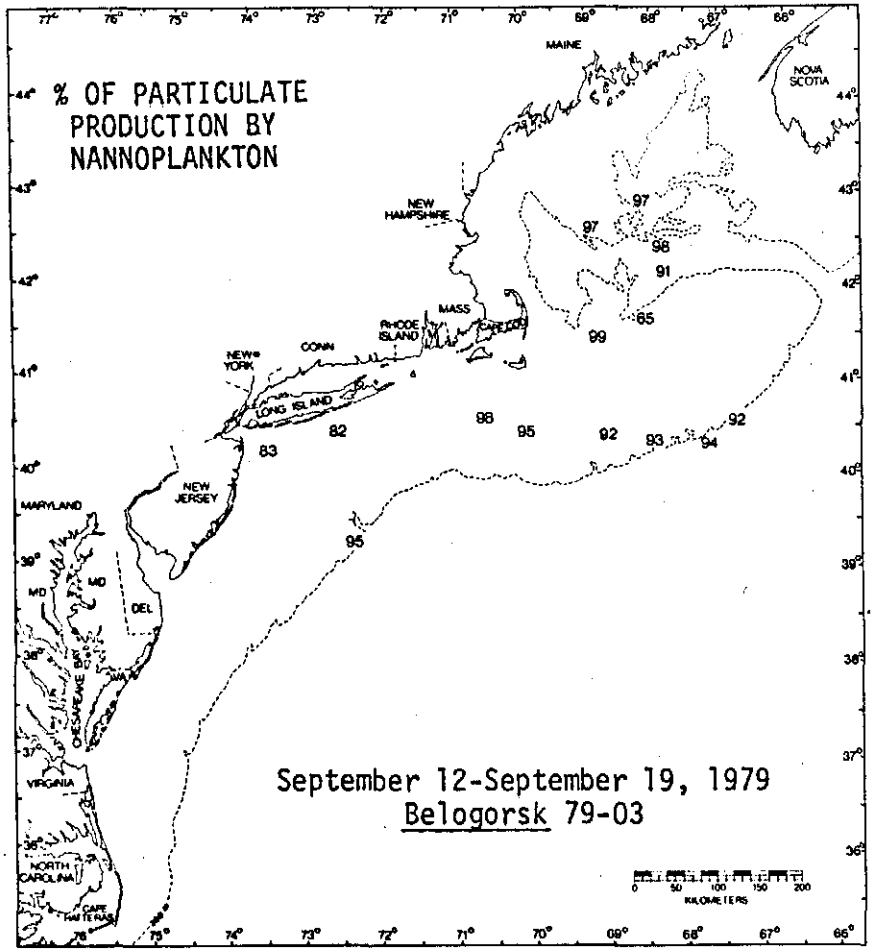

TOTAL DAILY
PRIMARY
PRODUCTIVITY
(g/C/m2/d)
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
DEL
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
CHESAPEAKE BAY
1.49
2.54
2.23
1.56
3.41
1.47
1.03
1.26
1.33
1.72
1.44
1.27
0.82
1.57
1.73
September 12-September 19, 1979
Belogorsk 79-03
KILOMETERS

Figure 7.


% OF PARTICULATE PRODUCTION BY NANNOPLANKTON
September 12-September 19, 1979
Belogorsk 79-03
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
MD
DEL
CHESAPEAKE BAY
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
KILOMETERS

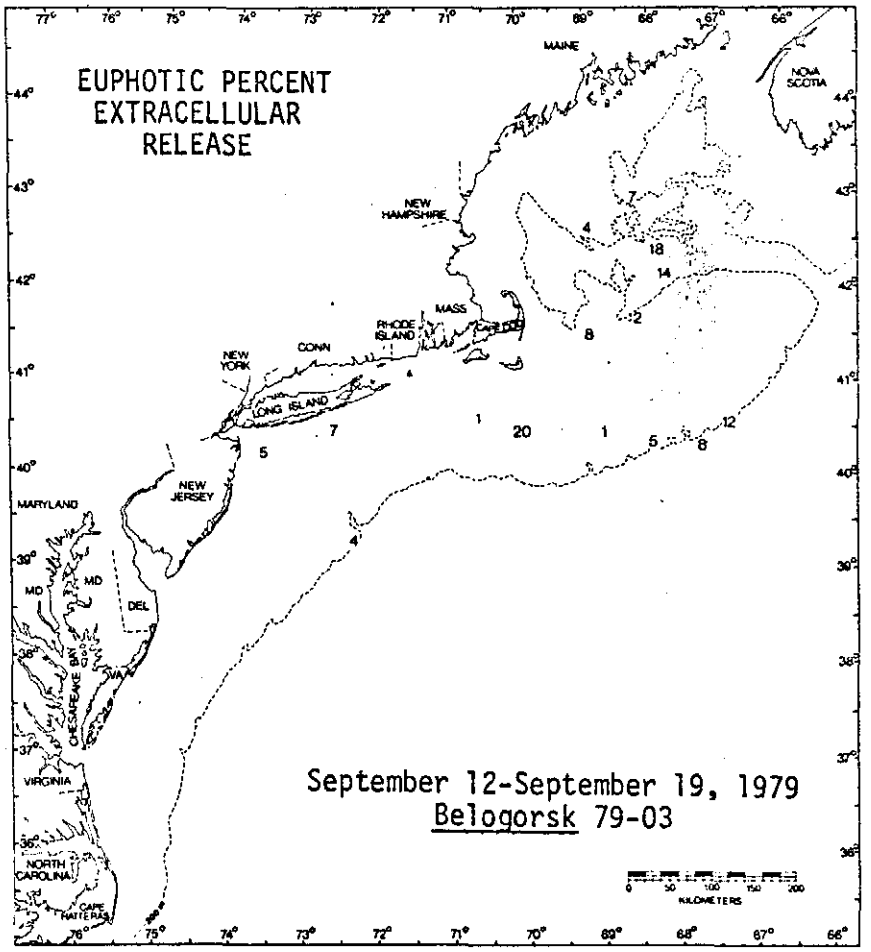
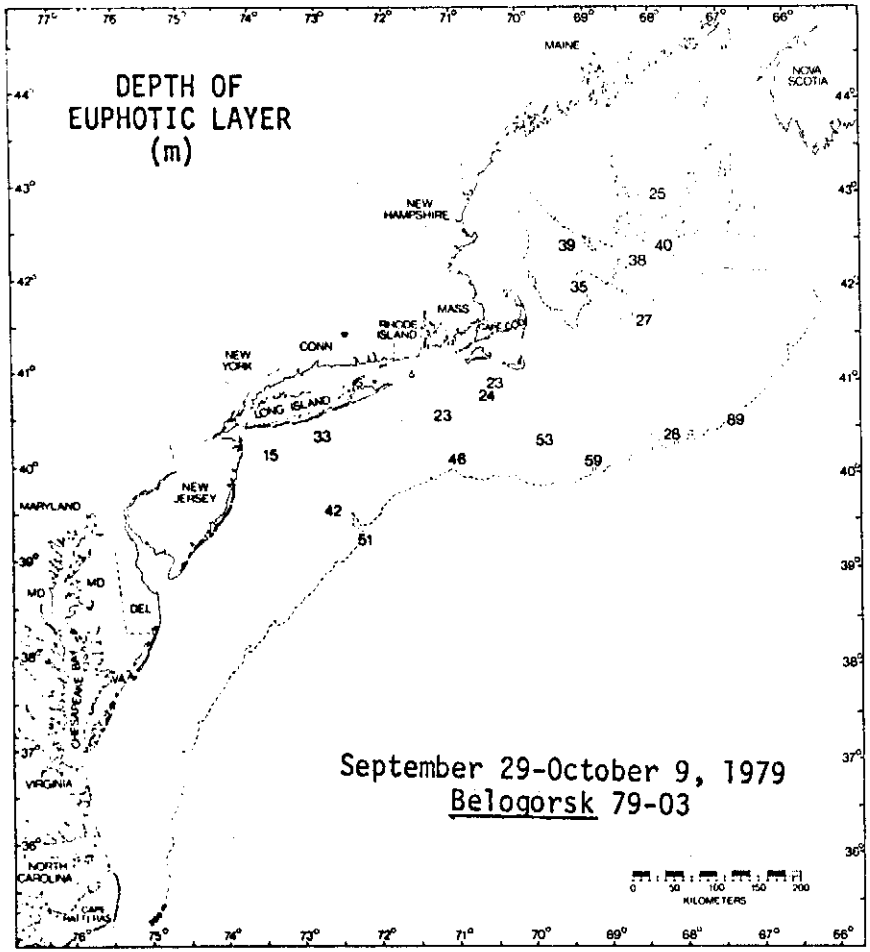

EUPHOTIC PERCENT EXTRACELLULAR RELEASE
September 12-September 19, 1979
Belogorsk 79-03
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
MD
DEL
CHESAPEAKE BAY
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
KILOMETERS

Figure 8.


DEPTH OF
EUPHOTIC LAYER
(m)
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
MD
DEL
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
25
39
40
38
35
27
23
24
23
33
15
46
53
59
28
89
42
51
September 29-October 9, 1979
Belogorsk 79-03
KILOMETERS

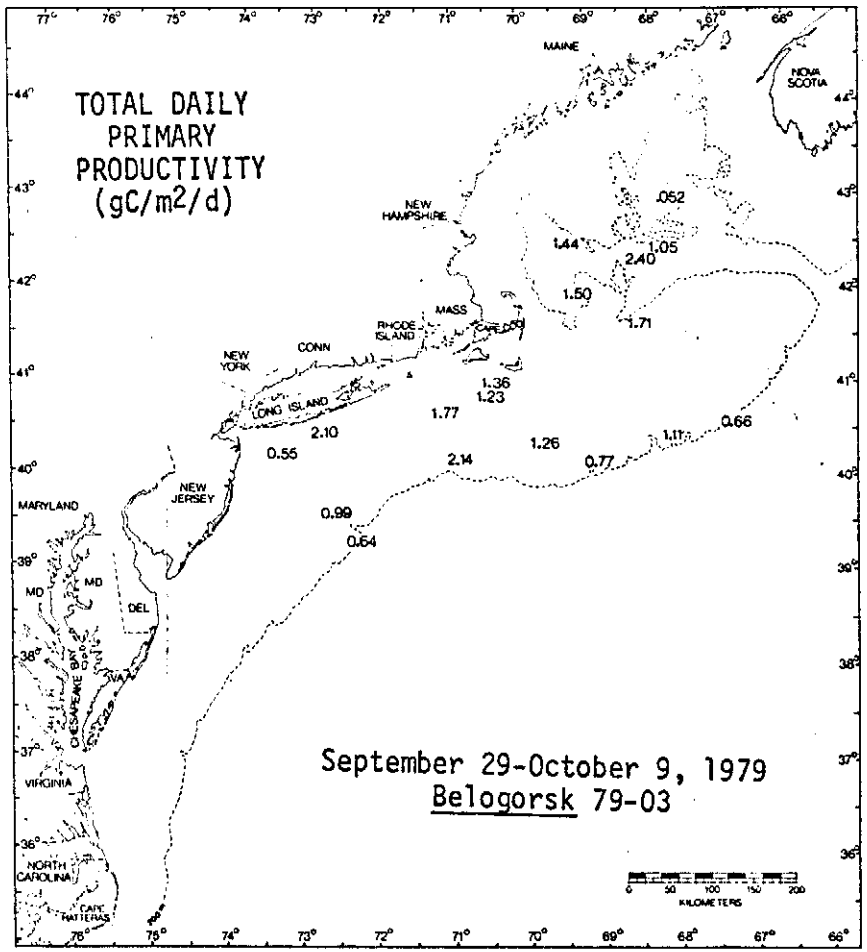
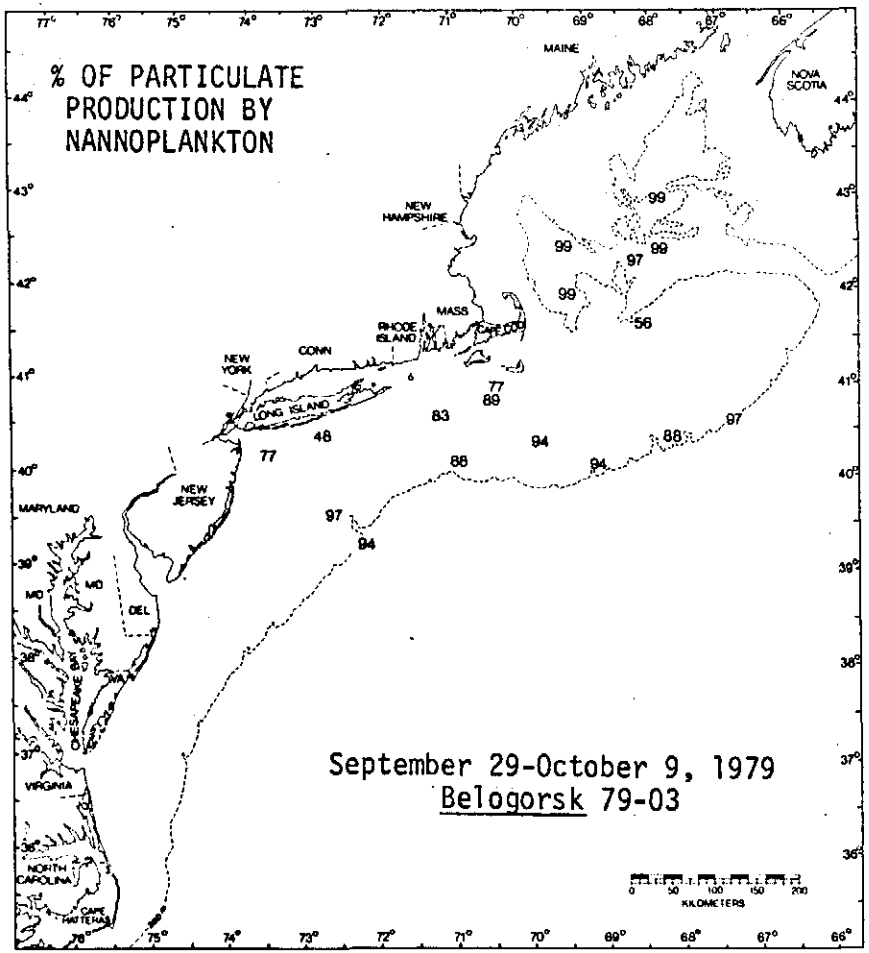

TOTAL DAILY
PRIMARY
PRODUCTIVITY
(gC/m2/d)
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
MD
DEL
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
.052
1.44
1.05
2.40
1.50
1.71
1.36
1.23
1.77
2.10
0.55
2.14
1.26
0.77
0.66
0.99
0.64
September 29-October 9, 1979
Belogorsk 79-03
KILOMETERS

Figure 9.


% OF PARTICULATE PRODUCTION BY NANNOPLANKTON
September 29-October 9, 1979
Belogorsk 79-03
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
DEL
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
CHESAPEAKE BAY
KILOMETERS

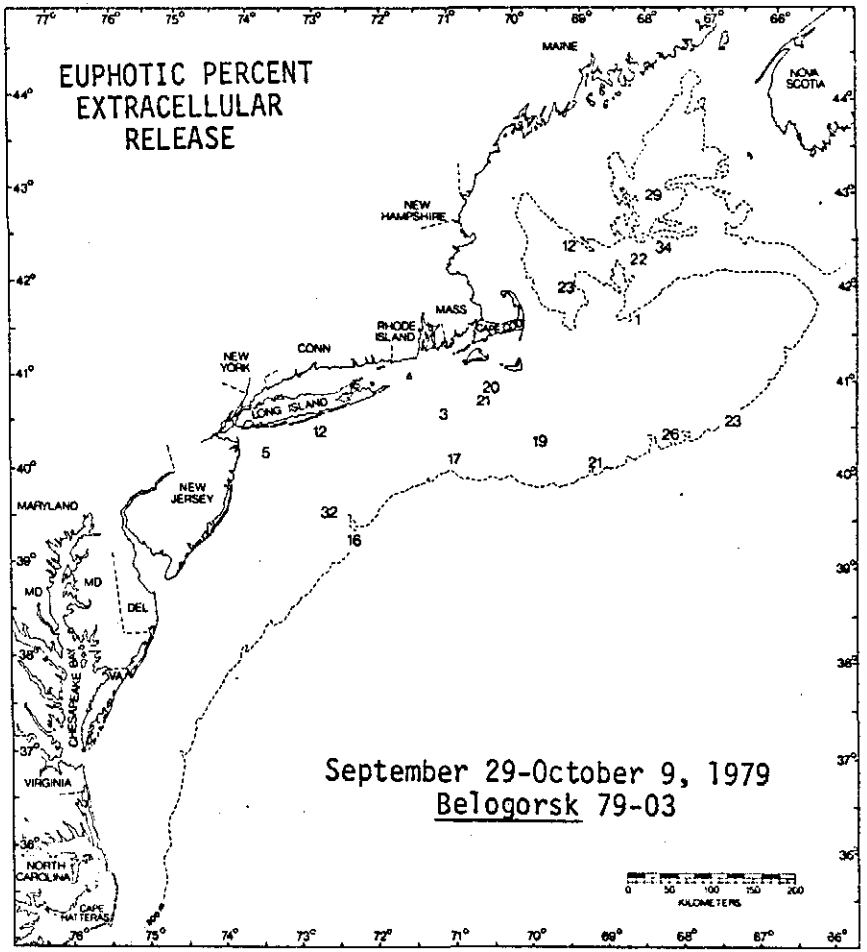
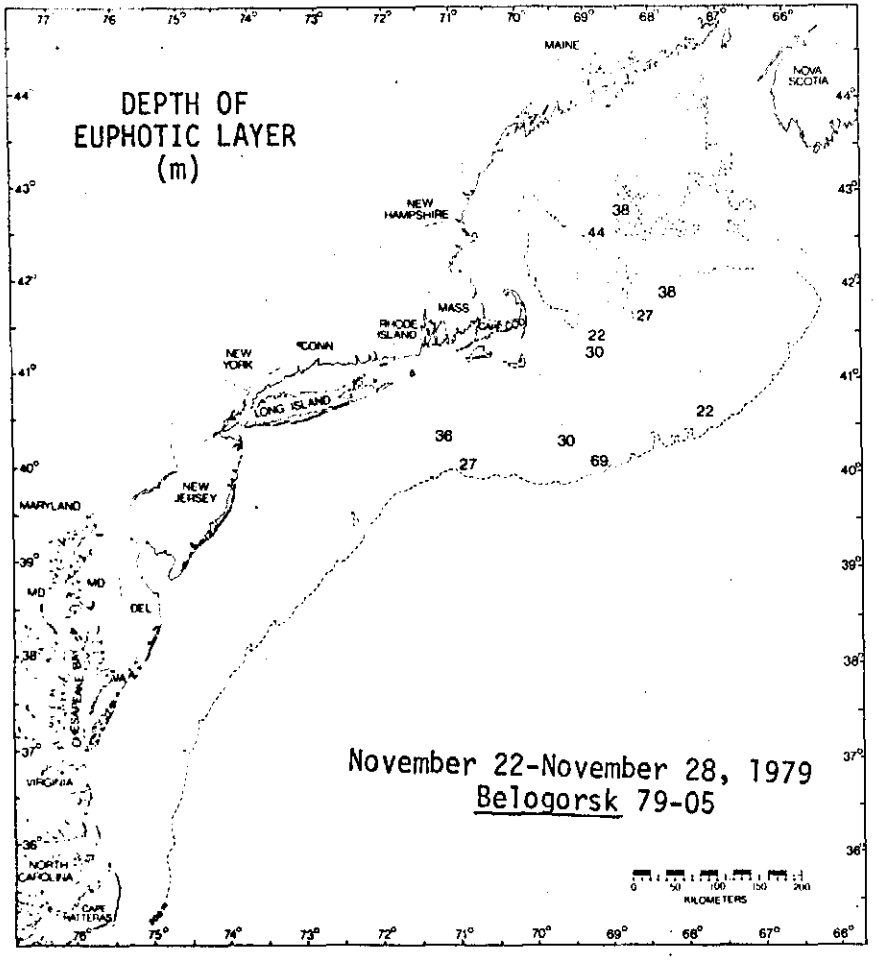

EUPHOTIC PERCENT EXTRACELLULAR RELEASE
September 29-October 9, 1979
Belogorsk 79-03
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
DEL
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
CHESAPEAKE BAY
KILOMETERS

Figure 10.


DEPTH OF
EUPHOTIC LAYER
(m)
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
MD
DEL
CHESAPEAKE BAY
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
38
44
38
27
22
30
22
36
30
27
69
November 22-November 28, 1979
Belogorsk 79-05
KILOMETERS

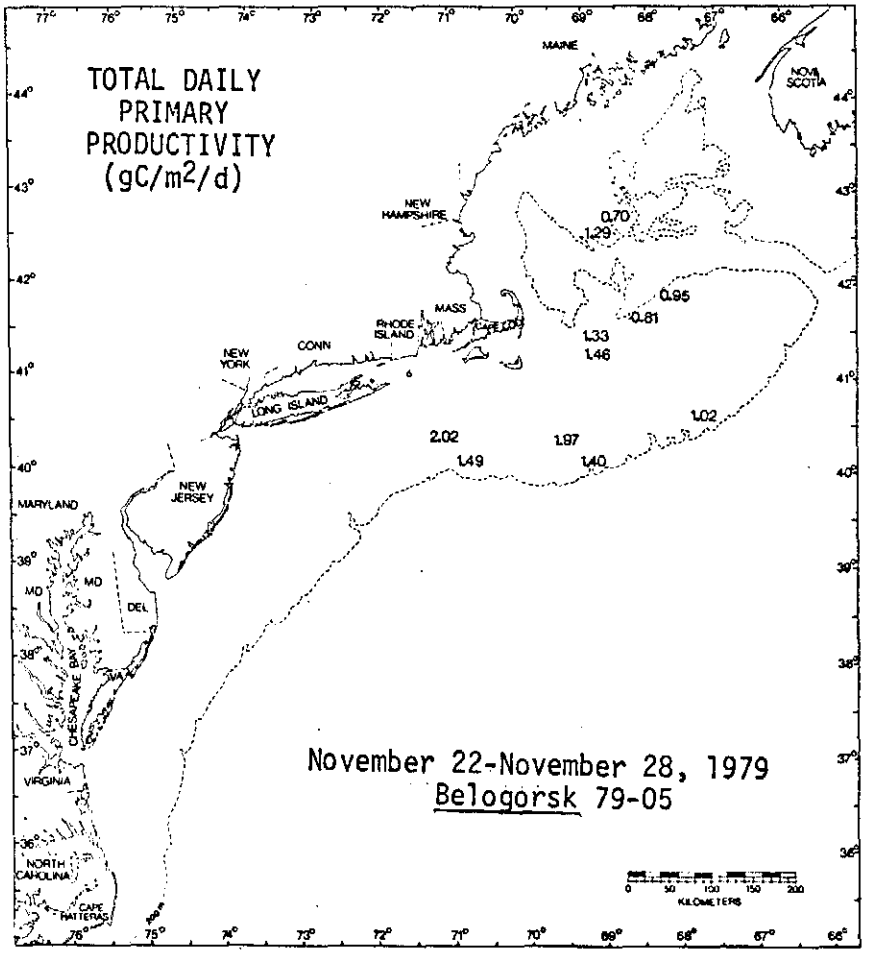
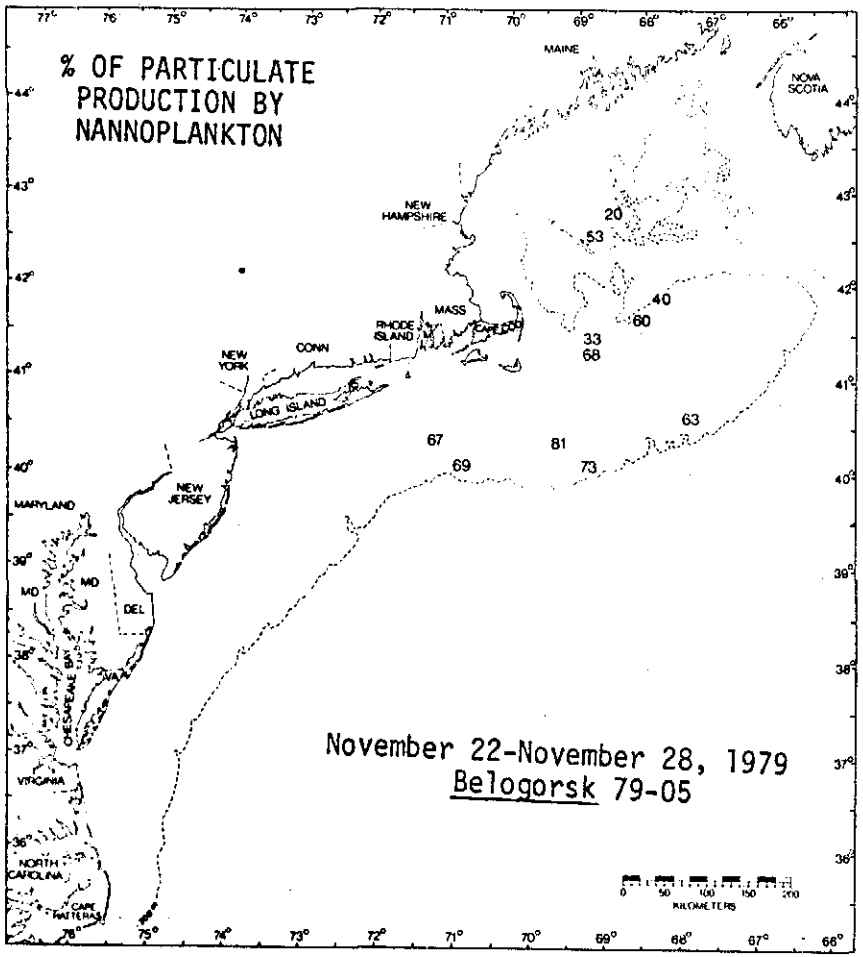

TOTAL DAILY
PRIMARY
PRODUCTIVITY
(gC/m2/d)
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
MD
DEL
CHESAPEAKE BAY
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
0.70
1.29
0.95
0.81
1.33
1.46
1.02
2.02
1.97
1.49
1.40
November 22-November 28, 1979
Belogorsk 79-05
KILOMETERS

Figure 11.


% OF PARTICULATE
PRODUCTION BY
NANNOPLANKTON
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
MD
DEL
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
20
53
40
60
33
68
67
69
81
73
63
November 22-November 28, 1979
Belogorsk 79-05
KILOMETERS

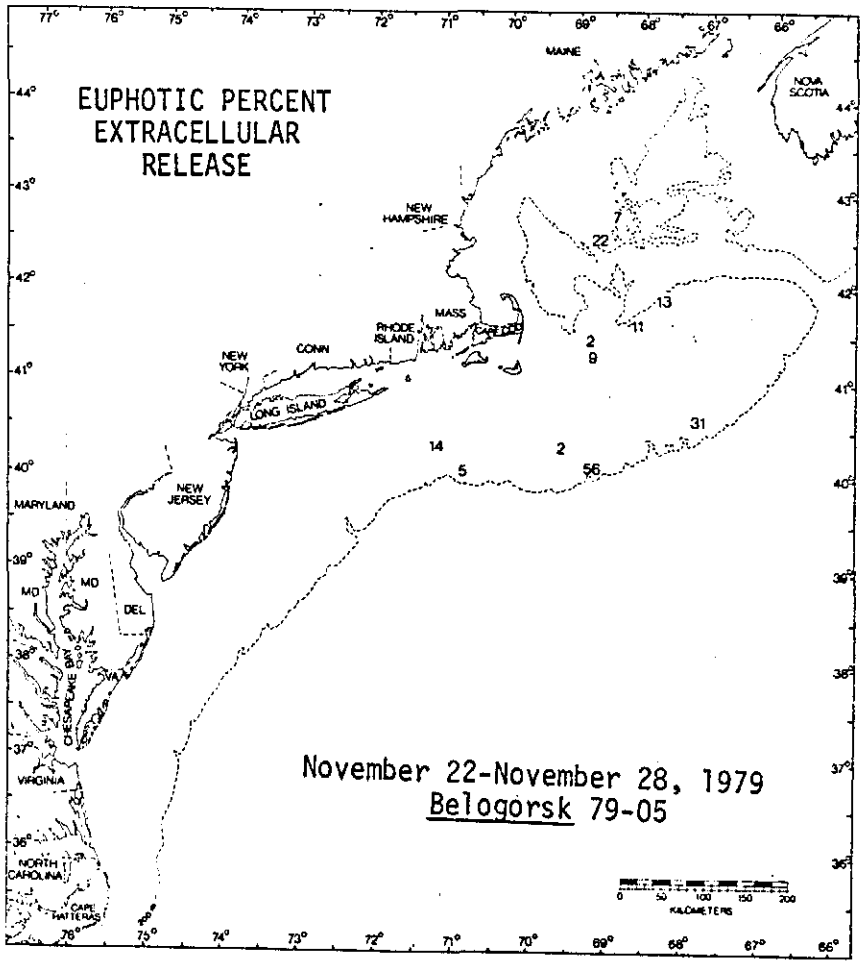

EUPHOTIC PERCENT
EXTRACELLULAR
RELEASE
MAINE
NOVA SCOTIA
NEW HAMPSHIRE
MASS
RHODE ISLAND
CONN
NEW YORK
LONG ISLAND
NEW JERSEY
MARYLAND
MD
DEL
VIRGINIA
NORTH CAROLINA
CAPE HATTERAS
22
13
11
2
9
14
5
2
56
31
November 22-November 28, 1979
Belogorsk 79-05
KILOMETERS

Figure 12.

Table 1. Rates of primary productivity ($mgC/m^3/d$) by station, depth, and size-fraction, Belogorsk 79-01.

			NET	NAN OR PPP	DUM	TPP	SUP	% NET	% NAN OR PPP	% DUM	NAN/NET
7908120642	5	1AA1	46.30	7.81	0.68	0.0	54.79	84.50	14.25	1.24	0.17
7908120642	5	2BB1	69.96	11.94	0.46	0.0	82.36	84.94	14.50	0.56	0.17
7908120642	5	4CC1	67.45	15.03	3.35	0.0	85.83	78.59	17.51	3.90	0.22
7908120642	5	6DD1	56.22	19.42	4.51	0.0	80.15	70.14	24.23	5.63	0.35
7908120642	5	11EE1	48.10	7.35	3.26	0.0	58.71	81.93	12.52	5.55	0.15
7908120642	5	17FF1	25.15	3.41	2.06	0.0	30.62	82.14	11.14	6.73	0.14
7908120642	5	24GG1	7.04	1.33	0.60	0.0	8.97	78.48	14.83	6.69	0.19
7908121138	7	1AA1	108.57	36.63	16.01	0.0	161.21	67.35	22.72	9.93	0.34
7908121138	7	3BB1	113.92	32.03	19.86	0.0	165.81	68.71	19.32	11.98	0.28
7908121138	7	5CC1	91.88	28.35	19.60	0.0	139.83	65.71	20.27	14.02	0.31
7908121138	7	10DD1	40.83	20.35	15.62	0.0	76.80	53.16	26.50	20.34	0.50
7908121138	7	21EE1	18.52	11.51	1.35	0.0	31.38	59.02	36.68	4.30	0.62
7908121138	7	26FF1	13.78	8.65	2.60	0.0	25.03	55.05	34.56	10.39	0.63
7908121138	7	35GG1	4.99	2.94	0.59	0.0	8.52	58.57	34.51	6.92	0.59
7908130652	12	1AA1	242.21	36.03	7.61	0.0	285.85	84.73	12.60	2.66	0.15
7908130652	12	1BB1	287.84	57.08	8.80	0.0	353.72	81.38	16.14	2.49	0.20
7908130652	12	2CC1	310.44	70.11	9.03	0.0	389.58	79.69	18.00	2.32	0.23
7908130652	12	6DD1	260.69	52.33	0.0	0.0	313.02	83.28	16.72	0.0	0.20
7908130652	12	10EE1	208.64	58.88	3.94	0.0	271.46	76.86	21.69	1.45	0.28
7908130652	12	14FF1	33.51	7.59	1.08	0.0	42.16	79.45	17.99	2.56	0.23
7908130652	12	14GG1	9.05	2.47	0.17	0.0	11.69	77.42	21.13	1.45	0.27
7908131145	14	1AA1	77.60	30.44	0.47	0.0	108.71	71.57	28.00	0.43	0.39
7908131145	14	2BB1	156.76	25.64	3.64	0.0	186.24	84.17	13.77	2.06	0.16
7908131145	14	4CC1	174.66	54.27	9.73	0.0	238.66	73.18	22.74	4.08	0.31
7908131145	14	8DD1	162.70	67.52	11.77	0.0	241.99	67.23	27.90	4.86	0.41
7908131145	14	12EE1	195.21	50.04	3.93	0.0	249.18	78.34	20.08	1.58	0.26
7908131145	14	17FF1	74.39	12.12	1.72	0.0	88.23	84.31	13.74	1.95	0.16
7908131145	14	21GG1	20.41	2.90	0.0	0.0	23.31	87.56	12.44	0.0	0.14
7908140633	20	1AA1	68.49	36.54	4.23	0.0	109.26	62.69	33.44	3.87	0.53
7908140633	20	2BB1	95.26	45.64	9.11	0.0	150.01	63.50	30.42	6.07	0.48
7908140633	20	3CC1	104.96	80.05	12.60	0.0	197.61	53.11	40.51	6.38	0.76
7908140633	20	6DD1	93.54	82.49	17.07	0.0	193.10	48.44	42.72	8.84	0.88
7908140633	20	9EE1	63.66	48.34	2.97	0.0	114.97	55.37	42.05	2.58	0.76
7908140633	20	16FF1	34.86	16.66	1.30	0.0	52.82	66.00	31.54	2.46	0.48
7908140633	20	19GG1	9.43	5.51	0.34	0.0	15.28	61.71	36.06	2.23	0.58
7908141105	22	1AA1	322.52	113.54	9.73	0.0	445.79	72.35	25.47	2.18	0.35
7908141105	22	1BB1	534.44	195.69	15.64	0.0	745.77	71.66	26.24	2.10	0.37
7908141105	22	2CC1	601.16	339.25	16.39	0.0	956.80	62.83	35.46	1.71	0.56
7908141105	22	3DD1	472.25	346.78	26.80	0.0	845.83	55.83	41.00	3.17	0.73
7908141105	22	5EE1	295.15	217.64	7.61	0.0	520.40	56.72	41.82	1.46	0.74
7908141105	22	8FF1	63.56	71.10	2.63	0.0	137.29	46.30	51.79	1.92	1.12
7908141105	22	11GG1	26.32	16.52	0.63	0.0	43.47	60.55	38.00	1.45	0.63
7908150655	28	1AA1	136.11	25.83	4.98	0.0	168.92	81.76	15.29	2.95	0.19
7908150655	28	1BB1	294.08	66.89	16.59	0.0	377.56	77.89	17.72	4.39	0.23
7908150655	28	2CC1	402.89	82.71	17.51	0.0	503.11	80.08	16.44	3.48	0.21
7908150655	28	4DD1	363.40	100.80	31.11	0.0	495.31	73.37	20.35	6.28	0.28
7908150655	28	7EE1	230.55	66.04	6.98	0.0	305.57	75.45	22.27	2.28	0.30
7908150655	28	13FF1	47.74	12.92	1.93	0.0	62.59	76.27	20.64	3.08	0.27
7908150655	28	19GG1	10.07	3.13	0.43	0.0	13.63	73.88	22.96	3.15	0.31
7908151145	30	1AA2	203.70	39.25	15.28	0.0	258.23	78.88	15.20	5.92	0.19
7908151145	30	2BB1	288.95	65.86	14.57	0.0	369.38	78.23	17.83	3.94	0.23
7908151145	30	3CC1	351.44	104.49	62.41	0.0	518.34	67.80	20.16	12.04	0.30
7908151145	30	6DD1	307.39	91.12	47.00	0.0	445.51	69.00	20.45	10.55	0.30
7908151145	30	9EE1	150.69	53.13	6.40	0.0	212.22	71.01	25.04	3.96	0.35
7908151145	30	14FF1	23.86	8.74	0.51	0.0	33.11	72.06	26.40	1.54	0.37
7908151145	30	19GG1	13.38	6.43	0.31	0.0	20.12	66.50	31.96	1.54	0.48
7908160642	36	1AA2	2.47	9.61	0.0	0.0					
7908160642	36	4BB1	3.00	16.08	32.35	0.0	51.43	5.83	31.27	62.90	5.36

	NET	NAN LR PPP	DCM	TPP	SUM	% NET	% NAN LR PPP	% DCM	NAN/NET
7908160642 36 6CC1	4.32	21.42	33.24	0.0	58.98	7.32	36.32	56.36	4.96
7908160642 36 11DD1	3.63	17.61	16.11	0.0	37.35	9.72	47.15	43.13	4.85
7908160642 36 21EE1	5.09	37.19	0.81	0.0	43.09	11.81	86.31	1.88	7.31
7908160642 36 35FF1	8.06	111.36	2.82	0.0	122.26	6.59	91.10	2.31	13.82
7908160642 36 49GG1	0.31	1.26	0.32	0.0	1.89	16.40	66.67	16.93	4.06
7908161205 38 1AA1	5.26	7.92	0.0	0.0	13.18	39.91	60.09	0.0	1.51
7908161205 38 4BB1	12.00	19.00	1.25	0.0	32.25	37.21	56.91	3.88	1.58
7908161205 38 7CC1	11.83	26.95	3.48	0.0	44.26	26.73	65.41	7.86	2.45
7908161205 38 12DD1	42.25	29.70	3.19	0.0	75.14	56.23	39.53	4.25	0.70
7908161205 38 19EE1	41.64	55.52	3.76	0.0	100.92	41.26	55.01	3.73	1.33
7908161205 38 25FF1	79.64	31.22	3.58	0.0	114.44	69.59	27.28	3.13	0.39
7908161205 38 30GG1	26.70	8.49	0.03	0.0	35.22	75.81	24.11	0.09	0.32
7908170640 44 1AA1	5.94	6.41	1.27	0.0	13.62	43.61	47.06	9.32	1.08
7908170640 44 2BB1	16.77	16.90	3.57	0.0	37.24	45.03	45.38	9.59	1.01
7908170640 44 4CC1	20.17	18.93	3.92	0.0	43.02	46.89	44.00	9.11	0.94
7908170640 44 6DD1	11.16	10.78	3.48	0.0	25.42	43.90	42.41	13.69	0.97
7908170640 44 16EE1	13.36	14.47	0.95	0.0	28.78	46.42	50.28	3.30	1.08
7908170640 44 27FF1	1.74	33.57	1.34	0.0	36.65	4.75	91.60	3.66	19.29
7908170640 44 37GG1	0.55	6.81	0.43	0.0	7.79	7.06	87.42	5.52	12.38
7908171110 45 1AA1	14.73	15.20	0.20	0.0	30.13	48.89	50.45	0.66	1.03
7908171110 45 2BB1	20.58	22.55	4.09	0.0	47.22	43.58	47.76	8.66	1.10
7908171110 45 4CC1	23.68	28.66	3.00	0.0	55.54	43.00	51.60	5.40	1.20
7908171110 45 11DD1	30.51	22.96	4.76	0.0	58.23	52.40	39.43	8.17	0.75
7908171110 45 19EE1	1.68	31.91	3.38	0.0	36.97	4.54	86.31	9.14	18.99
7908171110 45 29FF1	3.13	11.75	2.16	0.0	17.04	18.37	68.96	12.68	3.75
7908171110 45 37GG1	3.22	8.03	0.40	0.0	11.65	27.64	68.93	3.43	2.49
7908180637 51 1AA1	643.00	135.29	4.81	0.0	783.10	82.11	17.28	0.61	0.21
7908180637 51 1BB1	608.44	154.30	6.93	0.0	769.67	79.05	20.05	0.90	0.25
7908180637 51 2CC1	560.21	156.40	3.84	0.0	720.45	77.76	21.71	0.53	0.28
7908180637 51 3DD1	307.20	105.64	8.61	0.0	421.45	72.89	25.07	2.04	0.34
7908180637 51 5EE1	147.17	40.88	2.88	0.0	190.93	77.08	21.41	1.51	0.28
7908180637 51 6FF1	21.77	6.38	0.80	0.0	28.95	75.20	22.04	2.76	0.29
7908180637 51 11GG1	7.28	2.30	0.26	0.0	9.84	73.98	23.37	2.64	0.32
7908181133 53 1AA1	37.75	52.73	58.03	0.0	148.51	25.42	35.51	39.07	1.40
7908181133 53 2BB1	23.46	66.36	59.49	0.0	149.31	15.71	44.44	39.84	2.63
7908181133 53 3CC1	22.26	54.04	54.62	0.0	130.92	17.00	41.28	41.72	2.43
7908181133 53 7DD1	10.73	31.21	26.07	0.0	66.01	15.78	45.69	38.33	2.91
7908181133 53 14EE1	3.67	13.76	3.08	0.0	20.71	18.69	66.44	14.87	3.56
7908181133 53 23FF1	2.56	2.76	0.51	0.0	5.85	43.76	47.52	8.72	1.09
7908181133 53 27GG1	2.30	1.03	0.33	0.0	3.66	62.84	28.14	9.02	0.45
7908190715 61 1AA1	4.21	11.62	7.41	0.0	23.24	18.12	50.00	31.88	2.76
7908190715 61 3BB1	5.42	23.24	7.74	0.0	36.40	14.89	63.85	21.26	4.29
7908190715 61 5CC1	5.91	24.70	6.16	0.0	36.77	16.07	67.17	16.75	4.18
7908190715 61 15DD1	1.32	7.30	1.66	0.0	10.28	12.84	71.01	16.15	5.53
7908190715 61 31EE1	0.70	10.99	0.38	0.0	12.07	5.80	91.05	3.15	15.70
7908190715 61 45FF1	0.66	45.13	1.06	0.0	46.85	1.41	96.33	2.26	68.38
7908190715 61 55GG1	0.27	8.79	0.0	0.0	9.06	2.98	97.02	0.0	32.56
7908191139 62 1AA1	4.26	38.66	0.0	0.0	42.92	9.93	90.07	0.0	9.08
7908191139 62 3BB1	5.81	44.07	0.0	0.0	49.88	11.65	88.35	0.0	7.59
7908191139 62 7CC1	5.14	58.97	0.0	0.0	64.11	8.02	91.98	0.0	11.47
7908191139 62 13DD1	3.40	43.87	1.35	0.0	48.62	6.99	90.23	2.78	12.90
7908191139 62 21EE1	2.61	100.29	3.49	0.0	106.39	2.45	94.27	3.28	38.43
7908191139 62 27FF1	2.35	38.80	1.94	0.0	43.09	5.45	90.04	4.50	16.51
7908191139 62 34GG1	0.39	3.91	0.38	0.0	4.68	8.33	83.55	8.12	10.03
7908200644 66 1AA1	12.43	21.18	0.0	0.0	33.61	36.98	63.02	0.0	1.70
7908200644 66 2BB1	13.67	16.57	0.0	0.0	30.24	45.21	54.79	0.0	1.21
7908200644 66 5CC1	17.61	17.55	0.0	0.0	35.16	50.65	49.35	0.0	0.97
7908200644 66 10DD1	22.13	19.43	2.99	0.0	44.55	49.67	43.61	6.71	0.88

	NET	NAN CR PPP	DLM	TPP	SUM	% NET	% NAN CR PPP	% DLM	NAN/NET
7908200644 66 16EE1	53.09	104.43	3.01	0.0	160.53	33.07	65.05	1.88	1.97
7908200644 66 29FF1	2.27	16.49	0.97	0.0	19.73	11.51	83.58	4.92	7.26
7908200644 66 41GG1	0.61	3.28	0.22	0.0	4.11	14.84	79.81	5.35	5.38
7908201110 67 1AA1	29.21	31.76	0.85	0.0	61.82	47.25	51.37	1.37	1.09
7908201110 67 2BB1	39.77	47.07	2.15	0.0	88.99	44.69	52.89	2.42	1.18
7908201110 67 3CC1	47.33	53.66	2.27	0.0	103.46	45.75	52.06	2.19	1.14
7908201110 67 6DD1	44.27	56.96	4.34	0.0	105.57	41.93	53.95	4.11	1.29
7908201110 67 12EE1	42.70	58.08	1.60	0.0	102.38	41.71	56.73	1.56	1.36
7908201110 67 20FF1	3.22	13.38	0.36	0.0	16.96	18.99	78.89	2.12	4.16
7908201110 67 26GG1	0.96	3.29	0.03	0.0	4.28	22.43	76.87	0.70	3.43
7908220714 76 1AA1	1.02	4.27	1.82	0.0	7.11	14.35	60.06	25.60	4.19
7908220714 76 2BB1	1.41	8.47	4.47	0.0	14.35	9.83	59.02	31.15	6.01
7908220714 76 5CC1	1.59	11.07	4.73	0.0	17.99	8.84	64.87	26.29	7.34
7908220714 76 15DD1	1.11	9.76	7.09	0.0	17.96	6.18	54.34	39.48	8.79
7908220714 76 31EE1	12.16	76.84	22.01	0.0	111.01	10.95	69.22	19.83	6.32
7908220714 76 41FF1	1.81	8.49	2.65	0.0	12.95	13.98	65.56	20.46	4.69
7908220714 76 57GG1	0.25	0.44	0.31	0.0	1.00	25.00	44.00	31.00	1.76
7908221145 77 1AA1	1.26	15.08	1.55	0.0	17.89	7.04	84.29	8.66	11.97
7908221145 77 4BB1	1.35	21.47	2.01	0.0	24.83	5.44	86.47	8.10	15.90
7908221145 77 8CC1	1.27	11.88	1.51	0.0	14.66	8.66	81.04	10.30	9.35
7908221145 77 15DD1	1.38	20.63	2.74	0.0	24.75	5.58	83.35	11.07	14.95
7908221145 77 25EE1	0.85	23.11	1.52	0.0	25.48	3.34	90.70	5.97	27.19
7908221145 77 38FF1	0.17	11.62	0.65	0.0	12.44	1.37	93.41	5.23	68.35
7908221145 77 50GG1	0.06	5.39	0.01	0.0	5.46	1.10	98.72	0.18	89.83
7908230614 85 1AA1	0.69	40.30	0.76	0.0	41.95	2.12	96.07	1.81	45.28
7908230614 85 2BB1	1.74	58.30	1.80	0.0	61.84	2.81	94.28	2.91	33.51
7908230614 85 4CC1	1.27	64.82	0.96	0.0	67.05	1.89	96.67	1.43	51.04
7908230614 85 7DD1	1.59	62.97	3.88	0.0	68.44	2.32	92.01	5.67	39.60
7908230614 85 14EE1	3.58	75.01	1.91	0.0	80.50	4.45	93.18	2.37	20.95
7908230614 85 23FF1	12.90	21.84	1.05	0.0	35.79	36.04	61.02	2.93	1.69
7908230614 85 31GG1	1.73	1.48	0.11	0.0	3.32	52.11	44.58	3.31	0.8
7908231105 86 1AA1	3.81	3.70	0.0	0.0	7.51	50.73	49.27	0.0	0.9
7908231105 86 2BB1	14.13	25.74	0.0	0.0	39.87	35.44	64.56	0.0	1.8
7908231105 86 4CC1	18.86	47.60	3.28	0.0	69.74	27.04	68.25	4.70	2.5
7908231105 86 6DD1	24.40	79.22	1.93	0.0	105.55	23.12	75.05	1.83	3.2
7908231105 86 11EE1	21.35	66.85	4.05	0.0	92.25	23.14	72.47	4.39	3.1
7908231105 86 19FF1	5.47	23.65	0.85	0.0	30.17	18.13	79.05	2.82	4.3
7908231105 86 25GG1	1.89	9.83	0.15	0.0	11.87	15.92	82.81	1.26	5.2
7908240628 91 1AA1	1.00	28.24	0.60	0.0	29.84	3.35	94.64	2.01	28.2
7908240628 91 3BB1	1.60	44.16	3.67	0.0	49.43	3.24	89.34	7.42	27.6
7908240628 91 5CC1	2.52	55.99	4.72	0.0	63.23	3.99	88.55	7.46	22.2
7908240628 91 10DD1	4.22	56.35	7.31	0.0	67.88	6.22	83.01	10.77	13.
7908240628 91 16EE1	1.63	50.99	1.31	0.0	53.93	3.02	94.55	2.43	31.
7908240628 91 25FF1	1.16	47.22	0.98	0.0	49.36	2.35	95.66	1.99	40.
7908240628 91 31GG1	0.82	12.90	0.0	0.0	13.72	5.98	94.02	0.0	15.
7908241110 93 1AA1	2.43	35.10	0.0	0.0	37.53	6.47	93.53	0.0	14.
7908241110 93 2BB1	3.37	66.47	0.0	0.0	69.84	4.83	95.17	0.0	19.
7908241110 93 5CC1	4.53	84.02	0.0	0.0	88.55	5.12	94.88	0.0	18.
7908241110 93 9DD1	7.01	121.26	4.88	0.0	133.17	5.26	91.07	3.66	17.
7908241110 93 13EE1	7.61	158.29	0.19	0.0	166.09	4.58	95.30	0.11	20.
7908241110 93 20FF1	6.65	79.64	1.82	0.0	88.31	7.76	90.18	2.06	11.
7908241110 93 26GG1	3.96	17.29	0.0	0.0	21.24	18.60	81.40	0.0	4
7908250620 99 1AA1	0.48	9.06	1.31	0.0	10.85	4.42	83.50	12.07	18
7908250620 99 2BB1	0.79	22.81	6.00	0.0	29.60	2.67	77.06	20.27	28
7908250620 99 4CC1	0.70	31.03	7.47	0.0	39.20	1.79	79.16	19.06	44
7908250620 99 7DD1	0.84	37.72	8.85	0.0	47.41	1.77	79.56	18.67	44
7908250620 99 12EE1	17.94	44.38	1.56	0.0	63.88	28.08	69.47	2.44	2
7908250620 99 19FF1	22.00	36.35	1.26	0.0	59.61	36.91	60.98	2.11	1

	NET	NAN OR PPP	DLM	TPP	SUM	% NET	% NAN OR PPP	% DLM	NAN/NET
7908250620 99 25GG1	9.65	12.85	0.0	0.0	22.50	42.89	57.11	0.0	1.33
7908251100101 1AA1	1.42	16.45	2.38	0.0	20.25	7.01	81.23	11.75	11.58
7908251100101 2BB1	0.69	27.60	11.31	0.0	39.60	1.74	69.70	28.56	40.00
7908251100101 5CC1	0.67	35.19	9.38	0.0	45.24	1.48	77.79	20.73	52.52
7908251100101 10DD1	0.59	30.15	11.53	0.0	42.27	1.40	71.33	27.28	51.10
7908251100101 16EE1	2.30	47.52	0.59	0.0	50.41	4.56	94.27	1.17	20.66
7908251100101 24FF1	2.37	28.24	0.0	0.0	30.61	7.74	92.26	0.0	11.92
7908251100101 32GG1	2.52	32.38	0.0	0.0	34.90	7.22	92.78	0.0	12.85
7908260637107 1AA1	0.38	27.15	2.95	0.0	30.48	1.25	89.07	9.68	71.45
7908260637107 2BB1	0.55	29.49	2.86	0.0	32.70	1.68	90.18	8.13	53.62
7908260637107 5CC1	1.02	52.07	6.60	0.0	59.69	1.71	87.23	11.06	51.05
7908260637107 9DD1	0.75	46.96	4.51	0.0	52.22	1.44	89.93	8.64	62.61
7908260637107 17EE1	0.84	36.70	2.06	0.0	39.60	2.12	92.68	5.20	43.69
7908260637107 26FF1	0.56	15.27	0.0	0.0	15.83	3.54	96.46	0.0	27.27
7908260637107 35GG1	0.80	15.03	0.0	0.0	15.83	5.05	94.95	0.0	18.79
7908261105108 1AA1	1.13	48.53	0.0	0.0	49.66	2.28	97.72	0.0	42.95
7908261105108 3BB1	1.07	66.47	5.86	0.0	73.40	1.46	90.56	7.98	62.12
7908261105108 6CC1	0.91	63.43	10.47	0.0	74.81	1.22	84.79	14.00	69.70
7908261105108 11DD1	0.10	74.27	4.02	0.0	78.39	0.13	94.74	5.13	742.70
7908261105108 17EE1	1.25	60.43	0.29	0.0	61.97	2.02	97.51	0.47	48.34
7908261105108 26FF1	1.66	47.51	1.31	0.0	50.46	3.29	94.12	2.60	28.62
7908261105108 34GG1	1.25	8.72	0.0	0.0	9.97	12.54	87.46	0.0	6.98
7908270605113 1AA1	0.59	70.72	2.64	0.0	73.95	0.80	95.63	3.57	119.86
7908270605113 2BB1	1.14	86.60	4.94	0.0	92.68	1.23	93.44	5.33	75.96
7908270605113 4CC1	1.39	99.11	9.03	0.0	109.53	1.27	90.49	8.24	71.30
7908270605113 9DD1	1.76	73.71	7.41	0.0	82.88	2.12	88.94	8.94	41.88
7908270605113 16EE1	2.43	66.69	1.52	0.0	70.64	3.44	94.41	2.15	27.44
7908270605113 26FF1	2.72	13.77	0.57	0.0	17.06	15.94	80.72	3.34	5.06
7908270605113 36GG1	0.51	0.60	0.23	0.0	1.34	38.06	44.78	17.16	1.18
7908271057114 1AA1	44.44	50.13	0.0	0.0	94.57	46.99	53.01	0.0	1.13
7908271057114 2BB1	79.63	84.35	7.57	0.0	171.55	46.42	49.17	4.41	1.06
7908271057114 3CC1	102.83	99.93	6.95	0.0	209.71	49.03	47.65	3.31	0.97
7908271057114 6DD1	80.02	102.54	3.66	0.0	186.22	42.97	55.06	1.97	1.28
7908271057114 9EE1	46.67	56.13	1.60	0.0	104.40	44.70	53.76	1.53	1.20
7908271057114 14FF1	13.08	13.59	0.88	0.0	27.55	47.48	49.33	3.19	1.04
7908271057114 22GG1	4.80	5.13	0.0	0.0	9.93	48.34	51.66	0.0	1.07
7908280558119 1AA1	1.88	56.54	5.51	0.0	63.93	2.94	88.44	8.62	30.07
7908280558119 2BB1	1.39	60.15	13.53	0.0	75.07	1.85	80.13	18.02	43.27
7908280558119 4CC1	1.78	79.38	10.07	0.0	91.23	1.95	87.01	11.04	44.60
7908280558119 9DD1	1.84	81.55	15.97	0.0	99.36	1.85	82.08	16.07	44.32
7908280558119 17EE1	1.86	105.44	3.13	0.0	110.43	1.68	95.48	2.83	56.69
7908280558119 25FF1	0.66	84.60	1.67	0.0	86.93	0.76	97.32	1.92	128.18
7908280558119 33GG1	0.08	10.81	0.68	0.0	11.57	0.69	93.43	5.88	135.13
7908281113120 1AA1	0.46	20.17	1.00	0.0	21.63	2.13	93.25	4.62	43.85
7908281113120 2BB1	0.50	36.19	9.40	0.0	46.09	1.08	78.52	20.39	72.38
7908281113120 5CC1	0.91	51.40	16.85	0.0	69.16	1.32	74.32	24.36	56.48
7908281113120 8DD1	1.00	61.51	23.53	0.0	86.04	1.16	71.49	27.35	61.51
7908281113120 14EE1	0.94	72.16	6.44	0.0	79.54	1.18	90.72	8.10	76.77
7908281113120 21FF1	0.94	99.19	6.90	0.0	107.03	0.88	92.67	6.45	105.52
7908281113120 27GG1	0.23	14.84	2.22	0.0	17.29	1.33	85.83	12.84	64.52
7908290610124 1AA1	61.74	58.65	11.81	0.0	132.20	46.70	44.36	8.93	0.95
7908290610124 2BB1	56.39	63.64	15.43	0.0	135.66	41.57	47.06	11.37	1.13
7908290610124 3CC1	48.31	83.85	8.56	0.0	140.72	34.33	59.59	6.08	1.74
7908290610124 6DD1	40.44	91.71	12.26	0.0	144.41	28.00	63.51	8.49	2.27
7908290610124 9EE1	20.71	58.68	2.43	0.0	81.82	25.31	71.72	2.97	2.83
7908290610124 14FF1	5.64	16.54	0.85	0.0	23.03	24.49	71.82	3.69	2.93
7908290610124 19GG1	3.84	8.77	0.0	0.0	12.61	30.45	69.55	0.0	2.28
7908291110126 1AA1	15.75	50.82	19.65	0.0	86.22	18.27	58.94	22.79	3.23

	NET	NAN OR PPP	DOM	TPP	SUM	% NET	% NAN OR PPP	% DOM	NAN/NET
79082911101 26 2BB1	14,64	56,74	19,46	0,0	92,84	15,77	63,27	20,96	4,01
79082911101 26 4CC1	13,04	57,78	13,86	0,0	84,68	15,40	68,23	16,37	4,43
79082911101 26 6DD1	11,69	55,71	15,07	0,0	82,47	14,17	67,55	18,27	4,77
79082911101 26 11EE1	9,22	40,18	0,0	0,0	49,40	18,66	81,34	0,0	4,36
79082911101 26 17FF1	20,45	22,82	0,0	0,0	43,27	47,26	52,74	0,0	1,12
79082911101 26 22GG1	14,63	4,05	0,0	0,0	18,68	78,32	21,68	0,0	0,28
79083006231 31 1AA1	0,52	63,10	0,74	0,0	64,36	0,81	98,04	1,15	121,35
79083006231 31 2BB1	0,63	93,58	2,62	0,0	96,83	0,65	96,64	2,71	148,54
79083006231 31 6CC1	0,50	106,99	4,78	0,0	112,27	0,45	95,30	4,26	213,98
79083006231 31 10DD1	0,86	118,25	10,58	0,0	129,69	0,66	91,18	8,16	137,50
79083006231 31 17EE1	1,33	129,92	1,61	0,0	132,86	1,00	97,79	1,21	97,68
79083006231 31 26FF1	0,63	47,54	0,71	0,0	48,88	1,29	97,26	1,45	75,46
79083006231 31 34GG1	0,19	6,53	0,06	0,0	6,78	2,80	96,31	0,88	34,37
79083011131 33 1AA1	0,31	18,17	0,0	0,0	18,48	1,68	98,32	0,0	58,61
79083011131 33 2BB1	0,67	35,99	0,0	0,0	36,66	1,83	98,17	0,0	53,72
79083011131 33 4CC1	0,40	56,20	3,85	0,0	60,45	0,66	92,97	6,37	140,50
79083011131 33 8DD1	1,18	53,07	6,04	0,0	60,29	1,96	88,02	10,02	44,97
79083011131 33 13EE1	0,67	70,80	4,77	0,0	76,24	0,88	92,86	6,26	105,67
79083011131 33 20FF1	0,42	29,66	1,47	0,0	31,55	1,33	94,01	4,66	70,62
79083011131 33 29GG1	0,13	5,94	0,0	0,0	6,07	2,14	97,86	0,0	45,69
79083106181 38 1AA1	0,55	14,03	0,0	0,0	14,58	3,77	96,23	0,0	25,51
79083106181 38 2BB1	0,69	38,77	6,68	0,0	46,14	1,50	84,03	14,48	56,19
79083106181 38 3CC1	1,12	46,85	4,45	0,0	52,42	2,14	89,37	8,49	41,85
79083106181 38 6DD1	1,32	50,91	5,00	0,0	57,23	2,31	88,96	8,74	38,57
79083106181 38 11EE1	4,13	47,67	0,0	0,0	51,80	7,97	92,03	0,0	11,54
79083106181 38 18FF1	41,96	128,06	14,15	0,0	184,17	22,78	69,53	7,68	3,05
79083106181 38 25GG1	8,21	14,19	0,0	0,0	22,40	36,65	63,35	0,0	1,73
79083111131 40 1AA1	0,0	12,16	0,0	0,0	12,16	0,0	100,00	0,0	0,0
79083111131 40 2BB1	1,15	32,91	3,83	0,0	37,89	3,04	86,86	10,11	28,62
79083111131 40 4CC1	16,72	51,38	6,77	0,0	74,87	22,33	68,63	9,04	3,07
79083111131 40 7DD1	100,89	69,79	11,93	0,0	182,61	55,25	38,22	6,53	0,69
79083111131 40 11EE1	304,10	72,96	11,61	0,0	388,67	78,24	18,77	2,99	0,24
79083111131 40 17FF1	37,69	16,59	1,11	0,0	55,39	66,04	29,95	2,00	0,44
79083111131 40 23GG1	15,99	8,51	0,0	0,0	24,50	65,27	34,73	0,0	0,53
79090106151 45 1AA1	0,13	29,58	0,0	0,0	29,71	0,44	99,56	0,0	227,54
79090106151 45 2BB1	0,30	59,61	1,20	0,0	61,11	0,49	97,55	1,96	198,70
79090106151 45 4CC1	0,74	74,70	4,47	0,0	79,91	0,93	93,48	5,59	100,95
79090106151 45 7DD1	1,36	72,36	28,29	0,0	102,01	1,33	70,93	27,73	53,21
79090106151 45 13EE1	0,68	83,11	8,31	0,0	92,10	0,74	90,24	9,02	122,22
79090106151 45 20FF1	0,31	77,71	1,67	0,0	79,69	0,39	97,52	2,10	250,68
79090106151 45 27GG1	0,46	9,53	0,0	0,0	9,99	4,60	95,40	0,0	20,72
79090111031 47 1AA1	4,47	14,27	0,0	0,0	18,74	23,85	76,15	0,0	3,19
79090111031 47 3BB1	5,66	34,23	3,03	0,0	42,92	13,19	79,75	7,06	6,05
79090111031 47 5CC1	7,66	39,04	5,68	0,0	52,38	14,62	74,53	10,84	5,10
79090111031 47 9DD1	7,31	41,11	7,75	0,0	56,17	13,01	73,19	13,80	5,62
79090111031 47 14EE1	8,91	49,14	1,06	0,0	59,11	15,07	83,13	1,79	5,52
79090111031 47 21FF1	10,95	38,65	1,38	0,0	50,98	21,48	75,81	2,71	3,53
79090111031 47 28GG1	6,09	7,97	0,76	0,0	14,82	41,09	53,78	5,13	1,31

Table 2. Rates of primary productivity ($mgC/m^3/d$) by station, depth, and size fraction, Belogorsk 79-03.

			NET	NAN LR PPP	PLP	TPP	SUM	% NET	% NAN LR PPP	% DGM	NAN/NET
7909120617	1	1AA1	0.75	15.30	10.71	0.0	26.76	2.80	57.17	40.02	20.40
7909120617	1	1BB1	1.34	57.99	23.85	0.0	83.18	1.61	69.72	28.67	43.28
7909120617	1	3CC1	2.31	116.55	43.06	0.0	161.92	1.43	71.98	26.59	50.45
7909120617	1	5DD1	2.54	137.41	29.55	0.0	169.30	1.24	72.59	26.18	58.72
7909120617	1	11EE1	1.98	104.88	9.75	0.0	116.61	1.70	89.94	8.36	52.97
7909120617	1	19FF1	0.31	22.57	1.92	0.0	24.80	1.25	91.01	7.74	72.81
7909120617	1	29GG1	0.17	6.00	0.18	0.0	6.35	2.04	95.81	2.16	47.06
7909121126	2	1AA1	1.76	15.43	0.0	0.0	17.19	10.24	89.76	0.0	8.77
7909121126	2	3BB1	2.49	42.65	1.67	0.0	47.01	5.30	91.15	3.55	17.21
7909121126	2	5CC1	2.21	56.10	16.61	0.0	74.92	2.95	74.88	22.17	25.38
7909121126	2	9DD1	6.14	63.36	19.77	0.0	89.29	6.88	70.98	22.14	10.32
7909121126	2	14EE1	9.75	80.51	9.97	0.0	100.23	9.73	80.33	9.95	8.26
7909121126	2	18FF1	2.40	30.05	2.12	0.0	34.57	6.94	86.93	6.13	12.52
7909121126	2	29GG1	1.46	5.32	1.23	0.0	8.01	18.23	66.42	15.36	3.64
7909130620	5	1AA1	0.92	5.89	0.58	0.0	7.39	12.45	79.70	7.85	6.40
7909130620	5	3BB1	1.01	9.96	3.24	0.0	14.21	7.11	70.09	22.80	9.86
7909130620	5	6CC1	0.91	11.32	3.22	0.0	15.45	5.89	73.27	20.84	12.44
7909130620	5	12DD1	1.80	13.76	5.64	0.0	21.22	8.48	64.94	26.58	7.66
7909130620	5	23EE1	1.02	9.55	0.45	0.0	11.02	9.26	86.66	4.08	9.36
7909130620	5	35FF1	0.92	18.83	1.50	0.0	21.25	4.33	88.61	7.06	20.47
7909130620	5	53GG1	0.47	6.28	0.10	0.0	6.85	6.86	91.68	1.46	13.36
7909131123	6	1AA2	1.00	24.69	0.0	0.0					
7909131123	6	3BB1	1.97	40.88	0.0	0.0	42.85	4.60	95.40	0.0	20.75
7909131123	6	7CC2	1.22	29.62	0.02	0.0	30.86	3.95	95.96	0.06	24.28
7909131123	6	14DD1	1.11	19.72	0.0	0.0	20.83	5.33	94.67	0.0	17.77
7909131123	6	23EE1	6.82	49.68	0.0	0.0	56.50	12.07	87.93	0.0	7.28
7909131123	6	35FF1	1.46	25.42	1.56	0.0	28.44	5.13	89.38	5.49	17.41
7909131123	6	47GG1	0.21	4.03	0.04	0.0	4.28	4.91	94.16	0.93	19.19
7909140635	8	1AA1	0.97	10.59	3.06	0.0	14.62	6.63	72.44	20.93	10.92
7909140635	8	4BB1	1.51	26.34	4.54	0.0	32.39	4.66	81.32	14.02	17.44
7909140635	8	8CC1	1.83	20.20	2.92	0.0	24.95	7.33	80.96	11.70	11.04
7909140635	8	18DD1	1.67	24.80	2.76	0.0	29.23	5.71	84.84	9.44	14.85
7909140635	8	36EE1	1.62	27.99	1.39	0.0	31.00	5.23	90.29	4.48	17.28
7909140635	8	65FF1	0.25	1.89	0.42	0.0	2.56	9.77	73.83	16.41	7.56
7909140635	8	87GG1	0.07	0.26	0.24	0.0	0.57	12.28	45.61	42.11	3.71
7909141137	9	1AA1	0.47	9.32	0.31	0.0	10.10	4.65	92.28	3.07	19.83
7909141137	9	4BB1	0.70	15.05	1.72	0.0	17.47	4.01	86.15	9.85	21.50
7909141137	9	10CC1	0.92	14.90	2.32	0.0	18.14	5.07	82.14	12.79	16.20
7909141137	9	18DD1	0.86	15.42	2.48	0.0	18.76	4.58	82.20	13.22	17.93
7909141137	9	30EE1	2.96	23.18	0.59	0.0	26.73	11.07	86.72	2.21	7.83
7909141137	9	46FF1	1.67	24.68	0.74	0.0	27.09	6.16	91.10	2.73	14.78
7909141137	9	60GG1	0.22	9.87	0.03	0.0	10.12	2.17	97.53	0.30	44.86
7909150635	12	1AA1	0.46	16.25	0.0	0.0	16.71	2.46	97.54	0.0	39.67
7909150635	12	2BB1	0.63	38.55	0.72	0.0	39.90	1.58	96.62	1.80	61.19
7909150635	12	4CC1	0.42	52.01	3.03	0.0	55.46	0.76	93.76	5.46	123.83
7909150635	12	8DD1	0.34	60.55	6.76	0.0	69.65	0.49	86.93	12.58	178.09
7909150635	12	16EE1	0.45	69.36	4.77	0.0	74.58	0.60	93.00	6.40	154.13
7909150635	12	28FF1	0.05	9.22	1.15	0.0	10.42	0.48	88.48	11.04	184.40
7909150635	12	41GG1	0.13	0.69	0.51	0.0	1.33	9.77	51.88	38.35	5.31
7909151138	13	1AA1	60.49	77.34	0.0	0.0	137.83	43.89	56.11	0.0	1.28
7909151138	13	1BB1	66.93	127.18	0.0	0.0	194.11	34.48	65.52	0.0	1.90
7909151138	13	3CC1	103.99	184.39	0.0	0.0	288.38	36.06	63.94	0.0	1.77
7909151138	13	5DD1	109.00	191.85	8.56	0.0	309.41	35.23	62.01	2.77	1.76
7909151138	13	9EE1	65.02	145.13	4.99	0.0	215.14	30.22	67.46	2.32	2.23
7909151138	13	14FF1	25.02	49.01	1.87	0.0	75.90	32.96	64.57	2.46	1.96
7909151138	13	21GG1	12.21	15.23	0.0	0.0	27.44	44.50	55.50	0.0	1.25
7909160010	15	1AA1	1.67	25.53	1.65	0.0	28.85	5.79	88.49	5.72	15.29
7909160010	15	1BB1	1.78	53.82	5.25	0.0	61.85	2.88	87.02	10.11	30.24

	NET	NAN CR PPP	DUM	TPP	SUM	% NET	% NAN CR PPP	% DUM	NAN/NET
7909160610 15 3CC1	2,68	60,56	9,58	0,0	92,84	2,89	86,79	10,32	30,07
7909160610 15 5DD1	2,61	69,60	11,27	0,0	83,88	3,36	83,17	13,47	24,77
7909160610 15 12EE1	1,40	70,37	1,48	0,0	73,25	1,91	96,07	2,02	50,26
7909160610 15 20FF1	0,65	25,54	1,49	0,0	27,68	2,35	92,27	5,38	39,29
7909160610 15 26GG1	1,00	5,42	0,08	0,0	6,50	15,38	83,38	1,23	5,42
7909161127 16 1AA1	1,67	53,78	0,0	0,0	55,45	3,01	96,99	0,0	32,20
7909161127 16 1BB1	2,71	92,63	0,0	0,0	95,34	2,84	97,16	0,0	34,18
7909161127 16 4CC1	3,65	152,41	0,42	0,0	156,66	2,46	97,27	0,27	39,59
7909161127 16 6DD1	4,02	223,49	10,41	0,0	243,92	1,65	91,62	6,73	55,59
7909161127 16 10EE1	3,29	163,71	4,85	0,0	171,85	1,91	95,26	2,82	49,76
7909161127 16 19FF1	2,14	11,50	1,32	0,0	14,96	14,30	76,87	8,82	5,37
7909161127 16 30GG1	0,83	2,56	0,41	0,0	3,80	21,84	67,37	10,79	3,08
7909170610 18 1AA1	3,07	66,19	13,34	0,0	82,60	3,72	80,13	16,15	21,56
7909170610 18 2BB1	2,98	70,29	25,88	0,0	99,15	3,01	70,89	26,10	23,59
7909170610 18 4CC1	2,99	61,63	12,89	0,0	97,51	3,07	83,71	13,22	27,30
7909170610 18 7DD1	5,52	74,32	32,51	0,0	112,35	4,91	66,15	28,94	13,46
7909170610 18 13EE1	2,40	50,04	7,66	0,0	60,10	3,99	83,26	12,75	20,85
7909170610 18 20FF1	1,56	31,49	7,66	0,0	40,71	3,83	77,35	18,82	20,19
7909170610 18 26GG1	0,71	6,74	1,97	0,0	9,42	7,54	71,55	20,91	9,49
7909171113 19 1AA1	0,05	42,09	0,0	0,0	42,14	0,12	99,88	0,0	841,80
7909171113 19 1BB1	0,15	48,72	0,0	0,0	48,87	0,31	99,69	0,0	324,80
7909171113 19 4CC1	2,02	67,93	0,0	0,0	69,95	2,89	97,11	0,0	33,63
7909171113 19 7DD1	1,16	69,67	0,72	0,0	71,55	1,62	97,37	1,01	60,06
7909171113 19 12EE1	2,04	73,60	0,47	0,0	76,31	2,67	96,71	0,62	36,18
7909171113 19 19FF1	0,70	33,44	0,93	0,0	35,07	2,00	95,35	2,65	47,77
7909171113 19 25GG1	0,16	12,51	0,0	0,0	12,67	1,26	98,74	0,0	78,19
7909180629 22 1AA1	10,39	25,54	3,50	0,0	39,43	26,35	64,77	8,88	2,46
7909180629 22 1BB1	11,30	36,39	4,19	0,0	53,88	20,97	71,25	7,78	3,40
7909180629 22 4CC1	10,34	50,41	6,99	0,0	67,74	15,26	74,42	10,32	4,88
7909180629 22 7DD1	9,27	42,88	7,56	0,0	59,71	15,53	71,81	12,66	4,63
7909180629 22 15EE1	6,74	36,94	1,00	0,0	44,68	15,09	82,68	2,24	5,48
7909180629 22 25FF1	3,56	17,34	0,91	0,0	21,81	16,32	79,50	4,17	4,87
7909180629 22 33GG1	1,86	1,21	0,21	0,0	3,28	56,71	36,89	6,40	0,65
7909181130 23 1AA1	8,01	24,36	1,28	0,0	33,65	23,80	72,39	3,80	3,04
7909181130 23 1BB1	14,50	43,70	2,22	0,0	60,42	24,00	72,33	3,67	3,01
7909181130 23 4CC1	12,07	49,66	3,08	0,0	64,81	18,62	76,62	4,75	4,11
7909181130 23 7DD1	14,00	58,83	4,41	0,0	77,24	18,13	76,17	5,71	4,20
7909181130 23 13EE1	3,60	38,77	1,94	0,0	44,31	8,12	87,50	4,38	10,77
7909181130 23 21FF1	0,98	5,87	0,42	0,0	7,27	13,48	80,74	5,78	5,99
7909181130 23 28GG1	0,77	1,44	0,13	0,0	2,34	32,91	61,54	5,56	1,87
7909190651 26 1AA1	3,53	20,06	0,29	0,0	23,88	14,78	84,00	1,21	5,68
7909190651 26 2BB1	3,09	26,49	1,39	0,0	30,97	9,98	85,53	4,49	8,57
7909190651 26 4CC1	4,47	25,26	1,57	0,0	31,30	14,28	80,70	5,02	5,65
7909190651 26 12DD1	2,30	23,46	3,24	0,0	29,00	7,93	80,90	11,17	10,20
7909190651 26 27EE1	1,23	54,66	0,66	0,0	56,55	2,18	96,66	1,17	44,44
7909190651 26 44FF1	0,45	10,89	0,70	0,0	12,04	3,74	90,45	5,81	24,20
7909190651 26 66GG1	0,16	1,11	0,38	0,0	1,65	9,70	67,27	23,03	6,94
7909290630 27 1AA1	0,61	34,30	14,25	0,0	49,16	1,24	69,77	28,99	56,23
7909290630 27 1BB1	0,29	29,13	12,80	0,0	42,22	0,69	69,00	30,32	100,45
7909290630 27 4CC1	0,30	32,13	14,06	0,0	46,49	0,65	69,11	30,24	107,10
7909290630 27 6DD1	0,17	21,49	8,67	0,0	30,33	0,56	70,85	28,59	126,41
7909290630 27 14EE1	0,09	8,23	3,30	0,0	11,62	0,77	70,83	28,40	91,44
7909290630 27 20FF1	0,11	3,11	1,29	0,0	4,51	2,44	68,96	28,60	28,27
7909290630 27 25GG1	0,01	1,47	0,62	0,0	2,10	0,48	70,00	29,52	147,00
7909291115 28 1AA1	0,25	53,07	30,14	0,0	83,46	0,30	63,59	36,11	212,28
7909291115 28 1BB1	0,19	40,23	22,69	0,0	63,11	0,30	63,75	35,95	211,74
7909291115 28 5CC1	0,20	45,93	22,71	0,0	68,84	0,29	66,72	32,99	229,65
7909291115 28 10DD1	0,19	29,00	16,42	0,0	45,61	0,42	63,58	36,00	152,63

	NET	SAR CR PPP	LCP	TPP	SCP	% NET	% SAR CR PPP	% OCM.	NAN/NET
7909291115 28 1EEE1	0.10	15.60	6.92	0.0	22.62	0.44	66.97	30.59	156.00
7909291115 28 29FF1	0.04	1.72	0.63	0.0	2.39	1.67	71.97	26.36	43.00
7909291115 28 43GG1	0.02	0.40	0.21	0.0	0.63	3.17	63.49	33.33	20.00
7909300626 31 2AA1	0.36	4.30	2.78	0.0	7.46	5.09	57.64	37.27	11.32
7909300626 31 2BB1	0.39	5.24	2.42	0.0	8.05	4.84	65.09	30.06	13.44
7909300626 31 1BCC1	0.50	8.00	3.45	0.0	11.95	4.18	66.95	28.87	16.00
7909300626 31 21CD1	0.27	6.20	2.69	0.0	11.16	2.42	73.46	24.10	30.37
7909300626 31 41EE1	0.02	5.42	1.35	0.0	6.79	0.29	79.82	19.88	271.00
7909300626 31 60FF1	0.13	5.02	1.16	0.0	6.31	2.06	79.56	18.38	38.62
7909300626 31 69GG1	0.05	1.55	0.51	0.0	2.11	2.37	73.46	24.17	31.00
7909301128 32 1AA1	0.98	49.18	19.51	0.0	75.67	9.22	64.99	25.78	7.05
7909301128 32 1BB1	0.65	50.25	22.71	0.0	79.61	6.35	63.12	28.53	7.56
7909301128 32 5CC1	7.06	49.47	19.56	0.0	76.09	9.28	65.02	25.71	7.01
7909301128 32 9CD1	7.24	50.60	19.57	0.0	77.41	9.35	65.37	25.28	6.99
7909301128 32 15EE1	1.30	14.13	5.09	0.0	20.52	6.34	68.86	24.81	10.87
7909301128 32 22FF1	0.68	4.63	1.38	0.0	6.69	10.16	69.21	20.63	6.81
7909301128 32 26GG1	0.82	1.12	0.39	0.0	2.33	35.19	48.07	16.74	1.37
7910010625 35 1AA1	47.99	50.40	0.01	0.0	102.40	46.87	53.12	0.01	1.13
7910010625 35 1BB1	50.58	68.90	0.80	0.0	120.28	42.05	57.28	0.67	1.36
7910010625 35 3CC1	58.84	77.11	0.0	0.0	135.95	43.28	56.72	0.0	1.31
7910010625 35 6CD1	44.68	65.89	2.81	0.0	113.38	39.41	58.11	2.48	1.47
7910010625 35 12EE1	33.07	40.69	0.40	0.0	74.36	44.47	54.99	0.54	1.24
7910010625 35 19FF1	10.82	10.95	0.19	0.0	21.96	49.27	49.86	0.87	1.01
7910010625 35 27GG1	2.72	4.11	0.08	0.0	6.91	39.36	59.48	1.16	1.51
7910011125 36 1AA1	2.98	104.70	18.23	0.0	125.91	2.37	83.15	14.48	35.13
7910011125 36 1BB1	3.67	113.10	29.39	0.0	146.36	2.64	77.28	20.08	29.22
7910011125 36 4CC1	4.41	114.40	34.08	0.0	152.89	2.88	74.83	22.29	25.94
7910011125 36 8CD1	3.82	86.92	27.43	0.0	118.17	3.23	73.56	23.21	22.75
7910011125 36 17EE1	0.72	50.71	16.43	0.0	67.86	1.06	74.73	24.21	70.43
7910011125 36 28FF1	0.31	5.22	0.76	0.0	6.29	4.93	82.99	12.08	16.84
7910011125 36 37GG1	0.21	0.78	0.40	0.0	1.39	15.11	56.12	28.78	3.71
7910020700 37 1AA1	0.43	51.40	9.41	0.0	61.24	0.70	83.93	15.37	119.53
7910020700 37 1BB1	0.47	57.35	19.25	0.0	77.07	0.61	74.41	24.98	122.02
7910020700 37 4CC1	0.49	75.37	12.12	0.0	87.98	0.56	85.67	13.78	153.82
7910020700 37 9CD1	0.50	68.10	7.95	0.0	76.55	0.65	88.96	10.39	136.20
7910020700 37 16EE1	0.19	36.99	3.25	0.0	40.43	0.47	91.49	8.04	194.68
7910020700 37 27FF1	0.14	6.56	0.68	0.0	7.58	1.85	86.54	11.61	46.86
7910020700 37 39GG1	0.07	0.75	0.31	0.0	1.13	6.19	66.37	27.43	10.71
7910021130 38 1AA1	1.34	50.36	17.57	0.0	69.27	1.93	72.70	25.36	37.58
7910021130 38 1BB1	1.50	58.05	35.99	0.0	95.54	1.57	60.76	37.67	38.70
7910021130 38 4CC1	1.16	68.18	19.59	0.0	88.93	1.30	76.67	22.03	58.78
7910021130 38 7CD1	0.91	57.89	33.45	0.0	92.25	0.99	62.75	36.26	63.62
7910021130 38 15EE1	0.27	42.30	1.81	0.0	44.38	0.61	95.31	4.08	156.67
7910021130 38 25FF1	0.04	9.98	0.64	0.0	10.66	0.38	93.62	6.00	249.50
7910021130 38 35GG1	0.03	0.59	0.01	0.0	0.63	4.76	93.65	1.59	19.67
7910030635 42 1AA1	1.01	9.57	8.93	0.0	19.51	5.18	49.05	45.77	9.48
7910030635 42 1BB1	1.34	14.54	5.55	0.0	21.43	6.25	67.85	25.90	10.85
7910030635 42 5CC1	1.38	16.26	6.03	0.0	23.67	5.83	68.69	25.48	11.78
7910030635 42 13CD1	0.28	14.51	5.13	0.0	19.92	1.41	72.84	25.75	51.82
7910030635 42 20EE1	1.37	15.05	2.28	0.0	18.70	7.33	80.48	12.19	10.99
7910030635 42 43FF1	0.14	3.63	0.88	0.0	4.65	3.01	78.08	18.92	25.93
7910030635 42 59GG1	0.02	0.36	0.34	0.0	0.72	2.78	50.00	47.22	18.00
7910031125 43 1AA1	1.43	27.00	8.47	0.0	36.40	3.88	73.17	22.95	18.88
7910031125 43 1BB1	1.59	26.86	7.83	0.0	36.30	4.38	74.05	21.57	16.91
7910031125 43 6CC1	1.11	21.88	4.79	0.0	27.78	4.00	78.76	17.24	19.71
7910031125 43 10CD1	1.51	24.74	6.21	0.0	32.46	4.65	76.22	19.13	16.38
7910031125 43 20EE1	1.85	28.07	6.36	0.0	36.28	5.10	77.37	17.53	15.17
7910031125 43 41FF1	0.38	6.87	1.72	0.0	8.97	4.24	76.59	19.18	18.08

	NET	NAN CR PPP	DCM	TPP	SLM	% NET	% NAN CR PPP	% DCM	NAN/NET
7910031125 43 53GG1	0.18	0.63	0.31	0.0	1.12	16.07	56.25	27.68	3.50
7910040620 45 1AA1	14.16	46.96	0.0	0.0	61.14	23.16	76.84	0.0	3.32
7910040620 45 1BB2	20.15	80.84	0.0	0.0	100.99	19.95	80.05	0.0	4.01
7910040620 45 3CC1	19.56	99.11	0.0	0.0	118.67	16.48	83.52	0.0	5.07
7910040620 45 5DD1	24.29	106.32	5.56	0.0	136.17	17.84	78.06	4.08	4.38
7910040620 45 10EE1	16.07	92.42	1.38	0.0	109.87	14.63	84.12	1.26	5.75
7910040620 45 16FF1	0.19	26.72	2.78	0.0	35.69	17.34	74.87	7.79	4.32
7910040620 45 23GG1	1.61	9.74	1.06	0.0	12.41	14.35	77.24	8.41	5.38
7910041130 46 1AA1	5.25	25.26	8.49	0.0	39.02	13.45	64.79	21.76	4.82
7910041130 46 1BB1	6.09	43.16	15.41	0.0	64.68	9.42	66.76	23.82	7.09
7910041130 46 6CC1	7.96	49.07	12.76	0.0	69.81	11.43	70.29	18.28	6.15
7910041130 46 12DD1	8.47	49.63	9.99	0.0	68.09	12.44	72.89	14.67	5.86
7910041130 46 21EE1	7.91	51.77	11.07	0.0	70.75	11.16	73.17	15.65	6.54
7910041130 46 34FF1	0.63	16.35	3.71	0.0	20.69	3.04	79.02	17.93	25.95
7910041130 46 46GG1	0.11	2.63	0.65	0.0	3.59	3.06	73.26	23.68	23.91
7910050650 48 1AA1	1.45	16.27	3.50	0.0	21.22	6.83	76.67	16.49	11.22
7910050650 48 1BB1	2.22	20.27	2.89	0.0	25.38	8.75	79.87	11.39	9.13
7910050650 48 6CC1	1.73	21.90	6.75	0.0	30.38	5.69	72.09	22.22	12.66
7910050650 48 14DD1	0.97	19.26	2.82	0.0	23.05	4.21	83.56	12.23	19.86
7910050650 48 25EE1	0.13	6.31	1.27	0.0	7.71	1.69	81.84	16.47	48.54
7910050650 48 39FF1	0.08	2.54	0.48	0.0	3.10	2.58	81.94	15.48	31.75
7910050650 48 51GG1	0.03	1.68	0.34	0.0	2.05	1.46	81.95	16.59	56.00
7910051135 49 1AA1	3.26	52.21	25.62	0.0	81.09	4.02	64.39	31.59	16.02
7910051135 49 1BB1	1.62	49.82	23.52	0.0	74.96	2.16	66.46	31.38	30.75
7910051135 49 5CC1	2.14	41.42	18.36	0.0	61.92	3.46	66.89	29.65	19.36
7910051135 49 11DD1	0.56	23.17	12.80	0.0	36.53	1.53	63.43	35.04	41.37
7910051135 49 20EE1	0.21	7.15	3.38	0.0	10.74	1.96	66.57	31.47	34.05
7910051135 49 32FF1	0.0	3.73	1.03	0.0	4.76	0.0	78.36	21.64	0.0
7910051135 49 42GG1	0.04	0.61	0.54	0.0	1.19	3.36	51.26	45.38	15.25
7910060700 51 1AA1	11.28	24.53	1.64	0.0	37.45	30.12	65.50	4.38	2.17
7910060700 51 1BB1	18.64	42.35	1.49	0.0	62.48	29.83	67.78	2.38	2.27
7910060700 51 2CC1	14.90	55.75	1.70	0.0	72.35	20.59	77.06	2.35	3.74
7910060700 51 4DD1	15.74	46.46	3.76	0.0	65.96	23.86	70.44	5.70	2.95
7910060700 51 7EE1	8.67	36.35	1.76	0.0	46.76	18.53	77.70	3.76	4.19
7910060700 51 11FF1	1.32	5.00	0.77	0.0	7.09	18.62	70.52	10.86	3.79
7910060700 51 15GG1	0.53	2.37	0.63	0.0	3.53	15.01	67.14	17.85	4.47
7910061115 52 1AA1	42.48	39.33	5.39	0.0	87.20	48.72	45.10	6.18	0.93
7910061115 52 1BB1	57.24	49.07	13.89	0.0	120.20	47.62	40.82	11.56	0.86
7910061115 52 5CC1	65.41	54.55	22.00	0.0	141.96	46.08	38.43	15.50	0.83
7910061115 52 9DD1	45.92	49.93	12.26	0.0	108.11	42.48	46.18	11.34	1.09
7910061115 52 16EE1	32.17	28.15	6.45	0.0	66.77	48.18	42.16	9.66	0.88
7910061115 52 25FF1	7.78	7.83	1.60	0.0	17.21	45.21	45.50	9.30	1.01
7910061115 52 33GG1	1.19	0.58	0.43	0.0	2.20	54.09	26.36	19.55	0.49
7910090625 61 1AA1	21.95	113.16	36.63	0.0	171.74	12.78	65.89	21.33	5.16
7910090625 61 1BB1	25.32	103.80	31.32	0.0	160.24	15.80	64.65	19.55	4.09
7910090625 61 3CC1	16.33	84.43	25.96	0.0	126.72	12.89	66.63	20.49	5.17
7910090625 61 5DD2	5.88	68.60	29.71	0.0	104.19	5.64	65.84	28.52	11.67
7910090625 61 10EE1	0.79	31.69	4.97	0.0	37.45	2.11	84.62	13.27	40.11
7910090625 61 17FF1	0.30	5.52	1.15	0.0	6.97	4.30	79.20	16.50	18.40
7910090625 61 24GG1	0.15	1.76	0.41	0.0	2.32	6.47	75.86	17.67	11.73
7910090626 61 1AA1	20.40	84.43	29.54	0.0	134.37	15.18	62.83	21.98	4.14
7910090626 61 1BB1	17.10	75.40	33.65	0.0	126.15	13.56	59.77	26.67	4.41
7910090626 61 3CC1	14.05	59.10	25.33	0.0	98.48	14.27	60.01	25.72	4.21
7910090626 61 5DD1	8.56	45.06	19.24	0.0	72.86	11.75	61.84	26.41	5.26
7910090626 61 10EE1	2.78	15.71	3.64	0.0	22.13	12.56	70.99	16.45	5.65
7910090626 61 17FF1	0.86	3.48	2.43	0.0	6.77	12.70	51.40	35.89	4.05
7910090626 61 24GG1	0.32	1.50	1.65	0.0	3.47	9.22	43.23	47.55	4.69
7910091135 62 1AA1	27.00	71.42	20.75	0.0	119.17	22.66	59.93	17.41	2.65

	NET	NAN OR PPP	DCM	TPP	SCM	% NET	% NAN OR PPP	% DCM	NAN/NET
7910091135 02 1001	26.52	69.50	29.63	0.0	145.65	18.21	61.45	20.34	3.37
7910091135 02 4001	25.47	69.29	25.69	0.0	120.65	21.11	57.43	21.46	2.72
7910091135 02 7001	15.21	50.54	22.68	0.0	96.43	15.77	60.71	23.52	3.85
7910091135 62 1201	6.84	26.75	5.68	0.0	39.27	17.42	68.12	14.46	3.91
7910091135 62 1601	0.69	4.22	1.34	0.0	6.45	13.68	65.43	20.78	4.74
7910091135 62 2301	0.38	1.39	0.47	0.0	2.24	16.96	62.05	20.98	3.66
7910091136 02 1001	25.11	79.86	10.38	0.0	115.35	21.77	69.23	9.00	3.18
7910091136 62 1001	19.16	89.05	8.51	0.0	116.72	16.42	76.29	7.29	4.65
7910091136 62 4001	17.04	65.51	4.96	0.0	87.51	19.47	74.86	5.67	3.84
7910091136 62 7001	8.07	40.11	3.76	0.0	51.96	15.53	77.19	7.27	4.97
7910091136 62 1201	2.55	10.39	2.18	0.0	15.12	16.87	68.72	14.42	4.07
7910091136 62 1601	0.57	2.43	0.56	0.0	3.56	15.92	67.88	16.20	4.26
7910091136 62 2301	0.39	1.34	0.01	0.0	1.74	22.41	77.01	0.57	3.44

Table 3. Rates of primary productivity ($mgC/m^3/d$) by station, depth, and size-fraction, Belogorsk 79-05.

			NET	NAN CR PPP	DCM	TPP	SUM	% NET	% NAN CR PPP	% DCM	NAN/NET
7911221126	1	1AA1	14.61	25.56	0.0	0.0	40.39	36.67	63.33	0.0	1.73
7911221126	1	1BB1	22.49	20.35	7.78	0.0	56.62	39.72	46.54	13.74	1.17
7911221126	1	1CC1	20.65	36.50	0.0	0.0	57.15	36.13	63.87	0.0	1.77
7911221126	1	4DD1	23.95	35.44	8.31	0.0	67.70	35.38	52.35	12.27	1.48
7911221126	1	7EE1	16.46	27.16	46.63	0.0	90.27	20.45	30.11	49.44	1.47
7911221126	1	15FF1	4.36	13.92	3.63	0.0	21.93	19.97	63.47	16.55	3.18
7911221126	1	22GG1	2.60	1.34	1.22	0.0	5.16	50.39	25.97	23.64	0.52
7911230720	4	1AA1	15.74	16.16	2.56	0.0	34.46	45.65	46.93	7.42	1.03
7911230720	4	1BB1	15.95	30.60	4.97	0.0	51.52	30.96	59.39	9.65	1.92
7911230720	4	4CC1	20.93	31.02	3.52	0.0	55.47	37.73	55.92	6.35	1.48
7911230720	4	8DD1	19.74	29.93	9.31	0.0	58.98	33.47	50.75	15.79	1.52
7911230720	4	14EE1	10.92	15.33	2.16	0.0	28.41	38.44	53.96	7.60	1.40
7911230720	4	21FF1	2.13	2.87	0.36	0.0	5.36	39.74	53.54	6.72	1.35
7911230720	4	27GG1	0.75	1.10	0.06	0.0	1.91	39.27	57.59	3.14	1.47
7911231110	5	1AA1	17.18	10.46	3.29	0.0	30.93	55.54	33.82	10.64	0.61
7911231110	5	3BB1	25.91	21.29	9.28	0.0	56.48	45.87	37.69	16.43	0.82
7911231110	5	5CC1	33.74	15.30	5.57	0.0	54.61	61.78	28.02	10.20	0.45
7911231110	5	10DD1	22.37	17.25	8.49	0.0	48.11	46.50	35.86	17.65	0.77
7911231110	5	16EE1	11.83	8.53	2.07	0.0	22.43	52.74	38.03	9.23	0.72
7911231110	5	28FF1	2.41	1.18	0.34	0.0	3.93	61.32	30.03	8.65	0.49
7911231110	5	30GG1	1.09	0.37	0.02	0.0	1.48	73.65	25.00	1.35	0.34
7911240728	7	1AA1	14.10	2.53	0.61	0.0	17.24	81.79	14.68	3.54	0.18
7911240728	7	1BB1	23.38	5.84	2.77	0.0	31.99	73.09	18.26	8.66	0.25
7911240728	7	4CC1	28.95	5.58	2.15	0.0	36.68	78.93	15.21	5.86	0.19
7911240728	7	9DD1	29.23	8.02	4.02	0.0	41.27	70.83	19.43	9.74	0.27
7911240728	7	15EE1	13.24	3.82	0.76	0.0	17.84	74.22	21.41	4.37	0.29
7911240728	7	30FF1	1.49	0.23	0.15	0.0	1.87	79.68	12.30	8.02	0.15
7911240728	7	38GG1	0.63	0.10	0.04	0.0	0.77	81.82	12.99	5.19	0.16
7911241115	8	1AA1	32.82	27.16	14.23	0.0	74.21	44.23	36.60	19.18	0.83
7911241115	8	3BB1	30.52	30.66	20.59	0.0	81.77	37.32	37.50	25.18	1.00
7911241115	8	6CC1	28.35	37.82	11.64	0.0	77.81	36.43	48.61	14.96	1.33
7911241115	8	10DD1	20.46	23.25	20.90	0.0	64.61	31.67	35.99	32.35	1.14
7911241115	8	19EE1	8.58	10.08	1.31	0.0	19.97	42.96	50.48	6.56	1.17
7911241115	8	32FF1	1.22	0.74	0.32	0.0	2.28	53.51	32.46	14.04	0.61
7911241115	8	44GG1	0.48	0.0	0.16	0.0					
7911250716	10	1AA1	46.60	24.79	0.43	0.0	71.82	64.88	34.52	0.60	0.53
7911250716	10	1BB1	64.82	33.49	1.36	0.0	99.67	65.03	33.60	1.36	0.52
7911250716	10	4CC1	74.07	39.02	0.25	0.0	113.34	65.35	34.43	0.22	0.53
7911250716	10	7DD1	72.94	35.52	4.98	0.0	113.44	64.30	31.31	4.39	0.49
7911250716	10	12EE1	36.92	17.02	0.48	0.0	54.42	67.84	31.28	0.88	0.46
7911250716	10	16FF1	6.73	3.27	0.15	0.0	10.15	66.31	32.22	1.48	0.49
7911250716	10	22GG1	1.82	0.83	0.0	0.0	2.65	68.68	31.32	0.0	0.46
7911251109	11	1AA1	33.17	78.28	7.55	0.0	119.00	27.87	65.78	6.34	2.36
7911251109	11	1BB1	51.60	92.49	14.75	0.0	158.84	32.49	58.23	9.29	1.79
7911251109	11	4CC1	42.09	102.61	15.57	0.0	160.27	26.26	64.02	9.71	2.44
7911251109	11	7DD1	27.35	65.97	15.32	0.0	108.64	25.17	60.72	14.10	2.41
7911251109	11	11EE1	12.40	23.10	1.40	0.0	36.90	33.60	62.60	3.79	1.86
7911251109	11	21FF1	1.59	1.94	0.31	0.0	3.84	41.41	50.52	8.07	1.22
7911251109	11	30GG1	0.55	0.31	0.16	0.0	1.02	53.92	30.39	15.69	0.56
7911260740	13	1AA1	6.20	18.92	33.60	0.0	58.72	10.56	32.22	57.22	3.05
7911260740	13	1BB1	7.74	19.38	31.24	0.0	58.36	13.26	33.21	53.53	2.50
7911260740	13	5CC1	5.30	20.46	36.84	0.0	62.66	8.55	32.65	58.79	3.82
7911260740	13	15DD1	5.35	11.53	30.04	0.0	46.92	11.40	24.57	64.02	2.16
7911260740	13	29EE1	1.82	5.78	2.85	0.0	10.45	17.42	55.31	27.27	3.18
7911260740	13	47FF1	0.61	1.31	0.99	0.0	2.91	20.96	45.02	34.02	2.15
7911260740	13	89GG1	0.10	0.10	0.54	0.0	0.74	13.51	13.51	72.97	1.00
7911261112	14	1AA1	25.39	156.35	4.68	0.0	186.42	13.62	83.87	2.51	6.16
7911261112	14	1BB2	27.31	173.43	3.21	0.0	203.95	13.39	85.04	1.57	6.35

	NET	NAN CR PPP	DCM	TPP	SUM	% NET	% NAN CR PPP	% DCM	NAN/NET
7911201112 14 4CC1	29.76	149.83	3.30	0.0	182.89	16.27	81.92	1.80	5.03
7911201112 14 7CD1	25.40	115.17	3.77	0.0	144.34	17.60	79.79	2.61	4.53
7911201112 14 13EE1	11.09	20.55	0.31	0.0	31.95	34.71	64.32	0.97	1.85
7911201112 14 22FF1	2.43	2.17	0.41	0.0	5.01	48.50	43.31	8.18	0.89
7911201112 14 30GG1	1.12	0.55	0.19	0.0	1.86	60.22	29.57	10.22	0.49
7911270745 15 1AA1	40.19	46.30	6.91	0.0	93.40	43.03	49.57	7.40	1.15
7911270745 15 1BB1	35.83	67.38	7.70	0.0	110.91	32.31	60.75	6.94	1.88
7911270745 15 3CC1	39.80	79.47	6.11	0.0	125.38	31.74	63.38	4.87	2.00
7911270745 15 5CD1	30.97	73.18	8.63	0.0	112.78	27.46	64.89	7.65	2.36
7911270745 15 11EE1	16.67	43.04	0.42	0.0	60.13	27.72	71.56	0.70	2.58
7911270745 15 19FF1	4.97	11.19	0.38	0.0	16.54	30.05	67.65	2.30	2.25
7911270745 15 27GG1	3.06	3.74	0.0	0.0	6.80	45.00	55.00	0.0	1.22
7911271108 16 1AA1	24.06	23.53	6.60	0.0	54.19	44.40	43.42	12.18	0.98
7911271108 16 3BB1	45.29	57.51	12.37	0.0	115.17	39.32	49.93	10.74	1.27
7911271108 16 5CC1	37.60	59.33	20.36	0.0	117.29	32.06	50.58	17.36	1.58
7911271108 16 9CD1	22.83	61.54	15.33	0.0	99.70	22.90	61.73	15.38	2.70
7911271108 16 12EE1	14.05	42.26	6.43	0.0	62.74	22.39	67.36	10.25	3.01
7911271108 16 27FF1	3.95	6.34	2.30	0.0	12.59	31.37	50.36	18.27	1.61
7911271108 16 30GG1	0.95	3.09	1.01	0.0	5.05	18.81	61.19	20.00	3.25

Table 4. Total daily integral productivity, Belogorsk 79-01.

YEAR	MONTH	DAY	TIME	STATION	CHLORINITY	% LIGHT 100	69	46	25	10	3	1	PHOTIC DEPTH (M)	CHLOROPHYLL	PHEOPHYTIN	DAILY INTEGRAL PRODUCTION MG C/M2/DAY NET	NANNO	DOM	TOTAL	% OF DAILY PRODUCTION NET	NANNO	DOM	% OF PARTICULATE PRODUCTION BY NANNO
79	08	12	0642	5	8.0	0.0	1.8	3.6	6.3	10.7	17.0	23.6	23.6	4.83	28.71	1.54	962.	197.	58.	1216.	79.1	16.2	4.7	17.0
79	08	12	1138	7	13.0	0.0	2.8	5.1	9.5	20.5	27.9	35.0	35.0	4.92	28.71	3.61	1353.	564.	292.	2209.	61.2	25.5	13.2	29.4
79	08	13	0652	12	7.0	0.0	0.9	2.0	6.9	10.8	14.0	14.0	14.0	4.83	39.09	2.45	3269.	735.	55.	4060.	80.5	18.1	1.4	18.4
79	08	13	1145	14	10.0	0.0	1.7	3.0	7.6	12.2	17.0	21.2	21.2	4.75	39.09	1.82	2658.	818.	113.	3589.	75.4	21.6	3.0	22.3
79	08	14	0633	20	8.0	0.0	1.5	3.0	6.0	9.1	16.2	19.0	19.0	4.75	51.76	2.23	1226.	864.	119.	2210.	55.5	39.1	5.4	41.3
79	08	14	1105	22	3.1	0.0	1.0	2.0	3.2	5.2	8.0	10.5	10.5	5.17	51.76	2.01	3022.	1912.	107.	5042.	59.9	37.9	2.1	38.7
79	08	15	0655	28	6.0	0.0	1.0	2.0	3.5	6.5	13.0	19.0	19.0	4.80	41.78	1.81	3108.	823.	157.	4089.	76.0	20.1	3.9	20.9
79	08	15	1145	30	7.0	0.0	2.0	3.2	5.9	9.0	14.0	19.0	19.0	4.67	41.78	2.77	3006.	888.	334.	4227.	71.1	21.0	7.9	22.8
79	08	16	0642	36	16.0	0.0	3.0	6.4	11.0	21.0	35.0	49.0	49.0	5.33	42.52	1.95	253.	2295.	406.	2933.	7.9	78.2	13.8	90.8
79	08	16	1205	36	13.0	0.0	3.5	6.7	11.8	18.7	24.7	29.6	29.6	4.17	42.52	2.44	1120.	925.	82.	2127.	52.7	43.5	3.8	45.2
79	08	17	0640	44	14.0	0.0	2.0	3.8	8.0	16.0	27.0	37.2	37.2	4.75	46.90	1.97	315.	689.	66.	1070.	29.4	64.4	6.2	68.7
79	08	17	1110	45	18.0	0.0	2.0	4.2	10.8	19.0	28.6	38.0	38.0	5.17	46.90	2.18	449.	792.	110.	1350.	33.2	58.7	8.1	63.8
79	08	18	0637	51	5.0	0.0	0.8	1.8	3.2	5.3	8.2	11.1	11.1	4.83	9.02	1.87	2456.	690.	38.	3184.	77.2	21.7	1.2	21.9
79	08	18	1133	53	12.0	0.0	1.9	3.3	6.7	14.0	23.0	27.0	27.0	5.00	9.02	3.37	238.	589.	453.	1280.	18.6	46.0	35.4	71.2
79	08	19	0715	61	21.0	0.0	2.8	5.0	15.0	31.0	44.6	55.0	55.0	4.45	31.35	1.87	92.	1070.	107.	1269.	7.3	84.3	8.4	92.1
79	08	19	1139	62	20.0	0.0	3.0	7.0	12.6	20.7	26.6	34.0	34.0	4.97	31.35	2.51	110.	1770.	48.	1928.	5.7	91.8	2.5	94.1
79	08	20	0644	66	18.0	0.0	2.4	5.2	9.7	17.8	29.2	40.8	40.8	4.83	37.68	2.24	802.	1481.	61.	2344.	34.2	63.2	2.6	64.9
79	08	20	1110	67	9.0	0.0	1.7	3.1	6.0	12.0	19.6	26.0	26.0	5.42	37.68	1.71	701.	968.	42.	1711.	41.0	56.6	2.4	58.0
79	08	22	0714	76	20.0	0.0	2.1	4.8	15.0	31.0	41.1	57.1	57.1	4.75	39.87	1.87	214.	1345.	460.	2019.	10.6	66.6	22.8	86.3
79	08	22	1145	77	22.0	0.0	3.9	7.9	15.0	25.0	38.2	50.4	50.4	4.67	39.87	2.54	39.	805.	69.	913.	4.3	88.2	7.5	95.4
79	08	23	0614	85	11.0	0.0	1.5	3.5	7.0	13.8	22.7	31.0	31.0	5.00	38.68	2.54	162.	1418.	51.	1630.	9.9	87.0	3.1	89.8
79	08	23	1105	86	11.0	0.0	1.9	3.8	6.4	11.0	18.6	25.2	25.2	5.00	38.68	1.74	336.	1054.	46.	1436.	23.4	73.4	3.2	75.8
79	08	24	0628	91	10.0	0.0	2.5	5.1	9.6	16.0	25.1	33.1	33.1	4.82	37.12	2.17	63.	1504.	85.	1653.	3.8	91.0	5.2	96.0
79	08	24	1110	93	9.0	0.0	2.0	5.0	8.5	13.0	19.8	26.0	26.0	5.25	37.12	2.06	153.	2411.	32.	2596.	5.9	92.9	1.2	94.0
79	08	25	0620	99	12.0	0.0	2.0	4.0	7.2	12.1	18.7	24.5	24.5	4.93	40.37	1.95	275.	806.	85.	1166.	23.6	69.1	7.3	74.6
79	08	25	1100	101	13.0	0.0	2.3	5.1	9.5	16.0	24.4	32.0	32.0	4.13	40.37	2.56	55.	1083.	133.	1271.	4.3	85.3	10.4	95.2
79	08	26	0637	107	11.0	0.0	2.2	4.5	9.3	16.7	26.0	35.0	35.0	4.43	33.01	1.95	26.	1061.	77.	1164.	2.2	91.3	6.5	97.7
79	08	26	1105	108	12.0	0.0	3.0	5.9	10.5	17.1	26.0	34.0	34.0	4.97	33.01	2.39	38.	1827.	92.	1957.	1.9	93.4	4.7	98.0
79	08	27	0605	113	12.0	0.0	2.0	4.1	6.7	16.0	26.1	35.5	35.5	4.97	22.34	2.30	68.	1736.	107.	1911.	3.6	90.8	5.6	96.2
79	08	27	1057	114	9.0	0.0	1.8	3.2	5.7	9.1	14.1	21.5	21.5	4.97	22.34	2.01	699.	1016.	49.	1964.	45.6	51.8	2.5	53.1
79	08	28	0558	119	9.0	0.0	2.0	4.2	6.5	15.8	24.9	33.1	33.1	5.27	34.79	2.45	43.	2555.	202.	2799.	1.5	91.3	7.2	98.4
79	08	28	1113	120	12.0	0.0	2.3	4.6	8.2	13.6	20.9	27.2	27.2	4.78	34.79	1.77	22.	1706.	273.	2003.	1.1	85.3	13.6	98.7
79	08	29	0610	124	6.0	0.0	1.7	3.2	5.7	9.2	14.0	18.8	18.8	5.13	16.46	2.31	483.	939.	103.	1524.	31.7	61.6	6.7	66.0
79	08	29	1110	126	8.0	0.0	1.7	3.5	6.1	10.9	16.9	22.2	22.2	5.00	16.46	1.93	515.	836.	137.	1288.	24.5	64.9	10.6	72.6
79	08	30	0623	131	8.0	0.0	2.3	5.6	10.0	17.0	26.0	34.2	34.2	4.95	33.26	2.24	26.	2896.	106.	3028.	0.9	95.6	3.5	99.1
79	08	30	1113	135	11.0	0.0	1.9	4.2	7.8	13.0	20.0	26.5	26.5	4.97	33.26	1.91	16.	1179.	78.	1274.	1.3	92.6	6.2	98.7
79	08	31	0618	138	9.0	0.0	1.6	3.2	6.0	11.0	17.9	23.9	23.9	5.10	42.74	1.91	329.	1527.	131.	1987.	16.6	76.8	6.6	82.3
79	08	31	1113	140	11.0	0.0	1.6	3.5	6.5	11.0	17.0	22.5	22.5	4.92	42.74	2.26	2279.	957.	135.	3371.	67.6	28.4	4.0	29.6
79	09	01	0615	145	10.0	0.0	1.6	3.6	7.0	12.6	20.0	26.7	26.7	5.08	39.86	2.15	17.	1772.	204.	1993.	0.8	88.9	10.2	99.1
79	09	01	1103	147	14.0	0.0	2.5	4.8	8.5	14.0	21.3	28.0	28.0	5.32	39.86	2.00	230.	1016.	79.	1327.	17.3	76.7	6.0	81.6

Table 5. Total daily integral productivity, Belogorsk 79-03.

YR	MO	DAY	TIME	STATION	CHLORPHYL PPB	% LIGHT 100	69	46	25	10	3	1	CHLORPHYL PPB	NITRATE	AMMONIA	PHOSPHATE	DAILY INTEGRAL PRODUCTION MG C/M2/DAY NET	NANNO	DOM	TOTAL	% OF DAILY PRODUCTION NET	NANNO	DOM	% OF PARTICULATE PRODUCTION BY NANNO
79	09	12	0617	1	7.0	0.0	1.5	2.8	5.0	11.0	19.0	26.0	26.0	4.83	41.23	1.93	33.	1791.	403.	2228.	1.5	80.4	18.1	98.
79	09	12	1126	2	12.0	0.0	2.6	5.0	8.5	13.7	18.0	30.0	30.0	5.00	41.23	2.23	116.	1228.	211.	1555.	7.5	78.9	13.6	91.
79	09	13	0620	5	20.0	0.0	3.0	6.0	11.5	23.0	38.0	53.0	53.0	5.00	40.81	1.90	54.	660.	101.	816.	6.7	80.9	12.4	92.
79	09	13	1123	6	15.0	0.0	3.0	6.8	13.7	22.5	35.0	47.0	47.0	5.00	40.81	2.34	115.	1354.	19.	1489.	7.7	91.0	1.3	92.
79	09	14	0635	8	26.0	0.0	3.6	6.0	18.5	38.0	65.0	87.0	87.0	5.12	36.97	1.99	91.	1348.	132.	1571.	5.8	85.8	8.4	93.
79	09	14	1137	9	20.0	0.0	4.3	10.0	17.8	30.0	46.0	60.0	60.0	5.00	36.97	2.17	68.	1116.	69.	1273.	6.9	87.7	5.4	92.
79	09	15	0635	12	10.0	0.0	1.8	3.8	8.0	16.0	26.0	36.0	36.0	4.83	38.47	1.90	10.	1340.	121.	1472.	0.7	91.1	8.2	99.
79	09	15	1138	13	9.0	0.0	1.5	2.0	5.0	9.0	14.0	21.0	21.0	5.00	38.47	2.24	1161.	2180.	64.	3405.	34.1	64.0	1.9	65.
79	09	16	0610	15	8.0	0.0	1.4	2.6	5.0	11.5	20.0	28.0	28.0	5.18	39.35	1.88	41.	1301.	100.	1442.	2.8	90.3	6.9	97.
79	09	16	1127	16	9.0	0.0	2.0	3.8	6.0	9.5	19.0	30.0	30.0	4.98	39.35	2.24	74.	2368.	95.	2536.	2.9	93.3	3.7	97.
79	09	17	0610	18	8.0	0.0	1.8	3.6	7.2	13.0	20.0	26.0	26.0	5.13	38.32	2.20	70.	1501.	350.	1720.	4.0	75.6	20.4	94.
79	09	17	1113	19	10.0	0.0	1.8	3.6	7.0	12.0	19.0	25.0	25.0	5.00	38.32	1.92	28.	1290.	12.	1330.	2.1	97.0	0.9	97.
79	09	18	0629	22	13.0	0.0	1.8	3.5	7.0	14.8	25.0	33.0	33.0	5.08	37.76	2.02	209.	959.	89.	1257.	16.6	76.3	7.1	82.
79	09	18	1130	23	17.0	0.0	1.7	4.0	6.8	13.0	20.5	27.5	27.5	5.00	37.76	2.08	164.	813.	50.	1027.	16.0	79.2	4.9	83.
79	09	19	0651	26	18.0	0.0	1.9	4.0	12.0	26.5	44.0	66.0	66.0	5.00	26.31	2.06	88.	1565.	76.	1730.	5.1	90.5	4.4	94.
79	09	29	0630	27	8.0	0.0	2.0	4.0	8.0	14.0	20.0	25.0	25.0	4.75	4.51	1.97	4.	367.	154.	524.	0.8	69.9	29.3	98.
79	09	29	1115	28	11.0	0.0	2.0	4.5	10.0	18.0	29.0	39.5	39.5	5.08	4.51	2.13	4.	692.	356.	1053.	0.4	65.7	33.9	99.
79	09	30	0626	31	29.0	0.0	4.0	10.0	21.0	41.0	66.0	89.0	89.0	4.67	15.73	1.66	15.	490.	153.	658.	2.3	74.5	23.2	97.
79	09	30	1128	32	14.0	0.0	2.0	5.0	9.0	15.0	22.0	28.0	28.0	5.08	15.73	2.82	100.	726.	286.	1112.	9.0	65.3	25.7	87.
79	10	01	0625	35	10.0	0.0	1.5	3.0	5.5	11.5	19.0	27.0	27.0	5.00	16.44	1.57	737.	956.	18.	1711.	43.1	55.9	1.0	56.
79	10	01	1125	36	11.0	0.0	2.0	4.0	8.0	17.0	28.0	36.0	36.0	4.92	16.44	3.01	60.	1805.	532.	2397.	2.5	75.3	22.2	96.
79	10	02	0700	37	10.0	0.0	2.0	4.0	9.0	16.0	27.0	39.0	39.0	4.67	18.21	1.99	10.	1251.	179.	1440.	0.7	86.9	12.4	99.
79	10	02	1130	38	10.0	0.0	2.0	4.0	7.0	15.0	25.0	35.0	35.0	4.83	18.21	2.22	15.	1139.	345.	1499.	1.0	76.0	23.0	96.
79	10	03	0635	42	21.0	0.0	2.0	5.0	13.0	26.0	43.0	58.5	58.5	4.92	15.36	1.59	38.	575.	161.	774.	4.9	74.3	20.8	93.
79	10	03	1125	43	19.0	0.0	3.0	8.0	14.0	26.0	41.0	53.0	53.0	4.92	15.36	3.09	59.	966.	237.	1263.	4.7	76.5	18.8	94.
79	10	04	0620	45	9.0	0.0	1.0	2.5	5.0	10.0	16.0	22.5	22.5	5.08	27.00	1.82	295.	1428.	49.	1773.	16.7	80.6	2.8	82.
79	10	04	1130	46	13.0	0.0	3.0	6.0	12.0	21.0	34.0	46.0	46.0	4.83	27.00	2.38	221.	1550.	365.	2136.	10.4	72.6	17.1	87.
79	10	05	0650	48	19.0	0.0	2.5	6.0	13.5	24.5	39.0	51.0	51.0	5.00	10.90	1.36	30.	504.	101.	635.	4.7	79.4	15.9	94.
79	10	05	1135	49	12.0	0.0	2.0	5.0	11.0	20.0	31.5	42.0	42.0	4.75	10.90	4.32	24.	654.	312.	990.	2.4	66.1	31.5	96.
79	10	06	0700	51	0.0	0.0	1.0	2.0	3.5	7.0	11.0	15.0	15.0	4.75	29.81	1.79	121.	402.	25.	547.	22.1	73.3	4.5	76.
79	10	06	1115	52	0.0	0.0	2.0	4.5	8.5	15.5	24.5	32.5	32.5	5.00	29.81	2.42	965.	896.	242.	2103.	45.9	42.6	11.5	48.
79	10	09	0625	61	7.0	0.0	1.0	3.0	5.0	10.0	17.0	24.0	24.0	5.03	8.70	2.23	110.	856.	261.	1226.	8.9	69.8	21.2	88.
79	10	09	0626	61	7.0	0.0	1.0	3.0	5.0	10.0	17.0	24.0	24.0	5.00	8.70	2.25	118.	555.	228.	901.	13.1	61.6	25.3	82.
79	10	09	1135	62	0.0	0.0	2.0	4.0	7.0	12.0	18.0	23.0	23.0	3.17	8.70	2.32	240.	832.	275.	1355.	18.3	61.4	20.3	77.
79	10	09	1136	62	0.0	0.0	2.0	4.0	7.0	12.0	18.0	23.0	23.0	3.37	8.70	2.27	156.	656.	70.	883.	17.7	74.3	7.9	80.

Table 6. Total daily integral productivity, Belogorsk 79-05.

YEAR	MONTH	DAY	TIME	STATION	CONDITIONS %	% LIGHT DEPTHS (M) 100	69	46	25	10	3	1	MIXED DEPTH (M)	CHLORPHYLL A (MG/M3)	PHEOPHYTIN A (MG/M3)	DAILY INTEGRAL PRODUCTION MG C/M2/DAY NET	NANNO	DOM	TOTAL	% OF DAILY PRODUCTION NET	NANNO	DOM	% OF PARTICULATE PRODUCTION BY NANNO
79	11	22	1120	1	15.0	0.0	1.2	2.0	3.5	7.0	15.0	22.0	22.0	4.50	15.67	2.69	263.	438.	317.	1017.	25.9	43.0	31.1	62.5
79	11	23	0720	4	12.0	0.0	1.9	4.0	7.5	13.8	21.0	27.0	27.0	5.00	13.08	1.72	292.	436.	85.	813.	35.9	53.6	10.5	59.9
79	11	23	1110	5	16.0	0.0	2.5	4.8	10.0	18.0	28.0	36.0	38.0	3.58	13.88	2.53	494.	326.	125.	945.	52.3	34.5	13.3	39.8
79	11	24	0725	7	15.0	0.0	2.2	4.3	9.3	17.0	29.5	38.0	38.0	3.75	12.61	1.55	517.	131.	51.	699.	74.0	18.7	7.3	20.2
79	11	24	1115	8	17.0	0.0	2.6	5.7	9.5	19.0	32.0	44.0	44.0	4.92	12.61	3.10	478.	530.	276.	1285.	37.2	41.3	21.5	52.4
79	11	25	0716	10	12.0	0.0	1.8	4.0	7.0	11.5	17.7	21.7	21.7	4.00	12.50	1.61	873.	433.	26.	1332.	65.5	32.5	1.9	33.2
79	11	25	1109	11	12.0	0.0	2.0	3.0	6.5	10.8	20.5	29.7	29.7	5.00	12.50	2.86	426.	697.	138.	1461.	29.2	61.4	9.4	67.1
79	11	26	0740	13	16.0	0.0	2.0	5.0	14.5	29.0	47.0	68.5	68.5	1.08	6.57	9.68	166.	454.	774.	1395.	11.9	32.6	55.5	73.1
79	11	26	1112	14	7.0	0.0	2.0	4.1	7.0	12.7	22.0	30.0	30.0	5.00	8.57	2.19	374.	1557.	42.	1973.	18.9	78.9	2.1	80.1
79	11	27	0745	15	9.0	0.0	1.2	2.6	4.5	11.0	19.4	26.8	26.8	3.50	17.01	2.29	441.	977.	67.	1465.	29.7	65.8	4.5	68.
79	11	27	1108	16	0.0	0.0	2.7	5.0	9.3	16.5	27.0	36.0	36.0	4.92	17.01	1.93	568.	1175.	279.	2022.	28.1	58.1	13.8	67.