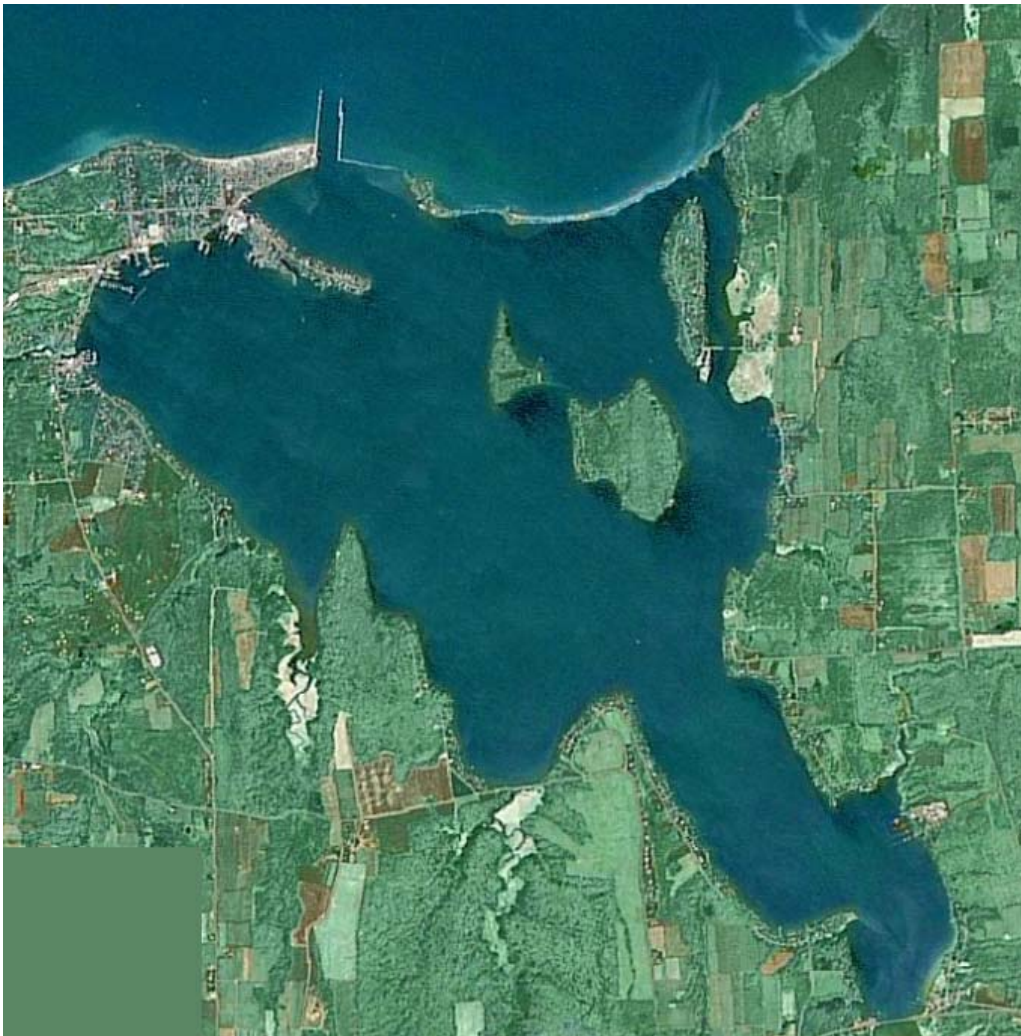


**Final Data Report**  
**Sodus Bay Limnology, Lake Chemistry, Phytoplankton and**  
**Zooplankton Abundance and Nutrient and Soil Losses from the**  
**Watershed, 2004**

Prepared for Princeton Hydro



Joseph C. Makarewicz and Theodore W. Lewis  
Center for Applied Aquatic Science and Aquaculture  
Department of Environmental Science and Biology  
SUNY College at Brockport

April 2005

## Table of Contents

	Page
Introduction	3
Methods	3
Literature Cited	6
Results	7
Proficiency audit results	8
Sodus Bay water chemistry	9-25
Sodus Bay phytoplankton	26-42
Sodus Bay tributary data	43-48
Sodus Bay zooplankton	49-58
Sample location map	59
Sodus Bay profile figures	60-71
Sodus Bay phytoplankton figures	72-75

## **Introduction**

During the spring, summer and fall of 2004, limnological and sub-watershed data were collected from Sodus Bay. In general, monitoring and analysis were designed to meet the following objectives: document current lake, sediment and nutrient conditions; document stream loading to the lake; characterize the bay's community of phytoplankton and zooplankton to provide a benchmark against which the effectiveness of future management actions can be measured. This program will assist in developing a watershed enhancement plan and provide data for a simulation to determine the need for and likely success of adding alum to decrease phosphorus loss from the anoxic hypolimnion. Specific objectives of the sampling program are outlined below.

## **Reports**

This report is not an interpretive report. It is a data report. That is, data summaries are provided that tabulate all the results. In this report, information on bay chemistry, phytoplankton and nutrient and soil loss estimates from selected watersheds. The final report will contain zooplankton abundance.

## **Sampling and Analytical Methods**

Limnological and watershed sampling and analysis was performed on five dates from May to September 2004 in the Sodus Bay watershed. Limnological samples were taken from a research vessel at seven sites throughout Sodus Bay. Field measurements of temperature (SBE 3F sensor), conductivity (SBE 4C sensor), dissolved oxygen (YSI), chlorophyll *a* (WetLabs – WetStar sensor), photosynthetically active radiation (LiCor Li-193SA), turbidity (OBS-3, D&A Instruments), light transmission (WetLabs C-star, 25 cm path length), and pH (SBE 18) were done with a pre-calibrated Sea-Bird CTD (Model 25 SBE) sonde. A secchi disk transparency measurement was also done in the field. Water samples were collected from the two deepest stations (Sites 5 and 9) from three depths (1 m, 5m and 8m at Site 9 and 1 m, 5m 11m at Site 5)

using a horizontal Van Dorn bottle and analyzed for total phosphorus, soluble reactive phosphorus, nitrate, total Kjeldahl nitrogen, total suspended solids, ammonia, hardness, and alkalinity on each sampling date. Detailed analytical methodologies are presented below. A phytoplankton sample was integrated from three depths within the photic zone (2X secchi disk depth) and preserved with 3% glutaraldehyde. A vertical zooplankton tow through the photic zone surface was done with a ½ meter diameter plankton net with 63µm mesh equipped with a General Oceanics flowmeter to correct for the exact volume filtered. Samples were preserved with 10% formalin.

Six subwatersheds (First, Second, Third, Sodus West, Sodus East and Clark creeks) were sampled on five dates from May to September 2004. A point discharge estimate was derived from velocity readings taken with a Teledyne Gurley-pygmy meter combined with a cross-sectional area using the bridge or culvert at the sampling location (Rantz *et al.* 1982). Field measurements of temperature, dissolved oxygen and conductivity were taken with a pre-calibrated Hydrolab sonde. A water sample was taken and analyzed for total phosphorus, total Kjeldahl nitrogen, total suspended solids and nitrate.

All sampling bottles were pre-coded so as to ensure exact identification of the particular sample. All sample bottles were routinely cleaned with phosphate free RBS between sampling dates. Containers were rinsed prior to sample collection with the water being collected. In general, all procedures followed Standard Methods for the Analysis of Water and Wastewater. Sample water for dissolved nutrient analyses (SRP, nitrate + nitrite) was filtered immediately with 0.45-µm MCI Magna Nylon 66 membrane and either frozen or analyzed within 24 hours of collection.

**Nitrate+Nitrite:** Dissolved nitrate+nitrite nitrogen were performed by the automated (Technicon autoanalyser) cadmium reduction method (APHA 1999).

**Soluble Reactive Phosphorus:** Sample water was filtered through a 0.45-µm membrane filter. The filtrate was analyzed for orthophosphate using the automated (Technicon) colorimetric ascorbic acid method (APHA 1999). The formation of the phosphomolybdeum blue complex was read colorimetrically at 880nm.

**Total Phosphorus:** The persulfate digestion procedure was used prior to analysis by the automated (Technicon autoanalyser) colorimetric ascorbic acid method (APHA 1999).

**Ammonia:** Ammonia was measured using the ion selective probe method 4500-NH<sub>3</sub> D (APHA 1999).

**Total Kjeldahl nitrogen:** Total Kjeldahl nitrogen was measured using method EPA 351.2 (EPA 1987).

**Hardness:** Hardness was done using method 2340 B (APHA 1999).

**Alkalinity:** Alkalinity was measured using method 2320 B (APHA 1999).

**Total suspended solids:** Total suspended solids were measured using method 2540 D (APHA 1999).

**Phytoplankton:** Phytoplankton were identified and enumerated following the settling chamber procedure (Utermohl 1958) using an inverted microscope. A second identification and enumeration of diatoms was performed after the organic portion was oxidized with 30% hydrogen peroxide and nitric acid. The cell volume of each species was calculated by applying average dimensions for each sampling date to the geometric shape that most closely resembled the species form (Makarewicz *et al.* 1999). At least ten specimens of each species for each sample was measured for the cell volume calculation. When fewer than ten specimens were present, those present were measured as they occurred. Individual cells of colonial and filamentous forms were measured. For comparative purposes, biovolume ( $\mu\text{m}^3/\text{mL}$ ) was converted to biomass ( $\text{mg}/\text{m}^3$ ) assuming the specific gravity of phytoplankton to be 1.0 ( $\text{mm}^3/\text{L} = \text{mg}/\text{m}^3$ ) (Willen 1959, Nauwerk 1963).

**Zooplankton:** A one mL sub-sample was withdrawn using a Hensen-Stemple pipette from a well-mixed sample and transferred to a Sedgwick-Rafter counting cell. All zooplankton were identified and the number of individuals and eggs per species enumerated using a phase contrast microscope at 100X, species identification of Copepods and Daphnia were confirmed at 200X or 400X. Length measurements were made on the first twenty individuals of each species encountered per sample. Zooplankton taxonomy largely followed Balcer *et al.* (1984); other keys consulted included Edmondson (1959), Ruttner-Kolisko (1974) and Brooks (1957).

The volume of each rotifer species was computed using the geometrical shape that most closely resembled the species (Downing and Rigler 1984). Assuming a specific gravity of one, volume was converted to fresh weight and to dry weight assuming a ratio of dry to wet weight of 0.1 (Doohan 1973) for all rotifer species except *Asplanchna* spp. A dry weight / wet weight ratio of 0.039 was used for *Asplanchna* spp. (Dumont et al. 1975). The dry weight of Crustacea were calculated using the length – weight relationships found in Downing and Rigler (1984).

## **Quality Control**

The Water Chemistry Laboratory at SUNY Brockport is certified through the New York State Department of Health's Environmental Laboratory Approval Program (ELAP - # 11439). This program includes bi-annual proficiency audits, annual inspections and good laboratory practices documentation of all samples, reagents and equipment (Table 1).

## **Literature Cited**

- APHA 1999. Standard Methods for the Examination of Waste and Wastewater. American Public Health Association, 20<sup>th</sup> ed. New York, NY. 1134p.
- Balcer, M.D., Korda, N.L., and Dodson, S.I. 1984. Zooplankton of the Great Lakes. Madison, Wisconsin: The University of Wisconsin Press.
- Brooks, J.L. 1957. The systematics of North American *Daphnia*. Connecticut Academy of Arts and Sciences and Yale University Press.
- Doohan, M. 1973. An energy budget for adult *Brachionus plicatilis* Muller (Rotaria). *Oecologia*. 13: 351-362.
- Downing, J.A. and F. H. Rigler. 1984. A manual on methods for the assessment of secondary productivity in fresh waters. IBP Handbook #17. Blackwell Scientific Publications, Oxford.
- Dumont, H.J., I. van de Velde, and S. Dumont. 1975. The dry weight estimate of biomass in a selection of Cladocera, Copepoda and Rotifera for the plankton, periphyton and benthos of continental waters. *Oecologia*. 19: 75-97.
- Edmonson, W.T. 1959. Fresh-Water Biology. New York: John Wiley & Sons, Inc.

- EPA. 1979. Methods for the Chemical Analysis of Water and Wastes. Environmental Monitoring and Support Laboratory. Environmental Protection Agency. Cincinnati, Ohio. EPA-600/4-79-020.
- Makarewicz, J. C., Lewis, T.W. and Bertram, P. 1999. Phytoplankton composition and biomass in the offshore waters of Lake Erie: Pre- and post-*Dreissena* introduction. J. Great Lakes Res. 25(1):135-148.
- Nauwerck, A. 1963. The relation between zooplankton and phytoplankton in Lake Erken. Symb. Bot. Ups. 17: 163.
- Rantz, S.E., et al., (1982). "Measurement and Computation of Streamflow: Volume 2. Computation of Discharge," Water-Supply Paper 2175, U.S. Geological Survey, pp. 285-631.
- Ruttner-Kolisko, A. 1974. Plankton Rotifers, Biology and Taxonomy. Supplementary edition, English translation of Volume XXVI, part 1: Chapter "Die Rotatorien". E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, Germany.
- Utermohl, H. 1958. Zur vervollkommnung der quantitativen phytoplankton-methodik. M.H. Int. Ver. Limnol. 9. 38pp.
- Willen, T. 1959. The phytoplankton of Gorwalm, a bay of Lake Malaren. Oikos. 10:241-274.

## Results

Tables and figures are also provided as Excel files on the attached compact disk.

Table 1. Results of proficiency audit samples of the Water Quality Laboratory at SUNY Brockport

**WADSWORTH CENTER**  
**NEW YORK STATE DEPARTMENT OF HEALTH**  
**ENVIRONMENTAL LABORATORY APPROVAL PROGRAM**  
**Proficiency Test Report**

Lab 11439      SUNY BROCKPORT      EPA Lab Code      NY01449  
 WATER LAB LENNON HALL  
 BROCKPORT, NY 14420  
 USA

Shipment 275 Non Potable Water Chemistry  
 Shipment Date: 19-Jul-2004

<u>Analyte</u>	<u>Sample ID</u>	<u>Result</u>	<u>Mean/Target</u>	<u>Warning Limits</u>	<u>Method</u>	<u>Score</u>
Sample: <b>Water Residue</b> <b>Solids, Total Suspended</b> 260 passed out of 268 reported results. EPA Code: 0072	7502	82.9	89.0	73.6-91.6	SM 18-20 2540D	Satisfactory
Sample: <b>Organic Nutrients</b> <b>Kjeldahl Nitrogen, Total</b> 89 passed out of 98 reported results. EPA Code: 0034	7504	30.41	30.5	25.0-35.0	EPA 351.3	Satisfactory
<b>Phosphorus, Total</b> 115 passed out of 123 reported results. EPA Code: 0035	7504	4.37	4.38	3.63-4.84	SM18-20 4500-P E	Satisfactory
Sample: <b>Inorganic Nutrients</b> <b>Nitrate (as N)</b> 113 passed out of 121 reported results. EPA Code: 0032	7507	36.1	35.4	30.4-39.7	SM18-20 4500-NO3 F	Satisfactory
<b>Orthophosphate (as P)</b> 97 passed out of 101 reported results. EPA Code: 0033	7507	2.49	2.57	2.32-2.84	SM18-20 4500-P F	Satisfactory
Sample: <b>Minerals II</b> <b>Sodium, Total</b> 88 passed out of 102 reported results. EPA Code: NA	7537	67.32	63.9	59.7-68.1	SM 18-20 2450D	Satisfactory



Table 2. Water chemistry parameters from Sites 5 and 9 on Sodus Bay, May through September 2004. TP = total phosphorus, TSS = total suspended solids, TKN = total Kjeldahl nitrogen, SRP = soluble reactive phosphorus, nd = non -detectable.

Site		Date Collected	TP (µg P/L)	Nitrate (mg N/L)	TSS (mg/L)	TKN (µg N/L)	SRP (µg P/L)	Alkalinity (mg/L)	Ammonia (mg N/L)	Hardness (mg CaCO <sub>3</sub> /L)
Sodus Bay Site 5	1m	05/05/04	17.6	0.21	2.3	460	8.4	111.0	0.3	146.6
Sodus Bay Site 5	5m	05/05/04	12.1	0.26	1.0	450	5.8	111.0	0.3	153.4
Sodus Bay Site 5	11m	05/05/04	11.3	0.27	2.5	420	3.3	113.0	0.3	145.9
Sodus Bay Site 5	1m	06/16/04	12.3	0.22	1.0	230	6.7	124.0	0.1	140.8
Sodus Bay Site 5	5m	06/16/04	14.2	0.13	1.3	420	2.7	124.4	0.1	137.1
Sodus Bay Site 5	11m	06/16/04	148.7	0.24	194.0	2980	3.0	120.9	0.1	140.3
Sodus Bay Site 5	1m	07/21/04	14.1	nd	0.7	260	1.5	115.5	NA	140.0
Sodus Bay Site 5	5m	07/21/04	25.2	nd	0.4	430	<1.2	116.2	NA	139.5
Sodus Bay Site 5	11m	07/21/04	30.1	0.14	4.8	320	1.9	120.7	NA	140.7
Sodus Bay Site 5	1m	08/25/04	16.0	nd	2.5	370	3.7	113.0	0.5	124.9
Sodus Bay Site 5	5m	08/25/04	19.9	<0.02	2.8	440	12.5	113.3	0.5	122.1
Sodus Bay Site 5	11m	08/25/04	242.0	nd	2.0	320	199.7	104.1	0.5	116.4
Sodus Bay Site 5	1m	09/15/04	24.9	nd	1.9	330	1.4	108.5	0.1	116.8
Sodus Bay Site 5	5m	09/15/04	24.1	nd	1.8	310	1.4	109.0	0.2	118.6
Sodus Bay Site 5	11m	09/15/04	39.7	0.21	1.6	250	22.4	109.9	0.2	119.7

Site		Date Collected	TP (µg P/L)	Nitrate (mg N/L)	TSS (mg/L)	TKN (µg N/L)	SRP (µg P/L)	Alkalinity (mg/L)	Ammonia (mg N/L)	Hardness (mg CaCO <sub>3</sub> /L)
Sodus Bay Site 9	1m	05/05/04	27.0	0.21	2.4	400	4.6	111.0	0.4	145.3
Sodus Bay Site 9	5m	05/05/04	13.3	0.21	2.7	530	5.2	111.0	0.5	147.5
Sodus Bay Site 9	8m	05/05/04	14.4	0.20	3.1	450	4.3	111.0	0.4	153.1
Sodus Bay Site 9	1m	06/16/04	13.0	0.06	2.5	350	3.7	122.1	0.1	139.2
Sodus Bay Site 9	5m	06/16/04	12.3	0.10	1.3	490	4.7	123.5	0.1	142.5
Sodus Bay Site 9	8m	06/16/04	9.1	0.19	1.0	490	2.0	120.9	0.1	139.6
Sodus Bay Site 9	1m	07/21/04	17.9	0.08	1.5	440	3.1	114.8	NA	132.8
Sodus Bay Site 9	5m	07/21/04	28.4	nd	1.9	510	2.3	116.5	NA	131.9
Sodus Bay Site 9	8m	07/21/04	16.3	0.16	1.1	380	1.2	115.5	NA	134.2
Sodus Bay Site 9	1m	08/25/04	22.2	nd	2.2	340	3.3	113.2	0.5	118.9
Sodus Bay Site 9	5m	08/25/04	20.2	nd	2.7	360	1.8	111.8	0.5	124.0
Sodus Bay Site 9	8m	08/25/04	19.4	<0.02	3.3	320	3.3	113.9	0.5	121.7
Sodus Bay Site 9	1m	09/15/04	24.6	0.02	1.9	310	2.2	109.7	0.2	120.6
Sodus Bay Site 9	5m	09/15/04	25.7	nd	2.2	1890	1.7	110.4	0.2	120.0
Sodus Bay Site 9	8m	09/15/04	32.7	0.16	1.5	200	13.4	109.9	0.2	121.9

Table 3. In-situ water quality measurements for Site 1, Sodus Bay, May through September 2004. mS = micro Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Date	Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E}/\text{sec}/\text{m}^2$ )	Turbidity (NTU)	Secchi disk (m)
05/05/04	0.5	11.5	0.246	8.52	3.3	10.1	62.5	276.3	0.6	2.1
06/16/04	1.4	20.0	0.285	7.94	6.9	9.6	65.9	817.5	6.4	2.5
07/21/04	0.4	23.7	0.291	7.96	1.7	7.9	69.3	185.2	0.3	2.2 - (Bottom)
08/25/04	0.7	20.9	0.281	7.58	2.2	7.7	66.5	951.5	0.4	2.1
09/15/04	0.5	21.5	0.279	7.74	2.5	7.9	66.9	1424.8	0.3	2.2 - (Bottom)

Table 4. In-situ water quality measurements for Site 2, Sodus Bay, 05 May 2004. mS = mili Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E/sec/m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.4	11.4	0.254	8.44	5.6	8.7	58.4	482.8	0.8	2.0
1.1	11.3	0.254	8.43	6.0	8.7	58.0	372.1	0.7	
1.7	11.3	0.254	8.44	6.1	8.8	58.4	239.9	0.8	
2.3	11.3	0.254	8.44	5.3	8.9	58.1	195.5	0.8	
2.8	11.3	0.254	8.44	2.0	8.9	57.2	138.4	0.8	
3.3	11.3	0.254	8.45	6.3	9.0	56.3	102.8	0.9	
4.0	11.3	0.254	8.46	5.4	9.1	55.1	72.4	1.1	
4.6	11.3	0.254	8.46	5.8	9.2	52.8	50.9	1.5	
5.2	11.3	0.254	8.47	6.0	9.4	56.3	36.4	0.9	
5.6	11.3	0.254	8.48	6.4	9.5	57.0	29.2	0.9	
5.9	11.3	0.254	8.48	6.5	9.6	57.2	25.0	0.8	

Table 4. In-situ water quality measurements for Site 2, Sodus Bay, 16 June 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E/sec/m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.4	20.4	0.289	7.86	5.9	9.6	68.7	895.1	1.2	4.0
0.8	20.4	0.289	7.85	6.3	9.5	68.2	448.2	0.3	
1.1	20.0	0.288	7.83	6.6	9.6	68.2	466.9	0.3	
1.5	20.1	0.287	7.81	6.4	9.0	66.0	317.1	0.3	
2.0	20.2	0.287	7.77	6.2	8.4	66.3	262.3	0.4	
2.3	20.0	0.286	7.71	5.6	8.1	65.7	219.4	0.4	
2.8	19.3	0.284	7.62	5.3	8.1	63.6	194.1	0.5	
3.2	19.2	0.284	7.52	4.6	7.9	60.7	206.8	0.5	
3.5	18.9	0.283	7.44	4.1	7.7	61.3	153.0	0.7	
4.0	18.8	0.282	7.41	4.0	7.5	61.6	130.4	0.6	
4.3	18.6	0.281	7.39	3.9	7.5	61.9	99.0	0.5	
4.8	18.5	0.281	7.37	4.3	7.5	63.0	73.8	0.5	
4.9	18.5	0.281	7.37	4.7	7.5	63.0	61.0	0.5	
5.1	18.4	0.281	7.38	5.0	7.7	62.6	53.2	0.5	

Table 4. In-situ water quality measurements for Site 2, Sodus Bay, 21 July 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E/sec/m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.7	23.9	0.302	7.81	3.1	8.2	65.1	942.9	0.4	3.3
1.2	23.8	0.302	7.80	3.3	8.2	65.4	975.0	0.3	
1.8	23.8	0.302	7.80	3.4	8.3	66.0	529.8	0.3	
2.3	23.8	0.302	7.82	3.3	8.3	65.9	365.3	0.4	
2.9	23.7	0.301	7.84	3.4	8.4	65.6	299.9	0.4	
3.4	23.0	0.301	7.83	3.6	7.8	66.0	227.8	0.4	
3.9	22.8	0.300	7.65	3.9	7.6	65.0	172.3	0.3	
4.4	22.6	0.300	7.62	4.0	7.7	66.1	133.3	0.3	
4.9	22.4	0.300	7.51	3.4	7.1	66.7	102.8	0.3	
5.4	22.0	0.302	7.34	3.8	6.4	65.0	81.0	0.4	
5.9	21.1	0.308	7.24	4.5	4.1	62.9	61.5	0.6	
6.2	21.2	0.308	7.04	3.8	3.6	46.1	60.6	4.9	

Table 4. In-situ water quality measurements for Site 2, Sodus Bay, 25 August 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E}/\text{sec}/\text{m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.1	21.5	0.279	7.75	3.3	7.6	62.3	1209.7	0.5	2.4
0.5	21.4	0.279	7.75	3.3	7.6	62.0	409.9	0.5	
0.9	21.5	0.279	7.75	3.6	7.6	62.1	1098.2	0.5	
1.2	21.5	0.279	7.74	3.4	7.6	62.1	682.3	0.5	
1.3	21.4	0.279	7.74	3.4	7.6	62.2	659.8	0.6	
1.4	21.5	0.279	7.74	3.5	7.6	62.1	689.9	0.5	

Table 4. In-situ water quality measurements for Site 2, Sodus Bay, 15 September 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E}/\text{sec}/\text{m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.1	21.2	0.273	7.90	5.2	8.3	18.2	3042.7	43.6	2.3
0.3	21.2	0.273	7.89	5.3	8.3	57.7	2986.7	0.3	
0.4	21.2	0.273	7.88	5.4	8.0	57.7	809.6	1.1	
0.5	21.2	0.273	7.88	5.5	8.0	57.7	734.9	0.7	

Table 5. In-situ water quality measurements for Site 6, Sodus Bay, May through September 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Date	Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E}/\text{sec}/\text{m}^2$ )	Turbidity (NTU)	Secchi disk (m)
05/05/04	1.1	11.8	0.248	8.41	50.0	9.7	66.8	125.7	0.5	2.0 - (Bottom)
06/16/04	0.8	21.8	0.284	7.96	2.6	10.9	64.7	342.7	0.6	2.0 - (Bottom)
07/21/04	1.1	24.1	0.296	7.99	5.5	8.9	64.3	247.2	0.4	3.3
08/25/04	0.5	21.7	0.278	7.85	5.7	8.4	59.3	1243.0	0.5	2.3
09/15/04	1.1	21.3	0.271	7.71	5.8	7.5	62.3	888.4	0.4	1.8

Table 6. In-situ water quality measurements for Site 10, Sodus Bay, 05 May 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.1	12.3	0.253	8.37	5.1	9.5	58.9	477.4	0.8	2.3
0.5	12.3	0.253	8.38	5.5	9.5	58.7	148.5	0.8	
0.8	12.3	0.253	8.37	5.8	9.5	58.6	136.8	0.8	
1.1	12.3	0.253	8.36	7.2	9.5	58.7	114.5	0.8	
1.5	12.3	0.253	8.37	9.3	9.5	58.7	94.7	0.8	
1.8	12.3	0.253	8.37	12.1	9.5	58.5	86.6	0.8	
2.2	12.3	0.252	8.36	12.8	9.4	58.5	69.3	0.8	
2.5	12.2	0.253	8.36	9.0	9.5	58.4	60.4	0.8	
2.8	12.2	0.253	8.36	10.2	9.5		51.1	0.8	
3.3	12.2	0.253	8.36	12.5	9.5	58.1	38.9	0.9	
3.7	12.2	0.254	8.37	13.4	9.5	58.1	31.6	0.8	
4.1	12.2	0.253	8.37	13.4	9.4	57.8	25.3	0.8	
4.6	12.2	0.253	8.37	11.8	9.3	56.8	19.0	1.0	
4.9	12.2	0.253	8.38	7.9	8.7	56.7	15.6	1.0	
5.3	12.2	0.253	8.38	10.6	8.5	56.8	13.2	0.9	
5.7	12.2	0.253	8.39	4.8	9.0	56.0	10.7	1.0	
6.1	12.2	0.253	8.39	5.0	8.6	56.1	8.4	1.1	

Table 6 (cont.). In-situ water quality measurements for Site 10, Sodus Bay, 16 June 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$  micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.2	21.7	0.298	7.77	3.6	9.9	69.1	577.1	0.4	4.1
0.5	21.6	0.298	7.76	3.9	10.3	68.8	154.1	0.3	
1.1	21.4	0.296	7.76	4.3	9.9	68.6	136.3	0.4	
1.5	21.4	0.295	7.75	4.6	10.1	67.2	136.3	0.4	
1.7	21.0	0.292	7.72	4.8	10.0	67.7	129.9	0.4	
2.1	20.1	0.289	7.69	4.6	9.8	67.3	144.1	0.6	
2.4	21.0	0.291	7.67	5.9	8.9	68.4	221.9	0.4	
2.8	18.5	0.281	7.57	10.0	8.0	68.8	209.9	0.4	
3.1	18.1	0.275	7.42	14.9	7.9	68.6	211.4	0.4	
3.5	16.6	0.266	7.25	19.9	8.0	68.0	190.5	0.4	
3.8	16.3	0.265	7.09	20.5	7.8	68.2	163.6	0.4	
4.0	16.0	0.264	6.95	17.7	7.5	68.4	139.9	0.4	
4.4	15.7	0.261	6.93	29.0	7.2	69.2	112.8	0.4	
4.8	15.6	0.260	6.92	6.4	7.3	68.8	93.6	0.4	
5.0	15.7	0.261	6.91	3.5	7.4	67.5	90.9	0.4	
5.5	15.5	0.258	6.92	3.7	7.7	18.9	73.3	9.7	
5.6	15.4	0.260	6.93	4.2	8.0	18.2	55.8	6.0	

Table 6 (cont.). In-situ water quality measurements for Site 10, Sodus Bay, 21 July 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E/sec/m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.3	23.1	0.307	7.71	5.0	7.9	60.9	1042.5	0.6	3.2
0.7	22.4	0.301	7.69	4.8	7.1	60.4	484.6	0.6	
1.0	22.3	0.298	7.66	4.5	6.7	60.9	657.4	0.5	
1.3	22.1	0.297	7.63	4.5	6.5	60.1	1070.0	0.5	
1.8	21.9	0.297	7.61	3.9	6.4	60.5	551.9	0.8	
2.4	21.7	0.297	7.29	3.7	6.0	58.8	374.9	0.8	
2.7	21.7	0.296	7.19	4.1	5.8	56.5	383.3	0.7	
3.0	21.6	0.296	7.10	4.6	5.7	55.8	292.2	0.8	
3.2	21.4	0.294	7.05	5.8	5.6	59.6	269.2	0.7	
3.5	21.2	0.294	7.02	6.9	5.6	59.6	234.6	1.0	
3.9	21.2	0.293	6.91	12.1	5.3	62.1	171.7	1.3	
4.0	21.3	0.294	6.99	9.5	5.4	28.6	167.3	3.6	
4.3	21.0	0.293	6.83	8.7	5.2	60.4	147.9	2.8	
4.7	20.7	0.292	6.76	10.3	4.0	65.2	118.8	0.8	
5.2	20.7	0.292	6.74	1.8	4.1	26.1	91.6	0.5	
5.9	20.6	0.292	6.70	2.1	3.9	40.4	68.3	9.2	
6.1	20.4	0.332	6.71	1.8	4.0	57.9	62.0	6.4	
6.4	19.7	0.317	6.74	1.7	4.1	51.1	55.0	6.0	
6.7	19.6	0.315	6.78	1.9	4.2	65.0	46.2	0.4	
6.8	19.7	0.312	6.74	1.8	4.4	64.7	40.1	0.4	
7.1	19.8	0.311	6.73	1.9	4.5	64.4	39.8	0.5	

Table 6 (cont.). In-situ water quality measurements for Site 10, Sodus Bay, 25 August 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E/sec/m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.3	21.7	0.289	7.64	4.7	8.7	58.3	2218.0	0.7	2.1
0.6	21.7	0.289	7.63	5.4	8.6	58.4	978.6	0.7	
0.8	21.7	0.289	7.63	5.4	8.6	58.2	1094.2	0.8	
1.3	21.7	0.289	7.63	5.2	8.6	58.1	647.6	0.7	
1.4	21.7	0.289	7.62	5.5	8.6	56.2	679.7	0.7	
1.9	21.7	0.289	7.62	5.6	8.6	57.8	465.1	0.7	
2.0	21.7	0.289	7.61	6.0	8.6	58.3	475.6	0.7	
2.6	21.7	0.289	7.61	5.5	8.6	57.9	336.6	0.7	
3.2	21.6	0.289	7.59	5.5	8.1	58.0	223.6	0.7	
3.4	21.6	0.289	7.58	6.2	8.1	57.9	201.4	0.7	
4.2	21.4	0.289	7.55	5.8	9.1	57.2	127.5	0.7	
4.4	21.5	0.288	7.47	5.8	7.5	57.3	114.5	0.7	
5.0	21.4	0.288	7.41	6.0	5.1	54.4	73.5	0.8	
5.6	19.8	0.284	7.07	6.6	4.2	50.0	58.0	0.9	
5.8	19.8	0.284	7.05	5.8	4.1	50.6	49.6	1.1	
6.2	19.7	0.284	7.11	5.8	3.8	51.9	37.8	1.1	
6.6	19.7	0.284	7.22	5.9	3.6	53.3	27.4	1.1	

Table 6 (cont.). In-situ water quality measurements for Site 10, Sodus Bay, 15 September 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.2	21.0	0.269	7.56	9.6	7.5	46.5	2953.5	1.2	1.5
0.3	21.0	0.270	7.54	8.5	7.3	46.4	2461.5	0.9	
0.8	20.9	0.270	7.51	8.2	6.9	46.5	713.4	0.8	
1.1	20.8	0.270	7.47	8.3	6.6	46.4	396.4	0.8	
1.5	20.7	0.269	7.42	8.0	6.8	46.5	289.0	0.8	
2.0	20.6	0.269	7.37	7.0	6.9	46.8	158.8	0.9	
2.3	20.0	0.269	7.30	5.5	6.9	47.5	117.9	0.8	
2.6	20.2	0.269	7.20	4.0	6.4	48.3	80.1	0.8	
3.0	20.2	0.269	7.07	3.8	5.9	49.8	50.1	0.8	
3.5	20.3	0.268	7.06	4.2	5.2	54.1	32.7	0.7	
3.7	19.9	0.268	7.09	5.2	4.8	56.0	26.6	0.7	
3.9	19.5	0.267	7.13	6.8	4.7	53.2	21.8	0.7	
4.2	18.7	0.265	7.21	9.6	5.1	56.6	15.8	0.7	



Table 7. In-situ water quality measurements for Site 12, Sodus Bay, 05 May 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.1	12.6	0.261	8.42	14.2	9.4	51.0	697.7	1.1	1.8
0.3	12.6	0.261	8.41	13.3	9.4	51.0	226.9	1.1	
0.8	12.6	0.261	8.41	7.8	8.9	50.2	172.3	1.1	
1.0	12.6	0.261	8.41	5.5	8.0	50.5	152.4	1.2	
1.6	12.6	0.261	8.41	16.1	7.7	49.9	112.4	1.3	
2.1	12.6	0.261	8.41	6.1	8.7	46.1	81.9	2.0	
2.6	12.6	0.261	8.42	5.8	8.6	41.0	58.6	1.9	
3.2	12.6	0.261	8.43	5.2	8.3	40.7	37.8	3.6	
3.8	12.6	0.272	8.43	5.8	8.1	36.7	25.2	6.9	
3.9	12.6	0.279	8.43	5.9	8.1	20.0	22.7	13.9	
4.4	12.1	0.279	8.43	7.6	8.7	49.2	17.2	1.2	
4.7	12.1	0.279	8.44	7.6	8.8	48.2	13.0	1.3	

Table 7 (cont.). In-situ water quality measurements for Site 12, Sodus Bay, 16 June 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.6	21.5	0.297	7.78	4.7	10.6	68.3	208.3	0.5	4.2
0.8	21.3	0.296	7.77	4.5	10.2	69.6	166.6	0.3	
1.3	21.1	0.294	7.76	5.5	9.7	69.2	168.5	0.6	
1.7	20.1	0.290	7.74	5.8	9.6	69.4	179.5	0.3	
2.1	19.9	0.288	7.66	8.2	8.7	69.6	259.4	0.5	
2.7	19.4	0.287	7.45	14.7	7.6	69.6	168.5	0.3	
3.2	17.2	0.274	7.16	21.4	8.5	68.8	147.4	0.4	
3.6	17.0	0.273	7.10	14.2	8.6	68.9	128.4	0.4	
3.8	17.1	0.272	7.09	9.8	7.7	67.2	112.4	0.6	
4.3	17.8	0.275	7.11	12.9	6.3	65.7	83.4	0.7	
4.5	17.2	0.272	7.12	2.3	7.0	70.7	75.2	0.6	
4.7	17.3	0.273	7.15	2.4	6.9	72.0	70.1	0.4	
4.8	17.0	0.314	7.15	2.5	7.4	70.2	70.6	0.4	
5.1	16.0	0.309	7.07	2.9	7.7	70.7	59.9	0.4	
5.3	16.0	0.304	7.07	2.6	7.5	70.8	56.9	0.4	
5.4	15.9	0.263	7.10	2.7	7.3	72.1	60.6	0.4	

Table 7 (cont.). In-situ water quality measurements for Site 12, Sodus Bay, 21 July 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E/sec/m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.3	23.6	0.317	7.61	12.3	6.4	59.6	2691.3	1.6	3.4
0.5	23.2	0.315	7.59	7.5	5.8	60.1	689.9	0.5	
0.9	22.8	0.316	7.51	13.8	3.7	55.3	508.6	0.7	
1.3	22.7	0.312	7.13	3.3	2.7	57.7	562.3	0.5	
1.5	22.3	0.307	7.00	4.6	2.6	59.8	408.4	0.8	
1.9	22.3	0.355	6.95	3.4	2.6	54.8	400.8	0.6	
2.2	22.1	0.346	6.91	3.4	2.7	49.9	317.1	2.1	
2.3	22.0	0.339	6.86	3.5	2.7	54.6	292.2	0.6	
2.9	21.9	0.336	6.81	3.6	2.7	49.2	206.8	0.6	
3.0	21.8	0.333	6.75	3.5	2.7	55.9	182.9	0.6	
3.4	21.8	0.332	6.71	4.1	2.8	54.8	149.6	0.7	
3.7	21.8	0.331	6.71	3.7	2.8	54.6	125.1	0.7	
4.0	21.5	0.330	6.71	3.5	2.9	53.6	100.5	0.7	
4.4	21.3	0.329	6.72	3.6	2.9	54.9	78.9	0.7	
4.6	21.3	0.328	6.74	3.0	3.0	56.3	63.4	0.6	
4.7	21.3	0.327	6.75	3.0	3.1	56.5	64.8	0.6	

Table 7 (cont.). In-situ water quality measurements for Site 12, Sodus Bay, 25 August 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E/sec/m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.4	22.1	0.294	7.58	3.4	7.3	61.6	2218.0	1.5	1.8
0.9	22.0	0.294	7.56	3.9	7.3	61.4	724.1	0.6	
1.1	21.9	0.294	7.54	4.2	7.1	61.2	631.0	0.6	
1.7	22.0	0.294	7.51	4.4	6.6	57.3	541.8	0.8	
2.1	21.8	0.293	7.46	4.5	5.9	56.9	345.4	0.8	
2.4	21.7	0.293	7.42	4.0	5.3	55.5	302.1	0.9	
2.7	21.6	0.293	7.36	4.3	4.8	54.1	247.2	1.1	
3.1	21.4	0.291	7.31	4.3	4.9	53.1	213.0	1.1	
3.3	21.2	0.291	7.49	3.3	7.0	58.0	164.8	0.8	
3.6	21.0	0.290	7.42	3.7	6.8	56.9	134.3	1.0	
3.7	21.0	0.290	7.34	3.6	6.3	56.2	133.3	1.1	

Table 7 (cont.). In-situ water quality measurements for Site 12, Sodus Bay, 15 September 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.1	20.5	0.268	7.20	8.5	6.6	14.9	3020.2	0.9	1.9
0.2	20.5	0.268	7.17	7.3	6.4	49.1	3031.4	0.8	
0.3	20.2	0.268	7.13	5.4	6.2	46.4	2986.7	0.8	
0.7	20.3	0.268	7.09	4.4	5.8	48.9	1034.8	0.8	
1.1	19.7	0.267	7.04	4.3	5.5	49.2	423.8	0.8	
1.6	19.8	0.267	6.98	4.8	5.3	50.3	259.4	0.8	
1.9	19.6	0.267	6.90	4.8	5.4	50.8	176.2	0.8	
2.4	18.9	0.266	6.82	3.9	5.6	51.3	99.7	0.8	
2.8	18.9	0.265	6.76	3.3	5.5	52.0	67.0	0.7	
3.2	18.9	0.265	6.75	3.5	5.1	55.7	47.8	0.7	
3.5	18.9	0.265	6.77	3.6	4.9	59.8	33.8	0.6	
3.8	19.2	0.266	6.79	3.7	4.9	59.3	26.8	0.6	
4.3	18.5	0.264	6.81	3.9	5.1	59.8	17.8	0.6	

Table 8. In-situ water quality measurements for Site 5, Sodus Bay, 05 May 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E}/\text{sec}/\text{m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.2	12.0	0.250	8.51	4.9	9.7	62.7	49.6	0.7	3.2
0.5	12.0	0.250	8.51	4.7	9.8	62.5	40.9	0.6	
1.0	12.0	0.250	8.51	4.6	9.8	62.5	33.3	0.7	
1.3	12.0	0.250	8.50	4.4	9.8	62.2	28.6	0.6	
1.8	12.0	0.250	8.51	4.3	9.8	62.5	21.9	0.7	
2.2	12.0	0.250	8.50	4.4	9.8	62.9	18.1	0.6	
2.7	12.0	0.250	8.50	4.3	9.8	62.8	13.4	0.6	
3.3	12.0	0.250	8.50	4.5	9.8	63.0	10.4	0.6	
3.9	12.0	0.250	8.50	4.4	9.8	63.1	7.7	0.6	
4.3	12.0	0.250	8.51	4.3	9.8	63.5	6.0	0.6	
4.8	12.0	0.250	8.51	4.4	9.8	63.3	4.6	0.6	
5.4	12.0	0.250	8.51	4.5	9.8	63.3	3.7	0.6	
5.7	12.0	0.250	8.51	4.6	9.8	63.1	3.0	0.6	
6.2	12.0	0.250	8.51	4.5	9.8	63.0	2.5	0.6	
6.6	12.0	0.250	8.52	4.6	9.8	63.1	2.0	0.6	
7.2	12.0	0.250	8.53	5.1	9.8	63.1	1.5	0.6	
7.5	12.0	0.250	8.54	5.6	9.8	63.3	1.3	0.6	
7.9	12.0	0.250	8.54	7.0	9.8	63.5	1.1	0.6	
8.4	12.0	0.250	8.55	9.3	9.8	63.6	0.9	0.6	
8.5	12.0	0.249	8.56	6.8	8.5	62.3	0.8	3.1	
8.7	12.0	0.249	8.56	10.6	9.3	59.0	0.7	2.5	
8.8	12.0	0.250	8.56	15.8	8.0	64.1	0.7	1.0	
9.4	11.8	0.249	8.57	3.9	9.3	65.9	0.6	0.6	

Table 8 (cont.). In-situ water quality measurements for Site 5, Sodus Bay, 16 June 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature ( $^{\circ}\text{C}$ )	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E}/\text{sec}/\text{m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.1	16.5	0.258	7.81	2.7	5.2	16.5	525.9	2.2	4.2
0.9	15.9	0.258	7.78	3.6	5.4	60.5	145.2	1.0	
1.9	15.2	0.257	7.72	2.7	5.5	55.1	154.7	1.8	
2.5	15.1	0.257	7.61	3.7	5.6	50.8	187.7	2.2	
3.1	14.6	0.257	7.50	2.4	5.7	53.2	341.6	2.7	
3.3	15.0	0.257	7.56	2.3	5.6	42.7	209.1	3.1	
3.4	14.5	0.257	7.35	2.6	5.7	48.6	233.8	3.1	
4.0	14.1	0.257	7.23	2.6	5.9	45.3	221.1	3.6	
4.1	14.2	0.257	7.35	2.4	5.8	31.5	166.0	5.0	
4.4	14.1	0.257	7.05	2.8	5.9	41.9	184.9	4.5	
5.0	13.9	0.257	7.04	2.5	6.0	30.1	130.9	8.9	
5.1	13.9	0.257	6.97	2.4	6.0	53.0	124.2	3.6	
5.8	13.8	0.257	6.93	2.4	6.1	63.0	87.9	1.1	
5.9	13.8	0.257	6.94	2.5	6.1	37.5	77.2	13.2	
6.4	13.8	0.257	6.92	2.8	6.2	62.7	74.1	2.8	
6.6	13.7	0.257	6.90	2.6	6.2	57.9	66.3	2.0	
7.5	13.7	0.257	6.87	2.8	6.3	59.6	44.0	3.9	
7.9	13.7	0.257	6.87	2.7	6.3	56.7	38.2	4.9	
8.3	13.7	0.257	6.87	2.4	6.4	58.8	35.6	6.6	
8.7	13.6	0.256	6.87	2.3	6.9	71.2	25.0	0.4	
9.0	13.6	0.256	6.88	2.4	7.0	66.6	22.3	0.5	
9.3	13.6	0.255	6.90	3.0	7.2	70.8	20.8	0.4	

Table 8 (cont.). In-situ water quality measurements for Site 5, Sodus Bay, 21 July 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.2	23.9	0.304	7.93	6.2	8.3	67.1	1904.3	2.0	4.0
0.3	23.8	0.302	7.93	6.5	8.3	66.7	1807.7	0.3	
0.5	23.6	0.302	7.92	6.6	8.4	66.5	592.3	0.2	
0.8	23.5	0.301	7.92	6.4	8.3	65.6	529.8	0.3	
1.1	23.5	0.301	7.92	5.9	8.0	66.4	583.6	0.3	
1.7	23.4	0.300	7.92	5.7	7.8	63.5	543.8	0.4	
2.4	23.1	0.299	7.91	4.2	7.0	61.4	453.2	0.4	
2.6	22.9	0.298	7.91	4.3	7.3	60.4	386.2	0.4	
2.9	22.3	0.296	7.90	3.7	6.8	60.1	402.3	0.4	
3.2	22.4	0.295	7.88	3.5	6.7	60.3	327.9	0.5	
4.0	22.6	0.295	7.77	2.8	6.1	61.9	241.7	0.4	
4.6	20.8	0.286	7.36	2.3	5.5	61.0	198.5	0.6	
4.9	20.4	0.283	7.25	2.3	4.4	62.8	150.7	0.5	
5.7	20.0	0.283	7.16	2.6	3.8	61.0	105.9	1.7	
6.1	19.7	0.283	7.06	2.9	3.6	60.3	91.9	1.2	
6.5	19.5	0.283	6.95	3.2	3.4	56.4	70.8	4.4	
6.7	19.4	0.283	6.74	4.2	3.2	56.8	74.3	1.4	
7.4	19.2	0.282	6.59	5.8	3.0	44.5	49.8	3.8	
7.9	19.0	0.283	6.52	7.2	3.0	33.0	42.7	4.4	
8.3	18.9	0.282	6.52	10.1	3.0	12.4	32.6	9.9	
8.8	18.7	0.283	6.51	12.0	3.1	24.2	26.1	10.7	
9.0	18.7	0.283	6.49	7.0	3.1	56.5	25.8	1.4	
9.6	18.6	0.282	6.51	5.0	2.9	52.6	16.4	0.8	
10.0	18.6	0.285	6.52	1.6	3.1	48.9	12.5	0.8	
10.3	18.6	0.283	6.52	1.7	3.1	50.2	8.9	0.7	
10.7	18.0	0.338	6.53	2.0	3.4	54.2	6.8	0.7	
11.0	17.6	0.331	6.54	2.2	3.5	45.0	4.7	0.8	
11.2	17.6	0.328	6.55	1.8	3.8	48.1	4.3	0.9	

Table 8 (cont.). In-situ water quality measurements for Site 5, Sodus Bay, 25 August 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.2	21.7	0.287	<b>7.72</b>	2.0	6.7	56.6	1552.1	14.2	2.2
0.5	21.6	0.287	7.72	2.1	6.4	56.9	1362.6	0.0	
0.8	21.6	0.287	7.72	3.1	6.4	57.4	435.0	0.7	
1.0	21.6	0.287	7.72	9.3	6.6	56.9	417.6	0.7	
1.4	21.7	0.287	7.71	8.0	6.6	56.9	411.4	0.7	
1.9	21.6	0.287	7.71	8.0	6.7	56.2	361.2	0.8	
2.1	21.7	0.287	7.71	8.0	6.7	56.4	317.1	0.7	
2.6	21.6	0.287	7.71	7.2	6.8	56.6	286.8	0.7	
3.0	21.6	0.288	7.71	8.4	6.9	56.4	212.2	0.8	
3.7	21.6	0.288	7.70	8.5	7.0	56.4	149.1	0.7	
4.1	21.6	0.288	7.70	8.9	7.0	50.0	124.7	1.0	
4.3	21.6	0.288	7.70	9.9	7.1	50.9	107.8	1.1	
4.5	21.6	0.288	7.69	10.3	7.2	55.8	99.7	0.7	
5.0	21.6	0.288	7.69	10.9	7.2	52.4	78.0	0.8	
5.2	21.6	0.288	7.68	11.4	7.2	53.6	71.6	0.9	
5.4	21.6	0.287	7.68	11.4	7.0	51.4	61.5	1.3	
5.8	21.5	0.287	7.67	11.1	6.6	48.2	50.9	1.9	
6.0	21.5	0.287	7.66	10.8	5.8	55.3	47.2	0.8	
6.6	21.3	0.286	7.65	13.3	4.8	49.4	33.9	2.9	
6.8	21.3	0.286	7.61	15.8	3.8	54.3	29.0	0.9	
7.5	20.6	0.285	7.55	2.0	3.0	52.3	20.5	1.0	
7.7	20.5	0.284	7.45	2.2	2.6	53.3	17.4	1.3	
8.0	19.3	0.281	7.31	3.0	2.6	52.4	14.9	1.2	
8.6	18.8	0.277	7.38	3.5	2.6	42.1	10.6	5.5	
8.8	17.4	0.277	7.35	6.8	3.0	32.4	8.8	22.0	
9.0	16.2	0.274	7.10	6.6	2.6	52.5	8.1	1.1	
9.2	16.3	0.272	7.14	5.7	2.1	53.2	7.0	1.1	

Table 8 (cont.). In-situ water quality measurements for Site 5, Sodus Bay, 15 September 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu\text{E}$  = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu\text{g/L}$ )	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu\text{E/sec/m}^2$ )	Turbidity (NTU)	Secchi disk (m)
0.2	20.9	0.274	7.70	7.2	7.5	54.1	2593.0	3.6	1.8
0.4	20.9	0.274	7.68	7.4	7.5	54.1	2711.4	2.1	
0.9	20.9	0.274	7.68	7.6	7.6	54.1	710.7	0.6	
1.3	20.9	0.274	7.67	7.8	7.6	53.8	463.4	0.7	
1.8	20.9	0.273	7.65	7.3	7.6	54.0	435.0	0.6	
2.0	20.9	0.274	7.63	7.2	7.5	53.9	247.2	0.7	
2.2	20.8	0.273	7.62	6.9	7.5	54.0	265.3	0.6	
2.8	20.7	0.273	7.60	6.0	7.4	54.1	153.6	0.6	
3.1	20.7	0.273	7.58	5.5	7.2	54.3	129.4	0.7	
3.4	20.5	0.272	7.55	5.1	6.9	54.2	99.0	0.6	
4.0	20.5	0.272	7.50	4.4	6.8	54.5	63.8	0.6	
4.4	20.3	0.271	7.44	4.2	6.8	54.7	48.5	0.8	
5.0	19.8	0.269	7.36	4.2	6.4	54.9	32.0	0.6	
5.6	19.8	0.270	7.28	3.9	6.1	56.1	20.0	0.6	
5.8	19.6	0.268	7.15	4.0	6.3	56.8	16.6	0.6	
6.2	18.9	0.266	6.96	3.7	6.8	57.3	13.1	0.6	
6.6	19.2	0.267	6.96	2.9	6.6	58.0	10.1	0.6	
6.9	19.0	0.267	6.98	2.5	6.1	59.3	8.1	0.6	
7.3	19.0	0.267	7.00	2.9	4.6	59.8	6.2	0.6	
7.7	19.2	0.267	7.02	3.0	3.8	59.5	4.9	0.6	
8.2	18.2	0.262	7.07	3.3	4.0	59.4	3.7	0.6	
8.8	15.5	0.253	7.14	3.3	5.0	59.9	2.5	0.7	

Table 9. In-situ water quality measurements for Site 9, Sodus Bay, 05 May 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.2	12.1	0.250	8.43	5.3	9.6	62.6	134.8	0.7	3.2
0.4	12.1	0.251	8.42	6.4	9.6	62.4	125.1	0.6	
1.0	12.1	0.250	8.42	10.0	9.5	62.2	105.9	0.6	
1.3	12.1	0.251	8.42	7.8	9.2	61.8	89.2	0.6	
1.8	12.1	0.251	8.41	9.9	9.0	61.9	63.6	0.6	
2.2	12.1	0.250	8.41	5.9	9.4	61.5	51.3	0.7	
2.7	12.1	0.250	8.41	5.8	9.5	61.8	42.9	0.6	
3.1	12.1	0.251	8.41	6.2	9.5	61.6	33.4	0.7	
3.6	12.1	0.251	8.41	5.6	9.5	61.5	25.9	0.6	
4.1	12.1	0.251	8.41	6.1	9.5	60.8	21.0	0.7	
4.5	12.1	0.250	8.41	6.0	9.5	60.7	16.6	0.7	
4.9	12.1	0.251	8.42	7.1	9.5	60.9	13.5	0.7	
5.4	12.1	0.251	8.42	8.9	9.5	60.9	10.8	0.7	
5.7	12.1	0.250	8.42	9.1	9.5	60.6	9.3	0.7	
6.2	12.1	0.251	8.43	6.6	9.5	60.3	7.1	0.7	
6.6	12.1	0.250	8.43	6.6	9.5	60.0	5.7	0.7	
7.3	12.1	0.251	8.44	6.7	9.5	59.8	4.2	0.8	
8.0	12.1	0.251	8.45	7.6	9.6	59.2	2.8	0.8	

Table 9 (cont.). In-situ water quality measurements for Site 9, Sodus Bay, 16 June 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.1	15.5	0.280	7.89	2.7	6.2	24.3	522.0	8.7	4.3
0.3	15.3	0.280	7.88	2.7	6.2	62.7	499.2	3.5	
0.4	15.2	0.281	7.85	2.7	6.2	63.9	484.6	0.8	
1.2	15.0	0.280	7.86	2.5	6.3	56.2	148.5	4.5	
1.9	14.9	0.281	7.82	2.8	6.4	50.4	149.1	2.0	
2.0	14.8	0.281	7.79	3.1	6.4	57.1	155.3	1.2	
2.2	14.8	0.281	7.71	3.2	6.4	60.3	163.0	2.2	
2.6	14.7	0.281	7.60	2.7	6.5	52.1	239.9	3.8	
3.2	14.7	0.281	7.59	3.1	6.5	51.7	241.7	5.8	
3.4	14.7	0.281	7.55	2.6	6.5	18.8	193.4	10.8	
3.6	14.6	0.281	7.23	2.5	6.6	50.8	278.4	2.8	
4.3	14.6	0.281	7.15	2.5	6.6	22.2	197.7	18.2	
5.2	14.6	0.281	7.08	2.5	6.7	4.6	112.8	18.5	
5.3	14.6	0.281	7.08	2.5	6.8	62.3	122.8	1.4	
5.8	14.6	0.281	7.05	2.5	6.8	5.8	94.7	9.1	
6.0	14.6	0.281	7.02	2.6	6.8	54.2	79.5	3.1	
6.4	14.6	0.281	7.01	2.6	6.9	55.2	71.9	4.2	
6.8	14.6	0.281	7.01	2.7	6.9	16.4	57.3	16.4	
7.0	14.6	0.281	7.00	2.9	6.9	55.3	65.0	1.1	
7.3	14.6	0.281	7.02	2.5	7.0	73.4	53.2	0.3	
7.8	14.6	0.281	7.02	2.4	7.0	73.6	42.6	0.3	
8.0	14.6	0.281	7.04	3.4	7.1	72.2	41.3	0.3	

Table 9 (cont.). In-situ water quality measurements for Site 9, Sodus Bay, 21 July 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.3	23.8	0.303	7.88	5.9	7.9	64.9	1918.6	0.3	3.5
0.6	23.4	0.303	7.86	6.0	7.7	64.2	1102.3	0.3	
1.1	23.4	0.303	7.86	5.4	7.6	63.1	1066.0	0.3	
1.2	23.1	0.302	7.85	5.6	7.7	63.5	925.5	0.3	
1.6	23.0	0.301	7.81	5.7	7.3	61.1	754.3	0.3	
2.1	23.1	0.302	7.79	5.4	7.4	60.3	652.5	0.3	
2.6	22.4	0.298	7.72	4.9	6.6	60.7	504.8	0.3	
2.9	22.1	0.296	7.56	4.4	5.4	61.8	399.4	0.3	
3.5	21.4	0.293	7.46	4.1	5.3	62.6	311.3	0.4	
3.9	21.2	0.292	7.16	4.0	5.3	62.4	247.2	0.4	
4.3	21.1	0.291	7.08	3.1	5.4	62.7	187.0	0.4	
4.6	21.1	0.291	7.02	2.7	5.3	63.0	160.0	0.4	
5.2	21.2	0.292	6.94	2.1	5.0	65.2	114.9	0.4	
5.5	20.5	0.287	6.83	2.1	4.8	65.6	99.7	0.4	
5.8	20.4	0.287	6.80	1.9	4.7	67.1	83.7	0.4	
6.0	20.5	0.287	6.82	1.9	4.8	66.6	73.3	0.4	
6.4	20.2	0.286	6.76	2.1	4.7	67.4	61.0	0.4	
7.0	20.2	0.286	6.74	3.2	4.8	68.4	47.8	0.3	
7.2	20.2	0.286	6.73	4.6	5.0	68.9	42.6	0.3	
7.5	20.2	0.286	6.72	7.8	5.0	69.0	36.4	0.3	

Table 9 (cont.). In-situ water quality measurements for Site 9, Sodus Bay, 25 August 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.3	21.7	0.289	7.70	6.4	7.7	54.1	2517.0	1.4	2.0
0.5	21.8	0.289	7.72	6.7	7.7	54.3	898.4	1.8	
0.7	21.7	0.289	7.72	7.1	7.6	53.1	654.9	0.9	
1.2	21.7	0.289	7.72	7.8	7.6	54.3	583.6	1.0	
1.6	21.7	0.288	7.72	8.3	7.6	53.1	438.3	0.9	
2.0	21.7	0.288	7.72	9.4	7.5	45.0	291.1	1.0	
2.5	21.7	0.289	7.70	8.6	7.5	32.7	244.4	2.9	
2.7	21.7	0.289	7.71	9.7	7.5	48.3	231.2	0.9	
3.2	21.7	0.288	7.70	10.9	7.5	53.0	169.1	0.9	
3.4	21.7	0.289	7.70	7.5	7.4	53.9	147.9	0.9	
3.8	21.7	0.288	7.70	8.7	6.6	50.8	114.0	1.5	
4.0	21.6	0.289	7.70	10.7	6.5	52.6	105.5	1.0	
4.4	21.7	0.288	7.70	10.2	7.0	47.0	78.9	1.9	
4.9	21.6	0.288	7.69	10.9	7.3	46.0	62.7	1.2	
5.1	21.6	0.288	7.68	10.9	7.3	53.5	53.0	1.1	
5.6	21.1	0.296	7.68	10.9	7.5	49.9	41.8	0.9	
5.9	21.6	0.288	7.67	10.8	7.6	48.5	34.2	1.9	
6.0	21.6	0.289	7.67	9.1	7.8	54.5	32.7	0.9	
6.4	21.6	0.288	7.66	5.9	7.4	43.2	24.3	1.1	



Table 9 (cont.). In-situ water quality measurements for Site 9, Sodus Bay, 15 September 2004. mS = milli Siemens, Chl a = chlorophyll a,  $\mu$ E = micro Einsteins, PAR = photosynthetically active radiation, NTU = nephelometric turbidity units.

Depth (m)	Temperature (°C)	Conductivity (mS/cm)	pH	Chl a ( $\mu$ g/L)	Oxygen (mg/L)	Light Transmission (%)	PAR ( $\mu$ E/sec/m <sup>2</sup> )	Turbidity (NTU)	Secchi disk (m)
0.1	20.7	0.273	7.57	7.4	7.5	13.8	3193.5	0.9	1.8
0.3	20.7	0.273	7.53	8.1	7.4	55.2	3158.0	0.8	
0.7	20.7	0.273	7.52	7.9	7.4	55.4	679.7	0.6	
1.1	20.7	0.273	7.52	8.0	7.4	55.1	659.8	0.6	
1.7	20.7	0.273	7.52	7.6	7.4	55.2	393.5	0.6	
1.8	20.7	0.273	7.51	8.0	7.4	55.1	346.7	0.7	
2.3	20.7	0.273	7.51	7.6	7.4	55.1	217.0	0.7	
2.7	20.7	0.273	7.51	7.4	7.4	55.2	146.3	0.6	
2.9	20.7	0.273	7.51	7.5	7.4	55.2	135.8	0.6	
3.0	20.7	0.273	7.51	7.5	7.4	55.3	110.3	0.6	
3.2	20.7	0.273	7.51	7.3	7.4	55.3	114.0	0.6	
3.5	20.7	0.273	7.51	6.9	7.4	55.3	78.9	0.6	
4.0	20.7	0.273	7.51	7.0	7.4	55.4	59.9	0.6	
4.4	20.7	0.273	7.51	7.0	7.4	55.3	42.9	0.6	
4.9	20.6	0.273	7.51	6.9	7.4	55.6	27.7	0.6	

Table 10. Abundance and biomass of phytoplankton in Sodus Bay, 2004.

Date	Station 5		Station 9	
	Abundance (Cells/ml)	Biomass (gm/m <sup>3</sup> )	Abundance (Cells/ml)	Biomass (gm/m <sup>3</sup> )
05/05/04	3,005	0.97	4,476	1.00
06/16/04	1,747	0.87	1,633	0.74
07/21/04	8,490	0.33	4,447	0.70
08/25/04	6,294	0.93	10,619	1.64
09/15/04	9,182	7.37	7,496	3.98
Mean	5,744	2.09	5,734	1.61

Table 11. Percent biovolume of Sodus Bay phytoplankton by division for May through September 2004 for Stations 5 and 9. BAC=Bacillariophyta, CHL=Chlorophyta, CHR=Chrysophyta, COL=colorless flagellates, CRY=Cryptophyta, CYA=Cyanophyta, HAP=Haptophyta, PYR=Pyrophyta and UNI=unidentified.

Station 5

	BAC	CHL	CHR	COL	CRY	CYA	HAP	PYR	UNI
05/05/04	26.0	0.3	8.5	0.0	35.9	0.0	0.9	24.0	4.4
06/16/04	22.4	10.2	0.8	0.5	62.7	0.0	0.1	1.1	2.1
07/21/04	7.0	59.9	4.6	0.0	27.5	0.6	0.0	0.0	0.4
08/25/04	18.1	14.2	4.6	0.1	52.8	0.3	3.7	6.1	0.0
09/15/04	78.2	0.9	0.1	0.3	19.2	0.0	0.0	0.8	0.4

Station 9

	BAC	CHL	CHR	COL	CRY	CYA	HAP	PYR	UNI
05/05/04	12.5	0.7	10.9	0.0	50.0	0.0	0.1	18.3	7.5
06/16/04	1.9	12.4	5.9	0.2	76.7	1.2	1.1	0.5	0.0
07/21/04	19.7	4.1	0.8	0.2	73.9	0.6	0.8	0.0	0.0
08/25/04	49.8	4.6	1.1	0.5	25.5	9.7	1.7	7.1	0.0
09/15/04	48.9	2.6	0.6	1.1	46.3	0.0	0.1	0.0	0.4

Table 12. Abundance and biovolume of Sodus Bay phytoplankton from Station 5, 5 May 2004

Division	Taxon	Abundance (Cells/mL)	Percent Abundance	Biovolume ( $\mu\text{m}^3/\text{mL}$ )	Percent Biovolume
Bacillariophyta	Achnantheidium minutissima	8.7	0.3	1,049	0.1
	Amphora perpusilla	1.9	0.1	408	0.0
	Asterionella formosa	20.4	0.7	21,408	2.2
	Caloneis spp.	1.0	0.0	146	0.0
	Cocconeis placentula v. euglypta	1.0	0.0	1,464	0.2
	Cymatopluera v. solea	1.9	0.1	12,582	1.3
	Diatoma spp.	3.9	0.1	7,829	0.8
	Diatoma tenue v. elongatum	17.5	0.6	26,004	2.7
	Fragilaria capucina	40.8	1.4	85,631	8.9
	Fragilaria capucina v. mesolepta	7.8	0.3	4,474	0.5
	Fragilaria crotonensis	69.9	2.3	40,171	4.2
	Fragilaria spp.	8.7	0.3	5,662	0.6
	Navicula cryptocefalsa	1.0	0.0	367	0.0
	Navicula salinarum	1.9	0.1	466	0.0
	Nitzschia dissipata	1.0	0.0	510	0.1
	Nitzschia gracilis	1.9	0.1	1,337	0.1
	Nitzschia spp.	5.8	0.2	1,118	0.1
	Sellaphora rectangularis	1.9	0.1	1,025	0.1
	Stephanodiscus astraea	3.0	0.1	33,778	3.5
	Stephanodiscus hantzschii	1.5	0.0	404	0.0
Stephanodiscus parvus	16.5	0.5	5,806	0.6	
	Total	218.1	7.3	251,638	26.0
Chlorophyta	Carteria spp.	7.1	0.2	2,728	0.3
	Selenastrum spp.	7.1	0.2	200	0.0
	Spermatozoopsis elegans	14.3	0.5	60	0.0
		28.6	1.0	2,988	0.3
Chrysophyta	Dinobryon cyst	50.0	1.7	71,873	7.4
	Dinobryon spp.	28.6	1.0	4,715	0.5
	Mallomonas spp.	14.3	0.5	5,268	0.5
	Total	92.9	3.1	81,856	8.5
Cryptophyta	Chilomonas paramecium	14.3	0.5	49,396	5.1
	Chroomonas pochmanii	7.1	0.2	1,916	0.2
	Cryptomonad	57.2	1.9	10,776	1.1
	Cryptomonas erosa	14.3	0.5	12,722	1.3
	Cryptomonas reflexa	50.0	1.7	138,068	14.3
	Cyathomonas truncata	14.3	0.5	1,123	0.1
	Kathablepharis ovalis	142.9	4.8	14,967	1.5
	Rhodomonas minuta	1800.9	59.9	117,867	12.2
	Total	2101.0	69.9	346,835	35.9
Haptophyta	Chrysochromulina parva	178.7	5.9	8,980	0.9
Pyrrophyta	Gymnodinium spp.	7.1	0.2	177,348	18.3
	Unidentified flagellate	250.1	8.3	54,713	5.7
	Total	257.3	8.6	232,061	24.0
Unidentified	Unidentified cell - sphere	128.6	4.3	42,466	4.4
	Total	3005.1		966,824	

Table 12 (cont.). Abundance and biovolume of Sodus Bay phytoplankton from Station 9, 5 May 2004

Division	Taxon	Abundance (Cells/mL)	Percent Abundance	Biovolume ( $\mu\text{m}^3/\text{mL}$ )	Percent Biovolume
Bacillariophyta	Achnanthes spp.	5.8	0.1	1,210	0.1
	Amphora perpusilla	4.7	0.1	586	0.1
	Asterionella formosa	27.9	0.6	29,309	2.9
	Cyclotella atomus	1.4	0.0	154	0.0
	Cyclotella kutzingiana v. parva	0.7	0.0	137	0.0
	Cyclotella ocellata	1.4	0.0	192	0.0
	Cyclotella spp.	1.4	0.0	273	0.0
	Diatoma tenue v. elongatum	2.3	0.1	3,405	0.3
	Fragilaria capucina	20.9	0.5	16,580	1.7
	Fragilaria crotonensis	126.8	2.8	55,463	5.6
	Fragilaria spp.	8.1	0.2	5,694	0.6
	Fragilaria vaucheria	2.3	0.1	293	0.0
	Gomphonema olivaceum v. olivaceoides	2.3	0.1	2,345	0.2
	Gomphonema spp.	3.5	0.1	1,905	0.2
	Navicula cryptocefalsa	4.7	0.1	1,889	0.2
	Navicula lanceolata	2.3	0.1	1,424	0.1
	Nitzschia acicularis	2.3	0.1	584	0.1
	Stephanodiscus hantzschii	4.1	0.1	1,436	0.1
	Stephanodiscus parvus	8.2	0.2	1,615	0.2
		Total	231.0	5.2	124,494
Chlorophyta	Chlamydomonas spp.	25.7	0.6	4,939	0.5
	Chlorella spp.	8.6	0.2	2,299	0.2
	Total	34.3	0.8	7,238	0.7
Chrysophyta	Dinobryon cyst	94.3	2.1	108,514	10.9
	Unidentified spheres	8.6	0.2	121	0.0
	Total	102.9	2.3	108,636	10.9
Cryptophyta	Chroomonas pochmanii	68.6	1.5	35,922	3.6
	Cryptomonad	8.6	0.2	13,659	1.4
	Cryptomonas obovata	8.6	0.2	2,694	0.3
	Cryptomonas reflexa	51.5	1.1	187,292	18.8
	Cyathomonas truncata	94.3	2.1	8,644	0.9
	Kathablepharis ovalis	102.9	2.3	10,776	1.1
	Rhodomonas minuta	2830.0	63.2	240,046	24.0
	Total	3164.4	70.7	499,032	50.0
Haptophyta	Chrysochromulina parva	42.9	1.0	808	0.1
Pyrrophyta	Gymnodinium spp.	8.6	0.2	124,450	12.5
	Unidentified cell - ovoid	17.2	0.4	2,263	0.2
	Unidentified flagellate	566.0	12.6	56,527	5.7
	Total	591.7	13.2	183,240	18.3
Unidentified	Unidentified cell - sphere	308.7	6.9	75,224	7.5
	Total	4475.9		998,672	

Table 12 (cont.). Abundance and biovolume of Sodus Bay phytoplankton from Station 5, 16 June 2004

Division	Taxon	Abundance (Cells/mL)	Percent Abundance	Biovolume ( $\mu\text{m}^3/\text{mL}$ )	Percent Biovolume
Bacillariophyta	Achnanthyidium exiguum	1.7	0.1	283	0.0
	Amphora perpusilla	1.7	0.1	141	0.0
	Asterionella formosa	11.8	0.7	10,434	1.2
	Aulacoseira granulata	5.6	0.3	25,618	3.0
	Aulacoseira spp.	5.6	0.3	5,325	0.6
	Cocconeis placentula v. euglypta	1.7	0.1	734	0.1
	Cocconeis placentula v. lineata	0.8	0.0	4,572	0.5
	Cymbella aspera	1.7	0.1	38,312	4.4
	Fragilaria capucina	5.1	0.3	3,395	0.4
	Fragilaria crotonensis	198.7	11.4	77,507	8.9
	Gomphonema spp.	1.7	0.1	1,792	0.2
	Navicula capitatoradiata	1.7	0.1	1,122	0.1
	Navicula excelsa	0.8	0.0	222	0.0
	Navicula lanceolata	0.8	0.0	859	0.1
	Navicula spp.	1.7	0.1	323	0.0
	Navicula tripunctata	1.7	0.1	2,317	0.3
	Nitzschia spp.	3.4	0.2	9,432	1.1
	Sellaphora seminulum	0.8	0.0	118	0.0
	Staurisirella pinnata	1.7	0.1	169	0.0
	Stephanodiscus hantzschii	8.4	0.5	2,253	0.3
Stephanodiscus parvus	26.5	1.5	9,319	1.1	
	Total	283.5	16.2	194,248	22.4
Chlorophyta	Ankistrodesmus spp.	5.7	0.3	823	0.1
	Oocystis spp.	40.0	2.3	50,446	5.8
	Scenedesmus acutiformis	11.4	0.7	3,664	0.4
	Scenedesmus quadrecauta	22.9	1.3	2,682	0.3
	Scenedesmus spp.	22.9	1.3	674	0.1
	Schroederia judayi	11.4	0.7	359	0.0
	Sphaerocystis schroeteri	463.1	26.5	30,309	3.5
	Total	577.4	33.1	88,957	10.2
Chrysophyta	Dinobryon divergens	45.7	2.6	5,388	0.6
	Mallomonas spp.	5.7	0.3	1,533	0.2
	Total	51.5	2.9	6,921	0.8
Colorless flagellates	Colorless flagellate	68.6	3.9	4,598	0.5
Cryptophyta	Chroomonas pochmanii	40.0	2.3	70,720	8.1
	Cryptomonas ovata	102.9	5.9	21,553	2.5
	Cryptomonas phaseolus	5.7	0.3	3,152	0.4
	Cryptomonas platyuris	17.2	1.0	39,791	4.6
	Cryptomonas reflexa	91.5	5.2	251,552	29.0
	Cryptomonas rostratiformis	11.4	0.7	116,170	13.4
	Kathablepharis ovalis	17.2	1.0	2,021	0.2
	Kathablepharis phoenikoston	5.7	0.3	287	0.0
	Rhodomonas minuta	320.2	18.3	39,226	4.5
	Total	611.7	35.0	544,473	62.7
Cyanophyta	Pseudanabaena spp.	22.9	1.3	216	0.0
Haptophyta	Chrysochromulina parva	57.2	3.3	1,078	0.1
Pyrrophyta	Glenodinium spp.	5.7	0.3	5,604	0.6
	Unidentified flagellate	34.3	2.0	3,832	0.4
	Total	40.0	2.3	9,435	1.1
Unidentified	Unidentified cell - ovoid	11.4	0.7	7,118	0.8
	Unidentified cell - sphere	22.9	1.3	11,184	1.3
	Total	34.3	2.0	18,302	2.1
	Total	1747.0		868,227	

Table 12 (cont.). Abundance and biovolume of Sodus Bay phytoplankton from Station 9, 16 June 2004

Division	Taxon	Abundance (Cells/mL)	Percent Abundance	Biovolume ( $\mu\text{m}^3/\text{mL}$ )	Percent Biovolume
Bacillariophyta	<i>Aulacoseira granulata</i>	2.3	0.1	6,264	0.9
	<i>Aulacosiera italica</i>	1.5	0.1	2,153	0.3
	<i>Cyclotella ocellata</i>	0.8	0.0	148	0.0
	<i>Stephanodiscus alpinus</i>	2.3	0.1	3,248	0.4
	<i>Stephanodiscus hantzschii</i>	3.1	0.2	2,436	0.3
	Total	10.0	0.6	14,249	1.9
Chlorophyta	<i>Coelastrum sphaericum</i>	82.3	5.0	5,388	0.7
	<i>Oocystis crassa</i>	3.4	0.2	8,891	1.2
	<i>Oocystis parva</i>	54.9	3.4	3,678	0.5
	<i>Oocystis</i> spp.	41.2	2.5	50,520	6.9
	<i>Scenedesmus quadrecauta</i>	13.7	0.8	841	0.1
	<i>Scenedesmus</i> spp.	13.7	0.8	1,379	0.2
	<i>Schroederia judayi</i>	44.6	2.7	1,494	0.2
	<i>Sphaerocystis schroeteri</i>	37.7	2.3	4,267	0.6
	Unidentified flagellate - Chlorophyte	3.4	0.2	4,224	0.6
	Unidentified ovoid cell	78.9	4.8	10,690	1.5
	Total	373.9	22.9	91,373	12.4
Chrysophyta	Dinobryon cyst	10.3	0.6	9,311	1.3
	<i>Dinobryon divergens</i>	120.1	7.4	31,683	4.3
	Unidentified flagellate	34.3	2.1	2,105	0.3
	Total	164.6	10.1	43,099	5.9
Colorless flagellates	Colorless flagellate	51.5	3.2	1,724	0.2
Cryptophyta	<i>Chilomonas paramecium</i>	44.6	2.7	160,536	21.8
	<i>Chroomonas pochmanii</i>	13.7	0.8	19,714	2.7
	<i>Cryptomonas erosa</i>	13.7	0.8	22,760	3.1
	<i>Cryptomonas marssoni</i>	34.3	2.1	13,093	1.8
	<i>Cryptomonas ovata</i>	17.2	1.1	31,036	4.2
	<i>Cryptomonas phaseolus</i>	6.9	0.4	4,670	0.6
	<i>Cryptomonas platyuris</i>	37.7	2.3	85,350	11.6
	<i>Cryptomonas reflexa</i>	82.3	5.0	148,187	20.1
	<i>Cryptomonas</i> spp.	13.7	0.8	24,829	3.4
	<i>Kathablepharis ovalis</i>	17.2	1.1	2,586	0.4
	<i>Kathablepharis phoenikoston</i>	3.4	0.2	776	0.1
	<i>Rhodomonas minuta</i>	315.6	19.3	29,743	4.0
	<i>Storeatula rhinosa</i>	13.7	0.8	21,733	3.0
	Total	614.0	37.6	565,012	76.7
	Cyanophyta	<i>Anabaena circinalis</i> (?)	48.0	2.9	8,625
<i>Chroococcus minimus</i>		10.3	0.6	145	0.0
Unknown cell - Cyanophyte		24.0	1.5	339	0.0
Total		82.3	5.0	9,110	1.2
Haptophyta	<i>Chrysochromulina parva</i>	329.3	20.2	8,276	1.1
Pyrrophyta	<i>Peridinium</i> spp.	3.4	0.2	3,621	0.5
Unidentified	Unidentified flagellate - sphere	3.4	0.2	225	0.0
	Total	1632.5		736,689	

Table 12 (cont.). Abundance and biovolume of Sodus Bay phytoplankton from Station 5, 21 July 2004

Division	Taxon	Abundance (Cells/mL)	Percent Abundance	Biovolume ( $\mu\text{m}^3/\text{mL}$ )	Percent Biovolume
Bacillariophyta	Achnanthyidium hungaricum	0.4	0.0	255	0.1
	Achnanthyidium minutissima	0.4	0.0	50	0.0
	Amphora perpusilla	0.4	0.0	174	0.1
	Asterionella formosa	1.0	0.0	596	0.2
	Cocconeis pediculus	0.4	0.0	2,080	0.6
	Cocconeis placentula	0.4	0.0	732	0.2
	Cocconeis placentula v. lineata	0.2	0.0	637	0.2
	Cyclotella meneghiniana	65.3	0.8	12,572	3.8
	Cyclotella spp.	32.7	0.4	3,695	1.1
	Diatoma tenue v. elongatum	0.6	0.0	806	0.2
	Fragilaria crotonensis	1.2	0.0	189	0.1
	Fragilaria vaucheria	0.4	0.0	132	0.0
	Navicula notha	0.2	0.0	40	0.0
	Navicula spp.	0.8	0.0	238	0.1
	Nitzschia acicularis	0.4	0.0	62	0.0
	Nitzschia palea	0.4	0.0	127	0.0
	Synedra rumpens v. familiaris	1.2	0.0	162	0.0
	Synedra spp.	3.7	0.0	719	0.2
		Total	110.4	1.3	23,265
Chlorophyta	Coelastrum microporum	24.5	0.3	6,569	2.0
	Golenkina radiata	24.5	0.3	1,604	0.5
	Nanochloris bacarillis	7693.6	90.6	181,275	54.4
	Paradoxia spp.	24.5	0.3	1,616	0.5
	Phacotus spp.	24.5	0.3	2,463	0.7
	Schroederia judayi	12.3	0.1	115	0.0
	Staurastrum spp.	12.3	0.1	4,420	1.3
	Unidentified crescent - Chlorophyte	12.3	0.1	441	0.1
	Unidentified sphere	12.3	0.1	1,386	0.4
		Total	7840.6	92.4	199,889
Chrysophyta	Mallomonas spp.	24.5	0.3	15,395	4.6
Cryptophyta	Cryptomonad	24.5	0.3	20,527	6.2
	Cryptomonas ovata	12.3	0.1	30,174	9.0
	Cryptomonas reflexa	24.5	0.3	39,693	11.9
	Rhodomonas minuta	36.8	0.4	1,386	0.4
		Total	98.0	1.2	91,779
Cyanophyta	Woronichinia spp.	392.0	4.6	1,924	0.6
Unidentified	Unidentified flagellate - ovoid	24.5	0.3	1,232	0.4
		Total	8490.0		333,484



Table 12 (cont.). Abundance and biovolume of Sodus Bay phytoplankton from Station 9, 21 July 2004

Division	Taxon	Abundance (Cells/mL)	Percent Abundance	Biovolume ( $\mu\text{m}^3/\text{mL}$ )	Percent Biovolume	
Bacillariophyta	Achnanthes spp.	1.1	0.0	842	0.1	
	Achnantheidium minutissima	1.1	0.0	207	0.0	
	Amphora ovalis v. pediculus	1.1	0.0	1,790	0.3	
	Aulacosiera italica	31.9	0.7	26,136	3.7	
	Cocconeis placentula	0.5	0.0	942	0.1	
	Cocconeis placentula v. euglypta	2.7	0.1	3,077	0.4	
	Cocconeis placentula v. lineata	1.1	0.0	3,052	0.4	
	Cyclostephanos invisitatus	3.2	0.1	613	0.1	
	Cyclotella ocellata	3.2	0.1	451	0.1	
	Cyclotella spp.	9.6	0.2	1,081	0.2	
	Cyclotella stelligera v. tenuissima	3.2	0.1	491	0.1	
	Fragilaria capucina	6.5	0.1	9,015	1.3	
	Fragilaria capucina v. mesolepta	1.6	0.0	1,700	0.2	
	Fragilaria crotonensis	1.6	0.0	777	0.1	
	Fragilaria spp.	1.1	0.0	227	0.0	
	Gomphonema spp.	1.1	0.0	408	0.1	
	Gyrosigma acuminatum	0.5	0.0	80,262	11.5	
	Navicula spp.	2.2	0.0	950	0.1	
	Navicula tenelloides	2.2	0.0	1,399	0.2	
	Navicula tripunctata v. schizonemoides	0.5	0.0	174	0.0	
	Synedra rumpens	1.1	0.0	389	0.1	
	Synedra rumpens v. scotia	1.6	0.0	97	0.0	
Synedra spp.	6.5	0.1	2,953	0.4		
	Total	85.0	1.9	137,032	19.7	
Chlorophyta	Ankistrodesmus convolutus	11.4	0.3	257	0.0	
	Kirchneriella spp.	22.9	0.5	3,293	0.5	
	Oocystis parva	85.8	1.9	5,747	0.8	
	Oocystis spp.	17.2	0.4	485	0.1	
	Scenedesmus quadrecauta	22.9	0.5	970	0.1	
	Schroederia judayi	45.7	1.0	3,448	0.5	
	Sphaerocystis spp.	154.4	3.5	10,103	1.4	
	Staurastrum spp.	5.7	0.1	1,258	0.2	
	Unidentified flagellate - Chlorophyte	40.0	0.9	2,619	0.4	
	Unidentified ovoid cell	5.7	0.1	323	0.0	
	Unidentified sphere	5.7	0.1	374	0.1	
		Total	417.3	9.4	28,878	4.1
	Chrysophyta	Kephyrion ovala	5.7	0.1	108	0.0
Mallomonas spp.		5.7	0.1	3,592	0.5	
Unidentified flagellate		80.0	1.8	1,546	0.2	
	Total	91.5	2.1	5,246	0.8	
Colorless flagellates	Colorless flagellate	40.0	0.9	1,341	0.2	
Cryptophyta	Chilomonas paramecium	11.4	0.3	39,517	5.7	
	Chroomonas pochmanii	22.9	0.5	6,131	0.9	
	Cryptomonas erosa	11.4	0.3	6,304	0.9	
	Cryptomonas ovata	28.6	0.6	17,242	2.5	
	Cryptomonas ozolini	11.4	0.3	14,656	2.1	
	Cryptomonas reflexa	223.0	5.0	280,938	40.3	
	Cyathomonas truncata	17.2	0.4	862	0.1	
	Kathablepharis ovalis	325.9	7.3	49,141	7.0	
	Rhodomonas minuta	1532.2	34.5	100,281	14.4	
	Anabaena spp.	57.2	1.3	2,874	0.4	
	Aphanothece spp.	1257.8	28.3	988	0.1	
	Total	3498.9	78.7	518,933	74.4	
Haptophyta	Chrysochromulina parva	314.4	7.1	5,927	0.8	
	Total	4447.1		697,357		

Table 12 (cont.). Abundance and biovolume of Sodus Bay phytoplankton from Station 5, 25 August 2004

Division	Taxon	Abundance (Cells/mL)	Percent Abundance	Biovolume ( $\mu\text{m}^3/\text{mL}$ )	Percent Biovolume
Bacillariophyta	Asterionella formosa	8.9	0.1	7,880	0.8
	Aulacoseira granulata	66.2	1.1	66,505	7.1
	Cocconeis placentula v. euglypta	0.8	0.0	782	0.1
	Cyclostephanos invisitatus	4.4	0.1	679	0.1
	Cyclotella spp.	4.4	0.1	679	0.1
	Fragilaria crotonensis	199.1	3.2	82,425	8.8
	Meridion circulare	9.3	0.1	7,038	0.8
	Stephanodiscus hantzschii	2.2	0.0	594	0.1
	Stephanodiscus parvus	4.4	0.1	1,552	0.2
	Stephanodiscus spp.	4.4	0.1	509	0.1
	Total	304.0	4.8	168,643	18.1
Chlorophyta	Carteria spp.	13.2	0.2	18,956	2.0
	Dictyosphaerium spp.	171.5	2.7	7,184	0.8
	Golenkina radiata	19.8	0.3	2,238	0.2
	Lagerheimia ciliata	19.8	0.3	26,268	2.8
	Mougeotia spp. ?	46.2	0.7	53,385	5.7
	Oocystis parva	46.2	0.7	8,704	0.9
	Oocystis spp.	33.0	0.5	7,461	0.8
	Pandorina spp.	19.8	0.3	663	0.1
	Phacotus spp.	26.4	0.4	1,119	0.1
	Schroederia judayi	52.8	0.8	497	0.1
	Schroederia setigera	52.8	0.8	1,492	0.2
	Spermatozoopsis exsultans	6.6	0.1	41	0.0
	Unidentified flagellate - Chlorophyte	26.4	0.4	2,984	0.3
	Unidentified sphere	46.2	0.7	1,547	0.2
		Total	580.5	9.2	132,540
Chrysophyta	Mallomonas alpina	26.4	0.4	35,811	3.8
	Mallomonas spp.	6.6	0.1	6,963	0.7
	Total	33.0	0.5	42,774	4.6
Colorless flagellates	Colorless flagellate	26.4	0.4	884	0.1
Cryptophyta	Chilomonas paramecium	13.2	0.2	28,497	3.1
	Chroomonas norstetii	6.6	0.1	4,197	0.5
	Chroomonas pochmanii	66.0	1.0	50,359	5.4
	Cryptomonas erosa	26.4	0.4	10,611	1.1
	Cryptomonas ovata	26.4	0.4	59,574	6.4
	Cryptomonas phaseolus	19.8	0.3	13,471	1.4
	Cryptomonas reflexa	145.1	2.3	287,350	30.8
	Cyathomonas truncata	6.6	0.1	276	0.0
	Kathablepharis ovalis	118.7	1.9	17,905	1.9
	Rhodomonas minuta	475.0	7.5	19,895	2.1
Cyanophyta	Aphanocapsa spp.	2922.3	46.4	1,530	0.2
	Chroococcus minimus	118.7	1.9	1,679	0.2
	Total	3944.8	62.7	495,344	53.1
Haptophyta	Chrysochromulina parva	1378.7	21.9	34,650	3.7
Pyrrophyta	Ceratium hirundinella	6.6	0.1	56,793	6.1
Unidentified	Unidentified flagellate - ovoid	19.8	0.3	373	0.0
	Total	6293.7		932,002	

Table 12 (cont.). Abundance and biovolume of Sodus Bay phytoplankton from Station 9, 25 August 2004

Division	Taxon	Abundance (Cells/mL)	Percent Abundance	Biovolume ( $\mu\text{m}^3/\text{mL}$ )	Percent Biovolume	
Bacillariophyta	Asterionella formosa	79.8	0.8	29,689	1.8	
	Aulacoseira granulata	18.2	0.2	37,104	2.3	
	Aulacosiera italica	12.2	0.1	6,680	0.4	
	Cocconeis placentula v. euglypta	1.9	0.0	1,403	0.1	
	Cyclostephanos invisitatus	0.9	0.0	175	0.0	
	Cyclotella spp.	10.4	0.1	1,669	0.1	
	Diatoma vulgare	3.9	0.0	21,677	1.3	
	Epithemia spp.	3.9	0.0	6,478	0.4	
	Fragilaria capucina v. mesolepta	54.5	0.5	48,836	3.0	
	Fragilaria crotonensis	1304.2	12.3	626,025	38.2	
	Fragilaria spp.	7.8	0.1	4,236	0.3	
	Fragilaria vaucheria	11.7	0.1	4,392	0.3	
	Planothidium dubium	1.9	0.0	506	0.0	
	Stephanodiscus medius	0.9	0.0	305	0.0	
	Stephanodiscus niagarae	1.7	0.0	27,561	1.7	
	Stephanodiscus parvus	1.7	0.0	468	0.0	
		Total	1515.7	14.3	817,205	49.8
Chlorophyta	Chlamydomonas spp.	6.6	0.1	1,768	0.1	
	Chlorella spp.	19.8	0.2	280	0.0	
	Coelastrum cambrium	6.6	0.1	1,768	0.1	
	Coelastrum microporum	310.0	2.9	10,390	0.6	
	Coelastrum reticulatum	39.6	0.4	4,476	0.3	
	Crucigenia spp.	52.8	0.5	3,095	0.2	
	Elakalothrix	6.6	0.1	497	0.0	
	Golenkina radiata	26.4	0.2	2,984	0.2	
	Lagerheimia ciliata	39.6	0.4	23,501	1.4	
	Mougeotia spp. ?	6.6	0.1	5,968	0.4	
	Oocystis parva	26.4	0.2	3,454	0.2	
	Oocystis spp.	112.1	1.1	4,697	0.3	
	Paradoxia spp.	39.6	0.4	2,487	0.2	
	Schroederia judayi	6.6	0.1	249	0.0	
	Schroederia setigera	33.0	0.3	3,730	0.2	
	Sphaerocystis schroeteri	52.8	0.5	1,768	0.1	
	Staurastrum spp.	6.6	0.1	3,705	0.2	
	Unidentified sphere	6.6	0.1	1,185	0.1	
		Total	798.2	7.5	76,004	4.6
	Chrysophyta	Mallomonas alpina	6.6	0.1	10,030	0.6
Mallomonas spp.		13.2	0.1	6,715	0.4	
Unidentified flagellate		125.3	1.2	525	0.0	
	Total	145.1	1.4	17,270	1.1	
Colorless flagellates	Colorless flagellate	178.1	1.7	8,953	0.5	
Cryptophyta	Chilomonas paramecium	6.6	0.1	16,544	1.0	
	Chroomonas norstetii	19.8	0.2	19,688	1.2	
	Chroomonas pochmanii	52.8	0.5	40,287	2.5	
	Cryptomonas erosa	13.2	0.1	12,538	0.8	
	Cryptomonas phaseolus	26.4	0.2	7,447	0.5	
	Cryptomonas platyuris	6.6	0.1	13,853	0.8	
	Cryptomonas reflexa	164.9	1.6	296,849	18.1	
	Kathablepharis ovalis	13.2	0.1	1,989	0.1	
	Rhodomonas minuta	138.5	1.3	9,067	0.6	
		Total	442.0	4.2	418,262	25.5
Cyanophyta	Aphanizomenon flos-aquae (?)	197.9	1.9	44,764	2.7	
	Aphanocapsa holsatica	1055.5	9.9	553	0.0	
	Aphanocapsa spp.	4017.4	37.8	3,627	0.2	
	Aphanothece spp.	217.7	2.0	513	0.0	
	Chroococcus minimus	164.9	1.6	2,331	0.1	
	Chroococcus spp.	66.0	0.6	34,540	2.1	
	Microcystis aeruginosa	626.7	5.9	70,876	4.3	
	Woronichinia spp.	85.8	0.8	1,616	0.1	
	Total	6431.7	60.6	158,820	9.7	
Haptophyta	Chrysochromulina parva	1081.8	10.2	27,190	1.7	
Pyrrophyta	Ceratium hirundinella	19.8	0.2	116,445	7.1	
Unidentified	Unidentified cell - sphere	6.6	0.1	432	0.0	
	Total	10619.0		1,640,581		

Table 12 (cont.). Abundance and biovolume of Sodus Bay phytoplankton from Station 5, 15 September 2004

Division	Taxon	Abundance (Cells/mL)	Percent Abundance	Biovolume ( $\mu\text{m}^3/\text{mL}$ )	Percent Biovolume
Bacillariophyta	<i>Asterionella formosa</i>	48.2	0.5	20,842	0.3
	<i>Aulacoseira granulata</i>	23.6	0.3	16,032	0.2
	<i>Cyclotella</i> spp.	55.1	0.6	4,330	0.1
	<i>Cyclotella stelligera</i> v. <i>tenuissima</i>	94.5	1.0	7,422	0.1
	<i>Fragilaria crotonensis</i>	442.9	4.8	231,191	3.1
	<i>Melosira granulata</i> fo. <i>curvata</i>	47.3	0.5	22,266	0.3
	<i>Navicula</i> spp.	1.0	0.0	392	0.0
	<i>Nitzschia palea</i>	3.9	0.0	729	0.0
	<i>Stephanodiscus alpinus</i>	15.8	0.2	49,876	0.7
	<i>Stephanodiscus hantzschii</i>	7.9	0.1	1,082	0.0
	<i>Stephanodiscus niagarae</i>	196.9	2.1	5,411,884	73.4
	Total	937.0	10.2	5,766,046	78.2
	Chlorophyta	<i>Ankistrodesmus falcatus</i>	24.5	0.3	7,387
<i>Coelastrum microporum</i>		12.3	0.1	3,284	0.0
<i>Oocystis parva</i>		85.8	0.9	54,556	0.7
<i>Scenedesmus</i> spp.		49.0	0.5	1,604	0.0
<i>Schroederia judayi</i>		110.3	1.2	2,338	0.0
Total		281.8	3.1	69,169	0.9
Chrysophyta	<i>Mallomonas</i> spp.	12.3	0.1	4,926	0.1
Colorless flagellates	Colorless flagellate	318.5	3.5	25,017	0.3
Cryptophyta	<i>Chilomonas paramecium</i>	24.5	0.3	64,685	0.9
	<i>Chroomonas coerulea</i>	24.5	0.3	11,495	0.2
	<i>Chroomonas norstetii</i>	61.3	0.7	119,439	1.6
	<i>Chroomonas pochmanii</i>	245.0	2.7	128,291	1.7
	<i>Cryptomonas erosa</i>	98.0	1.1	71,843	1.0
	<i>Cryptomonas marssoni</i>	12.3	0.1	2,463	0.0
	<i>Cryptomonas ovata</i>	49.0	0.5	99,734	1.4
	<i>Cryptomonas phaseolus</i>	196.0	2.1	99,759	1.4
	<i>Cryptomonas platyuris</i>	12.3	0.1	23,093	0.3
	<i>Cryptomonas reflexa</i>	257.3	2.8	416,776	5.7
	<i>Cryptomonas tetrapyrenoidosa</i>	12.3	0.1	23,888	0.3
	<i>Cyathomonas truncata</i>	36.8	0.4	2,463	0.0
	<i>Kathablepharis ovalis</i>	673.8	7.3	127,008	1.7
	<i>Komma caudata</i>	12.3	0.1	2,463	0.0
	<i>Rhodomonas minuta</i>	3797.8	41.4	223,708	3.0
	Total	5512.9	60.0	1,417,107	19.2
Cyanophyta	<i>Aphanocapsa holsatica</i>	355.3	3.9	186	0.0
	<i>Aphanocapsa</i> spp.	869.8	9.5	455	0.0
	<i>Aphanothece</i> spp.	171.5	1.9	1,403	0.0
	<i>Woronichinia</i> spp.	196.0	2.1	962	0.0
	Total	1592.6	17.3	3,007	0.0
Haptophyta	<i>Chrysochromulina parva</i>	159.3	1.7	3,002	0.0
Pyrrophyta	<i>Hemidinium</i> spp.	12.3	0.1	37,076	0.5
	Unidentified cell - ovoid	12.3	0.1	12,932	0.2
	Unidentified cell - sphere	12.3	0.1	1,386	0.0
	Unidentified flagellate	232.8	2.5	4,388	0.1
	Total	269.5	2.9	55,781	0.8
Unidentified	Unidentified flagellate - ovoid	12.3	0.1	2,829	0.0
	Unidentified flagellate - sphere	85.8	0.9	22,990	0.3
	Total	98.0	1.1	25,819	0.4
Total	9181.8		7,369,874		

Table 12 (cont.). Abundance and biovolume of Sodus Bay phytoplankton from Station 9, 15 September 2004

Division	Taxon	Abundance (Cells/mL)	Percent Abundance	Biovolume ( $\mu\text{m}^3/\text{mL}$ )	Percent Biovolume
Bacillariophyta	Asterionella formosa	19.5	0.3	6,529	0.2
	Cocconeis placentula	1.0	0.0	1,040	0.0
	Cocconeis placentula v. lineata	1.0	0.0	1,235	0.0
	Cyclotella spp.	20.6	0.3	6,553	0.2
	Cyclotella stelligera v. tenuissima	10.3	0.1	809	0.0
	Diatoma spp.	2.1	0.0	1,182	0.0
	Epithemia spp.	2.1	0.0	5,654	0.1
	Fragilaria crotonensis	727.3	9.7	349,105	8.8
	Melosira granulata fo. curvata	41.2	0.5	19,415	0.5
	Nitzschia spp.	2.1	0.0	320	0.0
	Stephanodiscus alpinus	5.2	0.1	10,221	0.3
	Stephanodiscus niagarae	128.8	1.7	1,541,676	38.8
	Total	961.0	12.8	1,943,739	48.9
	Chlorophyta	Oocystis crassa	34.3	0.5	11,495
Oocystis parva		34.3	0.5	8,801	0.2
Schroederia judayi		68.6	0.9	647	0.0
Sphaerocystis spp.		308.7	4.1	82,763	2.1
Unidentified flagellate - Chlorophyte		34.3	0.5	216	0.0
Total	480.2	6.4	103,921	2.6	
Chrysophyta	Mallomonas alpina	17.2	0.2	11,674	0.3
	Unidentified flagellate	154.4	2.1	10,992	0.3
Total	171.5	2.3	22,666	0.6	
Colorless flagellates	Colorless flagellate	394.5	5.3	44,615	1.1
Cryptophyta	Chilomonas paramecium	85.8	1.1	296,374	7.5
	Chroomonas coerulea	34.3	0.5	7,759	0.2
	Chroomonas pochmanii	463.1	6.2	418,989	10.5
	Cryptomonad	17.2	0.2	16,299	0.4
	Cryptomonas erosa	154.4	2.1	121,235	3.0
	Cryptomonas marssoni	102.9	1.4	28,369	0.7
	Cryptomonas obovata	68.6	0.9	103,454	2.6
	Cryptomonas ovata	68.6	0.9	129,317	3.3
	Cryptomonas phaseolus	120.1	1.6	88,008	2.2
	Cryptomonas platyuris	17.2	0.2	27,785	0.7
	Cryptomonas reflexa	274.4	3.7	411,630	10.4
	Kathablepharis ovalis	891.9	11.9	93,396	2.3
	Pyrenomonas ovalis	34.3	0.5	20,367	0.5
	Rhodomonas minuta	2658.4	35.5	77,950	2.0
	Total	4991.0	66.6	1,840,932	46.3
Cyanophyta	Woronichinia spp.	274.4	3.7	718	0.0
Haptophyta	Chrysochromulina parva	205.8	2.7	3,880	0.1
Unidentified	Unidentified flagellate - ovoid	17.2	0.2	15,213	0.4
	Total	7495.6		3,975,684	

Table 13. Phytoplankton species list for Sodus Bay, May through September 2004.

Division	Species Authority
Bacillariophyta	Achnanthes spp. Bory
	Achnantheidium exiguum (Grunow) Czarn.
	Achnantheidium hungaricum Grun.
	Achnantheidium minutissima (Kutz.) Czarn.
	Amphora ovalis v. pediculus (Kutz) V. H.
	Amphora perpusilla (Grun.) Grun.
	Asterionella formosa Hassall
	Aulacoseira spp. Thwaites
	Aulacoseira granulata (Ehrnb.) Simonsen
	Aulacosiera italica (Ehrnb.) Simonsen
	Caloneis spp. Cleve
	Cocconeis pediculus Ehr.
	Cocconeis placentula Ehr.
	Cocconeis placentula v. euglypta (Ehr.) Cl.
	Cocconeis placentula v. lineata (Ehr.) V. H.
	Cyclostephanos invisitatus (M. H.Hohn & Hellerm.) Theriot, Stoermer & Hak
	Cyclotella atomus Hust.
	Cyclotella kutzingiana v. parva
	Cyclotella meneghiniana Kutz.
	Cyclotella ocellata Pantocs.
	Cyclotella spp. Kutzing
	Cyclotella stelligera v. tenuissima Hust.
	Cymatopluera v. solea (Breb.) Smith
	Cymbella aspera (Her.) H. Perag.
	Diatoma spp. Bory
	Diatoma tenue v. elongatum Lyngh.
	Diatoma vulgare Bory
	Epithemia spp. Brebisson
	Fragilaria capucina Desmaz.
	Fragilaria capucina v. mesolepta Rabh.
	Fragilaria crotonensis Kitton
	Fragilaria spp.
Fragilaria vaucheria (Kutz) Peters	
Gomphonema olivaceum v.olivaceoides (Hust.) Lange-Bert.	
Gomphonema spp. Ag.	
Gyrosigma acuminatum (Kuetz.) Rabh.	
Melosira granulata fo.curvata Grunow	

Table 13 (cont.). Phytoplankton species list for Sodus Bay, May through September 2004.

Division	Species Authority
Bacillariophyta	Meridion circulare (Grev.) Ag.
	Navicula capitatoradiata Germain
	Navicula cryptocefalsa Lange-Bert.
	Navicula excelsa Krasske
	Navicula lanceolata (Ag.) Kutz.
	Navicula notha Wallace
	Navicula salinarum Grun.
	Navicula spp. Bory
	Navicula tenelloides Hustedt
	Navicula tripunctata (O. F. Mull.) Bory
	Navicula tripunctata v. schizonemoides (V. H.) Patr.
	Nitzschia acicularis (Kutz.) W. Smith
	Nitzschia dissipata (Kutz) Grun.
	Nitzschia gracilis Hantzsch
	Nitzschia palea (Kutz.) W. Smith
	Nitzschia spp. Hassall
	Planothidium dubium (Grunow) Round & Bukht.
	Sellaphora rectangularis (Greg.) Lange-Bert. & Metzeltin
	Sellaphora seminulum (Grunow) D.G.Mann
	Staurosirella pinnata (Ehrenb.) D. M. Williams & Round
	Stephanodiscus alpinus Hustedt
	Stephanodiscus astraea (Ehrenb.) Grunow
	Stephanodiscus hantzschii Grun.
	Stephanodiscus medius Hak
	Stephanodiscus niagarae Ehr.
	Stephanodiscus parvus Stoermer & Hak
	Stephanodiscus spp. Ehrenberg
	Synedra rumpens Kutz.
	Synedra rumpens v. familiaris (Kutz.) Hust.
	Synedra rumpens v. scotia Grunow
Synedra spp.	

Table 13 (cont.). Phytoplankton species list for Sodus Bay, May through September 2004.

Division	Species Authority
Chlorophyta	Ankistrodesmus convolutus Corda
	Ankistrodesmus falcatus (Corda) Ralfs
	Ankistrodesmus spp. Corda
	Carteria spp. Diesing
	Chlamydomonas spp. Ehrenberg
	Chlorella spp. Beijerinck
	Coelastrum cambrium Archer
	Coelastrum microporum Naeg.
	Coelastrum reticulatum (Dang.) Seng
	Coelastrum sphaericum Nageli
	Crucigenia spp. Morren
	Dictyosphaerium spp. Nageli
	Elakalothrix spp. Wille
	Golenkina radiata (Chod.) Wille
	Kirchneriella spp. Schmidle
	Lagerheimia ciliata (Lag. ) Chodat
	Mougeotia spp. ? C. A. Agardh
	Nanochloris bacarillis
	Oocystis crassa Wittrock
	Oocystis parva W. & G. S. West
	Oocystis spp. Naegeli
	Pandorina spp. Bory de St.Vincent
	Paradoxia spp. Swirenko
	Phacotus spp.
	Scenedesmus acutiformis Schroeder
	Scenedesmus quadrecauta (Turp.) Breb
	Scenedesmus spp. Meyen
	Schroederia judayi G. M. Smith
	Schroederia setigera Lemmermann
	Selenastrum spp. Reinsch
	Spermatozoopsis elegans
Spermatozoopsis exsultans Korsch.	
Sphaerocystis Chodat	
Sphaerocystis schroeteri Chod.	
Staurastrum Meyen ex Ralfs	
Unidentified crescent - Chlorophyte	
Unidentified flagellate - Chlorophyte	
Unidentified ovoid cell	
Unidentified sphere	



Table 13 (cont.). Phytoplankton species list for Sodus Bay, May through September 2004.

Division	Species Authority
Chrysophyta	Dinobryon cyst Ehrenberg
	Dinobryon divergens Imhof
	Dinobryon spp. Ehrenberg
	Kephyrion ovale (Lackey) Huber-Pestalozzi
	Mallomonas alpina Pascher & Ruttner
	Mallomonas spp. Perty
	Unidentified flagellate
	Unidentified spheres
Colorless flagellates	Colorless flagellate
Cryptophyta	Chilomonas paramecium Eh.
	Chroomonas coerulea (Geitl.) Skuja
	Chroomonas norstetii Hansgirg
	Chroomonas pochmanii Huber-Pestalozzi
	Cryptomonad
	Cryptomonas erosa Eh.
	Cryptomonas marssoni Skuja
	Cryptomonas obovata Skuja
	Cryptomonas ovata Eh.
	Cryptomonas ozolini Skuja
	Cryptomonas phaseolus Skuja
	Cryptomonas platyuris Skuja
	Cryptomonas reflexa (Marsson) Skuja
	Cryptomonas rostratiformis, Skuja
	Cryptomonas spp. Ehrenberg
	Cryptomonas tetrapyrenoidosa Skuja
	Cyathomonas truncata Fromental
	Kathablepharis ovalis
	Kathablepharis phoenikoston Skuja
	Komma caudata
	Pyrenomonas ovalis
	Rhodomonas minuta Skuja
	Storeatula rhinosa

Table 13 (cont.). Phytoplankton species list for Sodus Bay, May through September 2004.

Division	Species Authority
Cyanophyta	<p>Anabaena circinalis (?) Rbh.                      Anabaena spp. Bory                      Aphanizomenon flos-aquae (?) (Lyngb.) Breb.                      Aphanocapsa holsatica (Lemmermann) Cronberg et Komarek                      Aphanocapsa spp. Nageli                      Aphanothece spp. Nageli                      Chroococcus minimus (Keissler) Lemmermann                      Chroococcus spp. Nageli                      Microcystis aeruginosa Kuetz                      Pseudanabaena spp. Lauterborn                      Unknown cell - Cyanophyte                      Woronichinia spp. Elenkin</p>
Haptophyta	Chrysochromulina parva Lackey
Pyrrophyta	<p>Ceratium hirundinella (O. F. Muell.) Dujardin                      Glenodinium spp. (Ehrenberg) Stein                      Gymnodinium spp. Stein                      Hemidinium spp. Stein                      Peridinium spp. Ehrenberg                      Unidentified cell - ovoid                      Unidentified cell - sphere                      Unidentified flagellate</p>
Unidentified	<p>Unidentified cell - ovoid                      Unidentified cell - sphere                      Unidentified flagellate - ovoid                      Unidentified flagellate - sphere</p>

Table 14. Water chemistry, discharge and losses from the First Creek sub-watershed within the Sodus Bay watershed, May through September 2004. TP = total phosphorus, TSS = total suspended solids, TKN = total Kjeldahl nitrogen, na = not available due to inoperative probe .

Date	TP (µg P/L)	Nitrate (mg N/L)	TSS (mg/L)	TKN (µg N/L)	Temperature (°C)	Oxygen (mg/L)	pH	Conductivity (µmhos/cm)
05/05/04	27.0	0.07	2.7	200	11.52	10.46	7.84	452
06/16/04	49.4	0.05	3.3	600	19.88	8.94	7.54	na
07/21/04	56.6	0.13	2.7	360	21.54	8.68	8.21	na
08/25/04	43.5	0.01	2.0	380	17.72	5.56	7.85	529
09/15/04	48.7	0.26	3.0	310	18.42	6.87	7.30	508

Date	Discharge (m <sup>3</sup> /d)	TP (kg P/d)	Nitrate (kg N/d)	TSS (kg/d)	TKN (kg N/d)
05/05/04	32,907	0.89	2.30	88.8	6.58
06/16/04	7,579	0.37	0.38	25.0	4.55
07/21/04	7,520	0.43	0.98	20.3	2.71
08/25/04	3,313	0.14	0.03	6.6	1.26
09/15/04	8,612	0.42	2.24	25.8	2.67

Table 15. Water chemistry, discharge and losses from the Second Creek sub-watershed within the Sodus Bay watershed, May through September 2004. TP = total phosphorus, TSS = total suspended solids, TKN = total Kjeldahl nitrogen, na = not available due to inoperative probe .

Date	TP (µg P/L)	Nitrate (mg N/L)	TSS (mg/L)	TKN (µg N/L)	Temperature (°C)	Oxygen (mg/L)	pH	Conductivity (µmhos/cm)
05/05/04	13.9	0.28	88.3	460	12.67	12.12	8.21	502
06/16/04	27.0	0.57	3.0	1150	17.97	9.82	7.99	na
07/21/04	46.8	0.53	2.7	1020	21.78	10.40	8.62	na
08/25/04	27.3	0.72	2.0	590	16.70	10.08	8.05	548
09/15/04	30.3	0.63	1.8	140	17.40	9.86	7.83	847

Date	Discharge (m <sup>3</sup> /d)	TP (kg P/d)	Nitrate (kg N/d)	TSS (kg/d)	TKN (kg N/d)
05/05/04	61,931	0.86	17.34	5468.5	28.49
06/16/04	20,984	0.57	11.96	63.0	24.13
07/21/04	4,506	0.21	2.39	12.2	4.60
08/25/04	4,416	0.12	3.18	8.8	2.61
09/15/04	25,780	0.78	16.24	46.4	3.61

Table 16. Water chemistry, discharge and losses from the Third Creek sub-watershed within the Sodus Bay watershed, May through September 2004. TP = total phosphorus, TSS = total suspended solids, TKN = total Kjeldahl nitrogen, na = not available due to inoperative probe .

Date	TP (µg P/L)	Nitrate (mg N/L)	TSS (mg/L)	TKN (µg N/L)	Temperature (°C)	Oxygen (mg/L)	pH	Conductivity (µmhos/cm)
05/05/04	23.6	0.17	3.1	430	11.69	11.40	7.91	401
06/16/04	50.1	0.28	16.4	1240	15.70	9.32	7.59	na
07/21/04	56.9	0.29	11.2	650	19.37	9.08	8.18	na
08/25/04	46.9	0.31	6.6	510	14.78	8.83	7.74	531
09/15/04	55.4	0.24	7.2	550	16.90	8.75	7.69	424

Date	Discharge (m <sup>3</sup> /d)	TP (kg P/d)	Nitrate (kg N/d)	TSS (kg/d)	TKN (kg N/d)
05/05/04	25,024	0.59	4.25	77.6	10.76
06/16/04	3,948	0.20	1.11	64.8	4.90
07/21/04	2,706	0.15	0.78	30.3	1.76
08/25/04	1,586	0.07	0.49	10.5	0.81
09/15/04	8,305	0.46	1.99	59.8	4.57

Table 17. Water chemistry, discharge and losses from the Sodus West Creek sub-watershed within the Sodus Bay watershed, May through September 2004. TP = total phosphorus, TSS = total suspended solids, TKN = total Kjeldahl nitrogen, na = not available due to inoperative probe .

Date	TP (µg P/L)	Nitrate (mg N/L)	TSS (mg/L)	TKN (µg N/L)	Temperature (°C)	Oxygen (mg/L)	pH	Conductivity (µmhos/cm)
05/05/04	24.8	0.07	3.8	530	12.91	11.20	8.00	286
06/16/04	44.9	0.27	4.9	1040	17.07	9.25	7.89	na
07/21/04	63.0	0.24	3.5	710	20.62	8.67	8.47	na
08/25/04	35.3	0.21	2.8	280	16.03	9.65	8.52	367
09/15/04	45.3	0.20	6.5	470	18.04	9.23	8.03	309

Date	Discharge (m <sup>3</sup> /d)	TP (kg P/d)	Nitrate (kg N/d)	TSS (kg/d)	TKN (kg N/d)
05/05/04	26,165	0.65	1.83	99.4	13.87
06/16/04	5,005	0.22	1.35	24.5	5.21
07/21/04	4,029	0.25	0.97	14.1	2.86
08/25/04	1,095	0.04	0.23	3.1	0.31
09/15/04	8,721	0.40	1.74	56.7	4.10

Table 18. Water chemistry, discharge and losses from the Sodus East Creek sub-watershed within the Sodus Bay watershed, May through September 2004. TP = total phosphorus, TSS = total suspended solids, TKN = total Kjeldahl nitrogen, na = not available due to inoperative probe .

Date	TP (µg P/L)	Nitrate (mg N/L)	TSS (mg/L)	TKN (µg N/L)	Temperature (°C)	Oxygen (mg/L)	pH	Conductivity (µmhos/cm)
05/05/04	27.0	0.38	3.5	390	13.08	11.81	8.56	484
06/16/04	76.9	0.83	18.9	1300	16.02	9.54	7.67	na
07/21/04	61.4	0.97	6.2	470	20.00	9.52	8.52	na
08/25/04	49.7	0.89	7.4	370	15.49	10.16	8.00	597
09/15/04	51.7	0.68	2.2	310	17.16	9.80	7.88	561

Date	Discharge (m <sup>3</sup> /d)	TP (kg P/d)	Nitrate (kg N/d)	TSS (kg/d)	TKN (kg N/d)
05/05/04	53,290	1.44	20.25	186.52	20.78
06/16/04	11,503	0.88	9.55	217.41	14.95
07/21/04	14,711	0.90	14.27	91.21	6.91
08/25/04	7,792	0.39	6.94	57.66	2.88
09/15/04	37,169	1.92	25.27	81.77	11.52

Table 19. Water chemistry, discharge and losses from the Clark Creek sub-watershed within the Sodus Bay watershed, May through September 2004. TP = total phosphorus, TSS = total suspended solids, TKN = total Kjeldahl nitrogen, na = not available due to inoperative probe .

Date	TP (µg P/L)	Nitrate (mg N/L)	TSS (mg/L)	TKN (µg N/L)	Temperature (°C)	Oxygen (mg/L)	pH	Conductivity (µmhos/cm)
05/05/04	27.9	0.46	9.6	280	11.18	11.54	7.77	267
06/16/04	44.9	0.99	14.0	310	14.43	10.08	7.91	na
07/21/04	75.3	1.02	19.8	280	20.01	8.73	8.54	na
08/25/04	57.7	1.04	17.6	250	16.74	9.36	8.30	357
09/15/04	52.6	0.95	16.4	210	16.41	9.81	8.46	370

Date	Discharge (m <sup>3</sup> /d)	TP (kg P/d)	Nitrate (kg N/d)	TSS (kg/d)	TKN (kg N/d)
05/05/04	4,053	0.11	1.86	38.9	1.13
06/16/04	1,443	0.06	1.43	20.2	0.45
07/21/04	429	0.03	0.44	8.5	0.12
08/25/04	724	0.04	0.75	12.7	0.18
09/15/04	2,121	0.11	2.02	34.8	0.45



Table 20. Abundance, biomass (dry weight), mean length and egg data of Sodus Bay zooplankton from Station 5, 5 May 2004.

Sodus Bay Site 5 5 May 2004	Mean Length (µm)	Abundance (#/L)	Biomass (µg/L)	Attached eggs
<b>Cladocera</b>				
<i>Bosmina longirostris</i>	300	0.92	0.66	9
<i>Daphnia galeata mendotae</i>	1067	0.28	1.52	
<i>Daphnia retrocurva</i>	522	1.42	0.78	8,3,13,8
<i>Daphnia retrocurva</i> (young)	372	0.43	0.08	
<i>Eubosmina coregoni</i>	394	0.50	0.71	2
<b>Total</b>		3.55	3.74	
<b>Copepoda</b>				
Copepod nauplii	211	29.82	11.93	
Copepodid	561	13.06	6.92	
<b>Total</b>		42.88	18.84	
<b>Cyclopoida</b>				
<i>Diacyclops thomasi</i>	1009	2.06	9.31	38, 18, 11
<i>Mesocyclops edax</i>	556	0.07	0.04	
<b>Total</b>		2.13	9.35	
<b>Rotifera</b>				
<i>Asplanchna priodonta</i>	429	0.07	0.05	
<i>Asplanchna sp.</i>	209	12.50	1.03	
<i>Brachionus sp.</i>	117	0.57	0.01	
<i>Euchlanis (?) sp.</i>	273	0.07	0.02	
<i>Kellicottia longispina</i>	97	0.28	0.00	
<i>Keratella cochlearis</i>	115	0.14	0.00	1
<i>Keratella crassa</i>	156	0.07	0.01	
<i>Keratella quadrata</i>	156	0.07	0.01	
<i>Notholca squamula</i>	247	0.21	0.05	
<i>Polyarthra remata</i>	39	0.07	0.00	
<i>Polyarthra remata</i> (?)	107	0.14	0.01	
<i>Polyarthra vulgaris</i>	106	1.21	0.04	
<b>Total</b>		15.41	1.21	
<b>Total</b>		63.97	33.15	

Table 20 (cont.). Abundance, biomass (dry weight), mean length and egg data of Sodus Bay zooplankton from Station 9, 5 May 2004.

Sodus Bay Site 9 5 May 2004	Mean Length (µm)	Abundance (#/L)	Biomass (µg/L)	Attached eggs
<b>Cladocera</b>				
<i>Alonella sp.</i>	325	0.30	0.47	
<i>Bosmina longirostris</i>	301	2.71	1.95	
<i>Daphnia galeata mendotae</i>	1130	9.62	59.61	5, 8, 7, 9, 9
<i>Daphnia sp. (young)</i>	234	2.10	0.23	
<i>Eubosmina coregoni</i>	348	1.20	1.25	
<i>Eubosmina sp. (young)</i>	182	0.30	0.06	
Unknown Cladocera (top view)	1130	0.30	1.86	3
<b>Total</b>		16.54	65.44	
<b>Copepoda</b>				
Copepod nauplii	192	45.70	18.28	
Copepodid	526	31.27	12.85	
<b>Total</b>		76.97	31.13	
<b>Cyclopoida</b>				
<i>Diacyclops thomasi</i>	962	4.81	19.80	
<i>Mesocyclops edax</i>	722	0.60	0.87	
<b>Total</b>		5.41	20.67	
<b>Rotifera</b>				
<i>Asplanchna sp.</i>	192	4.51	0.29	
<i>Brachionus sp.</i>	91	0.30	0.00	
<i>Kellicottia longispina</i>	105	0.60	0.00	
<i>Keratella cochlearis</i>	102	0.30	0.00	
<i>Keratella crassa</i>	180	0.60	0.08	
<i>Polyarthra major</i>	143	0.30	0.03	
<i>Polyarthra vulgaris</i>	100	0.30	0.01	
<b>Total</b>		6.91	0.41	
<b>Total</b>		105.83	117.65	

Table 20 (cont.). Abundance, biomass (dry weight), mean length and egg data of Sodus Bay zooplankton from Station 5, 16 June 2004.

Sodus Bay Site 5 16 June 2004	Mean Length ( $\mu\text{m}$ )	Abundance (#/L)	Biomass ( $\mu\text{g/L}$ )	Attached eggs
<b>Calanoida</b>				
<i>Skistodiaptomus oregonensis</i>	1170	0.14	0.59	
<b>Cladocera</b>				
<i>Bosmina longirostris</i>	265	2.10	1.09	
<i>Daphnia galeata mendotae</i>	1093	1.54	8.75	
<i>Daphnia retrocurva</i>	765	7.70	13.93	2
<i>Daphnia sp. (young)</i>	573	0.70	0.76	
<i>Eubosmina coregoni</i>	368	10.36	12.43	1
<b>Total</b>		22.54	37.56	
<b>Copepoda</b>				
Copepod nauplii	249	10.08	4.03	
Copepodid	611	5.46	4.07	
<b>Total</b>		15.54	8.11	
<b>Cyclopoida</b>				
<i>Diacyclops thomasi</i>	713	0.83	1.88	
<i>Mesocyclops edax</i>	1076	7.71	54.26	31, 16
<b>Total</b>		8.54	56.14	
Harpacticoid copepod	829	0.14	0.25	
<b>Rotifera</b>				
<i>Brachionus sp.</i>	104	0.42	0.01	
<i>Kellicottia longispina</i>	111	0.14	0.00	
<i>Keratella cochlearis</i>	114	5.46	0.03	1,1,1
<i>Keratella crassa</i>	197	0.42	0.07	
<i>Ploesoma hudsoni</i>	400	0.28	0.18	
<i>Polyarthra euryptera</i>	167	21.84	3.34	1
<i>Polyarthra vulgaris</i>	164	91.56	12.50	1 in ea.of 9 P. v.
<b>Total</b>		120.12	16.14	
<b>Total</b>		166.88	118.19	

Table 20 (cont.). Abundance, biomass (dry weight), mean length and egg data of Sodus Bay zooplankton from Station 9, 16 June 2004.

Sodus Bay Site 9 16 June 2004	Mean Length ( $\mu\text{m}$ )	Abundance (#/L)	Biomass ( $\mu\text{g/L}$ )	Attached eggs
<b>Cladocera</b>				
<i>Bosmina longirostris</i>	294	3.74	2.55	
<i>Ceriodaphnia sp.</i>	520	0.37	0.81	
<i>Daphnia galeata mendotae</i>	1243	14.95	118.15	
<i>Daphnia retrocurva</i>	707	4.49	6.35	
<i>Daphnia sp. (young)</i>	417	4.49	2.17	
<i>Diaphanosoma birgei</i>	436	0.37	0.11	
<i>Eubosmina coregoni</i>	380	7.48	9.73	
<b>Total</b>		35.89	139.86	
<b>Copepoda</b>				
Copepod nauplii	186	12.71	5.08	
Copepodid	598	5.98	4.10	
<b>Total</b>		18.69	9.18	
<b>Cyclopoida</b>				
<i>Diacyclops thomasi</i>	767	0.37	0.98	
<i>Mesocyclops edax</i>	1022	2.24	12.88	
<b>Total</b>		2.62	13.86	
<b>Rotifera</b>				
<i>Kellicottia longispina</i>	100	1.12	0.00	
<i>Keratella cochlearis</i>	116	18.69	0.12	1 attached to each of 12 K. c.
<i>Keratella quadrata</i>	156	0.37	0.03	
<i>Ploesoma hudsoni</i>	351	0.37	0.16	
<i>Polyarthra euryptera</i>	176	2.24	0.40	
<i>Polyarthra major</i>	147	52.34	5.10	1
<i>Polyarthra vulgaris</i>	101	142.06	4.48	1
<i>Rotifer (?)</i>	80	1.50	0.02	
<b>Total</b>		218.69	10.32	
<b>Total</b>		275.89	173.23	

Table 20 (cont.). Abundance, biomass (dry weight), mean length and egg data of Sodus Bay zooplankton from Station 5, 21 July 2004.

Sodus Bay Site 5 21 July 2004	Mean Length (µm)	Abundance (#/L)	Biomass (µg/L)	Attached eggs
<b>Calanoida</b>				
Calanoid copepodid	488	0.32	0.16	
<i>Skistodiaptomus oregonensis</i>	975	0.32	0.86	
<b>Total</b>		0.64	1.02	
<b>Cladocera</b>				
<i>Bosmina longirostris</i>	261	2.58	1.30	
<i>Ceriodaphnia</i> sp.	553	0.32	0.84	
<i>Daphnia galeata mendotae</i>	965	16.65	68.79	3,1, 2, 3, 4, 4
<i>Daphnia retrocurva</i>	551	3.96	2.57	2,2
<i>Daphnia</i> sp. (young)	369	5.47	1.93	
<i>Eubosmina coregoni</i>	404	22.54	34.17	1
<i>Eubosmina coregoni</i> (young)	277	3.86	2.27	
<b>Total</b>		55.38	111.86	
<b>Copepoda</b>				
Copepod nauplii	195	58.60	23.44	
Copepodid	638	44.11	38.96	
<b>Total</b>		102.70	62.40	
<b>Cyclopoida</b>				
<i>Mesocyclops edax</i>	852	11.59	32.36	1 with clusters of developing eggs
<b>Rotifera</b>				
<i>Conochilis unicornis</i>	105	32.84	0.58	
<i>Kellicottia longispina</i>	110	0.97	0.01	1
<i>Keratella cochlearis</i>	98	5.47	0.02	
<i>Keratella crassa</i>	190	12.88	2.04	1,1
<i>Keratella quadrata</i>	156	0.64	0.06	
<i>Polyarthra euryptera</i>	137	0.64	0.05	
<i>Polyarthra major</i>	145	4.51	0.42	
<i>Polyarthra vulgaris</i>	124	14.17	0.83	
<b>Total</b>		72.12	4.00	
<b>Total</b>		242.43	211.64	

Table 20 (cont.). Abundance, biomass (dry weight), mean length and egg data of Sodus Bay zooplankton from Station 9, 21 July 2004.

Sodus Bay Site 9 21 July 2004	Mean Length (µm)	Abundance (#/L)	Biomass (µg/L)	Attached eggs
<b>Calanoida</b>				
Calanoid copepodid	702	0.80	0.96	
<i>Skistodiaptomus oregonensis</i>	1170	0.40	1.69	
<b>Total</b>		1.20	2.65	
<b>Cladocera</b>				
<i>Bosmina longirostris</i>	273	2.01	1.13	
<i>Daphnia galeata mendotae</i>	1058	27.31	142.82	3,3
<i>Daphnia retrocurva</i>	658	9.59	10.85	
<i>Daphnia sp. (young)</i>	404	10.03	4.46	
<i>Diaphanosoma birgei</i>	455	0.80	0.27	
<i>Eubosmina coregoni</i>	400	16.85	25.05	
<i>Eubosmina sp. (young)</i>	255	1.60	0.76	
<b>Total</b>		68.19	185.34	
<b>Copepoda</b>				
Copepod nauplii	216	90.65	36.26	
Copepodid	663	58.16	59.86	
<b>Total</b>		148.81	96.12	
<b>Cyclopoida</b>				
<i>Mesocyclops edax</i>	1049	15.24	97.01	13
<b>Rotifera</b>				
<i>Asplanchna priodonta</i>	540	0.40	0.57	
<i>Conochilis unicornis</i>	97	8.02	0.13	
<i>Kellicottia longispina</i>	107	2.01	0.01	1
<i>Keratella cochlearis</i>	97	4.01	0.01	1
<i>Keratella crassa</i>	180	8.02	1.09	
<i>Ploesoma hudsoni</i>	338	0.40	0.15	
<i>Polyarthra major</i>	133	4.81	0.35	
<i>Polyarthra sp.</i>	91	0.40	0.01	
<i>Polyarthra vulgaris</i>	120	17.25	0.91	1,1,1,1,1
<b>Total</b>		45.33	3.23	
<b>Total</b>		278.77	384.36	

Table 20 (cont.). Abundance, biomass (dry weight), mean length and egg data of Sodus Bay zooplankton from Station 5, 25 August 2004.

Sodus Bay Site 5 25 August 2004	Mean Length (µm)	Abundance (#/L)	Biomass (µg/L)	Attached eggs
<b>Calanoida</b>				
<i>Skistodiaptomus oregonensis</i>	520	0.40	0.23	
<b>Cladocera</b>				
<i>Bosmina longirostris</i>	242	2.82	1.17	
<i>Ceriodaphnia sp.</i>	407	3.63	3.64	1,1,1
<i>Daphnia retrocurva</i>	677	9.68	11.95	
<i>Daphnia sp. (young)</i>	416	1.21	0.58	
<i>Diaphanosoma birgei</i>	537	0.81	0.44	
<i>Eubosmina coregoni</i>	356	6.86	7.58	1
<i>Eubosmina sp. (young)</i>	215	0.81	0.25	
<b>Total</b>		25.82	25.61	
<b>Copepoda</b>				
Copepod nauplii	207	141.59	56.64	
<b>Cyclopoida</b>				
Cyclopoid copepodid	463	48.00	11.89	
<i>Mesocyclops edax</i>	630	4.84	4.06	11,9,9,4,10,10
<i>Tropocyclops prasinus</i>	560	0.40	0.57	
<b>Total</b>		53.25	16.53	
<b>Rotifera</b>				
<i>Asplanchna priodonta</i>	484	150.87	153.54	1,1,1,1,1,1,1,1
<i>Asplanchna sp.</i>	185	0.40	0.02	
<i>Conochilis unicornis</i>	97	65.35	1.05	
<i>Kellicottia longispina</i>	95	1.61	0.01	1
<i>Keratella cochlearis</i>	110	7.66	0.04	
<i>Keratella crassa</i>	174	8.07	0.97	1,1,1,1
<i>Polyarthra euryptera</i>	195	0.40	0.10	
<i>Polyarthra major</i>	144	42.76	3.97	1
<i>Polyarthra sp.</i>	111	0.81	0.03	
<i>Polyarthra vulgaris</i>	107	156.11	5.86	1 attached to each of 13 Poly.
<b>Total</b>		434.06	165.59	
<b>Total</b>		655.12	264.60	

Table 20 (cont.). Abundance, biomass (dry weight), mean length and egg data of Sodus Bay zooplankton from Station 9, 25 August 2004.

Sodus Bay Site 9 25 August 2004	Mean Length (µm)	Abundance (#/L)	Biomass (µg/L)	Attached eggs
<b>Cladocera</b>				
<i>Bosmina longirostris</i>	275	8.18	4.72	
<i>Ceriodaphnia sp.</i>	433	1.82	2.20	
<i>Daphnia galeata mendotae</i>	960	5.84	23.83	2
<i>Daphnia retrocurva</i>	584	7.79	6.06	
<i>Daphnia sp. (young)</i>	260	1.82	0.26	
<i>Diaphanosoma birgei</i>	475	1.82	0.69	
<i>Eubosmina coregoni</i>	335	15.46	14.60	
<i>Eubosmina sp. (young)</i>	169	0.91	0.15	
<b>Total</b>		43.64	52.50	
<b>Copepoda</b>				
Copepod nauplii	205	209.11	83.64	
Copepodid	495	66.37	21.35	
<b>Total</b>		275.48	105.00	
<b>Cyclopoida</b>				
<i>Mesocyclops edax</i>	647	16.37	15.29	10, 10, 8, 9
<b>Rotifera</b>				
<i>Asplanchna priodonta</i>	511	148.20	177.79	1 in each of 12 Asplanchna
<i>Conochilis unicornis</i>	100	144.56	2.41	1,1,1,1,1,1
<i>Keratella cochlearis</i>	101	17.27	0.07	1
<i>Keratella crassa</i>	170	11.82	1.35	
<i>Polyarthra major</i>	143	104.56	9.46	1,1
<i>Polyarthra vulgaris</i>	127	305.49	19.27	1 on each of 10 Polyarthra
<b>Total</b>		731.89	210.35	
<b>Total</b>		1067.38	383.14	



Table 20 (cont.). Abundance, biomass (dry weight), mean length and egg data of Sodus Bay zooplankton from Station 5, 15 September 2004.

Sodus Bay Site 5 15 September 2004	Mean Length (µm)	Abundance (#/L)	Biomass (µg/L)	Attached eggs
<b>Cladocera</b>				
<i>Bosmina longirostris</i>	282	71.78	43.96	
<i>Ceriodaphnia sp.</i>	363	2.39	1.67	
<i>Daphnia galeata mendotae</i>	665	3.19	5.08	1
<i>Daphnia retrocurva</i>	423	0.80	0.23	
<i>Daphnia sp. (young)</i>	320	3.19	0.78	
<i>Eubosmina coregoni</i>	355	11.17	12.24	
<i>Eubosmina sp. (young)</i>	260	3.19	1.59	
<b>Total</b>		95.70	65.55	
<b>Copepoda</b>				
Copepod nauplii	186	33.50	13.40	
Copepodid	399	19.14	2.63	
<b>Total</b>		52.64	16.03	
<b>Cyclopoida</b>				
<i>Mesocyclops edax</i>	455	1.60	0.37	
<i>Tropocyclops prasinus</i>	560	0.80	1.14	
<b>Total</b>		2.39	1.50	
<b>Rotifera</b>				
<i>Brachionus sp.</i>	100	12.76	0.17	
<i>Conochilis unicornis</i>	130	0.80	0.02	
<i>Kellicottia longispina</i>	50	0.80	0.00	
<i>Keratella cochlearis</i>	111	33.50	0.19	1 on each of 11 Keratella
<i>Keratella crassa</i>	195	42.27	7.23	1,1,1,1,1,1,1
<i>Ploesoma hudsoni</i>	450	1.60	1.45	
<i>Polyarthra euryptera</i>	172	22.33	3.77	1,1
<i>Polyarthra vulgaris</i>	122	126.80	7.02	1,1,1,1,1,1,1
<b>Total</b>		240.85	19.85	
<b>Total</b>		391.57	102.94	

Table 20 (cont.). Abundance, biomass (dry weight), mean length and egg data of Sodus Bay zooplankton from Station 9, 15 September 2004.

Sodus Bay Site 9 15 September 2004	Mean Length (µm)	Abundance (#/L)	Biomass (µg/L)	Attached eggs
<b>Cladocera</b>				
<i>Bosmina longirostris</i>	282	206.20	125.92	
<i>Bosmina sp. (young)</i>	189	13.19	2.93	
<i>Ceriodaphnia sp.</i>	347	3.60	2.17	
<i>Daphnia retrocurva</i>	536	25.18	14.96	
<i>Daphnia sp. (young)</i>	226	8.39	0.84	
<i>Diaphanosoma birgei</i>	337	5.99	0.80	
<i>Eubosmina coregoni</i>	334	27.57	25.98	
<i>Eubosmina sp. (young)</i>	192	8.39	1.94	
<b>Total</b>		298.52	175.52	
<b>Copepoda</b>				
Copepod nauplii	184	125.88	50.35	
Copepodid	316	41.96	2.27	
<b>Total</b>		167.84	52.63	
<b>Cyclopoida</b>				
<i>Mesocyclops edax</i>	450	98.31	21.66	10, 10, 13
<b>Harpacticoida</b>				
Harpacticoid copepod	365	1.20	0.29	
<b>Rotifera</b>				
<i>Asplanchna priodonta</i>	540	2.40	3.38	
<i>Asplanchna sp.</i>	212	2.40	0.20	
<i>Brachionus sp.</i>	91	29.97	0.29	
<i>Kellicottia longispina</i>	113	11.99	0.07	1,1
<i>Keratella cochlearis</i>	101	293.72	1.20	1 each to 64 K. c.
<i>Keratella crassa</i>	173	164.24	19.55	1 each to 18 K. cr.
<i>Ploesoma hudsoni</i>	332	5.99	2.19	
<i>Polyarthra euryptera</i>	182	10.79	2.15	
<i>Polyarthra major</i>	142	79.12	6.91	1
<i>Polyarthra remata</i>	68	2.40	0.02	
<i>Polyarthra vulgaris</i>	88	10.79	0.23	1
<i>Polyarthra vulgaris</i>	122	546.68	30.39	1 each to 39 Poly.
<b>Total</b>		1160.50	66.58	
<b>Total</b>		1726.36	316.68	

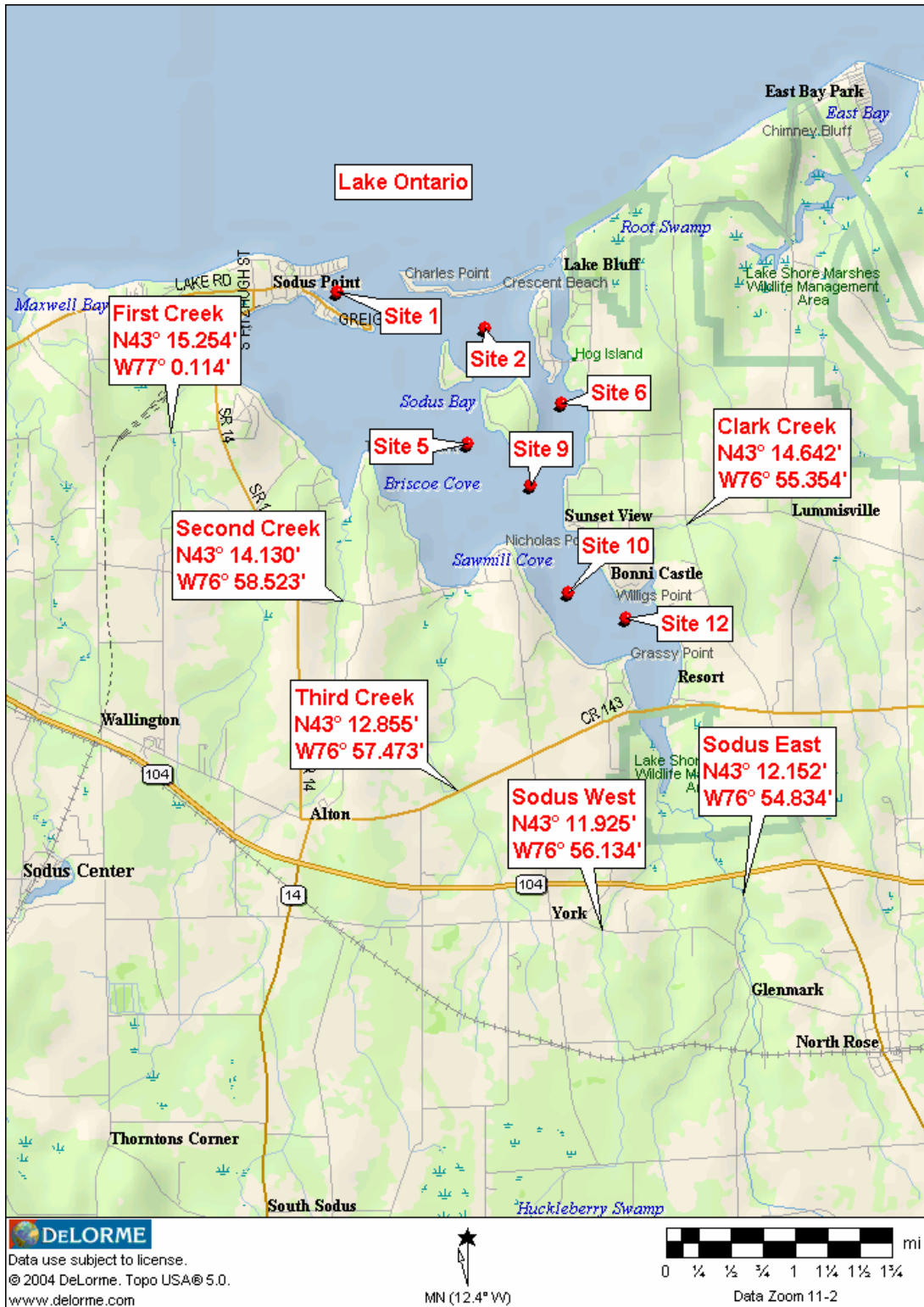


Figure 1. Sampling sites in the Sodus Bay watershed. The latitude and longitude of the sites are: Site 1 N 43° 16.200 W 76° 58.570, Site 2 N 43° 15.956 W 76° 57.213, Site 6 N 43° 15.455 W 76° 56.507, Site 12 N 43° 14.008 W 76° 55.918, Site 10 N 43° 14.188 W 76° 56.441, Site 9 N 43° 14.902 W 76° 56.790 and Site 5 N 43° 15.185 W 76° 57.380.

# pH Profile

Sodus Bay, Site 5  
Summer 2004

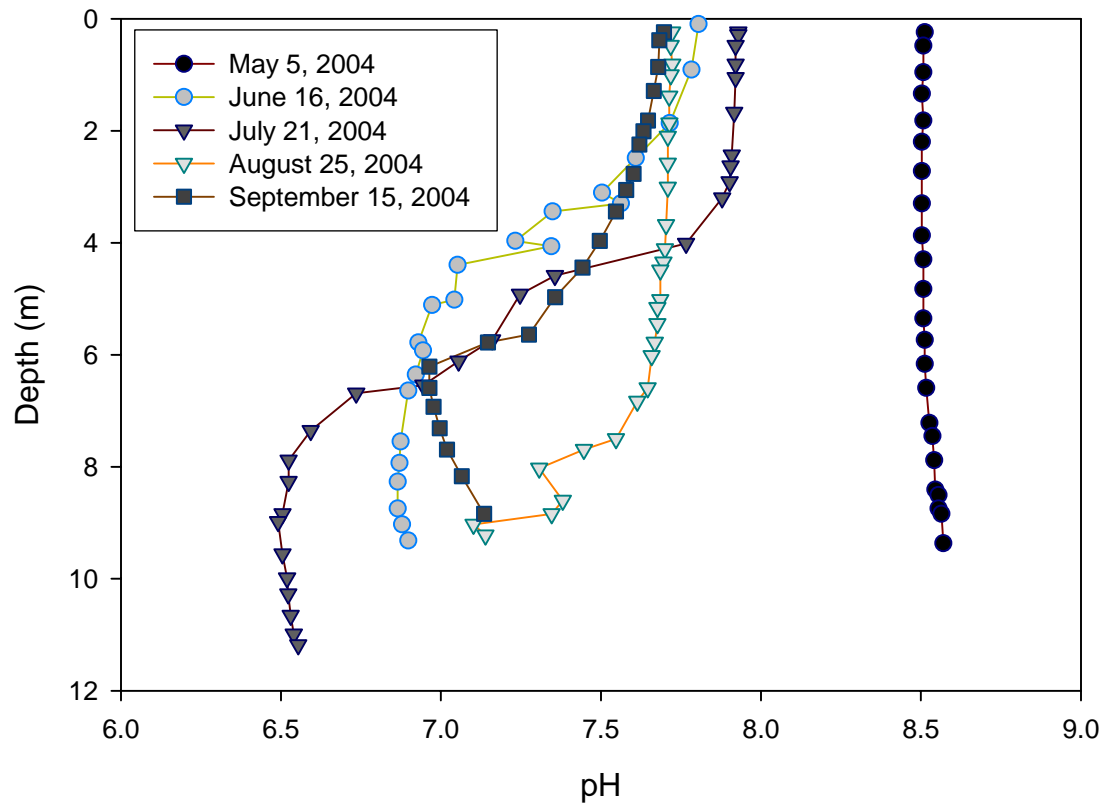


Figure 2. pH profiles of Sodus Bay Site 5, May through September 2004.

# pH Profile

Sodus Bay, Site 9  
Summer 2004

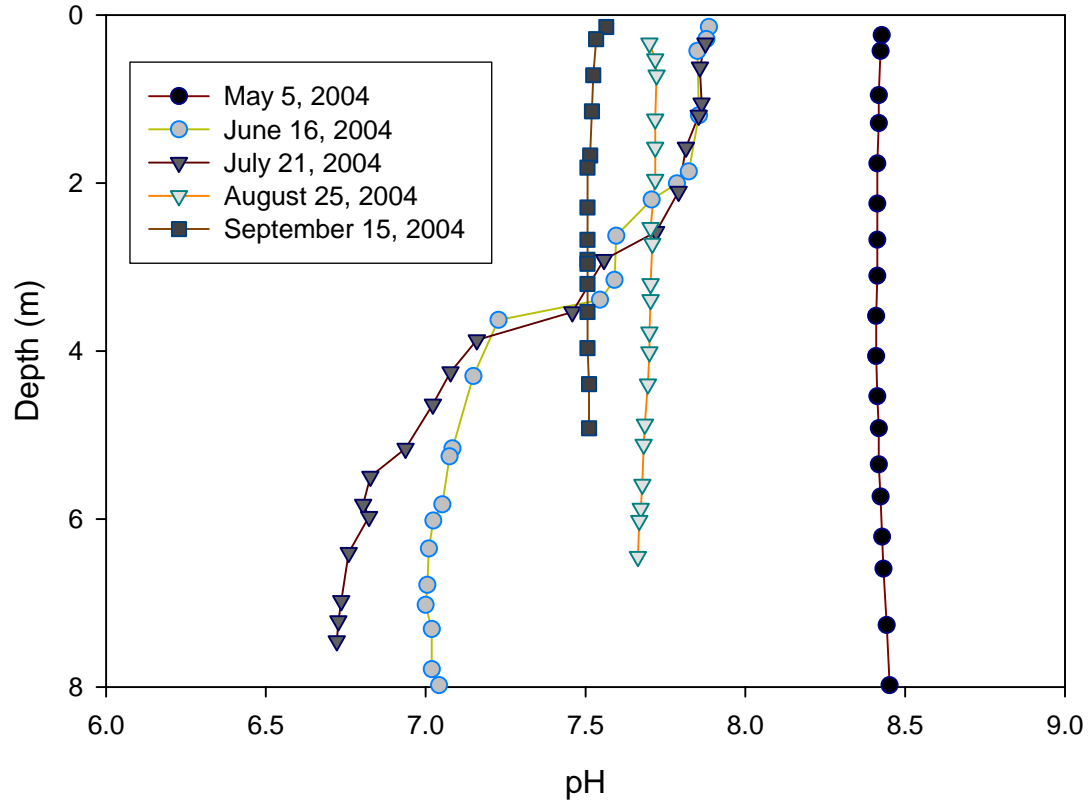


Figure 3. pH profiles of Sodus Bay Site 9, May through September 2004.

Depth vs. Temperature and Dissolved Oxygen profile  
for Sodus Bay, Site 5

5 May 2004

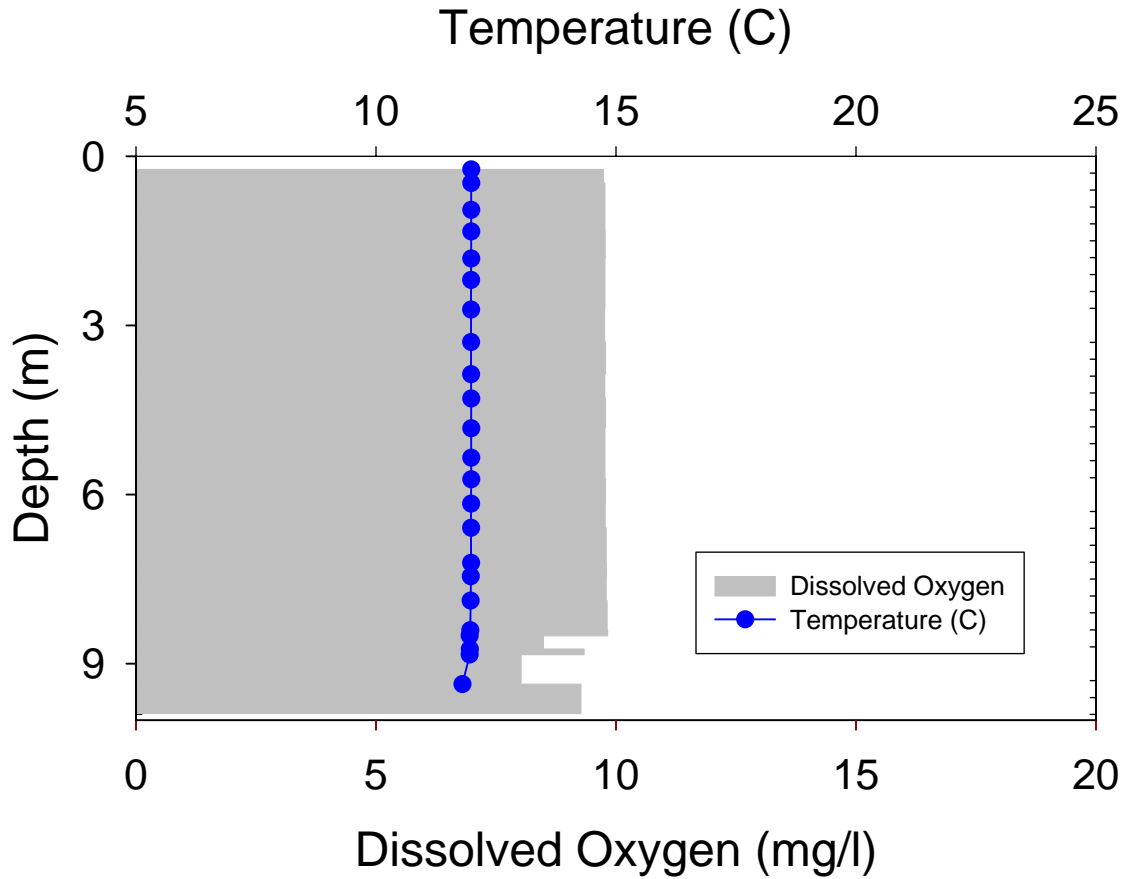


Figure 4. Temperature and dissolved oxygen profile for Sodus Bay Site 5 on 5 May 2004.

Depth vs. Temperature and Dissolved Oxygen profile  
for Sodus Bay, Site 5

16 June 2004

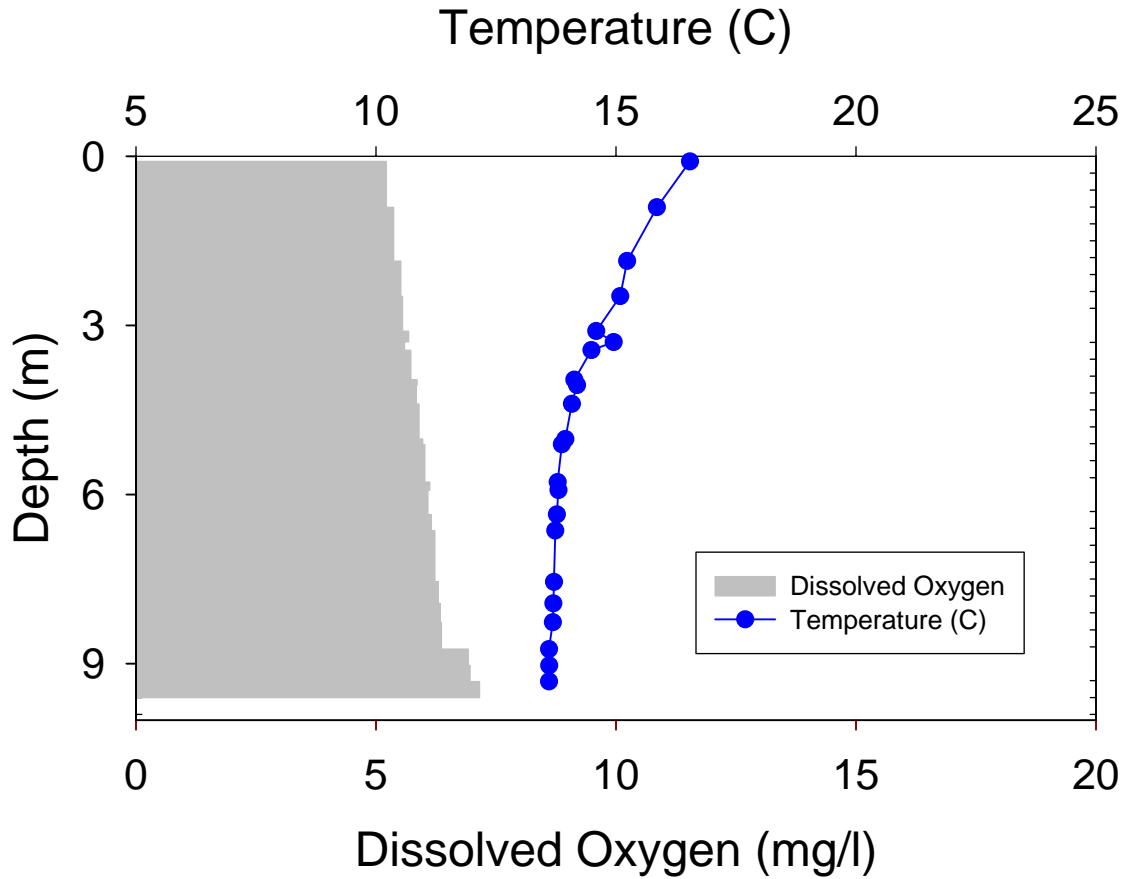


Figure 5. Temperature and dissolved oxygen profile for Sodus Bay Site 5 on 16 June 2004.

Depth vs. Temperature and Dissolved Oxygen profile  
for Sodus Bay, Site 5

21 July 2004

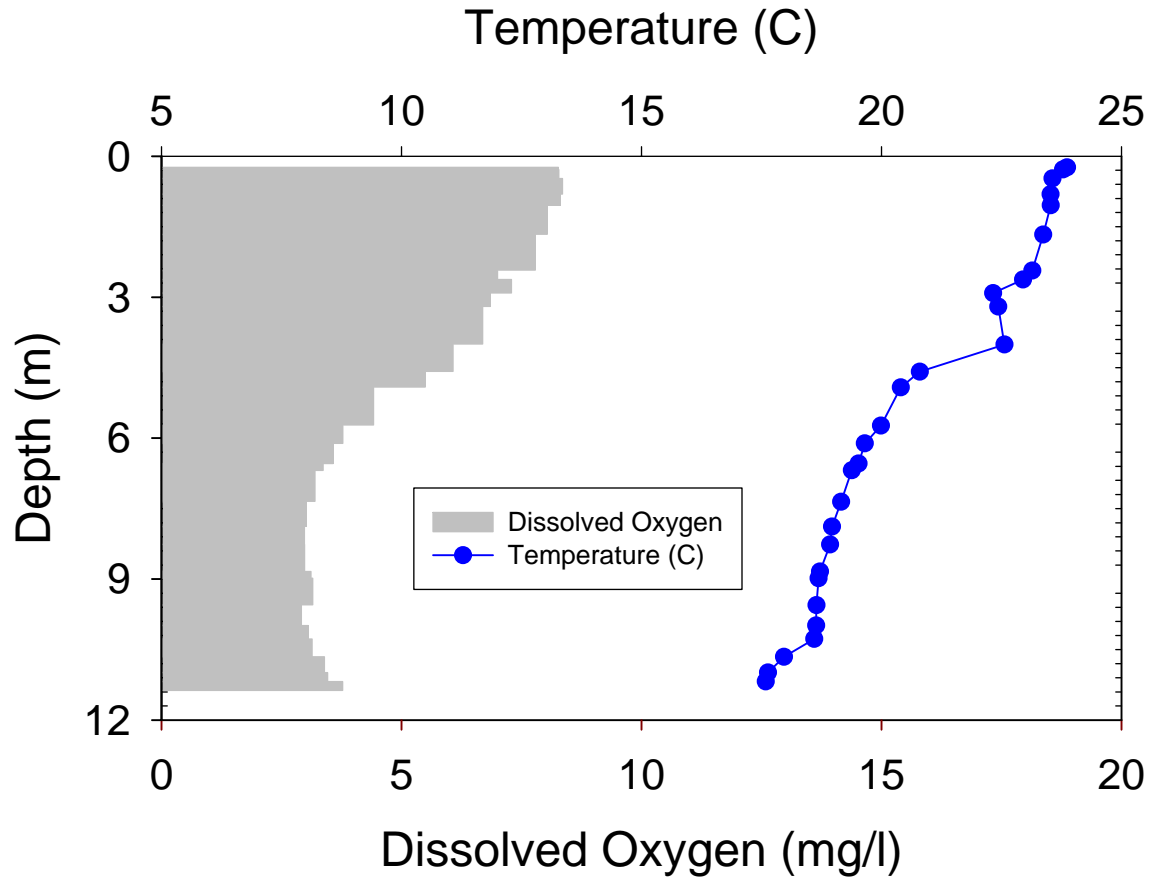


Figure 6. Temperature and dissolved oxygen profile for Sodus Bay Site 5 on 21 July 2004.



Depth vs. Temperature and Dissolved Oxygen profile  
for Sodus Bay, Site 5  
**25 August 2004**

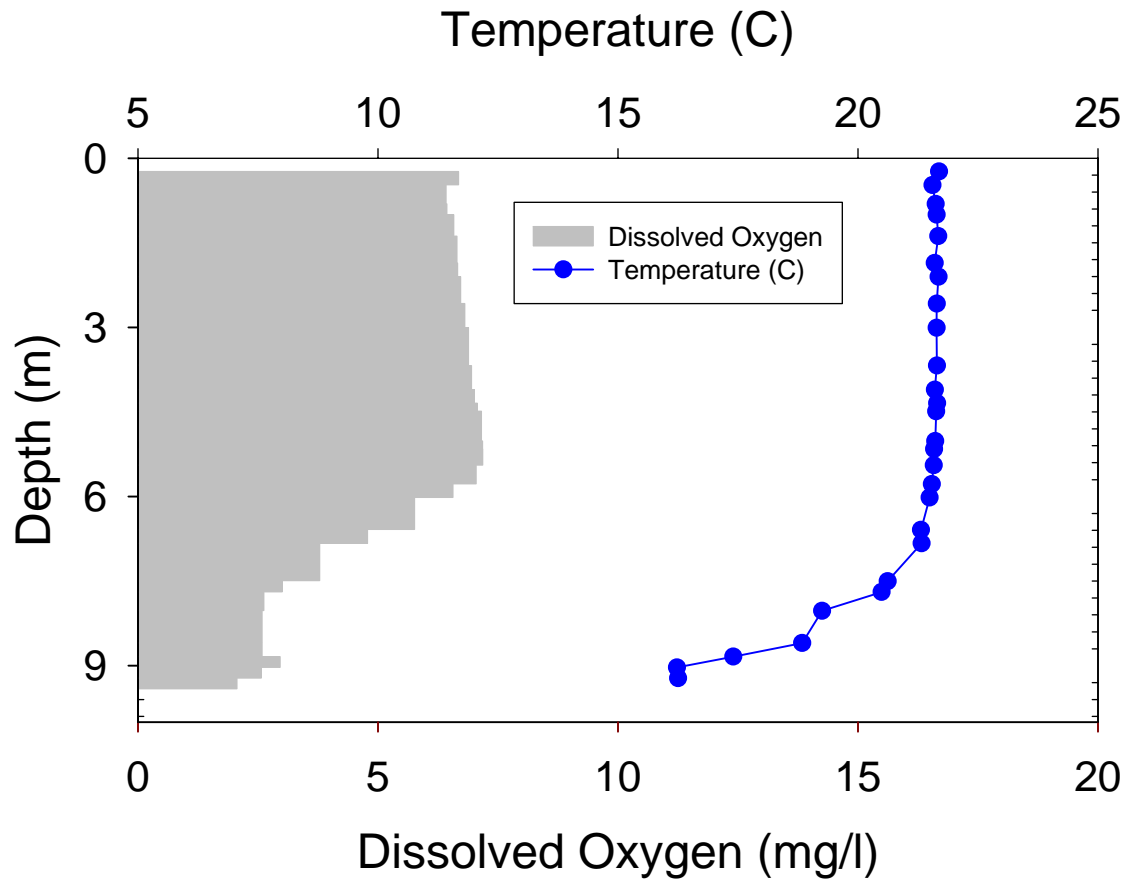


Figure 7. Temperature and dissolved oxygen profile for Sodus Bay Site 5 on 25 August 2004.

Depth vs. Temperature and Dissolved Oxygen profile  
for  
Sodus Bay, Site 5  
**15 September 2004**  
Temperature (C)

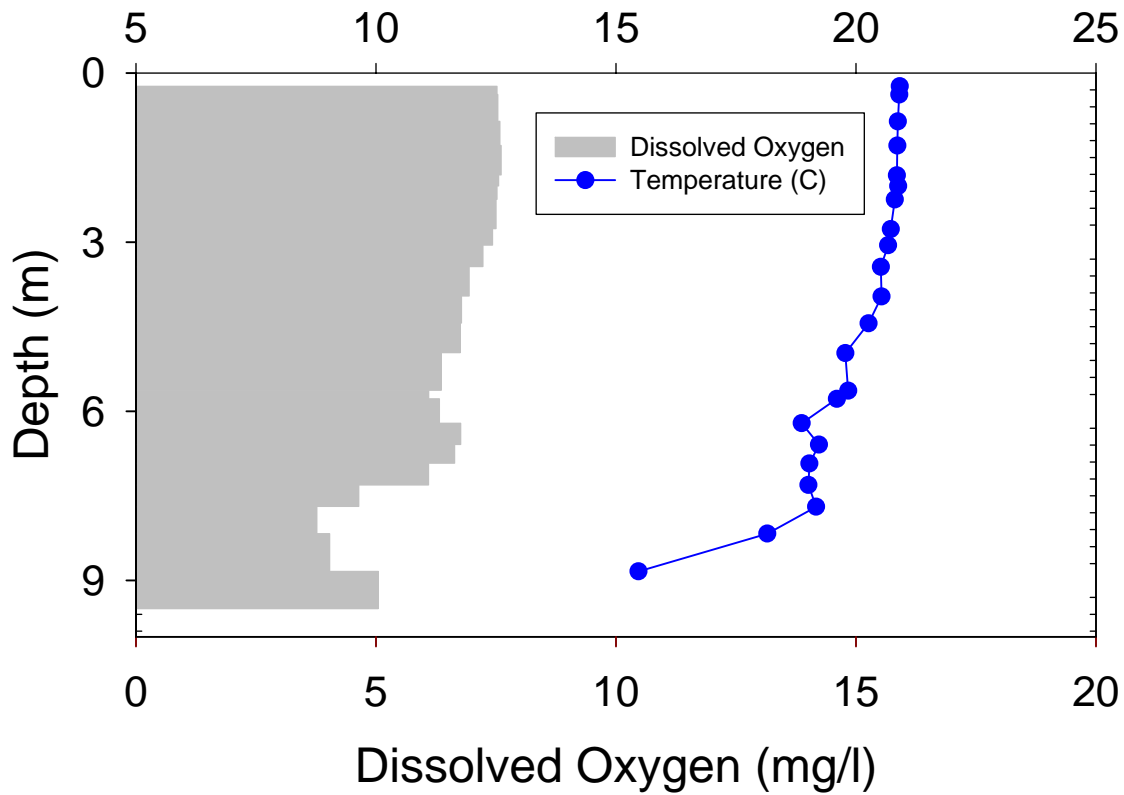


Figure 8. Temperature and dissolved oxygen profile for Sodus Bay Site 5 on 15 September 2004.

Depth vs. Temperature and Dissolved Oxygen profile  
for Sodus Bay, Site 9

5 May 2004

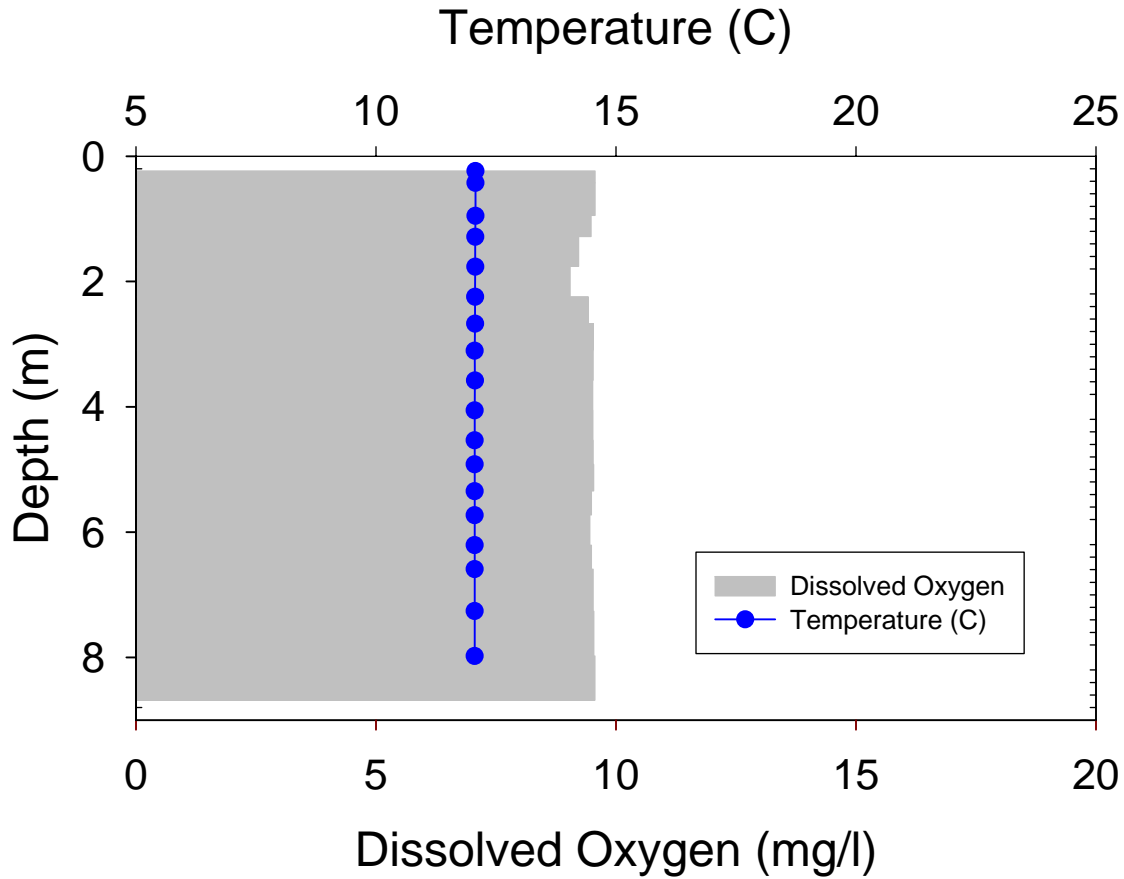


Figure 9. Temperature and dissolved oxygen profile for Sodus Bay Site 9 on 5 May 2004.

Depth vs. Temperature and Dissolved Oxygen profile  
for Sodus Bay, Site 9

16 June 2004

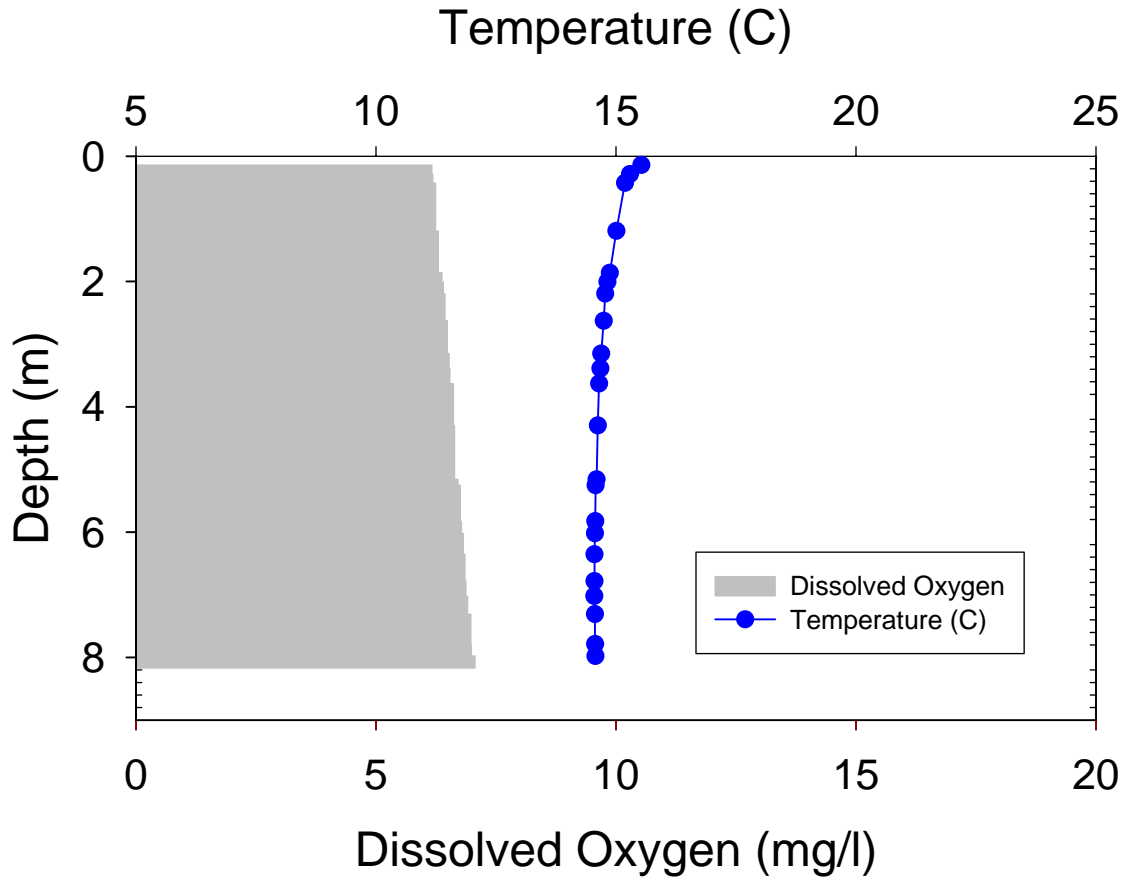


Figure 10. Temperature and dissolved oxygen profile for Sodus Bay Site 9 on 16 June 2004.

Depth vs. Temperature and Dissolved Oxygen profile  
for Sodus Bay, Site 9

21 July 2004

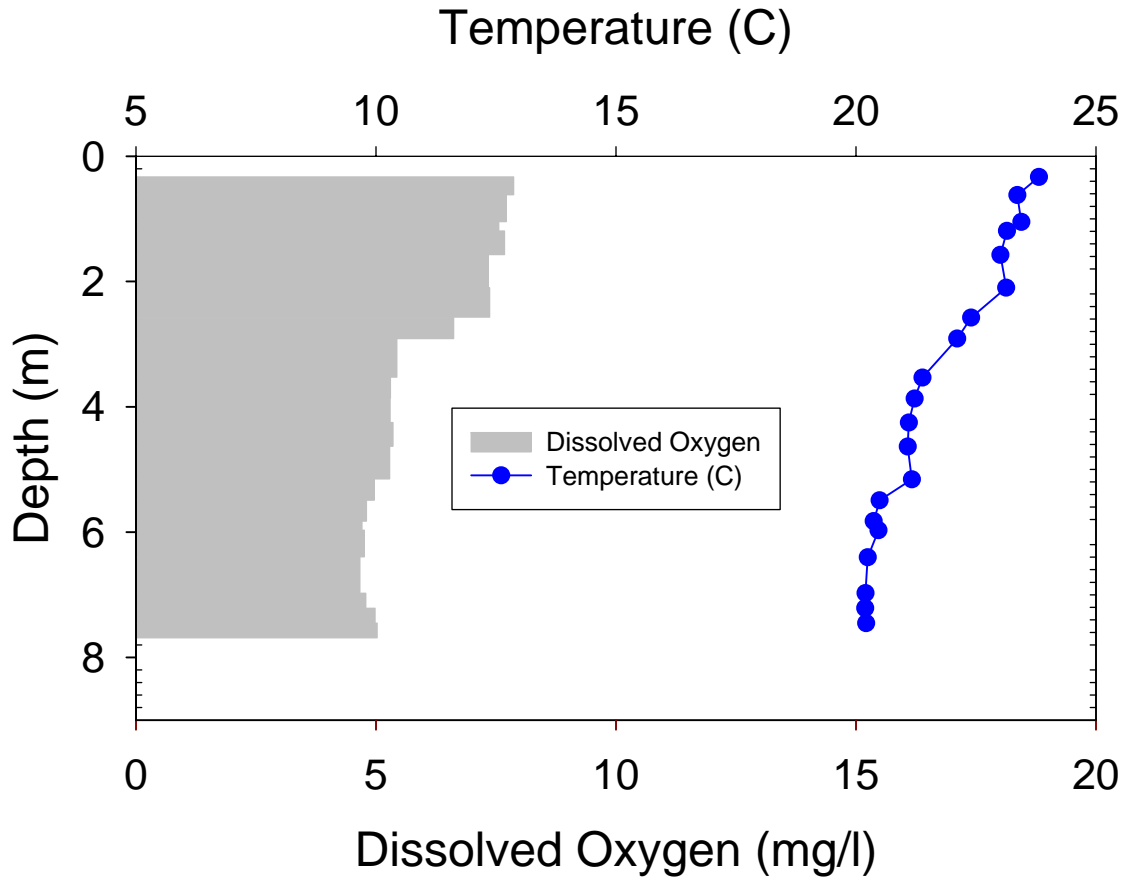


Figure 11. Temperature and dissolved oxygen profile for Sodus Bay Site 9 on 21 July 2004.

Depth vs. Temperature and Dissolved Oxygen profile  
for Sodus Bay, Site 9  
**25 August 2004**

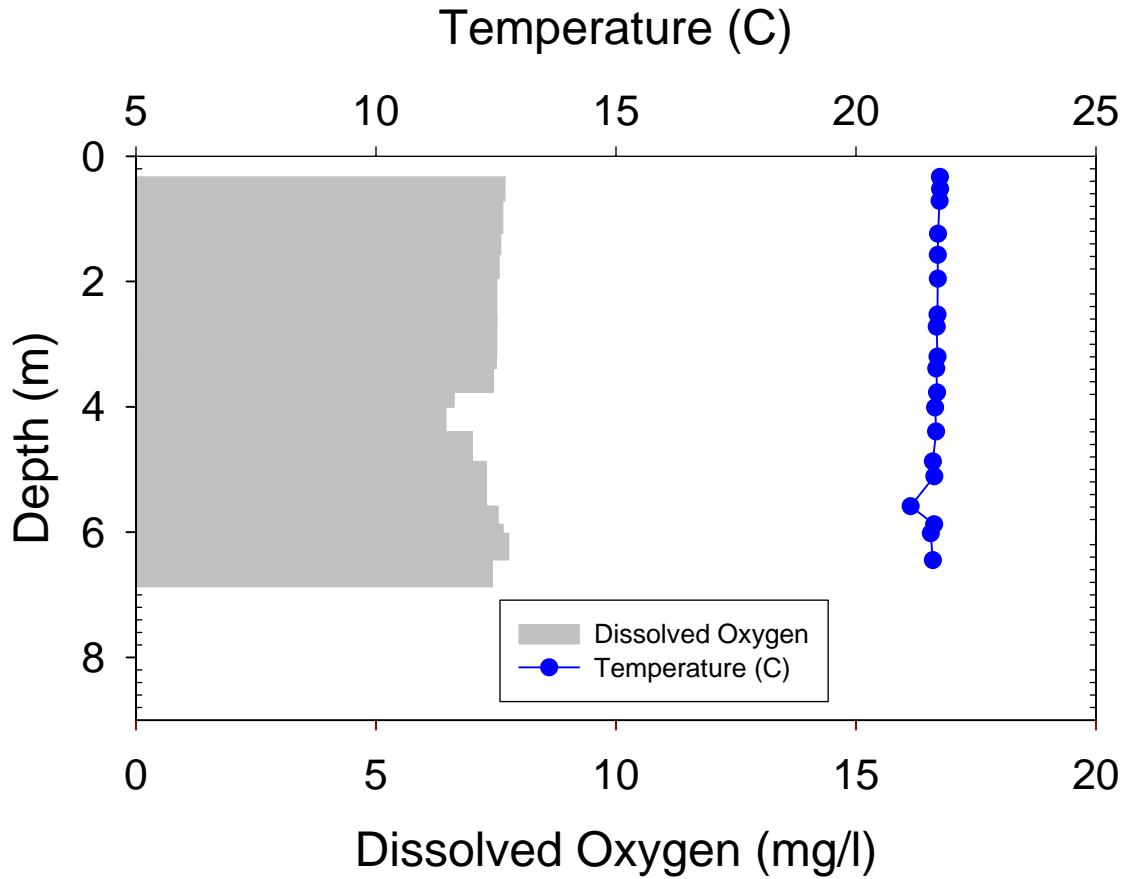


Figure 12. Temperature and dissolved oxygen profile for Sodus Bay Site 9 on 25 August 2004.

Depth vs. Temperature and Dissolved Oxygen profile  
for Sodus Bay, Site 9

15 September 2004

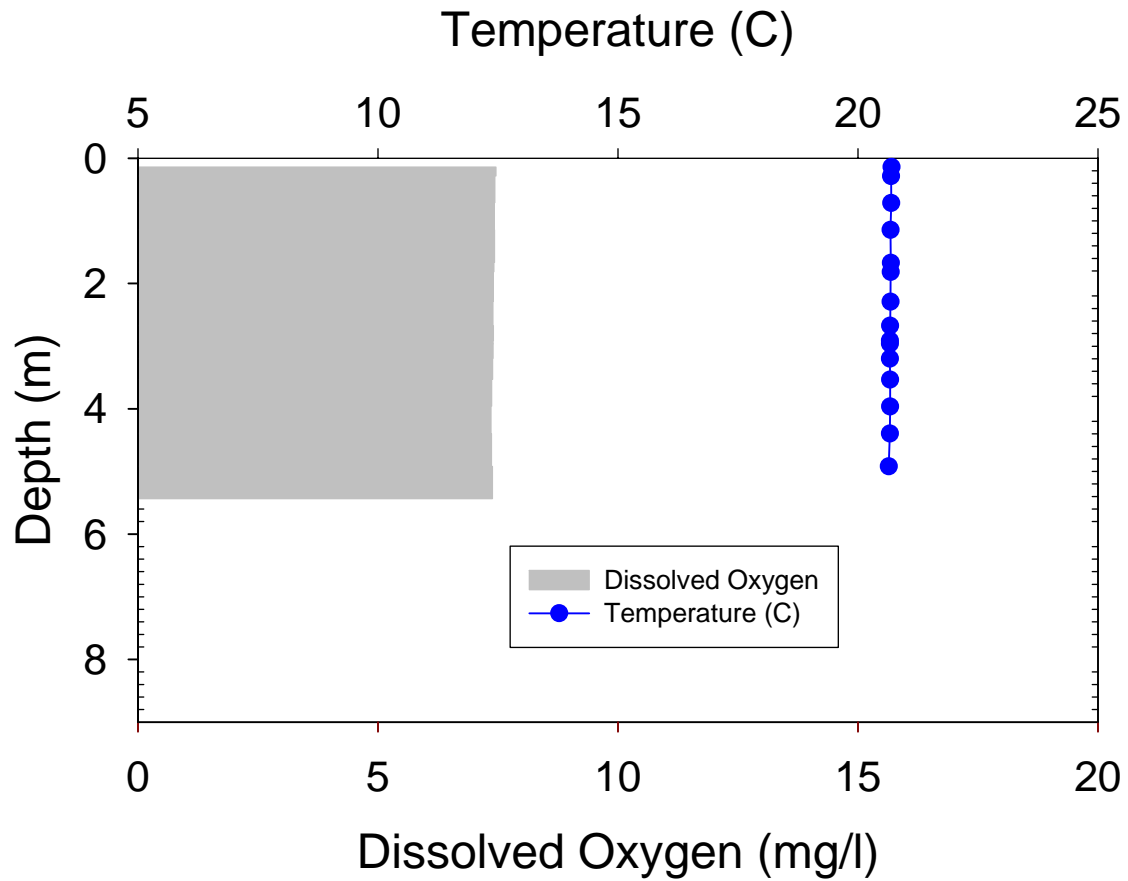


Figure 13. Temperature and dissolved oxygen profile for Sodus Bay Site 9 on 15 September 2004.

Figure 14. Total abundance of phytoplankton from Sodus Bay, May through September 2004.

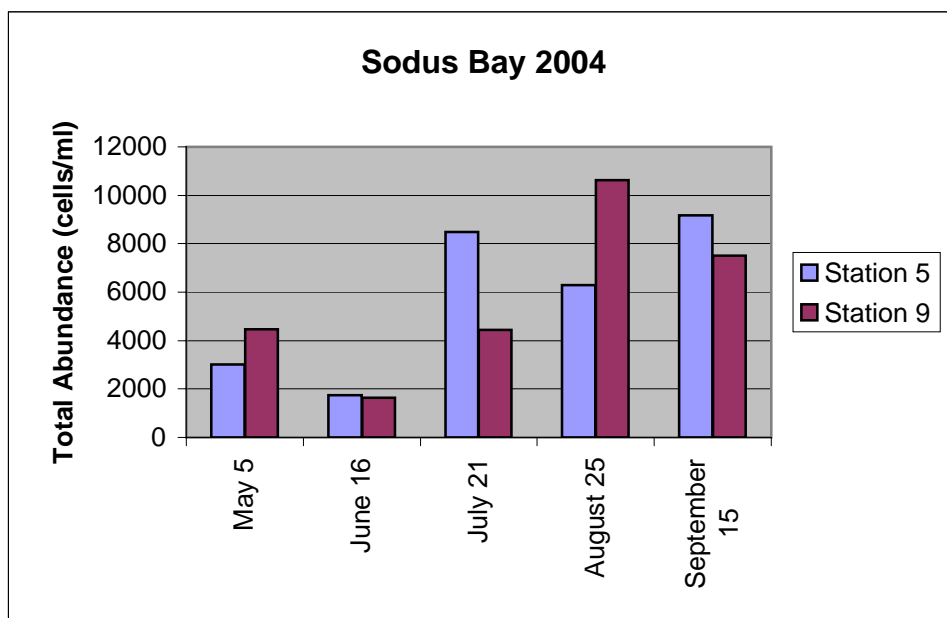




Figure 15. Total biomass of phytoplankton from Sodus Bay, May through September 2004.

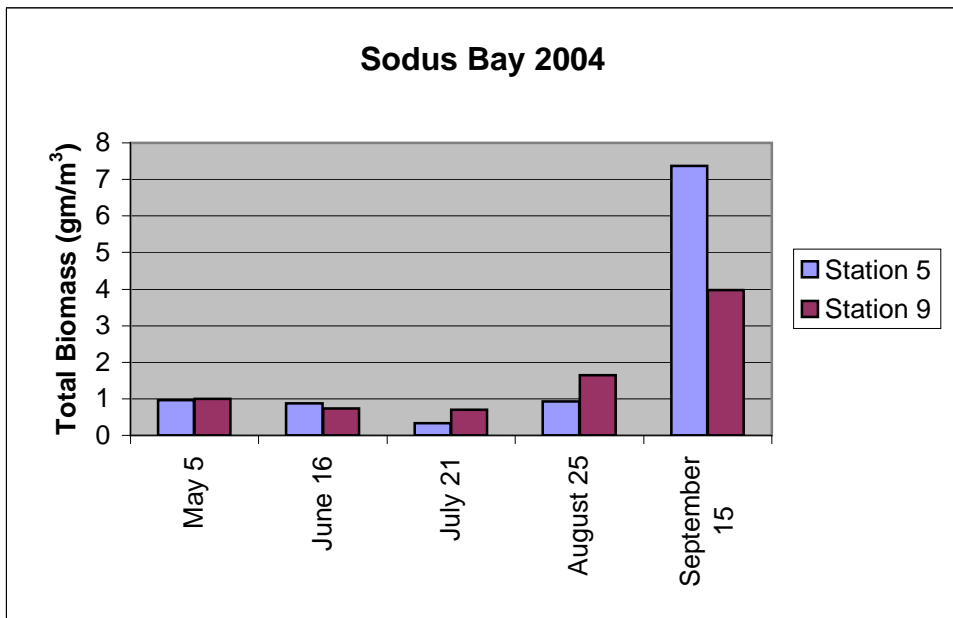


Figure 16. Size distribution of phytoplankton biomass from Sodus Bay, May through September 2004.

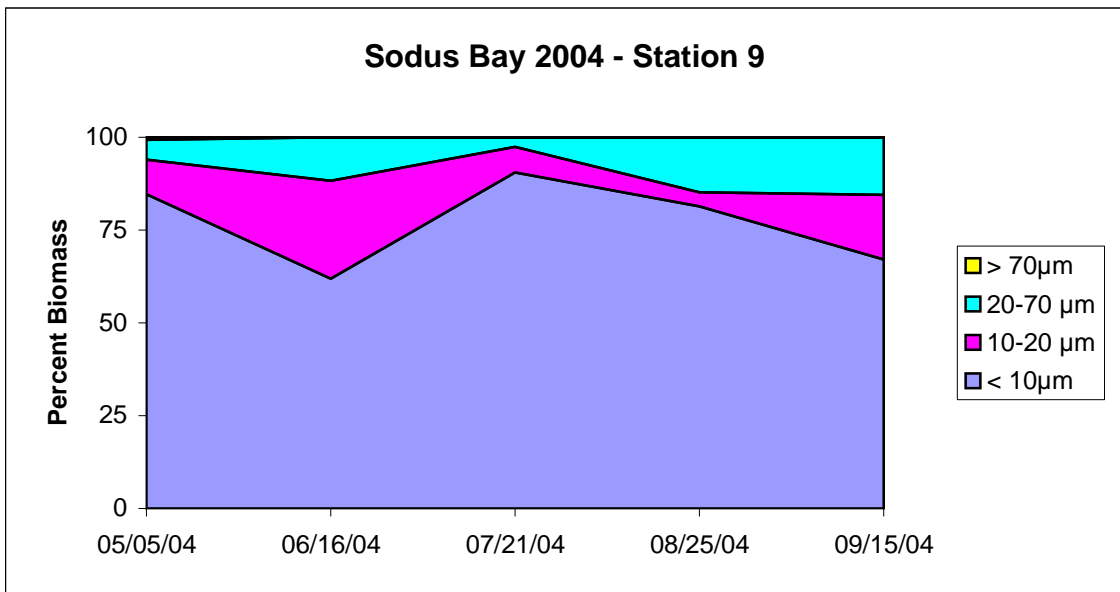
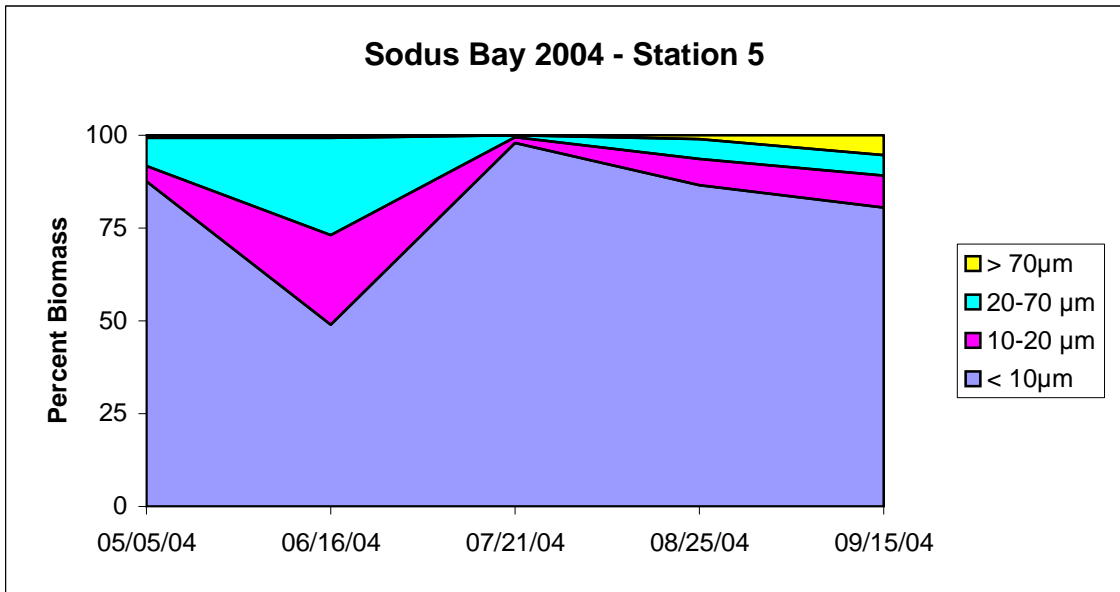


Figure 17. Cell type distribution of phytoplankton biomass from Sodus Bay, May through September 2004.

