
**JERICHO DIAMOND PROJECT
PILOT AQUATIC EFFECTS MONITORING
PROGRAM (1999)**



RL&L

Environmental Services Ltd.

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PILOT AQUATIC EFFECTS MONITORING PROGRAM (1999)**

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1.0 INTRODUCTION

1.1 BACKGROUND

The Jericho Diamond Project was initiated by Tahera Corporation (formerly Lytton Minerals Ltd.) in 1995 based on the discovery of a kimberlite pipe adjacent to the southern shore of an unnamed lake (locally known as Carat Lake).

In anticipation of the possible development of this deposit, Tahera Corporation initiated baseline inventories of the area commencing in 1995. This involved collection of data on meteorological conditions, water quality, hydrology, wildlife, and aquatic biota. R.L. & L. Environmental Services Ltd. was contracted by Tahera Corporation to undertake baseline inventories of the aquatic biological community and to complete the environmental effects statement (EIS) for the aquatic biota component.

A partial requirement of the EIS included development of a monitoring plan to verify compliance with regulatory standards and to evaluate effectiveness of the mitigation measures as a condition of project approval (NWB 1999). An integral part of this plan is the Aquatic Effects Monitoring (AEM) Program, which is designed to monitor potential impacts of the development on aquatic biota. This document outlines the rationale and design of the AEM program proposed for the Jericho Diamond Project and presents preliminary findings. Because this is the first year of monitoring, the design may need refinement; thus the AEM program should be viewed as a pilot study.

1.2 PURPOSE AND OBJECTIVES

The purpose of an AEM program is to monitor sources of effluent to detect unanticipated effects on aquatic biota so that appropriate mitigative actions can be taken. The objectives of this pilot program were:

- to collect pre-development baseline data;
- to evaluate the effectiveness of the program design;
- to make recommendations to improve the design, where appropriate.

1.3 PROGRAM RATIONALE AND DESIGN

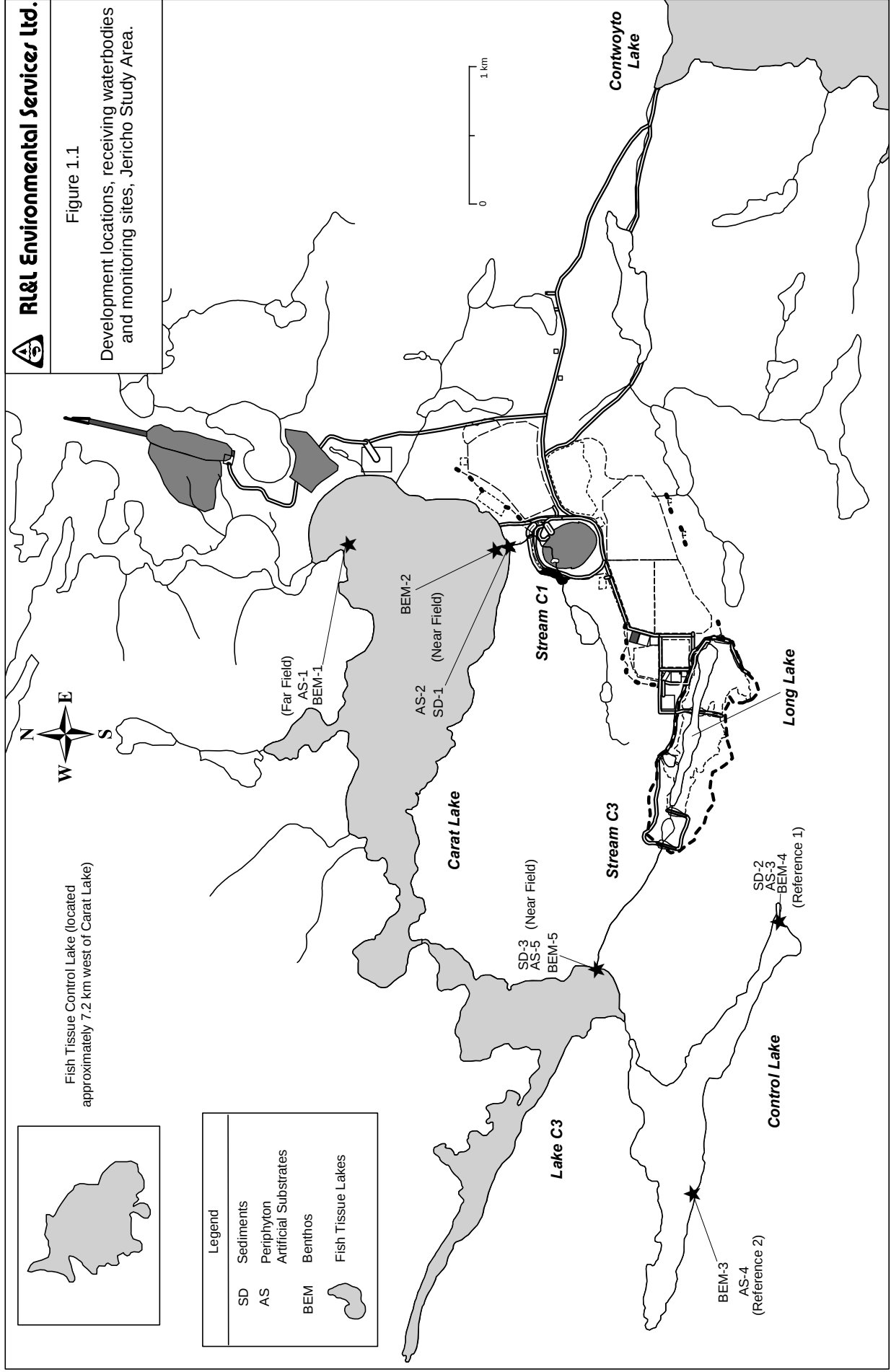
The ore bearing deposit at the Jericho Site is situated immediately adjacent to Carat Lake (Figure 1.1). Based on preliminary project design information (Tahera 1999), there are a number of potential sources of deleterious substances that can affect aquatic biota. Following collection and treatment, effluent from the waste rock dump, ore stockpile, and pit will be allowed to exfiltrate into Carat Lake. Construction of a diversion system on Stream C1 also has the potential to introduce sediments into Carat Lake. The receiving environment in both cases is the southeastern corner of the lake.



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Figure 1.1

Development locations, receiving waterbodies and monitoring sites, Jericho Study Area.



A stand-alone development option for the Jericho Diamond Project will require use of the Long Lake basin as a containment area for processed kimberlite. The eastern basin of Lake C3 would be the receiving waterbody of effluent from the containment area.

The deleterious substances and their associated effects can be categorized into three broad groups: nutrient loading, elevated suspended sediments, and increased levels of contaminants. All three have the potential to adversely affect aquatic biota.

Components of the aquatic biological community that have been chosen as receptors suitable for monitoring purposes include periphyton, benthic invertebrates, and fish (Table 1.1). The first two organisms are used because they are stationary and are likely to reflect changes in the environment more rapidly than other organisms such as fish. Lake trout and round whitefish are also used as receptors because they have the potential to bioaccumulate some metals and they have a higher value to society than invertebrates. Other organisms, such as phytoplankton and zooplankton, are deemed unsuitable as receptors for two reasons. First, both groups exhibit high levels of natural variability that make it difficult to identify change with a sufficient degree of statistical certainty. Second, neither receptor is stationary within the context of this project (southeast basin of Carat Lake and the eastern basin of Lake C3), which makes it difficult to ascertain site-specific effects.

One abiotic component has also been included in the AEM program. Sediment deposition is used for monitoring because it provides a link between elevated suspended sediments and changes in the aquatic biological community.

Table 1.1 Receptors used and parameters measured during the Pilot AEM Program for the Jericho Diamond Project.

Receptor	Parameter
Periphyton	- biomass (chlorophyll <i>a</i> and ash-free-dry-mass); taxa density; taxa richness
Benthic invertebrates	- density; taxa density; taxa richness
Sediment deposition	- sediment particle distribution; sediment accumulation
Fish (lake trout and round whitefish)	- metal concentrations in muscle and liver tissues

The AEM program has been designed to document spatial and temporal effects of the development on the aquatic biological community. Monitoring of spatial effects involves comparisons of data from exposed sites to reference sites. The monitoring program incorporates temporal effects by comparing pre-development to post-development conditions.

Periphyton and benthic invertebrates are monitored using a conventional approach recommended by Environment Canada and Department of Fisheries and Oceans (1993). For these receptors, the program is designed to monitor near field effects, far field effects, and to compare these data to two reference sites outside the influence of the development (Table 1.2; Figure 1.1).

To ascertain near field effects, monitoring was undertaken in Carat Lake immediately downstream of the effluent source (i.e., outlet zone of Stream C1) and in Lake C3 immediately downstream of the processed kimberlite containment area (i.e., outlet zone of Stream C3). Far field effects were monitored by placing a site in Carat Lake adjacent to the outlet on the north shore of the lake. The two reference sites were located in Control Lake situated within the Carat Lake drainage upstream of potential project effects.

Table 1.2 Waterbodies and sites sampled^a for each receptor as part of the Pilot AEM Program for the Jericho Diamond Project.

Receptor	Waterbodies and Sites			
	Carat Lake (Near Field and Far Field)	Lake C3 (Near Field)	Control Lake (Sites one and two)	Fish Tissue Control Lake
Periphyton	✓	✓	✓	
Benthic Invertebrates	✓	✓	✓	
Sediment Deposition ^b	✓	✓	✓	
Fish ^c	✓	✓		✓

^a See Appendix A1 for site locations.

^b Data collected only at near field site in Carat Lake and reference site one in the Control Lake.

^c Fish collections were specific only to the waterbody; Fish Tissue Control Lake is a different waterbody from Control Lake.

For sediment deposition, sampling effort was restricted to near field sites in Carat Lake and Lake C3, and at one reference site in Control Lake. The rationale for the reduced sampling effort is based on two assumptions: 1) the effects of sedimentation will be restricted to near field point sources; and, 2) elevated suspended sediment levels will be identified by the water quality monitoring program before sedimentation becomes a concern at the far field site. A second approach was used to monitor project effects on fish. Because both receptor species are highly mobile, near field and far field effects cannot be properly ascertained; consequently, background metal concentrations in fish residing in the potentially affected waterbodies (Carat Lake and Lake C3) will be compared to data collected from fish in an unaffected waterbody that is isolated from the Jericho Diamond Project (Fish Tissue Control Lake).

The majority of samples were collected in 1999 during the baseline inventory program (RL&L 1999). Tissue samples were collected from fish in Carat Lake and Fish Tissue Control Lake during the 1996 baseline inventory program (RL&L 1997).

2.0 METHODS

2.1 SEDIMENT DEPOSITION

2.1.1 Field

Sediment traps were deployed in selected lakes to evaluate particle size distribution and quantity of sediment deposited at sites during the open water period (15 July to 31 August). The sediment traps consisted of plastic containers (22 x 22 x 10 cm; measured volume of 4830 cm³) that were filled with gravel-sized material (5 mm to 32 mm) from the esker complex just north of the Jericho Diamond Project. All gravel was thoroughly scrubbed and rinsed to remove sediment particles. The sediment traps were placed in areas immediately adjacent to the lake shoreline at depths between 1.0 and 1.5 m (Appendix B, Table B1). Lids were secured to the traps during deployment and retrieval to prevent entry or loss of sediment. Five traps were randomly deployed at each site within a 5 m radius.

2.1.2 Laboratory

Immediately following retrieval, the gravel in each trap, and the trap itself was scrubbed and rinsed to remove all sediment particles. Collected sediments were placed in 1-L polyethylene bottles and the samples were shipped to Enviro-Test Laboratories for analysis of sediment weight and particle size distribution. The collected material frequently contained particles greater than 710 µm, which could not be analysed using the Microtrac system. As such, samples were first sieved through 710 µm mesh to separate these particles (large fraction) from the remainder of the sample (fine fraction).

The total dry weight (gm) of sediment in each sample was calculated by subtracting the filtered weight of the fine fraction plus the weight of large fraction from the weight of the filter paper. Percent particle size distribution (0.691 µm to 710 µm) was determined by Microtrac analysis carried out by Core Laboratories on behalf of Enviro-Test Laboratories.

2.1.3 Data Preparation

Particle sizes greater than 710 µm were an artifact of the process used to clean the gravel substrates that were placed in the sediment traps, which generated 'rock chips'. As such, all data associated with particles greater than 710 µm were removed from further analyses (Appendix C, Tables C1 and C2).

2.2 PERIPHYTON

2.2.1 Field

The periphyton community was monitored during the open water period between 15 July and 31 August using artificial substrates placed on the lake bottom in the littoral zone. The artificial substrates consisted of plastic flower pots (40 mm radius x 65 mm long) having a total surface area of 165.1 cm². Prior to placement, the surface of each pot was roughened and the pot filled with rock substrates to add weight. Seven pots were placed on the lake bottom at depths between 1.0 and 1.5 m immediately adjacent to the lake shoreline within zone having a radius of 5 m (Appendix B, Table B1).

At the end of the sampling period, five of the seven artificial substrates at each site were randomly selected and processed. If a pot was not in an upright position (i.e., pot that had tipped over), it was excluded from the sample. In cases where there were less than five upright pots, one or more of the disturbed pots were sampled. The area available for periphyton growth on these disturbed pots was calculated by subtracting the portion of the pot that was submerged in the lake sediment from the total surface area Appendix D, Table D1.

Periphyton were carefully removed from each artificial substrate using a tooth brush and the resulting material rinsed with deionized water into a 500 mL polyethylene sample bottle. Samples used for algal identification and enumeration were preserved with 5% acid-Lugol's solution. Shortly after collection, two drops of 100% formalin were added to each of these samples to prevent growth of bacteria and fungi. Samples used for chlorophyll *a* analysis were filtered (5 mL) onto Whatman GF/C filter paper, covered with anhydrous MgCO₃, and frozen. Samples for ash-free-dry-mass (AFDM) were subsampled in the laboratory, from the acid-Lugol's preserved samples.

2.2.2 Laboratory

Periphytic algal samples were processed by Bio-Aquatics Research and Consulting Ltd. (Edmonton, Alberta) using procedures outlined in Lund et al. (1958). Samples were first mixed and then subjected to serial dilutions (generally 0 to 1000 fold dilutions depending on algal and organic debris in the original sample). Subsequently, 1 to 10 mL subsamples were dispensed into sedimentation chambers. After a 12 h settling period, the basal area of each chamber was scanned qualitatively with an inverted LietzTM microscope to identify the best dilution factor for subsequent quantitative analyses and to obtain a comprehensive species list. Once the appropriate dilution factor was established, taxonomic groups within the sample were identified and enumerated.

Taxonomic keys of Smith (1950), Prescott (1970), and Webber (1971) were used for species identification. Counts were made at a magnification of approximately 450× along horizontal transects across the diameter of the chamber; a minimum of 200 algal units were examined. Species that were encountered, but not enumerated during routine transect counts, were recorded as present.

To identify and enumerate diatoms, subsamples were treated with a mixture of concentrated sulphuric acid, potassium dichromate, and hydrogen peroxide followed by repeated washes in distilled water. The cleaned frustules were then dried on cover glasses and mounted in Storax™.

Chlorophyll *a* analysis was conducted using the spectrophotometric-acetone extraction method described by Moss (1967a, 1967b). The AFDM subsamples were removed from the five replicate acid-Lugol's preserved samples and filtered onto pre-washed and pre-weighed Whatman™ GF/C filters. They were subsequently dried (at 105°C for 24 h) and weighed. The dried samples were then ashed in a muffle furnace (at 550°C for 1 h) and cooled in a desiccator. The difference between dry mass and ash mass is ash-free-dry-mass (APHA 1993).

2.2.3 Data Preparation

Data preparation followed procedures for Environmental Effects Monitoring (EEM) developed by Environment Canada and Department of Fisheries and Oceans (1993, 1995). Unidentified periphyton cells and rare taxa were removed from the data set. In total, 186 individual periphyton taxa were recorded in monitoring samples. Data were grouped to genus to provide 81 unique taxa for analyses (Appendix D, Tables D2 and D3).

2.3 BENTHIC INVERTEBRATES

2.3.1 Field

Benthic invertebrates were sampled from sites located in the littoral zone in water depths < 5.0 m deep. An Ekman grab sampler (aperture area equal to 0.023 m²) was used to collect five samples at each site. To reduce problems associated with low numbers of benthic invertebrates and within-site variation, each sample consisted of a composite of three grabs (Environment Canada and Department of Fisheries and Oceans, 1993). Samples were sieved through a 0.243 mm mesh net to remove excess sediments, placed in labelled polyethylene sample bags, and preserved in 10% formalin.

2.3.2 Laboratory

Sample processing involved several steps. First, larger materials (e.g., gravels and aquatic vegetation) were physically removed and invertebrates collected. Second, samples were repeatedly rinsed and decanted to remove the preservative and to collect exposed invertebrates. This procedure was continued until invertebrates were no longer observed in the elutriated water. Third, the sample was thoroughly mixed and one third processed using the method and criteria described in Wrona et al. 1982.

Using a dissecting microscope (6 to 42× magnification), invertebrates were sorted by major group and identified to the lowest practical taxonomic level (genus or species where possible). Keys used for identification included Wiggins (1977), Merritt and Cummins (1984), and Clifford (1991). As part of the quality assurance / quality control

(QA/QC) program, 20% of the processed samples (material remaining after invertebrate removal) were checked at random to ensure that at least 95% of the organisms had been removed.

2.3.3 Data Preparation

Data preparation followed procedures for Environmental Effects Monitoring (EEM) developed by Environment Canada and Department of Fisheries and Oceans (1993, 1995). In total, 24 individual taxa were recorded in monitoring samples. Unidentified organisms and rare taxa (<5% by density) were removed, which provided 18 unique taxa for the analyses (Appendix E, Tables E1 and E2).

2.4 FISH TISSUES

2.4.1 Field

Fish tissues (muscle and liver) were collected from lake trout and round whitefish (Table 2.1). Tissue sampling followed safeguards to prevent contamination as follows:

- use of sterile stainless steel instruments;
- tissue cups rinsed in 5% nitric acid solution; and,
- covering the work area in plastic.

Dorsal musculature (50 to 100 g) and livers were dissected from each fish and sealed in 120 mL sterile, acid-washed specimen containers. All tissue samples were immediately frozen and kept frozen until the time of laboratory analyses.

Table 2.1 Number of fish collected during the Pilot AEM Program in the Jericho Study Area.

Lake	Species	Year	Number
Carat Lake	Lake trout	1996	21
	Round whitefish	1996	20
Fish Tissue Control Lake	Lake trout	1996	21
	Round whitefish	1996	20
Lake C3	Lake trout	1999	10

Data recorded for each fish included fork length (to the nearest 1 mm), weight (to the nearest 5 g), sex, and maturity. An appropriate ageing structure was also collected (otoliths) from all captured fish. Fish ageing followed the protocol outlined in Mackay et al. (1990). Otoliths, which had been stored dry in labelled envelopes, were first lightly ground and polished with emery cloth (400 grit) to allow sufficient light transmission. Then a binocular dissecting microscope, equipped with a transmitted light source, was used to obtain an age from each structure. Each structure was aged by two independent readers. When discrepancies in the assigned age occurred, the two readers conferred to arrive at a consensus. A third independent reader conducted a random check of selected structures to ensure quality control.

2.4.2 Laboratory

Analyses of metal concentrations in fish tissues (Table 2.2) were conducted by Elemental Research Inc. in 1996 (Vancouver, British Columbia) and Enviro-Test Laboratories in 1999 (Edmonton, Alberta). The following is a description of the methods and instrumentation used.

Tissue samples were stored frozen until analyses were undertaken. Samples were prepared for analyses by first homogenizing the tissue in plastic cups using a “Virtis” shearer equipped with stainless steel blades. Prior to homogenization of each sample, the apparatus was cleaned with 18 MΩ deionized water. Approximately 1 g of homogenized tissue was then weighed into a precleaned (triple nitric acid) teflon digestion vessel. High purity “Seastar” nitric acid (4 mL) was added and the vessel was capped before being heated at 150°C. The resulting solution was made up to a volume of 25 mL with 18 mL deionized water for subsequent analyses by ICPMS at a dilution factor of five.

For each sample, a 26 element trace metal scan was performed using ICPMS (Inductively Coupled Argon Plasma/Mass Spectrometer). The instrumentation used to perform the analysis was a Finnegan MAT SOLA ICPMS. Nominal settings were 1500 W forward power, <5 W reflected, 15 L/min coolant, 1.1 L/min auxiliary, and 0.96 L/min nebuliser flow. Optimization of the lens settings was carried out daily by maximizing the signal obtained from a 100 ppb Y solution.

QA/QC procedures used included running certified reference materials (including NBS1566A-oyster tissue, DORM-2, and DOLT-2) and sample duplicates at a minimum ratio of 1 per 20. Acceptance criteria for CRM's was within 30% of nominal at >10 times the LOD. For duplicates, acceptance criteria was that the sample and its duplicate were within $\pm 20\%$ of the average value at >10 times the LOD.

Moisture content was measured using 1 g of homogenized tissue. The sample was weighed into a preweighed and tared 10 mL glass beaker. The beaker and sample were then dried overnight at 105°C. After cooling to room temperature, the beaker and sample were transferred to a desiccator for 2 h, after which, the beaker with the sample was re-weighed to obtain the loss in moisture.

All results were reported as micrograms per gram on a ‘dry weight’ basis.

Table 2.2 Detection limits for metal constituents analysed in fish tissue samples from the Jericho Study Area.

Metal	Abbreviation	Detection Limit (µg/g)	Metal	Abbreviation	Detection Limit (µg/g)
Aluminum	Al	0.2	Magnesium	Mg	0.05
Antimony	Sb	0.08	Manganese	Mn	0.04
Arsenic	As	0.05	Mercury	Hg	0.005
Barium	Ba	0.01	Molybdenum	Mo	0.04
Beryllium	Be	0.05	Nickel	Ni	0.08
Boron	B	0.5	Phosphorus	PO4	2
Cadmium	Cd	0.05	Potassium	K	0.5
Calcium	Ca	10	Silver	Ag	0.01
Chromium	Cr	0.5	Sodium	Na	0.5
Cobalt	Co	0.05	Strontium	Sr	0.01
Copper	Cu	0.05	Tin	Sn	0.08
Iron	Fe	1	Vanadium	V	0.08
Lead	Pb	0.04	Zinc	Zn	0.05

2.4.3 Data Preparation

Most of the metal constituents were not potential contaminants from the Jericho Diamond Project (Tahera 2000), and as such, they were removed from the analyses. Metal constituents that were deemed to be suitable indicators included aluminum, chromium, copper, and mercury. The first three indicators were included because they are potential contaminants; mercury is used because it is important regarding human consumption. To allow statistical analyses of all sample data, metal constituent values that were below analytical detection limits were replaced with values that equalled one half the detection limit.

2.5 DATA ANALYSES

Data analyses involved exploration of the data to determine its suitability for monitoring, to determine whether there were detectable differences between monitoring sites during the pre-development period, and to ascertain the level of sampling effort required to detect change. To meet the assumptions required for parametric statistical analyses (i.e., normal distribution and equal variances) and to reduce sample variation, data were transformed where appropriate. When these assumptions could not be met, nonparametric tests were employed. All tests followed descriptions presented in Sokal and Rohlf (1981) and were completed using SYSTAT® software. Statistical significance was accepted at $P=0.05$.

To estimate the number of samples required for monitoring purposes, the Z-value power equation described in Environment Canada and Department of Fisheries and Oceans (1995) and the mean and variance from pooled samples were used for power analyses. The pooled values were deemed to be appropriate because all sites were sampled during pre-development, which represented background conditions. For each parameter, the number of samples required to detect a difference of 20, 50, and 100% with a power of 0.8 was calculated. Analyses were completed using SYSTAT® software.

3.0 RESULTS

3.1 SEDIMENT DEPOSITION

Sediment Weight

Mean sediment weights were 0.44 gm at Control Lake, 1.75 gm at Lake C3, and 3.80 gm at Carat Lake (Table 3.1; Figure 3.1). The variation among replicates within each site was at least 35% of the mean and there were large differences between sites. The mean value at Carat Lake was 8.5 times greater than at Control Lake, while at Lake C3 it was 3.3 times greater than at Control Lake; these results were statistically significant (Table 3.1).

Table 3.1 Summary of sediment weight statistics and ANOVA results for samples collected at monitoring sites in the Jericho Study Area, 1999.

Lake	Sample Size	Minimum	Maximum	Mean Weight (g)	Standard Deviation	F-Statistic	P-Value
Carat Lake	5	2.87	5.49	3.80	1.08	13.815	0.001
Control Lake	5	0.34	0.51	0.44	0.07		
Lake C3	5	0.88	4.21	1.75	1.40		

The high and variable values at Carat Lake and Lake C3 potentially were caused by deposition of suspended sediments from streams (Stream C1 at Carat Lake and Stream C3 at Lake C3), but this was highly unlikely given the low total suspended sediment levels recorded (RL&L 1999). Differences may have been caused by deposition of airborne particles from areas immediately adjacent to the monitored sites. At Carat Lake, sources included the esker complex situated to the east, as well as roads and waste rock dumps developed during exploration in the Jericho Diamond Project area. There are no apparent sources of airborne particles at either Lake C3 and Control Lake; therefore, the differences cannot be explained solely by site proximity to sources of airborne particles.

Based on visual observations in the field by RL&L personnel, shoreline conditions in the vicinity of the monitoring sites were the primary cause of the observed differences (i.e., exposure to wave action and the availability of lake sediments for resuspension). Control Lake in the vicinity of the monitoring site was protected from wave action and the lake bottom was predominated by boulder substrates. In contrast, Lake C3 and Carat Lake sites were exposed to wave action and sediment traps were placed on lake bottoms dominated by smaller substrates. During the monitoring program, periods of high winds caused wave action that resuspended sediment particles from the lake bottom along the shorelines of Carat Lake and Lake C3. It is probable that this material was deposited in the sediment traps. Due to these conditions, the sites are not comparable.

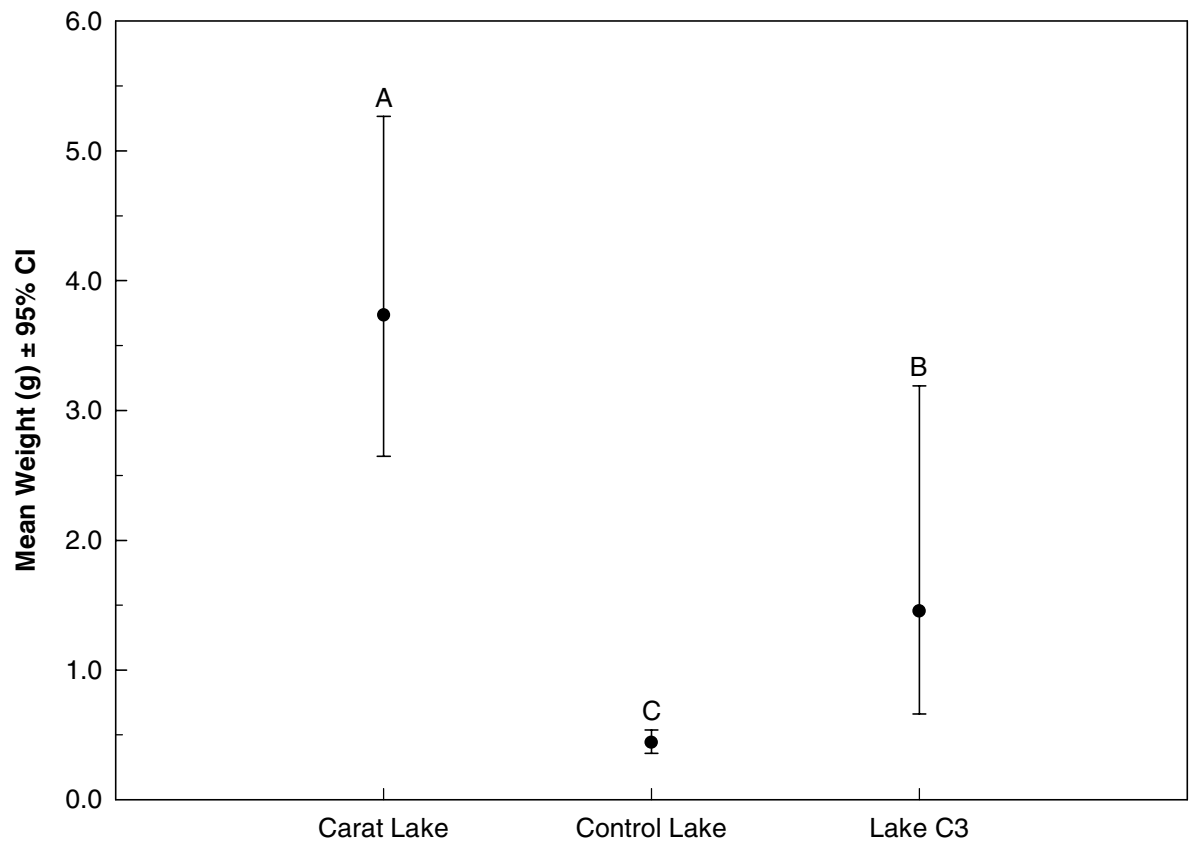


Figure 3.1 Mean weight (g) of sediment at monitoring sites in the Jericho Study Area, 1999 (Values represent back-transformed log data; unique letters indicate statistical differences at $P=0.05$ based on Tukey Multiple Comparison Mean Test).

Particle Size Distribution

The particle size distribution of the sediment samples also differed between monitoring sites (Figure 3.2). Higher percentages of the Lake C3 and Carat Lake samples (24% and 21%, respectively) were composed of sand than the Control Lake samples (10%). Visual comparisons of mean particle size distributions also indicated between site differences, particularly within the sand fraction group. Statistical comparisons indicated that the differences were significant. Carat Lake differed from Control Lake (Kolmogorov-Smirnov Two Sample Test, $P=0.002$;) as did Lake C3 (Kolmogorov-Smirnov Two Sample Test, $P=0.027$). As for sediment weight, the reason for these differences was likely related to variation in lake sediment particle size distribution rather than deposition from airborne sources.

Required Sampling Effort

If it is assumed that the wide variation recorded during the 1999 program occurs during future monitoring, power analyses indicate that a large number of samples (48) will be required to detect at least a 50% change in sediment deposition (Table 3.2). It is unlikely that this assumption is valid because the sites are not comparable. Instead, sample variation will more closely resemble the results for Control Lake, where wave action was not a confounding factor. At this site, eleven samples will be required to detect a 20% change, while as few as three are needed to detect a 50% change in sediment weight.

Table 3.2 Power analysis of sediment weight of samples collected at monitoring sites in the Jericho Study Area, 1999.

Parameter	Sample Mean	Standard Deviation	Sample Size for Level of Effect		
			20% Difference	50% Difference	100% Difference
Sediment Weight (pooled data)	1.99	1.71	290	48	13
Sediment Weight (Control Lake)	0.44	0.07	11	3	2

3.2 PERIPHYTON

Number of Taxa

Numbers of periphyton taxa at monitoring sites were generally similar (Table 3.3). Mean values ranged from a low of 33.2 at the near field site of Carat Lake to a high of 39.4 at Lake C3. Statistical comparisons of the data indicated that there were no significant differences between sites (ANOVA, $F=0.777$, $P=0.551$; Figure 3.3).

Density

Total cell densities at monitoring sites were also similar (Table 3.3). Mean values ranged from 79 890 cells/cm² at the near field site of Lake C3 to a high of 130 766 cells/cm² at Site One of Control Lake. Statistical comparisons of log-transformed data indicated that there were no significant differences between sites (ANOVA, $F=0.685$, $P=0.661$; Figure 3.3).

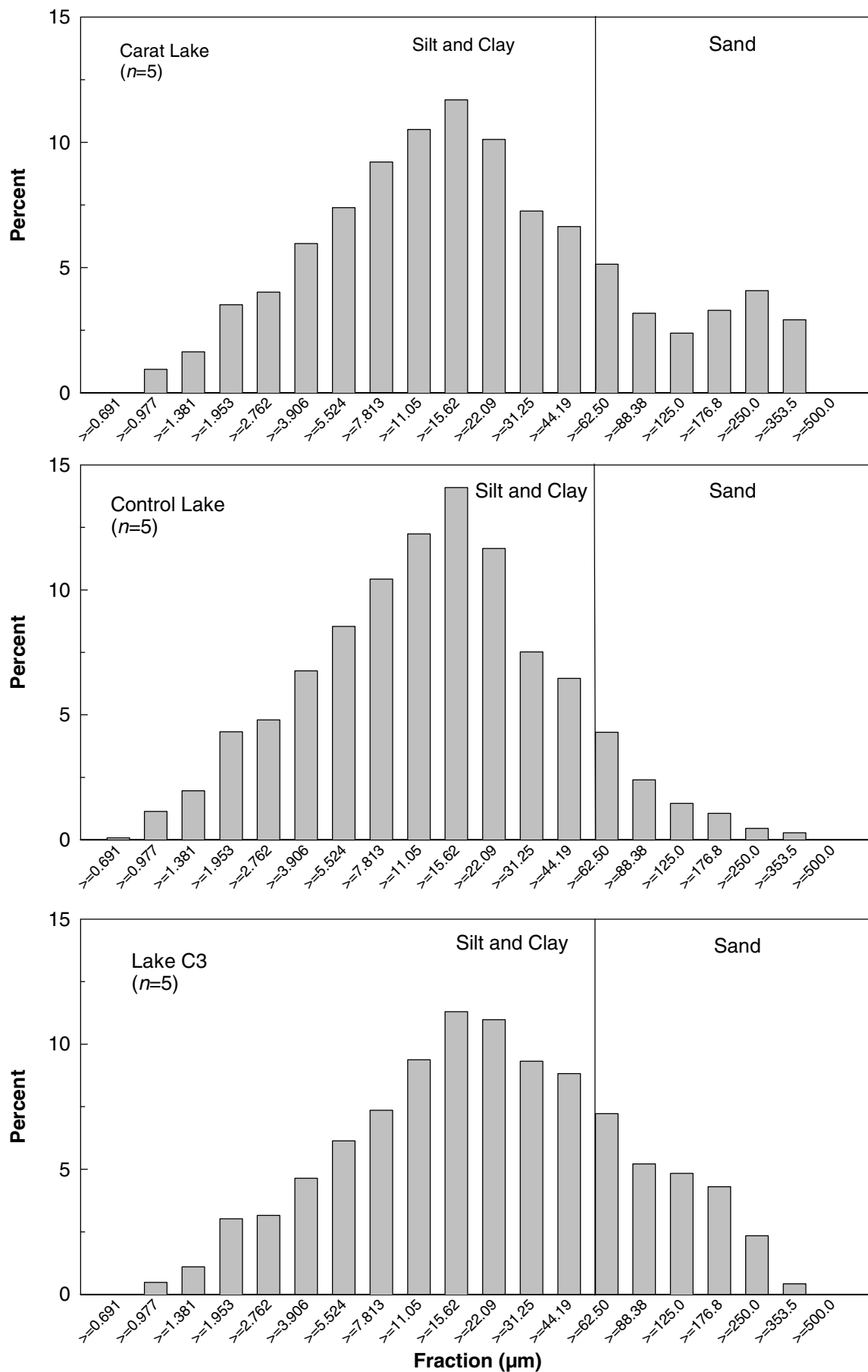


Figure 3.2 Mean particle size distribution of sediment at monitoring sites in the Jericho Study Area, 1999.

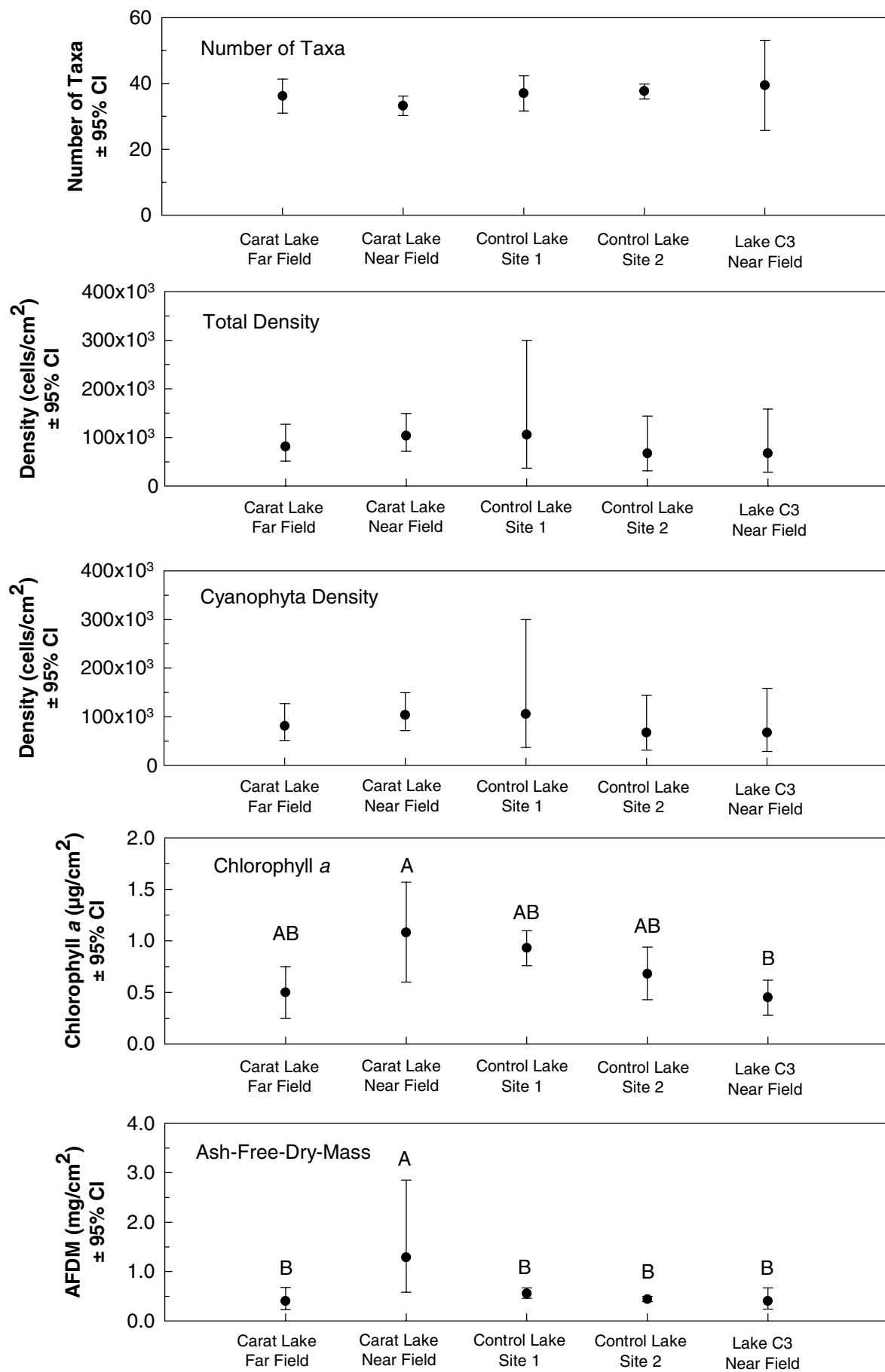


Figure 3.3 Mean number of taxa, total and Cyanophyta density, chlorophyll *a*, and ash free dry mass of periphyton at monitoring sites in the Jericho Study Area, 1999 (Values for all parameters except number of taxa and chlorophyll *a* represent back-transformed log data; unique letters indicate statistical differences at $P=0.05$ based on Tukey Multiple Comparison Test).

Table 3.3 Number of taxa, total density, and Cyanophyta density of periphyton samples at monitoring sites in the Jericho Study Area, 1999.

Parameter	Lake	Sample Size	Mean	Standard Deviation	Minimum	Maximum
Number of Taxa	Carat Lake - Near Field	5	33.2	2.4	31	37
	Carat Lake - Far Field	5	36.2	4.2	31	41
	Control Lake - Site 1	5	37.0	4.3	31	41
	Control Lake - Site 2	5	37.6	1.8	35	40
	Lake C3 - Near Field	5	39.4	11.0	21	48
Total Density (cells/cm ² x 10 ³)	Carat Lake - Near Field	5	106.8	28.3	64.3	137.1
	Carat Lake - Far Field	5	85.7	33.9	59.9	139.1
	Control Lake - Site 1	5	130.8	75.3	26.0	219.6
	Control Lake - Site 2	5	80.9	65.7	47.6	197.9
	Lake C3 - Near Field	5	79.9	47.5	26.9	143.0
Cyanophyta Density (cells/cm ² x 10 ³)	Carat Lake - Near Field	5	64.1	25.0	30.1	95.2
	Carat Lake - Far Field	5	50.6	27.8	28.3	92.8
	Control Lake - Site 1	5	99.2	67.1	13.5	185.4
	Control Lake - Site 2	5	69.2	60.1	37.4	176.1
	Lake C3 - Near Field	4	56.4	46.5	18.7	121.2

Results were similar for the density of taxa within the dominant periphyton group Cyanophyta, which accounted for 68% of the total cell density. Statistical comparisons of log-transformed data also indicated that there were no significant differences between sites (ANOVA, $F=0.408$, $P=0.801$; Figure 3.3).

Chlorophyll *a* and AFDM

Chlorophyll *a* concentrations differed between monitoring sites (Table 3.4). Mean values ranged from 0.45 µg/cm² at the near field site of Lake C3 to a high of 1.08 µg/cm² at the near field site of Carat Lake. Statistical comparisons of these data indicated that there were significant differences between sites (ANOVA, $F=6.895$, $P=0.001$; Figure 3.3). Comparison of the data identified two extreme groupings: the near field site of Carat Lake and the near field site of Lake C3 (Tukey Multiple Comparison Mean Test, $P<0.05$).

Results were similar for ash-free-dry-mass. Statistical comparisons indicated that there were significant differences between sites (ANOVA, $F=7.544$, $P=0.001$; Figure 3.3). Comparison of the data identified two groups: the near field site of Carat Lake versus the remaining sites (Tukey Multiple Comparison Mean Test, $P<0.05$).

Table 3.4 Mean chlorophyll *a* and ash-free-dry-mass (AFDM) values for periphyton samples collected at monitoring sites in the Jericho Study Area, 1999.

Sample Type	Lake	Sample Size	Mean	Standard Deviation	Minimum	Maximum
Chlorophyll <i>a</i> (µg/cm ²)	Carat Lake - Near Field	5	1.08	0.39	0.71	1.72
	Carat Lake - Far Field	5	0.50	0.20	0.23	0.76
	Control Lake - Site 1	5	0.93	0.14	0.76	1.11
	Control Lake - Site 2	5	0.69	0.21	0.42	0.98
	Lake C3 - Near Field	5	0.45	0.14	0.30	0.65
AFDM (mg/cm ²)	Carat Lake - Near Field	5	1.56	1.25	0.72	3.75
	Carat Lake - Far Field	5	0.43	0.19	0.25	0.71
	Control Lake - Site 1	5	0.56	0.08	0.42	0.61
	Control Lake - Site 2	5	0.44	0.04	0.37	0.48
	Lake C3 - Near Field	5	0.43	0.17	0.02	0.69

Required Sampling Effort

Power analyses indicate that the sampling effort required for periphyton will depend on the parameter chosen for monitoring. Ten samples are sufficient to evaluate a 20% change in the number of taxa and density; however, much higher numbers of samples are needed to detect a similar level of change in chlorophyll *a* (81) and AFDM (368). If these two latter parameters are chosen for monitoring, a lower detection level will need to be adopted (50% change).

Table 3.5 Power analyses of parameters measured from periphyton samples collected at monitoring sites in the Jericho Study Area, 1999.

Parameter	Sample Mean	Standard Deviation	Sample Size for Level of Effect		
			20% Difference	50% Difference	100% Difference
Number of Taxa ^a	36.6	5.66	11	3	2
Total Density ^b	4.9203	0.2526	3	2	1
Cyanophyta Density ^b	4.7405	0.2926	3	2	1
Chlorophyll <i>a</i> ^a	0.73	0.33	81	14	5
Ash-free-dry-mass ^b	-0.2608	0.2521	368	60	16

^a Generated from pooled samples using raw data.

^b Generated from pooled samples using log-transformed data.

3.3 BENTHIC INVERTEBRATES

Number of Taxa

The numbers of taxa at monitoring sites were generally similar (Table 3.6). Mean values ranged from a low of 12.6 at the near field site of Lake C3 to a high of 14.0 at Control Lake Site One. Statistical comparisons of the data indicated that there were no significant differences between sites (ANOVA, $F=1.024$, $P=0.419$; Figure 3.4).

Table 3.6 Number of taxa, total density, chironomid density, and nematode density of benthic invertebrate samples at monitoring sites in the Jericho Study Area, 1999.

Parameter	Lake	Sample Size	Mean	Standard Deviation	Minimum	Maximum
Number of Taxa	Carat Lake - Near Field	5	13.0	0.7	12	14
	Carat Lake - Far Field	5	12.6	0.6	12	13
	Control Lake - Site 1	5	14.0	1.6	12	16
	Control Lake - Site 2	5	12.8	0.8	12	14
	Lake C3 - Near Field	5	12.6	2.1	9	14
Total Density (No./m ²)	Carat Lake - Near Field	5	5620	2349	3623	9362
	Carat Lake - Far Field	5	10 910	4482	5290	15 870
	Control Lake - Site 1	5	13 875	1289	11 884	14 971
	Control Lake - Site 2	5	14 855	9254	5072	29 406
	Lake C3 - Near Field	5	11 942	7658	3159	23 493
Chironomid Density (No./cm ²)	Carat Lake - Near Field	5	1617	622	957	2391
	Carat Lake - Far Field	5	2594	1167	2043	4681
	Control Lake - Site 1	5	5797	855	4783	6768
	Control Lake - Site 2	5	1446	800	812	2768
	Lake C3 - Near Field	5	2235	1321	1043	4377
Nematode Density (No./cm ²)	Carat Lake - Near Field	5	777	1131	43	2783
	Carat Lake - Far Field	5	777	478	304	1507
	Control Lake - Site 1	5	1203	768	609	2551
	Control Lake - Site 2	5	7696	5000	2667	15 029
	Lake C3 - Near Field	5	2368	1862	348	4826

Density

Total densities at monitoring sites were generally similar (Table 3.6). Mean values ranged from 5620 organisms/m² at the near field site of Carat Lake to a high of 14 855 organisms/m² at Site Two of Control Lake. Statistical comparisons of log-transformed data indicated that mean densities approached, but were not significantly different (ANOVA, $F=2.586$, $P=0.068$; Figure 3.4).

Different results were recorded for chironomid and nematodes, which were the two dominant benthic invertebrate groups (24% and 23% of the samples, respectively). For chironomids, statistical comparisons of log-transformed data indicated that there were significant differences between sites (ANOVA, $F=9.629$, $P=0.000$; Figure 3.4). The Control Lake Site One was responsible for this difference (Tukey Multiple Comparison Mean Test, $P<0.05$).

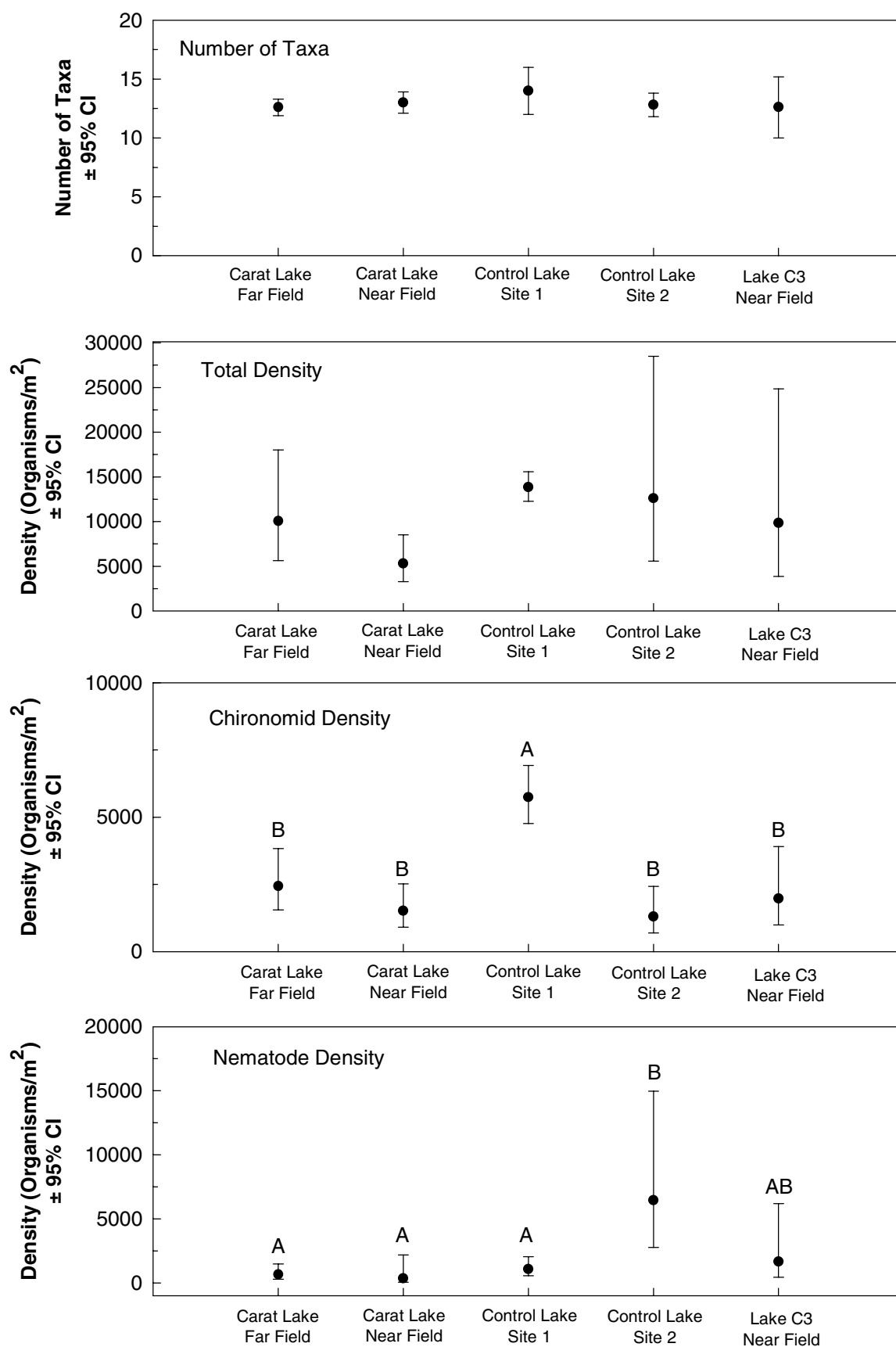


Figure 3.4 Mean number of taxa, total, chironomid, and nematode density of benthic invertebrates at monitoring sites in the Jericho Study Area, 1999 (Values for all parameters except number of taxa represent back-transformed log data; unique letters indicate statistical differences at $P=0.05$ based on Tukey Multiple Comparison Test).

Similarly, significant differences existed between sites for the nematode group (ANOVA, $F=6.735$, $P=0.001$; Figure 3.4). Comparison of the data identified two extreme groups: the near and far field sites of Carat Lake and Control Lake Site One versus Control Lake Site Two (Tukey Multiple Comparison Mean Test, $P<0.05$).

Required Sampling Effort

To allow detection of 20% change, power analyses indicate that six samples are sufficient to evaluate all benthic invertebrate parameters except nematode density (Table 3.7). If this group is to be included as part of the monitoring program, a 50% difference between sample means should be adopted as the appropriate level of change.

Table 3.7 Power analysis of parameters measured from benthic invertebrate samples collected at monitoring sites in the Jericho Study Area, 1999.

Parameter	Sample Mean	Standard Deviation	Sample Size for Level of Effect		
			20% Difference	50% Difference	100% Difference
Number of Taxa ^a	13.0	1.3	6	3	2
Total Density ^b	3.9918	0.2554	3	2	1
Chironomid Density ^b	3.3470	0.2850	5	2	1
Nematode Density ^b	3.0823	0.5754	15	4	3

^a Generated from pooled samples using raw data.

^b Generated from pooled samples using log-transformed data.

3.4 FISH TISSUES

Lake trout were collected from all three monitoring lakes during the pre-development period (Table 3.8). The mean fork length and age of sampled lake trout differed between lakes. Statistical analyses indicated that this difference was significant for fish length (Kruskal Wallis Test, $\text{Chi}^2=16.45$, $P=0.000$) and age (Kruskal Wallis Test, $\text{Chi}^2=7.22$, $P=0.027$).

Round whitefish were collected from Carat Lake and Fish Tissue Control Lake. Mean fork length and age of fish sampled from these lakes were significantly different (Kruskal Wallis Test, $\text{Chi}^2=14.56$, $P=0.000$ and Kruskal Wallis Test, $\text{Chi}^2=6.70$, $P=0.010$, respectively).

The concentrations of some metal constituents used for monitoring were close to or below detectable limits, which precluded statistical comparisons of the data. This occurred for aluminum in muscle tissues of lake trout (Table 3.9) and round whitefish (Table 3.10), as well as chromium in muscle and liver tissues of both species.

Table 3.8 Number, length, and age of fish collected for metal constituents in the Jericho Study Area, 1996 and 1999.

Species	Lake	Sample Size	Fork Length (mm)				Age			
			Mean	Standard Deviation	Minimum	Maximum	Mean	Standard Deviation	Minimum	Maximum
Lake trout	Carat Lake	21	485.0	52.3	410	619	20.4 ^b	5.1	11	29
	Control Lake ^a	21	427.0	25.7	400	486	17.3	3.1	11	23
	Lake C3	10	486.2	73.2	404	637	16.3	3.8	11	22
Round whitefish	Carat Lake	20	449.1	44.8	340	532	18.3	6.4	6	29
	Control Lake	20	394.6	43.9	321	441	13.1	5.2	7	23

^a Refers to Fish Tissue Control Lake; see Figure 1.1.

^b Sample size equals 19.

Table 3.9 Mean concentrations of metals in lake trout tissue samples within the Jericho Study Area, 1996 and 1999.

Lake	Tissue	Parameter	Metal Concentrations (µg/g of dry weight)			
			Al (0.2) ^c	Cr (0.5)	Cu (0.05)	Hg (0.005)
Carat Lake	Liver <i>n</i> =21	<i>n</i> < D.L. ^{a, c}	0	4	0	0
		Mean (µg/g)	21.0	0.7	81.50	2.803
		SD ^b (µg/g)	17.1	0.4	52.10	1.154
		Range (µg/g)	2.0-72.0	DL-1.8	11.40-213.00	0.240-4.760
	Muscle <i>n</i> =21	<i>n</i> < D.L. ^{a, c}	21	21	0	0
		Mean (µg/g)	DL	DL	0.93	1.074
		SD ^b (µg/g)	0.0	0.0	0.19	0.486
		Range (µg/g)	DL	DL	0.62-1.53	0.400-2.100
Control Lake ^d	Liver <i>n</i> =21	<i>n</i> < D.L. ^{a, c}	0	3	0	0
		Mean (µg/g)	20.2	1.4	89.76	0.501
		SD ^b (µg/g)	12.4	1.2	56.72	0.572
		Range (µg/g)	5.0-47.0	DL-1.4	4.34-232.00	0.070-2.120
	Muscle <i>n</i> =21	<i>n</i> < D.L. ^{a, c}	21	20	0	0
		Mean (µg/g)	DL	0.3	0.78	0.925
		SD ^b (µg/g)	0.0	0.4	0.21	0.341
		Range (µg/g)	DL	DL-2.0	0.44-1.24	0.528-2.140
Lake C3	Liver <i>n</i> =10	<i>n</i> < D.L. ^{a, c}	0	10	0	0
		Mean (µg/g)	5.6	DL	10.90	0.795
		SD ^b (µg/g)	3.9	0.0	5.45	0.583
		Range (µg/g)	2.7-15.2	DL	2.30-23.00	0.210-2.080
	Muscle <i>n</i> =10	<i>n</i> < D.L. ^{a, c}	0	10	0	0
		Mean (µg/g)	1.7	DL	0.21	0.408
		SD ^b (µg/g)	0.5	0.0	0.06	0.164
		Range (µg/g)	1.0-2.6	DL	0.10-0.30	0.190-0.740

^a Number of samples below detection limit.

^b Standard deviation.

^c Detection limit.

^d Refers to Fish Tissue Control Lake; see Figure 1.1.

Table 3.10 Mean concentrations of metals in round whitefish tissue samples in the Jericho Study Area, 1996.

Lake	Tissue	Parameter	Metal Concentrations (µg/g of dry weight)			
			Al (0.2) ^c	Cr (0.5)	Cu (0.05)	Hg (0.005)
Carat Lake	Liver <i>n</i> =20	<i>n</i> < D.L. ^{a, c}	2	10	0	0
		Mean (µg/g)	9.2	0.5	7.97	0.843
		SD ^b (µg/g)	8.8	0.3	1.64	0.426
		Range (µg/g)	DL-31.0	DL-1.4	4.85-10.50	0.005-1.720
	Muscle <i>n</i> =16	<i>n</i> < D.L. ^{a, c}	15	16	0	1
		Mean (µg/g)	0.2	0.3	1.06	0.501
		SD ^b (µg/g)	0.5	0.0	0.17	0.265
		Range (µg/g)	DL-2.0	DL	0.87-1.56	DL-0.891
Control Lake ^d	Liver <i>n</i> =20	<i>n</i> < D.L. ^{a, c}	0	2	0	1
		Mean (µg/g)	7.9	1.4	9.89	0.248
		SD ^b (µg/g)	6.6	0.8	4.92	0.241
		Range (µg/g)	3.0-29.0	DL-3.40	6.00-25.40	DL-0.800
	Muscle <i>n</i> =20	<i>n</i> < D.L. ^{a, c}	20	17	0	1
		Mean (µg/g)	DL	0.7	0.99	0.278
		SD ^b (µg/g)	0.0	1.4	0.21	0.124
		Range (µg/g)	DL	DL-5.6	0.68-1.30	DL-0.462

^a Number of samples below detection limit.

^b Standard deviation.

^c Detection limit.

^d Refers to Fish Tissue Control Lake; see Figure 1.1.

Metal concentrations were regressed with fork length to establish if there were correlations (Table 3.11). For lake trout, the analyses indicated that mercury concentrations were significantly correlated with fish length for both liver and muscle tissues in most lakes (Pearson Correlation Coefficient, $P \geq 0.05$). The only exception occurred for liver tissues from lake trout collected in Fish Tissue Control Lake. For round whitefish, significant correlations between mercury concentrations and fish length were recorded only in muscle tissues. No consistent trends were recorded for aluminum or copper.

In lake trout, concentrations of all three metal concentrations differed between the monitoring lakes (Table 3.12). In all cases, metal concentrations were lower in Lake C3. Statistical comparisons indicated that these differences were statistically significant in most cases. The results for mercury should be interpreted with caution because assumptions associated with the parametric analyses were not always met.

Results for round whitefish suggested that there were no statistical differences between Carat Lake and Fish Tissue Control Lake for all metal constituents in muscle tissue and most constituents except mercury in the liver tissue (Table 3.13). Although not statistically different, the comparison for copper in liver tissues did approach significance ($P=0.109$).

Table 3.11 Correlations between metal concentrations in fish tissues and fish fork length in the Jericho Study Area, 1996 and 1999.

Species	Tissue	Lake	Pearson Correlation Coefficient		
			Al	Cu	Hg
Lake trout	Liver	Carat Lake	0.148	0.021	0.602**
		Control Lake ^b	0.032	0.240	-0.040
		Lake C3	0.345	0.607	0.926**
	Muscle	Carat Lake	-	-0.160	0.744**
		Control Lake	-	0.149	0.540*
		Lake C3	-	-0.362	0.849**
Round whitefish	Liver	Carat Lake	0.216	-0.214	0.314
		Control Lake	0.543*	-0.097	0.247
	Muscle	Carat Lake	-	0.051	0.587*
		Control Lake	-	-0.076	0.757**

^a * Correlation is significant at $P=0.05$ (two-tailed); ** Correlation is significant at $P=0.01$ (two-tailed).

^b Refers to Fish Tissue Control Lake; see Figure 1.1.

Table 3.12 Statistical comparisons of mean metal concentration in lake trout tissues collected from monitoring lakes in the Jericho Study Area, 1996 and 1999.

Species	Tissue	Metal	F-Statistic	P-Value	Mean Concentration ($\mu\text{g/g}$) ^a		
					Carat Lake	Control Lake	Lake C3
Lake trout	Liver	Al ^b	10.464	0.000	15.2 (A)	16.6 (A)	4.7 (B)
		Cu ^b	23.354	0.000	63.71 (A)	68.80 (A)	9.53 (B)
		Hg ^c	25.878	0.000	0.640 (A)	2.446 (A)	0.317 (B)
	Muscle	Cu ^b	127.598	0.000	0.91 (A)	0.75 (A)	0.20 (B)
		Hg ^c	54.674	0.000	0.379 (A)	0.979 (B)	0.880 (B)

^a Values represent means from back-transformed log data.

^b Statistical significance based on ANOVA using log-transformed data; unique letters designate statistical differences at $P=0.05$ based on Tukey Multiple Comparisons Mean Test.

^c Statistical significance based on ANCOVA using log-transformed data; unique letters designate statistical differences of residuals at $P=0.05$ based on Tukey Multiple Comparisons Mean Test.

Table 3.13 Statistical comparisons of mean metal concentration in round whitefish tissues collected from monitoring lakes in the Jericho Study Area, 1996.

Species	Tissue	Metal	F-Statistic	P-Value	Mean Concentration ($\mu\text{g/g}$) ^a	
					Carat Lake	Control Lake
Round whitefish	Liver	Al ^b	1.68	0.409	4.5	6.3
		Cu ^b	3.296	0.109	7.80	9.14
		Hg ^c	13.300	0.001	0.616	0.143
	Muscle	Cu ^b	2.608	0.220	1.05	0.98
		Hg ^d	2.339	0.136	0.288	0.216

^a Values represent means from back-transformed log data.

^b Statistical significance based on Independent Samples T-test assuming unequal variances using log-transformed data.

^c Statistical significance based on Independent Samples T-test assuming equal variances using log-transformed data.

^d Statistical significance based on ANCOVA using log-transformed data.

Required Sampling Effort

For chromium in all tissues and species and for aluminum in muscle tissues of both species, concentrations were below analytical detection limits, and therefore, could not be assessed using power analyses. The number of samples required to detect change in copper and mercury concentrations will depend on the detection level chosen for monitoring (Table 3.14). To minimize fish mortality associated with tissue collections, the level of detection should be lowered to 100%.

Table 3.14 Power analysis for metal concentrations in fish tissue samples collected at monitoring lakes in the Jericho Study Area, 1996 and 1999.

Species	Tissue	Metal	Sample Mean	Standard Deviation	Sample Size for Level of Effect		
					20% Difference	50% Difference	100% Difference
Lake trout	Liver	Al ^a	1.0998	0.3830	49	9	3
		Cu ^a	1.6590	0.4799	34	6	2
		Hg ^b	-0.3280	0.3120	357	58	15
	Muscle	Cu ^c	0.7292	0.3214	77	13	4
		Hg ^d	-0.2470	0.1710	190	31	9
Round whitefish	Liver	Al ^a	0.7246	0.5682	243	40	11
		Cu ^a	0.9265	0.1352	9	2	1
		Hg ^a	-1.2150	1.4510	562	91	23
	Muscle	Cu ^c	1.0200	0.1933	15	3	2
		Hg ^d	-1.4040	0.7020	99	17	5

^a Generated from pooled samples using log-transformed data.

^b Generated from pooled residuals generated by ANCOVA using log-transformed data; Fish Tissue Control Lake data omitted from analysis.

^c Generated from pooled samples using raw data.

^d Generated from pooled residuals generated by ANCOVA using log-transformed data.

4.0 RECOMMENDATIONS

Since the completion of the Pilot AEM Program, the description of the Jericho Diamond Project has changed (Tahera 2000), which will necessitate modifications to the AEM Program design. However, the 1999 pilot study provides information that will improve sampling procedures. The pre-development baseline data will also help to establish the appropriate level of sampling effort needed to detect change in the aquatic biological community. The following provides a summary of recommendations that should be incorporated in the AEM Program.

- 1) If sediment deposition is to be included in the monitoring program, traps should be placed in water depths greater than 2.0 m to eliminate the confounding effects of wave action that cause resuspension of lake sediments. This assumes that sediment traps will be placed in near-shore areas.

- 2) Periphyton should be part of the monitoring program. This group is the only sedentary primary producer that is a suitable indicator of potential project effects. If artificial substrates are to be used in near-shore areas, disturbance by wave action can be prevented by placement in water depths greater than 2.0 m. The parameters chosen for monitoring should include number of taxa and periphyton density. Although chlorophyll *a* exhibited high variation, it is an important early warning indicator of change and should be included as part of the monitoring program. Given the high sampling effort required to detect change, ash-free-dry-mass should be omitted from the program.

- 3) Most benthic invertebrate parameters appear to be sensitive to change since power analyses indicate that relatively few samples (6) are required to detect a 20% difference. To maximize the number of mature-stage larvae available for sampling, benthic invertebrate collections should be made in spring immediately following ice-out rather than in summer.

- 4) To monitor change of metal concentrations in fish, large sample sizes are required for some constituents. To avoid adverse effects on the fish populations residing in these small study area lakes, it is recommended that the numbers of sacrificed fish be minimized. This can be accomplished in part by removing certain metals that exhibit high variability, such as mercury, from the monitoring program. For the remaining metals, the required detection level should be lowered to 100%. Finally, it is recommended that both lake trout and round whitefish be included in the monitoring program because these species represent different trophic levels in each lake.

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APPENDIX A

SITE DATA

Appendix A Table A1. Information for monitoring sites sampled in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Zone	Easting	Northing
Carat Lake	ASLCA01 (Near Field)	AS-2	12W	478180	7319964
	ASLCA02 (Far Field)	AS-1	12W	478178	7321156
	BEMLCA01 (Near Field)	BEM-2	12W	478172	7320011
	BEMLCA02 (Far Field)	BEM-1	12W	478178	7321156
	SDLCA01 (Near Field)	SD-1	12W	478180	7319964
Control Lake	ASLCN01 (Reference One)	AS-3	12W	475441	7317993
	ASLCN02 (Reference Two)	AS-4	12W	473429	7318632
	BEMLCN01 (Reference Two)	BEM-3	12W	473429	7318632
	BEMLCN03 (Reference One)	BEM-4	12W	475441	7317993
	SDLCN01 (Reference One)	SD-2	12W	475441	7317993
Lake C3	ASLC0301 (Near Field)	AS-5	12W	475092	7319319
	BEMLC0301 (Near Field)	BEM-5	12W	475074	7319312
	SDLC0301 (Near Field)	SD-3	12W	475092	7319319

APPENDIX B

HABITAT CHARACTERISTICS

Appendix B Table B1. Characteristics of monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Map Label	Depth Sampled	Substrate Type ¹ (%)						
				OM	SI	SA	GR	CO	BO	Be
Carat Lake	ASLCA01 (Near Field)	AS-2	1.0	0	15	0	65	20	0	0
	ASLCA02 (Far Field)	AS-1	1.4	0	10	0	5	45	40	0
	BEMLCA01 (Near Field)	BEM-2	3.0	20	40	30	10	0	0	0
	BEMLCA02 (Far Field)	BEM-1	3.0	10	30	30	20	10	0	0
	SDLCA01 (Near Field)	SD-1	1.0	0	15	0	65	20	0	0
Control Lake	ASLCN01 (Reference One)	AS-3	1.2	0	15	0	0	10	75	0
	ASLCN02 (Reference Two)	AS-4	1.4	0	10	0	10	5	75	0
	BEMLCN01 (Reference Two)	BEM-3	3.7	10	30	30	0	30	0	0
	BEMLCN03 (Reference One)	BEM-4	3.2	10	40	45	0	5	0	0
	SDLCN01 (Reference One)	SD-2	1.2	0	15	0	0	10	75	0
Lake C3	ASLC0301 (Near Field)	AS-5	1.2	0	0	100	0	0	0	0
	BEMLC0301 (Near Field)	BEM-5	5.1	50	50	0	0	0	0	0
	SDLC0301 (Near Field)	SD-3	1.2	0	0	100	0	0	0	0

¹ Substrate type: OM = organic material; SI = silt; SA = sand; GR = gravel; CO = cobble; BO = boulder; BE = bedrock

APPENDIX C

SEDIMENTATION

Appendix C Table C1. Sediment weight data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Filter Paper (g)	Filter Paper and Solids (g)	Sample Weight (g)	Weight for >710 Micron (g)	Weight for <710 Micron (g)	Percent >710 Micron	Percent <710 Micron
Carat Lake										
	SDLCA01 (Near Field)	SD-1	1	1.43	7.08	5.65	0.16	5.49	2.80	97.20
			2	1.44	4.81	3.37	0.13	3.24	3.90	96.10
			3	1.41	5.78	4.37	0.12	4.25	2.70	97.30
			4	1.43	4.55	3.12	0.25	2.87	8.00	92.00
			5	1.42	4.81	3.39	0.23	3.16	6.80	93.20
Control Lake										
	SDLCN01 (Reference One)	SD-2	1	1.43	1.86	0.43	0.02	0.41	4.70	95.30
			2	1.43	1.95	0.52	0.01	0.51	1.90	98.10
			3	1.47	1.97	0.50	0.01	0.49	2.00	98.00
			4	1.42	1.89	0.47	0.01	0.46	2.10	97.90
			5	1.47	1.81	0.34	0.00	0.34	0.00	100.00
Lake C3										
	SDLC0301 (Near Field)	SD-3	1	1.44	2.97	1.53	0.04	1.49	2.60	97.40
			2	1.44	2.38	0.94	0.06	0.88	6.40	93.60
			3	1.45	2.79	1.34	0.08	1.26	6.00	94.00
			4	1.46	2.42	0.96	0.03	0.93	3.10	96.90
			5	1.46	6.17	4.71	0.50	4.21	10.60	89.40

Appendix C Table C2. Particle size distribution data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Fraction (µm)	Fraction Weight
Carat Lake	SDLCA01 (Near Field)	SD-1	1		
				0.69	0.00
				0.98	0.01
				1.38	0.02
				1.95	0.04
				2.76	0.04
				3.91	0.06
				5.52	0.08
				7.81	0.10
				11.05	0.12
				15.63	0.13
				22.10	0.11
				31.25	0.08
				44.19	0.07
				62.50	0.05
				88.39	0.03
				125.00	0.02
				176.78	0.02
				250.00	0.01
				353.55	0.01
				500.00	0.00
			2		
				0.69	0.00
				0.98	0.01
				1.38	0.02
				1.95	0.04
				2.76	0.04
				3.91	0.06
				5.52	0.08
				7.81	0.10
				11.05	0.11
				15.63	0.12
				22.10	0.10
				31.25	0.07

Appendix C Table C2. Particle size distribution data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Fraction (µm)	Fraction Weight
Carat Lake	SDLCA01 (Near Field)	SD-1	2		
				44.19	0.06
				62.50	0.04
				88.39	0.03
				125.00	0.02
				176.78	0.04
				250.00	0.05
				353.55	0.04
				500.00	0.00
			3		
				0.69	0.00
				0.98	0.01
				1.38	0.01
				1.95	0.03
				2.76	0.03
				3.91	0.05
				5.52	0.06
				7.81	0.07
				11.05	0.09
				15.63	0.11
				22.10	0.10
				31.25	0.08
				44.19	0.09
				62.50	0.08
				88.39	0.06
				125.00	0.05
				176.78	0.05
				250.00	0.04
				353.55	0.01
				500.00	0.00
			4		
				0.69	0.00
				0.98	0.01
				1.38	0.02

Appendix C Table C2. Particle size distribution data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Fraction (µm)	Fraction Weight
Carat Lake	SDLCA01 (Near Field)	SD-1	4		
				1.95	0.04
				2.76	0.04
				3.91	0.06
				5.52	0.08
				7.81	0.09
				11.05	0.11
				15.63	0.12
				22.10	0.10
				31.25	0.07
				44.19	0.06
				62.50	0.04
				88.39	0.02
				125.00	0.02
				176.78	0.03
				250.00	0.06
				353.55	0.05
				500.00	0.00
			5		
				0.69	0.00
				0.98	0.01
				1.38	0.02
				1.95	0.04
				2.76	0.04
				3.91	0.06
				5.52	0.08
				7.81	0.10
				11.05	0.11
				15.63	0.12
				22.10	0.10
				31.25	0.07
				44.19	0.06
				62.50	0.04
				88.39	0.02

Appendix C Table C2. Particle size distribution data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Fraction (µm)	Fraction Weight
Carat Lake	SDLCA01 (Near Field)	SD-1	5		
				125.00	0.02
				176.78	0.03
				250.00	0.05
				353.55	0.03
				500.00	0.00
Control Lake	SDLCN01 (Reference One)	SD-2	1		
				0.69	0.00
				0.98	0.01
				1.38	0.02
				1.95	0.04
				2.76	0.05
				3.91	0.07
				5.52	0.08
				7.81	0.10
				11.05	0.11
				15.63	0.14
				22.10	0.12
				31.25	0.08
				44.19	0.07
				62.50	0.05
				88.39	0.03
				125.00	0.02
				176.78	0.01
				250.00	0.00
				353.55	0.00
				500.00	0.00
			2		
				0.69	0.00
				0.98	0.01
				1.38	0.02
				1.95	0.04

Appendix C Table C2. Particle size distribution data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Fraction (µm)	Fraction Weight
Control Lake	SDLCN01 (Reference One)	SD-2	2		
				2.76	0.04
				3.91	0.06
				5.52	0.08
				7.81	0.10
				11.05	0.11
				15.63	0.13
				22.10	0.11
				31.25	0.08
				44.19	0.07
				62.50	0.06
				88.39	0.05
				125.00	0.04
				176.78	0.02
				250.00	0.01
				353.55	0.00
				500.00	0.00
			3		
				0.69	0.00
				0.98	0.01
				1.38	0.02
				1.95	0.04
				2.76	0.04
				3.91	0.06
				5.52	0.08
				7.81	0.11
				11.05	0.13
				15.63	0.14
				22.10	0.12
				31.25	0.08
				44.19	0.06
				62.50	0.04
				88.39	0.02
				125.00	0.01

Appendix C Table C2. Particle size distribution data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Fraction (µm)	Fraction Weight
Control Lake	SDLCN01 (Reference One)	SD-2	3	176.78	0.02
				250.00	0.01
				353.55	0.01
				500.00	0.00
			4	0.69	0.00
				0.98	0.02
				1.38	0.02
				1.95	0.05
				2.76	0.05
				3.91	0.07
				5.52	0.10
				7.81	0.11
				11.05	0.13
				15.63	0.16
				22.10	0.12
				31.25	0.07
				44.19	0.06
				62.50	0.03
				88.39	0.01
				125.00	0.00
				176.78	0.00
				250.00	0.00
				353.55	0.00
				500.00	0.00
			5	0.69	0.00
				0.98	0.01
				1.38	0.02
				1.95	0.05
				2.76	0.06
				3.91	0.08
				5.52	0.09

Appendix C Table C2. Particle size distribution data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Fraction (µm)	Fraction Weight
Control Lake	SDLCN01 (Reference One)	SD-2	5		
				7.81	0.11
				11.05	0.13
				15.63	0.14
				22.10	0.12
				31.25	0.08
				44.19	0.06
				62.50	0.04
				88.39	0.01
				125.00	0.00
				176.78	0.00
				250.00	0.00
				353.55	0.00
				500.00	0.00
Lake C3	SDLC0301 (Near Field)	SD-3	1		
				0.69	0.00
				0.98	0.01
				1.38	0.01
				1.95	0.03
				2.76	0.03
				3.91	0.05
				5.52	0.07
				7.81	0.08
				11.05	0.10
				15.63	0.12
				22.10	0.12
				31.25	0.09
				44.19	0.08
				62.50	0.06
				88.39	0.04
				125.00	0.04
				176.78	0.04

Appendix C Table C2. Particle size distribution data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Fraction (µm)	Fraction Weight
Lake C3	SDLC0301 (Near Field)	SD-3	1		
				250.00	0.03
				353.55	0.01
				500.00	0.00
			2		
				0.69	0.00
				0.98	0.01
				1.38	0.01
				1.95	0.03
				2.76	0.03
				3.91	0.05
				5.52	0.07
				7.81	0.08
				11.05	0.11
				15.63	0.13
				22.10	0.12
				31.25	0.10
				44.19	0.09
				62.50	0.06
				88.39	0.04
				125.00	0.03
				176.78	0.02
				250.00	0.01
				353.55	0.00
				500.00	0.00
			3		
				0.69	0.00
				0.98	0.01
				1.38	0.01
				1.95	0.03
				2.76	0.04
				3.91	0.05
				5.52	0.07
				7.81	0.08

Appendix C Table C2. Particle size distribution data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Fraction (µm)	Fraction Weight
Lake C3	SDLC0301 (Near Field)	SD-3	3	11.05	0.10
				15.63	0.12
				22.10	0.12
				31.25	0.10
				44.19	0.10
				62.50	0.07
				88.39	0.04
				125.00	0.03
				176.78	0.02
				250.00	0.00
				353.55	0.00
				500.00	0.00
			4	0.69	0.00
				0.98	0.01
				1.38	0.01
				1.95	0.03
				2.76	0.03
				3.91	0.05
				5.52	0.06
				7.81	0.08
				11.05	0.10
				15.63	0.12
				22.10	0.12
				31.25	0.10
				44.19	0.10
				62.50	0.07
				88.39	0.05
				125.00	0.03
				176.78	0.03
				250.00	0.01
				353.55	0.00
				500.00	0.00

Appendix C Table C2. Particle size distribution data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Fraction (µm)	Fraction Weight
Lake C3	SDLC0301 (Near Field)	SD-3	5		
				0.69	0.00
				0.98	0.00
				1.38	0.01
				1.95	0.02
				2.76	0.02
				3.91	0.03
				5.52	0.04
				7.81	0.05
				11.05	0.06
				15.63	0.08
				22.10	0.08
				31.25	0.08
				44.19	0.09
				62.50	0.09
				88.39	0.09
				125.00	0.10
				176.78	0.10
				250.00	0.06
				353.55	0.01
				500.00	0.00

APPENDIX D

PERIPHYTON

Appendix D Table D1. Periphyton chlorophyll *a* and ash free dry mass (AFDM) data from monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Replicate	Area (cm ²)	Volume Filtered (mL)	Chlorophyll <i>a</i> (µg/cm ²)	AFDM (mg/cm ²)
Carat Lake						
	ASLCA01 (Near Field)					
		1	165.1	15	0.71	0.72
		2	158.9 *	15	0.96	0.86
		3	121.6 *	15	1.72	3.75
		4	140.1 *	15	1.16	1.24
		5	147.2 *	15	0.87	1.21
	ASLCA02 (Far Field)					
		1	165.1	20	0.60	0.28
		2	165.1	20	0.76	0.53
		3	165.1	20	0.38	0.38
		4	165.1	20	0.52	0.71
		5	165.1	25	0.23	0.25
Control Lake						
	ASLCN01 (Reference One)					
		1	165.1	20	0.76	0.42
		2	165.1	20	0.89	0.59
		3	165.1	20	1.03	0.61
		4	165.1	20	0.88	0.58
		5	165.1	20	1.11	0.58
	ASLCN02 (Reference Two)					
		1	165.1	20	0.76	0.44
		2	165.1	20	0.42	0.48
		3	165.1	20	0.67	0.46
		4	165.1	20	0.60	0.37
		5	165.1	20	0.98	0.46
Lake C3						
	ASLC0301 (Near Field)					
		1	165.1	20	0.38	0.45
		2	165.1	20	0.65	0.45
		3	165.1	20	0.40	0.32
		4	165.1	20	0.51	0.69
		5	165.1	20	0.30	0.23

* Indicates that the artificial substrate had tipped over; the area submerged against substrate was subtracted from the total area.

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	260	
					<i>Achnanthes minutissima</i>	4456	
					<i>Achnanthes minutissima</i> v. <i>cryptocephala</i>	0	P
					<i>Anomoeoneis</i> sp.	0	P
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella glomerata</i>	65	
					<i>Cyclotella kutzingiana</i>	65	
					<i>Cyclotella ocellata</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	19	
					<i>Cymbella minuta</i>	683	
					<i>Cymbella</i> sp.	19	
					<i>Eunotia curvata</i>	0	P
					<i>Eunotia exigua</i>	0	P
					<i>Eunotia praeurupta</i>	57	
					<i>Eunotia praeurupta</i> v. <i>bidens</i>	0	P
					<i>Eunotia triodon</i>	0	P
					<i>Frustulia vulgaris</i>	65	
					<i>Gomphonema acuminatum</i> v. <i>elongatum</i>	0	P
					<i>Gomphonema affine</i>	0	P
					<i>Gomphonema angustatum</i>	1089	
					<i>Melosira</i> sp.	0	P
					<i>Navicula cryptocephala</i>	650	
					<i>Navicula rhynchocephala</i>	0	P
					<i>Nedium</i> sp.	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia filiformis</i>	90	
					<i>Pinnularia abaujensis</i>	19	
					<i>Stephanodiscus astraea</i>	0	P
					<i>Tabellaria fenestrata</i>	130	
					<i>Tabellaria flocculosa</i>	7377	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	19	
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	209	
					<i>Arthrodesmus triangularis</i>	141	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				CHLOROPHYTA			
					<i>Botryococcus sp.</i>	0	P
					<i>Bulbochaete sp.</i>	247	
					<i>Closterium kutzingii</i>	13	
					<i>Closterium sp.</i>	10	
					<i>Cosmarium septentrionale</i>	0	P
					<i>Cylindrocystis brebissonii</i>	0	P
					<i>Dispora crucigenioides</i>	6180	
					<i>Euastrum elegans</i>	19	
					<i>Euastrum insulare</i>	0	P
					<i>Euastrum pectinatum</i>	14	
					<i>Gloeocystis schroeteri</i>	761	
					<i>Gonatozygon brebissonii</i>	0	P
					<i>Mougeotia sp.</i>	170	
					<i>Oocystis sp.</i>	911	
					<i>Scenedesmus quadricauda</i>	0	P
					<i>Sphaerosoma granulatum</i>	130	
					<i>Staurastrum borgeanum</i>	0	P
					<i>Staurastrum sp.</i>	0	P
					<i>Unidentified filamentous green</i>	190	
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	5920	
					<i>Dinobryon sociale</i>	0	P
					<i>Kephyrion boreale</i>	0	P
					<i>Ochromonas sp.</i>	4098	
					<i>Ophiocytium sp.</i>	33	
					<i>Pseudokephyrion angulosum</i>	19	
					<i>Unidentified statospore</i>	1951	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	89	
				CYANOPHYTA			
					<i>Anabaena lapponica</i>	437	
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	3900	
					<i>Schizothrix calcicola</i>	25825	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	57	
					<i>Gymnodinium uberrimum</i>	65	
					<i>Peridinium cinctum</i>	0	P
					<i>Peridinium sp.</i>	33	
					<i>Unidentified cyst</i>	38	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	22	
					<i>Achnanthes minutissima</i>	3558	
					<i>Anomoeoneis sp.</i>	130	
					<i>Cyclotella glomerata</i>	0	P
					<i>Cyclotella kutzingiana</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	196	
					<i>Cymbella minuta</i>	522	
					<i>Cymbella sp.</i>	65	
					<i>Eunotia curvata</i>	0	P
					<i>Eunotia glacialis</i>	718	
					<i>Eunotia praeurupta</i>	261	
					<i>Fragilaria sp.</i>	0	P
					<i>Frustulia vulgaris</i>	245	
					<i>Gomphonema acuminatum v. elongatum</i>	0	P
					<i>Gomphonema angustatum</i>	22	
					<i>Melosira sp.</i>	0	P
					<i>Navicula cryptocephala</i>	784	
					<i>Navicula rhynchocephala</i>	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia filiformis</i>	178	
					<i>Nitzschia fonticola</i>	65	
					<i>Pinnularia sp.</i>	0	P
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astraea</i>	196	
					<i>Tabellaria fenestrata</i>	124	
					<i>Tabellaria flocculosa</i>	9598	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	22	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus v. spiralis</i>	0	P
					<i>Arthrodesmus triangularis</i>	22	
					<i>Bulbochaete sp.</i>	108	
					<i>Closterium kutzingii</i>	7	
					<i>Closterium sp.</i>	0	P
					<i>Coeloastrum printzii</i>	0	P
					<i>Cosmarium anceps</i>	0	P
					<i>Cosmarium granulatum</i>	22	
					<i>Cosmarium septentrionale</i>	98	
					<i>Cylindrocystis brebissonii</i>	43	
					<i>Dictyosphaerium elegans</i>	0	P
					<i>Dispora crucigenioides</i>	18413	
					<i>Elakatothrix sp.</i>	65	
					<i>Euastrum denticulatum</i>	0	P
					<i>Euastrum elegans</i>	0	P
					<i>Euastrum insulare</i>	22	
					<i>Euastrum pectinatum</i>	22	
					<i>Gloeocystis schroeteri</i>	522	
					<i>Gonatozygon brebissonii</i>	0	P
					<i>Mougeotia sp.</i>	557	
					<i>Oocystis sp.</i>	196	
					<i>Sphaeroszma granulatum</i>	390	
					<i>Staurastrum apiculatum</i>	65	
					<i>Staurastrum borgeanum</i>	0	P
					<i>Staurastrum sp.</i>	0	P
					<i>Staurastrum tetracerum</i>	0	P
					<i>Unidentified filamentous green</i>	693	
					<i>Xanthidium antilopaeum</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	5919	
					<i>Dinobryon sociale</i>	261	
					<i>Kephyrion boreale</i>	131	
					<i>Ophiocytium sp.</i>	0	P
					<i>Pseudokephyrion angulosum</i>	261	
					<i>Unidentified statospore</i>	1518	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	87	
					<i>Cryptomonas reflexa</i>	0	P
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	0	P
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	23897	
					<i>Oscillatoria lutea</i>	0	P
					<i>Pseudanabaena sp.</i>	130	
					<i>Schizothrix calcicola</i>	56805	
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	65	
					<i>Gymnodinium uberrimum</i>	22	
					<i>Peridinium cinctum</i>	0	P
					<i>Peridinium sp.</i>	22	
					<i>Unidentified cyst</i>	0	P
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	182	
					<i>Achnanthes minutissima</i>	9116	
					<i>Achnanthes minutissima v. cryptocephala</i>	0	P
					<i>Caloneis ventricosa</i>	30	
					<i>Cyclotella glomerata</i>	0	P
					<i>Cyclotella kutzingiana</i>	91	
					<i>Cymbella cymbiformis</i>	160	
					<i>Cymbella gracilis</i>	277	
					<i>Cymbella minuta</i>	91	
					<i>Cymbella sp.</i>	0	P
					<i>Eunotia curvata</i>	859	
					<i>Eunotia exigua</i>	0	P
					<i>Eunotia maior</i>	0	P
					<i>Eunotia praerupta</i>	182	
					<i>Eunotia praerupta v. bidens</i>	0	P
					<i>Eunotia triodon</i>	0	P
					<i>Fragilaria sp.</i>	0	P
					<i>Frustulia vulgaris</i>	91	
					<i>Gomphonema acuminatum</i>	2053	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				BACILLARIOPHYTA			
					<i>Gomphonema acuminatum</i> v. <i>elongatum</i>	91	
					<i>Melosira</i> sp.	0	P
					<i>Navicula cryptocephala</i>	0	P
					<i>Navicula bacillum</i>	92	
					<i>Nedium</i> sp.	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	156	
					<i>Nitzschia fonticola</i>	91	
					<i>Pinnularia</i> sp.	15	
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astraea</i>	0	P
					<i>Surirella</i> sp.	0	P
					<i>Tabellaria fenestrata</i>	365	
					<i>Tabellaria flocculosa</i>	8493	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	0	P
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	91	
					<i>Arthrodesmus triangularis</i>	91	
					<i>Bulbochaete</i> sp.	30	
					<i>Closterium</i> sp.	96	
					<i>Cosmarium septentrionale</i>	45	
					<i>Cylindrocystis brebissonii</i>	61	
					<i>Dictyosphaerium elegans</i>	484	
					<i>Dispora crucigenioides</i>	15315	
					<i>Elakatothrix</i> sp.	91	
					<i>Euastrum elegans</i>	0	P
					<i>Euastrum insulare</i>	61	
					<i>Euastrum pectinatum</i>	0	P
					<i>Gloeocystis schroeteri</i>	1367	
					<i>Gonatozygon brebissonii</i>	0	P
					<i>Mougeotia</i> sp.	131	
					<i>Oocystis</i> sp.	364	
					<i>Sphaerosoma granulatatum</i>	182	
					<i>Staurostrum apiculatum</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				CHLOROPHYTA			
					<i>Staurostrum sp.</i>	30	P
					<i>Unidentified filamentous green</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	13446	
					<i>Dinobryon sociale</i>	182	
					<i>Kephyrion boreale</i>	0	P
					<i>Pseudokephyrion angulosum</i>	30	
					<i>Unidentified statospore</i>	2142	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	1513	
					<i>Anabaena lapponica</i>	1094	
					<i>Gomphosphaeria naegelianum</i>	2122	
					<i>Oscillatoria lutea</i>	99	
					<i>Pseudanabaena sp.</i>	2097	
					<i>Schizothrix calcicola</i>	50230	
				PYRRROPHYTA			
					<i>Glenodinium sp.</i>	91	
					<i>Gymnodinium uberrimum</i>	91	
					<i>Peridinium sp.</i>	141	
					<i>Unidentified cyst</i>	91	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	88	
					<i>Achnanthes minutissima</i>	10529	
					<i>Achnanthes minutissima v. cryptocephala</i>	0	P
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella glomerata</i>	70	
					<i>Cyclotella kutzingiana</i>	329	
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	316	
					<i>Cymbella inaequalis</i>	0	P
					<i>Cymbella minuta</i>	492	
					<i>Cymbella sp.</i>	70	
					<i>Eunotia curvata</i>	1353	
					<i>Eunotia exigua</i>	0	P
					<i>Eunotia maior</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				BACILLARIOPHYTA			
					<i>Eunotia praeurupta</i>	0	P
					<i>Eunotia praeurupta</i> v. <i>bidens</i>	0	P
					<i>Eunotia triodon</i>	0	P
					<i>Fragilaria</i> sp.	0	P
					<i>Frustulia vulgaris</i>	118	
					<i>Gomphonema acuminatum</i> v. <i>elongatum</i>	1178	
					<i>Gomphonema angustatum</i>	0	P
					<i>Melosira</i> sp.	0	P
					<i>Nedium</i> sp.	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia filiformis</i>	71	
					<i>Nitzschia fonticola</i>	70	
					<i>Nitzschia sigmoidea</i>	0	P
					<i>Pinnularia</i> sp.	47	
					<i>Stauroneis anceps</i>	0	P
					<i>Surirella</i> sp.	0	P
					<i>Tabellaria fenestrata</i>	222	
					<i>Tabellaria flocculosa</i>	8741	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	492	
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	0	P
					<i>Arthrodesmus triangularis</i>	94	
					<i>Bulbochaete</i> sp.	153	
					<i>Chlamydomonas</i> sp.	0	P
					<i>Closterium</i> sp.	28	
					<i>Cosmarium septentrionale</i>	0	P
					<i>Cylindrocystis brebissonii</i>	63	
					<i>Dictyosphaerium elegans</i>	447	
					<i>Dispora crucigenioides</i>	843	
					<i>Elakatothrix</i> sp.	70	
					<i>Euastrum denticulatum</i>	24	
					<i>Euastrum elegans</i>	0	P
					<i>Euastrum insulare</i>	0	P
					<i>Gloeocystis schroeteri</i>	261	
					<i>Mougeotia</i> sp.	299	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				CHLOROPHYTA			
					<i>Oocystis sp.</i>	703	
					<i>Sphaerosoma granulatatum</i>	281	
					<i>Staurastrum apiculatum</i>	0	P
					<i>Staurastrum borgeanum</i>	0	P
					<i>Staurastrum sp.</i>	24	
					<i>Unidentified filamentous green</i>	212	
					<i>Unidentified unicellular green</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	10657	
					<i>Dinobryon sociale</i>	0	P
					<i>Kephyrion boreale</i>	141	
					<i>Ophiocytium sp.</i>	0	P
					<i>Pseudokephyrion angulosum</i>	70	
					<i>Unidentified statospore</i>	1722	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	4330	
					<i>Anabaena lapponica</i>	844	
					<i>Gomphosphaeria naegelianum</i>	11530	
					<i>Nostoc commune</i>	0	P
					<i>Oscillatoria lutea</i>	400	
					<i>Schizothrix calcicola</i>	40285	
				PYRRPHYTA			
					<i>Glenodinium sp.</i>	0	P
					<i>Peridinium sp.</i>	71	
					<i>Unidentified cyst</i>	24	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	118	
					<i>Achnanthes minutissima</i>	8346	
					<i>Anomoeoneis sp.</i>	0	P
					<i>Caloneis ventricosa</i>	125	
					<i>Coscinodiscus rothii</i>	0	P
					<i>Cyclotella glomerata</i>	0	P
					<i>Cyclotella kutziana</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	165	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				BACILLARIOPHYTA			
					<i>Cymbella inaequalis</i>	0	P
					<i>Cymbella minuta</i>	358	
					<i>Cymbella sp.</i>	110	
					<i>Eunotia curvata</i>	681	
					<i>Eunotia exigua</i>	0	P
					<i>Eunotia maior</i>	0	P
					<i>Eunotia praeurupta</i>	221	
					<i>Eunotia praeurupta v. bidens</i>	0	P
					<i>Fragilaria sp.</i>	0	P
					<i>Frustulia vulgaris</i>	150	
					<i>Gomphonema acuminatum v. elongatum</i>	0	P
					<i>Gomphonema affine</i>	0	P
					<i>Gomphonema angustatum</i>	72	
					<i>Melosira sp.</i>	0	P
					<i>Navicula cryptocephala</i>	514	
					<i>Navicula bacillum</i>	0	P
					<i>Nedium sp.</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	130	
					<i>Nitzschia fonticola</i>	430	
					<i>Pinnularia sp.</i>	36	
					<i>Stauroneis anceps</i>	0	P
					<i>Surirella sp.</i>	0	P
					<i>Tabellaria fenestrata</i>	24	
					<i>Tabellaria flocculosa</i>	8369	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	72	
					<i>Ankistrodesmus falcatus v. spiralis</i>	0	P
					<i>Arthrodesmus triangularis</i>	0	P
					<i>Bulbochaete sp.</i>	24	
					<i>Closterium sp.</i>	94	
					<i>Cosmarium granulatum</i>	0	P
					<i>Cosmarium septentrionale</i>	0	P
					<i>Cosmarium sp.</i>	215	
					<i>Cylindrocystis brebissonii</i>	287	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA01 (Near Field)	AS-2	1				
				CHLOROPHYTA			
					<i>Dictyosphaerium elegans</i>	0	P
					<i>Dispora crucigenioides</i>	8381	
					<i>Euastrum elegans</i>	0	P
					<i>Euastrum insulare</i>	215	
					<i>Gloeocystis schroeteri</i>	1576	
					<i>Gonatozygon brebissonii</i>	0	P
					<i>Mougeotia sp.</i>	440	
					<i>Oocystis sp.</i>	716	
					<i>Penium sp.</i>	0	P
					<i>Sphaeroszoma granulatum</i>	645	
					<i>Staurostrum borgeanum</i>	47	
					<i>Staurostrum sp.</i>	94	P
					<i>Unidentified filamentous green</i>	330	
					<i>Xanthidium sp.</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	9107	
					<i>Isthmocloron trispinatum</i>	72	
					<i>Kephyrion boreale</i>	0	P
					<i>Ophiocytium sp.</i>	0	P
					<i>Pseudokephyrion angulosum</i>	0	P
					<i>Unidentified statospore</i>	2185	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	0	P
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	1719	
					<i>Anabaena lapponica</i>	424	
					<i>Anacystis dimidiata</i>	0	P
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	41190	
					<i>Oscillatoria lutea</i>	1361	
					<i>Schizothrix calcicola</i>	50503	
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	24	
					<i>Gymnodinium uberrimum</i>	21	
					<i>Peridinium sp.</i>	94	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake							
	ASLCA01 (Near Field)	AS-2	1	PYRROPHYTA			
					<i>Unidentified cyst</i>	47	
	ASLCA02 (Far Field)	AS-1	1	BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	61	
					<i>Achnanthes minutissima</i>	1463	
					<i>Amphora ovalis</i>	0	P
					<i>Anomoeoneis sp.</i>	0	P
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella kutzingiana</i>	61	
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	247	
					<i>Cymbella minuta</i>	0	P
					<i>Eunotia curvata</i>	480	
					<i>Eunotia praerupta</i>	121	
					<i>Frustulia vulgaris</i>	74	
					<i>Gomphonema acuminatum v. elongatum</i>	0	P
					<i>Gomphonema angustatum</i>	0	P
					<i>Melosira sp.</i>	0	P
					<i>Navicula cryptocephala</i>	575	
					<i>Navicula bacillum</i>	0	P
					<i>Navicula radiosa</i>	121	
					<i>Nedium sp.</i>	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	136	
					<i>Nitzschia fonticola</i>	121	
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astraea</i>	242	
					<i>Tabellaria fenestrata</i>	252	
					<i>Tabellaria flocculosa</i>	474	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	61	
					<i>Ankistrodesmus falcatus v. spiralis</i>	141	
					<i>Arthrodesmus triangularis</i>	141	
					<i>Bulbochaete sp.</i>	474	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1				
				CHLOROPHYTA			
					<i>Closterium kutzingii</i>	0	P
					<i>Closterium</i> sp.	20	
					<i>Coeloastrum printzii</i>	0	P
					<i>Cosmarium granulatum</i>	0	P
					<i>Cosmarium septentrionale</i>	20	
					<i>Dictyosphaerium elegans</i>	1453	
					<i>Dispora crucigenioides</i>	1408	
					<i>Elakatothrix</i> sp.	0	P
					<i>Euastrum elegans</i>	0	P
					<i>Gonatozygon brebissonii</i>	0	P
					<i>Hyalotheca</i> sp.	0	P
					<i>Mougeotia</i> sp.	462	P
					<i>Oocystis</i> sp.	1393	
					<i>Oonephris obesa</i>	61	
					<i>Penium</i> sp.	18	
					<i>Scenedesmus ecornis</i>	81	
					<i>Sphaeroszma granulatum</i>	545	
					<i>Staurastrum</i> sp.	40	
					<i>Zygnema</i> sp.	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia</i> v. <i>protuberans</i>	13117	
					<i>Dinobryon sociale</i>	363	
					<i>Dinobryon tabellariae</i>	0	P
					<i>Isthmocloron trispinatum</i>	61	
					<i>Kephyrion boreale</i>	61	
					<i>Ochromonas</i> sp.	10173	
					<i>Ophiocytium</i> sp.	0	P
					<i>Pseudokephyrion angulosum</i>	424	
					<i>Stichogloea doederleinii</i>	0	P
					<i>Unidentified statospore</i>	1196	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	61	
					<i>Cryptomonas reflexa</i>	61	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1				
				CYANOPHYTA			
					<i>Anabaena lapponica</i>	40	
					<i>Anacystis dimidiata</i>	0	P
					<i>Dactylococcopsis linearis</i>	292	
					<i>Gomphosphaeria naegelianum</i>	3996	
					<i>Oscillatoria lutea</i>	0	P
					<i>Pseudanabaena sp.</i>	260	
					<i>Schizothrix calcicola</i>	23675	
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	20	
					<i>Gymnodinium uberrimum</i>	56	
					<i>Peridinium sp.</i>	20	
					Unidentified cyst	81	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	0	P
					<i>Achnanthes minutissima</i>	1672	
					<i>Anomoeoneis sp.</i>	0	P
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella glomerata</i>	128	
					<i>Cyclotella kutzingiana</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	288	
					<i>Cymbella minuta</i>	64	
					<i>Cymbella sp.</i>	0	P
					<i>Eunotia arcus</i>	64	
					<i>Eunotia curvata</i>	224	
					<i>Eunotia praerupta</i>	0	P
					<i>Eunotia praerupta v. bidens</i>	0	P
					<i>Fragilaria sp.</i>	0	P
					<i>Frustulia vulgaris</i>	128	
					<i>Gomphonema acuminatum v. elongatum</i>	405	
					<i>Gomphonema angustatum</i>	22	
					<i>Melosira sp.</i>	0	P
					<i>Navicula cryptocephala</i>	0	P
					<i>Navicula pupula</i>	0	P
					<i>Navicula radiosa</i>	64	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1				
				BACILLARIOPHYTA			
					<i>Nitzschia filiformis</i>	98	
					<i>Nitzschia fonticola</i>	192	
					<i>Nitzschia sigmoidea</i>	0	P
					<i>Pinnularia sp.</i>	0	P
					<i>Stephanodiscus astraea</i>	0	P
					<i>Surirella sp.</i>	0	P
					<i>Tabellaria fenestrata</i>	85	
					<i>Tabellaria flocculosa</i>	1038	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	43	
					<i>Ankistrodesmus falcatus v. spiralis</i>	22	
					<i>Arthrodesmus triangularis</i>	43	
					<i>Bulbochaete sp.</i>	1003	
					<i>Coelostrum printzii</i>	0	P
					<i>Cosmarium anceps</i>	0	P
					<i>Cosmarium norimbergense</i>	0	P
					<i>Cosmarium septentrionale</i>	0	P
					<i>Dictyosphaerium elegans</i>	383	
					<i>Dispora crucigenioides</i>	6966	
					<i>Euastrum denticulatum</i>	0	P
					<i>Euastrum elegans</i>	32	
					<i>Euastrum insulare</i>	0	P
					<i>Gloeocystis schroeteri</i>	511	
					<i>Gonatozygon brebissonii</i>	0	P
					<i>Hyalotheca sp.</i>	287	
					<i>Mougeotia sp.</i>	512	
					<i>Oocystis sp.</i>	1214	
					<i>Oonephris obesa</i>	511	
					<i>Sphaerosma granulatum</i>	87	
					<i>Spirogyra sp.</i>	0	P
					<i>Staurastrum borgeanum</i>	0	P
					<i>Staurastrum sp.</i>	0	P
					<i>Staurastrum tetracerum</i>	0	P
					<i>Unidentified filamentous green</i>	76	
					<i>Unidentified unicellular green</i>	64	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1				
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	10412	
					<i>Dinobryon sociale</i>	320	
					<i>Dinobryon tabellariae</i>	64	
					<i>Isthmocloron trispinatum</i>	22	
					<i>Kephyrion boreale</i>	64	
					<i>Ochromonas sp.</i>	3195	
					<i>Ophiocytium sp.</i>	64	
					<i>Pseudokephyrion angulosum</i>	863	
					<i>Unidentified statospore</i>	1997	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	64	
					<i>Cryptomonas reflexa</i>	0	P
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	64	
					<i>Anabaena lapponica</i>	477	
					<i>Anacystis dimidiata</i>	831	
					<i>Gomphosphaeria naegelianum</i>	4665	
					<i>Oscillatoria sp.</i>	0	P
					<i>Schizothrix calcicola</i>	29078	
				PYRRPHYTA			
					<i>Glenodinium sp.</i>	0	P
					<i>Peridinium cinctum</i>	0	P
					<i>Peridinium sp.</i>	0	P
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	60	
					<i>Achnanthes minutissima</i>	2869	
					<i>Achnanthes minutissima v. cryptocephala</i>	0	P
					<i>Anomoeoneis sp.</i>	0	P
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella glomerata</i>	60	
					<i>Cyclotella kutzingiana</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	181	
					<i>Cymbella minuta</i>	0	P
					<i>Cymbella sp.</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1				
				BACILLARIOPHYTA			
					<i>Eunotia curvata</i>	556	
					<i>Frustulia vulgaris</i>	40	
					<i>Gomphonema acuminatum</i> v. <i>elongatum</i>	0	P
					<i>Gomphonema angustatum</i>	0	P
					<i>Navicula cryptocephala</i>	1390	
					<i>Navicula bacillum</i>	121	
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia filiformis</i>	181	
					<i>Nitzschia fonticola</i>	151	
					<i>Stephanodiscus astraea</i>	60	
					<i>Synedra ulna</i>	0	P
					<i>Tabellaria fenestrata</i>	56	
					<i>Tabellaria flocculosa</i>	952	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	61	
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	0	P
					<i>Arthrodesmus triangularis</i>	0	P
					<i>Bulbochaete</i> sp.	399	
					<i>Coeloastrum printzii</i>	0	P
					<i>Cosmarium anceps</i>	60	
					<i>Cosmarium septentrionale</i>	23	
					<i>Dictyosphaerium elegans</i>	303	
					<i>Dispora crucigenioides</i>	5287	
					<i>Elakatothrix</i> sp.	0	P
					<i>Euastrum denticulatum</i>	20	
					<i>Euastrum elegans</i>	20	
					<i>Gloeocystis schroeteri</i>	514	
					<i>Gonatozygon brebissonii</i>	96	
					<i>Hyalotheca</i> sp.	0	P
					<i>Mougeotia</i> sp.	451	
					<i>Oocystis</i> sp.	1934	
					<i>Oonephris obesa</i>	423	
					<i>Sphaeroszma granulatum</i>	363	
					<i>Staurostrum apiculatum</i>	0	P
					<i>Staurostrum</i> sp.	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1				
				CHLOROPHYTA			
					<i>Staurostrum tetracerum</i>	0	P
					<i>Zygnema sp.</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	12017	
					<i>Dinobryon sociale</i>	287	
					<i>Isthmocloron trispinatum</i>	60	
					<i>Kephyrion boreale</i>	544	
					<i>Ochromonas sp.</i>	4320	
					<i>Ophiocytium sp.</i>	0	P
					<i>Pseudokephyrion angulosum</i>	423	
					<i>Unidentified statospore</i>	1662	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	0	P
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	967	
					<i>Anabaena lapponica</i>	445	
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	18550	
					<i>Schizothrix calcicola</i>	45318	
				PYRRPHYTA			
					<i>Glenodinium sp.</i>	0	P
					<i>Gymnodinium uberrimum</i>	0	P
					<i>Peridinium sp.</i>	20	
					<i>Unidentified cyst</i>	61	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	123	
					<i>Achnanthes minutissima</i>	6090	
					<i>Achnanthes minutissima v. cryptocephala</i>	0	P
					<i>Anomoeoneis sp.</i>	0	P
					<i>Cyclotella glomerata</i>	62	
					<i>Cyclotella kutzingiana</i>	84	
					<i>Cyclotella ocellata</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	525	
					<i>Cymbella minuta</i>	452	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1				
				BACILLARIOPHYTA			
					<i>Eunotia curvata</i>	290	
					<i>Eunotia peruviana</i>	0	P
					<i>Eunotia praeurupta</i> v. <i>bidens</i>	0	P
					<i>Fragilaria</i> sp.	0	P
					<i>Frustulia vulgaris</i>	179	
					<i>Gomphonema acuminatum</i> v. <i>elongatum</i>	0	P
					<i>Gomphonema angustatum</i>	246	
					<i>Melosira</i> sp.	0	P
					<i>Navicula cryptocephala</i>	2623	
					<i>Navicula bacillum</i>	309	
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	335	
					<i>Nitzschia fonticola</i>	802	
					<i>Opephora martyi</i>	0	P
					<i>Pinnularia</i> sp.	0	P
					<i>Stephanodiscus astraea</i>	0	P
					<i>Tabellaria fenestrata</i>	239	
					<i>Tabellaria flocculosa</i>	2690	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	84	
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	0	P
					<i>Arthrodesmus triangularis</i>	0	P
					<i>Bulbochaete</i> sp.	389	
					<i>Closterium kutzingii</i>	0	P
					<i>Closterium</i> sp.	0	P
					<i>Coelostrum printzii</i>	62	
					<i>Cosmarium granulatum</i>	62	
					<i>Cosmarium septentrionale</i>	21	
					<i>Cylindrocystis brebissonii</i>	21	
					<i>Dictyosphaerium elegans</i>	378	
					<i>Dispora crucigenioides</i>	10647	
					<i>Elakatothrix</i> sp.	62	
					<i>Euastrum elegans</i>	42	
					<i>Euastrum insulare</i>	62	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1				
				CHLOROPHYTA			
					<i>Euastrum pectinatum</i>	0	P
					<i>Gloeocystis schroeteri</i>	432	
					<i>Gonatozygon brebissonii</i>	54	
					<i>Mougeotia sp.</i>	405	
					<i>Oocystis sp.</i>	2407	
					<i>Oonephris obesa</i>	247	
					<i>Sphaeroszma granulatum</i>	247	
					<i>Spirogyra sp.</i>	53	
					<i>Staurastrum apiculatum</i>	0	P
					<i>Staurastrum sp.</i>	63	
					<i>Staurastrum tetracerum</i>	21	
					<i>Unidentified unicellular green</i>	0	P
					<i>Xanthidium sp.</i>	62	
					<i>Zygnema sp.</i>	42	
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	12396	
					<i>Dinobryon sociale</i>	494	
					<i>Dinobryon tabellariae</i>	62	
					<i>Isthmocloron trispinatum</i>	0	P
					<i>Kephyrion boreale</i>	185	
					<i>Ochromonas sp.</i>	1728	
					<i>Ophiocytium sp.</i>	0	P
					<i>Pseudokephyron angulosum</i>	370	
					<i>Unidentified statospore</i>	1358	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	62	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	2716	
					<i>Anabaena lapponica</i>	1787	
					<i>Dactylococcopsis linearis</i>	370	
					<i>Gomphosphaeria naegelianum</i>	33207	
					<i>Oscillatoria lutea</i>	2716	
					<i>Oscillatoria sp.</i>	147	
					<i>Schizothrix calcicola</i>	51848	

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Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1				
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	62	
					<i>Gymnodinium uberrimum</i>	70	
					<i>Peridinium cinctum</i>	0	P
					<i>Peridinium sp.</i>	0	P
					<i>Unidentified cyst</i>	176	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	43	
					<i>Achnanthes minutissima</i>	2266	
					<i>Cyclotella kutzingiana</i>	65	
					<i>Cymbella gracilis</i>	195	
					<i>Cymbella minuta</i>	130	
					<i>Eunotia curvata</i>	264	
					<i>Eunotia praerupta</i>	0	P
					<i>Eunotia praerupta v. bidens</i>	0	P
					<i>Frustulia vulgaris</i>	65	
					<i>Gomphonema acuminatum</i>	0	P
					<i>Gomphonema acuminatum v. elongatum</i>	0	P
					<i>Navicula cryptocephala</i>	651	
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	55	
					<i>Nitzschia fonticola</i>	195	
					<i>Pinnularia sp.</i>	0	P
					<i>Stephanodiscus astraea</i>	43	
					<i>Tabellaria fenestrata</i>	93	
					<i>Tabellaria flocculosa</i>	2489	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	65	
					<i>Ankistrodesmus falcatus v. spiralis</i>	0	P
					<i>Arthrodesmus triangularis</i>	21	
					<i>Bulbochaete sp.</i>	439	
					<i>Chlamydomonas sp.</i>	0	P
					<i>Coeloastrum printzii</i>	65	
					<i>Cosmarium norimbergense</i>	0	P
					<i>Cosmarium septentrionale</i>	43	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1				
				CHLOROPHYTA			
					<i>Cylindrocystis brebissonii</i>	0	P
					<i>Dictyosphaerium elegans</i>	0	P
					<i>Dispora crucigenioides</i>	5758	
					<i>Euastrum denticulatum</i>	0	P
					<i>Euastrum elegans</i>	0	P
					<i>Euastrum insulare</i>	43	
					<i>Gloeocystis schroeteri</i>	651	
					<i>Gonatozygon brebissonii</i>	0	P
					<i>Hyalotheca sp.</i>	0	P
					<i>Mougeotia sp.</i>	263	
					<i>Oocystis sp.</i>	1496	
					<i>Oonephris obesa</i>	846	
					<i>Sphaeroszma granulatum</i>	390	
					<i>Spirogyra sp.</i>	0	P
					<i>Staurastrum apiculatum</i>	0	P
					<i>Staurastrum sp.</i>	21	P
					<i>Unidentified filamentous green</i>	263	
					<i>Unidentified unicellular green</i>	65	
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	8962	
					<i>Dinobryon sociale</i>	130	
					<i>Dinobryon tabellariae</i>	0	P
					<i>Isthmocloron trispinatum</i>	65	
					<i>Kephyrion boreale</i>	195	
					<i>Ochromonas sp.</i>	1139	
					<i>Ophiocytium sp.</i>	0	P
					<i>Pseudokephyrion angulosum</i>	520	
					<i>Stichogloea doederleinii</i>	65	
					<i>Unidentified statospore</i>	1301	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	129	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	3383	
					<i>Anabaena lapponica</i>	64	
					<i>Dactylococcopsis linearis</i>	260	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Carat Lake	ASLCA02 (Far Field)	AS-1	1	CYANOPHYTA			
					<i>Gomphosphaeria naegelianum</i>	3253	
					<i>Oscillatoria lutea</i>	0	P
					<i>Oscillatoria sp.</i>	107	
					<i>Schizothrix calcicola</i>	24593	
					<i>Stigonema mamillosum</i>	98	
				PYRRROPHYTA			
					<i>Glenodinium sp.</i>	195	
					<i>Gymnodinium uberrimum</i>	65	
					<i>Peridinium cinctum</i>	0	P
					<i>Peridinium sp.</i>	21	
					<i>Unidentified cyst</i>	86	
Control Lake	SLCN01 (Reference One)	AS-3	1	BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	0	P
					<i>Achnanthes minutissima</i>	762	
					<i>Anomoeoneis sp.</i>	0	P
					<i>Anomoeoneis vitrea</i>	20	
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella glomerata</i>	80	
					<i>Cyclotella kutzingiana</i>	0	P
					<i>Cyclotella ocellata</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	30	
					<i>Cymbella minuta</i>	0	P
					<i>Eunotia curvata</i>	221	
					<i>Eunotia maior</i>	0	P
					<i>Eunotia praerupta</i>	77	
					<i>Eunotia praerupta v. bidens</i>	0	P
					<i>Eunotia triodon</i>	0	P
					<i>Fragilaria sp.</i>	0	P
					<i>Frustulia vulgaris</i>	19	
					<i>Gomphonema constrictum</i>	0	P
					<i>Gomphonema gracile</i>	96	
					<i>Gomphonema sp.</i>	40	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				BACILLARIOPHYTA			
					<i>Navicula cryptocephala</i>	40	
					<i>Navicula bacillum</i>	40	
					<i>Navicula sp.</i>	0	P
					<i>Nitzschia amphibia</i>	40	
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	0	P
					<i>Nitzschia fonticola</i>	40	
					<i>Nitzschia sigmoidea</i>	0	P
					<i>Pinnularia sp.</i>	0	P
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astraea</i>	80	
					<i>Tabellaria fenestrata</i>	132	
					<i>Tabellaria flocculosa</i>	2400	
					<i>Unidentified pennate diatom</i>	0	P
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	0	P
					<i>Ankistrodesmus falcatus v. spiralis</i>	0	P
					<i>Arthrodesmus triangularis</i>	0	P
					<i>Bulbochaete sp.</i>	40	
					<i>Closterium closteroides</i>	0	P
					<i>Coelostrum printzii</i>	0	P
					<i>Cosmarium granulatum</i>	19	
					<i>Cosmarium norimbergense</i>	19	
					<i>Cosmarium speciosum</i>	0	P
					<i>Cosmarium subgranatum</i>	0	P
					<i>Cylindrocystis brebissonii</i>	40	
					<i>Dictyosphaerium elegans</i>	481	
					<i>Dispora crucigenioides</i>	5898	
					<i>Elakatothrix sp.</i>	0	P
					<i>Euastrum elegans</i>	0	P
					<i>Euastrum insulare</i>	0	P
					<i>Gloeocystis schroeteri</i>	181	
					<i>Hyalotheca sp.</i>	0	P
					<i>Mougeotia sp.</i>	341	
					<i>Sphaerocystis schroeteri</i>	154	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				CHLOROPHYTA			
					<i>Sphaerosoma granulatatum</i>	160	
					<i>Staurastrum borgeanum</i>	80	
					<i>Staurastrum lunatum</i>	0	P
					<i>Staurastrum paradoxum</i>	0	P
					<i>Staurastrum sp.</i>	0	P
					<i>Tetraedron minimum</i>	0	P
					<i>Unidentified filamentous green</i>	4273	
					<i>Zygnema sp.</i>	0	P
				CHRYSOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	572	
					<i>Dinobryon sociale</i>	0	P
					<i>Kephyrion boreale</i>	120	
					<i>Pseudokephyrion angulosum</i>	201	
					<i>Stichogloea doederleinii</i>	130	
					<i>Unidentified statospore</i>	80	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	0	P
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	4734	
					<i>Anabaena lapponica</i>	424	
					<i>Anacystis dimidiata</i>	0	P
					<i>Chamaesiphon polonicus</i>	80	
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	1123	
					<i>Nostoc commune</i>	120	
					<i>Oscillatoria sp.</i>	0	P
					<i>Schizothrix calcicola</i>	6981	
				PYRROPHYTA			
					<i>Gymnodinium uberrimum</i>	0	P
					<i>Peridinium sp.</i>	0	P
					<i>Unidentified cyst</i>	0	P
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	22	
					<i>Achnanthes minutissima</i>	2719	
					<i>Achnanthes sp.</i>	64	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				BACILLARIOPHYTA			
					<i>Anomoeoneis sp.</i>	0	P
					<i>Anomoeoneis vitrea</i>	0	P
					<i>Caloneis ventricosa</i>	127	
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	59	
					<i>Cymbella minuta</i>	64	
					<i>Eunotia curvata</i>	56	
					<i>Eunotia exigua</i>	1083	
					<i>Eunotia maior</i>	0	P
					<i>Eunotia praerupta</i>	64	
					<i>Frustulia vulgaris</i>	0	P
					<i>Gomphonema angustatum</i>	637	
					<i>Gomphonema constrictum</i>	0	P
					<i>Gomphonema gracile</i>	191	
					<i>Gomphonema sp.</i>	95	
					<i>Nedium sp.</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	0	P
					<i>Nitzschia fonticola</i>	127	
					<i>Nitzschia sigmoidea</i>	0	P
					<i>Pinnularia sp.</i>	0	P
					<i>Stauroneis anceps</i>	22	
					<i>Stephanodiscus astraea</i>	0	P
					<i>Tabellaria fenestrata</i>	96	
					<i>Tabellaria flocculosa</i>	3775	
					<i>Unidentified pennate diatom</i>	0	P
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	191	
					<i>Ankistrodesmus falcatus v. spiralis</i>	64	
					<i>Arthrodesmus triangularis</i>	22	
					<i>Bulbochaete sp.</i>	774	
					<i>Closterium kutzingii</i>	0	P
					<i>Closterium sp.</i>	0	P
					<i>Coelostrum printzii</i>	0	P
					<i>Cosmarium granulatum</i>	22	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				CHLOROPHYTA			
					<i>Cosmarium norimbergense</i>	191	
					<i>Cosmarium septentrionale</i>	22	
					<i>Cosmarium speciosum</i>	0	P
					<i>Cylindrocystis brebissonii</i>	55	
					<i>Dispora crucigenioides</i>	15163	
					<i>Elakatothrix sp.</i>	0	P
					<i>Euastrum bidentatum</i>	0	P
					<i>Euastrum denticulatum</i>	59	
					<i>Euastrum elegans</i>	134	
					<i>Euastrum insulare</i>	44	
					<i>Gloeocystis schroeteri</i>	4059	
					<i>Gonatozygon sp.</i>	0	P
					<i>Hyalotheca sp.</i>	0	P
					<i>Mougeotia sp.</i>	632	
					<i>Penium sp.</i>	43	
					<i>Scenedesmus ecornis</i>	0	P
					<i>Sphaerocystis schroeteri</i>	0	P
					<i>Sphaeroszma granulatum</i>	0	P
					<i>Staurastrum borgeanum</i>	0	P
					<i>Staurastrum brebissonii</i>	0	P
					<i>Staurastrum punctulatum</i>	0	P
					<i>Staurastrum sp.</i>	0	P
					<i>Tetraedron arthrodesmiforme</i>	64	
					<i>Unidentified filamentous green</i>	4810	
					<i>Xanthidium armatum</i>	0	P
					<i>Xanthidium sp.</i>	0	P
					<i>Zygnema sp.</i>	384	
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	1179	
					<i>Dinobryon sociale</i>	0	P
					<i>Dinobryon tabellariae</i>	0	P
					<i>Isthmocloron trispinatum</i>	0	P
					<i>Kephyrion boreale</i>	127	
					<i>Ophiocytium sp.</i>	0	P
					<i>Pseudokephyrion angulosum</i>	127	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				CHRYSTOPHYTA			
					<i>Stichogloea doederleinii</i>	191	
					<i>Unidentified statospore</i>	446	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	44	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	1043	
					<i>Anabaena lapponica</i>	333	
					<i>Anacystis dimidiata</i>	3122	
					<i>Chamaesiphon polonicus</i>	509	
					<i>Gomphosphaeria naegelianum</i>	11159	
					<i>Nostoc commune</i>	0	P
					<i>Oscillatoria lutea</i>	337	
					<i>Schizothrix calcicola</i>	67152	
					<i>Stigonema mamillosum</i>	0	P
				PYRROPHYTA			
					<i>Gymnodinium sp.</i>	63	
					<i>Gymnodinium uberrimum</i>	0	P
					<i>Peridinium cinctum</i>	22	
					<i>Unidentified cyst</i>	64	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	62	
					<i>Achnanthes minutissima</i>	3774	
					<i>Achnanthes minutissima v. cryptocephala</i>	0	P
					<i>Anomoeoneis vitrea</i>	0	P
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella kutziana</i>	0	P
					<i>Cyclotella ocellata</i>	0	P
					<i>Cymbella cymbiformis</i>	83	
					<i>Cymbella gracilis</i>	20	
					<i>Cymbella minuta</i>	62	
					<i>Epithemia sp.</i>	62	
					<i>Eunotia curvata</i>	62	
					<i>Eunotia exigua</i>	967	
					<i>Eunotia maior</i>	0	P
					<i>Eunotia praerupta</i>	62	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				BACILLARIOPHYTA			
					<i>Eunotia praeurupta</i> v. <i>bidens</i>	0	P
					<i>Eunotia</i> sp.	0	P
					<i>Fragilaria</i> sp.	0	P
					<i>Frustulia vulgaris</i>	0	P
					<i>Gomphonema constrictum</i>	0	P
					<i>Gomphonema gracile</i>	0	P
					<i>Gomphonema</i> sp.	304	
					<i>Navicula cryptocephala</i>	249	
					<i>Navicula bacillum</i>	0	P
					<i>Navicula radiosa</i>	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	0	P
					<i>Nitzschia fonticola</i>	0	P
					<i>Nitzschia sigmoidea</i>	82	
					<i>Opephora martyi</i>	0	P
					<i>Pinnularia</i> sp.	0	P
					<i>Stauroneis anceps</i>	5	
					<i>Stephanodiscus astraea</i>	62	
					<i>Tabellaria fenestrata</i>	187	
					<i>Tabellaria flocculosa</i>	5161	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	156	
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	0	P
					<i>Arthrodesmus incus</i>	0	P
					<i>Arthrodesmus triangularis</i>	253	
					<i>Botryococcus</i> sp.	0	P
					<i>Bulbochaete</i> sp.	998	
					<i>Closterium</i> sp.	20	
					<i>Coelostrum printzii</i>	0	P
					<i>Cosmarium anceps</i>	0	P
					<i>Cosmarium granulatum</i>	0	P
					<i>Cosmarium norimbergense</i>	62	
					<i>Cosmarium septentrionale</i>	94	
					<i>Cosmarium speciosum</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1	CHLOROPHYTA			
					<i>Cylindrocystis brebissonii</i>	125	
					<i>Dictyosphaerium elegans</i>	811	
					<i>Dispora crucigenioides</i>	13972	
					<i>Elakatothrix sp.</i>	249	
					<i>Euastrum bidentatum</i>	0	P
					<i>Euastrum denticulatum</i>	41	
					<i>Euastrum elegans</i>	145	
					<i>Euastrum insulare</i>	0	P
					<i>Gloeocystis schroeteri</i>	748	
					<i>Gonatozygon sp.</i>	16	
					<i>Hyalotheca sp.</i>	0	P
					<i>Mougeotia sp.</i>	468	
					<i>Pleurotaenium trabecula</i>	0	P
					<i>Scenedesmus ecornis</i>	0	P
					<i>Sphaerosoma granulatatum</i>	967	
					<i>Staurastrum apiculatum</i>	0	P
					<i>Staurastrum borgeanum</i>	56	
					<i>Staurastrum brebissonii</i>	0	P
					<i>Staurastrum curvatum</i>	0	P
					<i>Staurastrum furcigerum</i>	62	
					<i>Staurastrum paradoxum</i>	0	P
					<i>Staurastrum punctulatum</i>	0	P
					<i>Staurastrum sp.</i>	41	
					<i>Unidentified filamentous green</i>	1374	
					<i>Zygnema sp.</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia</i>	312	
					<i>Dinobryon sertularia v. protuberans</i>	4236	
					<i>Dinobryon sociale</i>	0	P
					<i>Epiphyxis tabellariae</i>	62	
					<i>Kephyrion boreale</i>	499	
					<i>Ochromonas sp.</i>	62	
					<i>Ophiocytium sp.</i>	0	P
					<i>Pseudokephyrion angulosum</i>	312	
					<i>Stichogloea doederleinii</i>	936	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				CHRYSTOPHYTA			
					<i>Unidentified statospore</i>	1778	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	0	P
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	1497	
					<i>Anabaena lapponica</i>	1308	
					<i>Anacystis dimidiata</i>	4192	
					<i>Chamaesiphon polonicus</i>	1372	
					<i>Dactylococcopsis linearis</i>	561	
					<i>Gomphosphaeria naegelianum</i>	9231	
					<i>Oscillatoria lutea</i>	225	
					<i>Schizothrix calcicola</i>	50522	
				PYRROPHYTA			
					<i>Gymnodinium uberrimum</i>	0	P
					<i>Peridinium cinctum</i>	0	P
					<i>Peridinium sp.</i>	125	
					<i>Unidentified cyst</i>	0	P
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	0	P
					<i>Achnanthes minutissima</i>	2724	
					<i>Achnanthes minutissima v. cryptocephala</i>	0	P
					<i>Anomoeoneis vitrea</i>	132	
					<i>Caloneis ventricosa</i>	127	
					<i>Cyclotella glomerata</i>	253	
					<i>Cyclotella kutzingiana</i>	0	P
					<i>Cyclotella ocellata</i>	0	P
					<i>Cymbella cymbiformis</i>	22	
					<i>Cymbella gracilis</i>	60	
					<i>Cymbella minuta</i>	65	
					<i>Eunotia curvata</i>	655	
					<i>Eunotia exigua</i>	63	
					<i>Eunotia maior</i>	0	P
					<i>Eunotia praerupta</i>	0	P
					<i>Eunotia praerupta v. bidens</i>	0	P
					<i>Eunotia triodon</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				BACILLARIOPHYTA			
					<i>Fragilaria sp.</i>	0	P
					<i>Frustulia vulgaris</i>	66	
					<i>Gomphonema constrictum</i>	263	
					<i>Gomphonema gracile</i>	0	P
					<i>Navicula cryptocephala</i>	263	
					<i>Navicula bacillum</i>	0	P
					<i>Navicula tripunctata</i>	0	P
					<i>Nedium sp.</i>	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	132	
					<i>Nitzschia fonticola</i>	0	P
					<i>Nitzschia sigmoidea</i>	54	
					<i>Opephora martyi</i>	0	P
					<i>Pinnularia sp.</i>	0	P
					<i>Stauroneis anceps</i>	127	
					<i>Stephanodiscus astraea</i>	0	P
					<i>Surirella sp.</i>	0	P
					<i>Tabellaria fenestrata</i>	0	P
					<i>Tabellaria flocculosa</i>	3146	
					<i>Unidentified pennate diatom</i>	0	P
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	760	
					<i>Ankistrodesmus falcatus v. spiralis</i>	0	P
					<i>Arthrodesmus triangularis</i>	22	
					<i>Botryococcus sp.</i>	0	P
					<i>Bulbochaete sp.</i>	1289	
					<i>Closterium sp.</i>	27	
					<i>Coeloastrum printzii</i>	127	
					<i>Cosmarium granulatum</i>	0	P
					<i>Cosmarium norimbergense</i>	87	
					<i>Cosmarium septentrionale</i>	58	
					<i>Cosmarium subgranatum</i>	22	
					<i>Cylindrocystis brebissonii</i>	66	
					<i>Dictyosphaerium elegans</i>	253	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				CHLOROPHYTA			
					<i>Dispora crucigenioides</i>	13556	
					<i>Elakatothrix sp.</i>	253	
					<i>Euastrum bidentatum</i>	16	
					<i>Euastrum denticulatum</i>	212	
					<i>Euastrum elegans</i>	38	
					<i>Euastrum insulare</i>	0	P
					<i>Gloeocystis schroeteri</i>	507	
					<i>Hyalotheca sp.</i>	0	P
					<i>Mougeotia sp.</i>	966	
					<i>Oonephris obesa</i>	0	P
					<i>Penium sp.</i>	0	P
					<i>Pleurotaenium sp.</i>	0	P
					<i>Scenedesmus ecornis</i>	0	P
					<i>Sphaeroszma granulatum</i>	326	
					<i>Spirogyra sp.</i>	0	P
					<i>Staurastrum apiculatum</i>	44	
					<i>Staurastrum borgeanum</i>	0	P
					<i>Staurastrum brebissonii</i>	65	
					<i>Staurastrum curvatum</i>	0	P
					<i>Staurastrum gladiusum</i>	0	P
					<i>Staurastrum punctulatum</i>	0	P
					<i>Staurastrum sp.</i>	243	
					<i>Tetraedron arthrodesmiforme</i>	0	P
					<i>Unidentified filamentous green</i>	3110	
					<i>Xanthidium armatum</i>	0	P
					<i>Xanthidium sp.</i>	0	P
					<i>Zygnema sp.</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon calciformis</i>	1014	
					<i>Dinobryon sertularia v. protuberans</i>	2746	
					<i>Dinobryon sociale</i>	127	
					<i>Isthmocloron trispinatum</i>	0	P
					<i>Kephyrion boreale</i>	255	
					<i>Pseudokephyrion angulosum</i>	2636	
					<i>Stichogloea doederleinii</i>	283	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				CHRYSTOPHYTA			
					<i>Unidentified statospore</i>	887	
				CYANOPHYTA			
					<i>Anabaena lapponica</i>	1566	
					<i>Anacystis dimidiata</i>	507	
					<i>Chamaesiphon polonicus</i>	3167	
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	27774	
					<i>Nostoc commune</i>	1647	
					<i>Oscillatoria lutea</i>	0	P
					<i>Schizothrix calcicola</i>	150768	
				PYRROPHYTA			
					<i>Gymnodinium uberrimum</i>	44	
					<i>Peridinium cinctum</i>	0	P
					<i>Peridinium sp.</i>	22	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	41	
					<i>Achnanthes minutissima</i>	3284	
					<i>Achnanthes minutissima v. cryptocephala</i>	243	
					<i>Anomoeoneis vitrea</i>	0	P
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella glomerata</i>	0	P
					<i>Cyclotella kutziana</i>	0	P
					<i>Cyclotella ocellata</i>	122	
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	56	
					<i>Cymbella minuta</i>	608	
					<i>Cymbella sp.</i>	0	P
					<i>Eunotia curvata</i>	791	
					<i>Eunotia exigua</i>	0	P
					<i>Eunotia maior</i>	0	P
					<i>Eunotia praerupta</i>	101	
					<i>Eunotia triodon</i>	0	P
					<i>Fragilaria sp.</i>	0	P
					<i>Frustulia vulgaris</i>	20	
					<i>Gomphonema angustatum</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				BACILLARIOPHYTA			
					<i>Gomphonema gracile</i>	0	P
					<i>Gomphonema subtile</i>	0	P
					<i>Navicula cryptocephala</i>	365	
					<i>Navicula bacillum</i>	0	P
					<i>Navicula radiosa</i>	0	P
					<i>Nedium sp.</i>	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	0	P
					<i>Nitzschia sigmoidea</i>	20	
					<i>Opephora martyi</i>	0	P
					<i>Pinnularia sp.</i>	0	P
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astraia</i>	0	P
					<i>Tabellaria fenestrata</i>	76	
					<i>Tabellaria flocculosa</i>	4023	
					<i>Unidentified pennate diatom</i>	0	P
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	243	
					<i>Ankistrodesmus falcatus v. spiralis</i>	122	
					<i>Arthrodesmus incus</i>	0	P
					<i>Arthrodesmus triangularis</i>	304	
					<i>Botryococcus sp.</i>	0	P
					<i>Bulbochaete sp.</i>	1338	
					<i>Closterium actum</i>	0	P
					<i>Closterium sp.</i>	41	
					<i>Cosmarium norimbergense</i>	61	
					<i>Cosmarium septentrionale</i>	81	
					<i>Cosmarium sp.</i>	0	P
					<i>Cosmarium subgranatum</i>	0	P
					<i>Dispora crucigenioides</i>	18427	
					<i>Elakatothrix sp.</i>	1429	
					<i>Euastrum bidentatum</i>	0	P
					<i>Euastrum denticulatum</i>	20	
					<i>Euastrum elegans</i>	20	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	.SLCN01 (Reference One)	AS-3	1				
				CHLOROPHYTA			
					<i>Euastrum insulare</i>	41	
					<i>Gloeocystis schroeteri</i>	374	
					<i>Gonatozygon sp.</i>	30	
					<i>Hyalotheca sp.</i>	51	
					<i>Mougeotia sp.</i>	893	
					<i>Nephrocytium sp.</i>	0	P
					<i>Oonephris obesa</i>	0	P
					<i>Penium sp.</i>	20	
					<i>Scenedesmus acuminatus</i>	0	P
					<i>Scenedesmus ecornis</i>	187	
					<i>Sphaerocystis schroeteri</i>	1338	
					<i>Sphaerosma granulatatum</i>	385	
					<i>Spirogyra sp.</i>	0	P
					<i>Staurastrum apiculatum</i>	0	P
					<i>Staurastrum borgeanum</i>	81	
					<i>Staurastrum brebissonii</i>	0	P
					<i>Staurastrum curvatum</i>	0	P
					<i>Staurastrum furcigerum</i>	0	P
					<i>Staurastrum gladiusum</i>	0	P
					<i>Staurastrum paradoxum</i>	0	P
					<i>Staurastrum punctulatum</i>	0	P
					<i>Staurastrum sp.</i>	61	
					<i>Tetraedron arthrodesmiforme</i>	0	P
					<i>Unidentified filamentous green</i>	6690	
					<i>Xanthidium armatum</i>	62	
					<i>Xanthidium sp.</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon calciformis</i>	669	
					<i>Dinobryon sertularia v. protuberans</i>	4014	
					<i>Dinobryon sociale</i>	62	
					<i>Dinobryon tabellariae</i>	0	P
					<i>Epiphyxis tabellariae</i>	243	
					<i>Isthmocloron trispinatum</i>	0	P
					<i>Kephyrion boreale</i>	365	
					<i>Pseudokephyrion angulosum</i>	249	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	SLCN01 (Reference One)	AS-3	1				
				CHRYSTOPHYTA			
					<i>Stichogloea doederleinii</i>	199	
					<i>Unidentified statospore</i>	1277	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	95	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	6811	
					<i>Anabaena lapponica</i>	527	
					<i>Anacystis dimidiata</i>	243	
					<i>Chamaesiphon polonicus</i>	2433	
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	28567	
					<i>Nostoc commune</i>	345	
					<i>Oscillatoria lutea</i>	872	
					<i>Oscillatoria sp.</i>	873	
					<i>Schizothrix calcicola</i>	103749	
				PYRRROPHYTA			
					<i>Gymnodinium uberrimum</i>	0	P
					<i>Peridinium cinctum</i>	23	
					<i>Peridinium sp.</i>	0	P
					<i>Unidentified cyst</i>	31	
SLCN02 (Reference Two)	AS-4	1		BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	0	P
					<i>Achnanthes minutissima</i>	654	
					<i>Achnanthes minutissima v. cryptocephala</i>	0	P
					<i>Anomoeoneis sp.</i>	0	P
					<i>Anomoeoneis vitrea</i>	64	
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella glomerata</i>	149	
					<i>Cyclotella kutzingiana</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	66	
					<i>Cymbella minuta</i>	21	
					<i>Eunotia curvata</i>	21	
					<i>Eunotia exigua</i>	170	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	SLCN02 (Reference Two)	AS-4	1				
				BACILLARIOPHYTA			
					<i>Eunotia praeurupta</i>	21	
					<i>Eunotia praeurupta</i> v. <i>bidens</i>	0	P
					<i>Fragilaria</i> sp.	21	
					<i>Frustulia vulgaris</i>	0	P
					<i>Gomphonema acuminatum</i>	0	P
					<i>Gomphonema constrictum</i>	0	P
					<i>Gomphonema gracile</i>	0	P
					<i>Gomphonema</i> sp.	0	P
					<i>Navicula cryptocephala</i>	110	
					<i>Navicula bacillum</i>	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	53	
					<i>Nitzschia fonticola</i>	43	
					<i>Nitzschia sigmoidea</i>	76	
					<i>Pinnularia</i> sp.	0	P
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astraea</i>	0	P
					<i>Tabellaria fenestrata</i>	197	
					<i>Tabellaria flocculosa</i>	1760	
					Unidentified pennate diatom	0	P
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	11	
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	0	P
					<i>Arthrodesmus incus</i>	0	P
					<i>Arthrodesmus triangularis</i>	21	
					<i>Botryococcus</i> sp.	0	P
					<i>Bulbochaete</i> sp.	149	
					<i>Closterium</i> sp.	0	P
					<i>Coelostrum printzii</i>	0	P
					<i>Cosmarium granulatum</i>	0	P
					<i>Cosmarium norimbergense</i>	21	
					<i>Cosmarium rectangulum</i>	0	P
					<i>Cosmarium septentrionale</i>	0	P
					<i>Cosmarium speciosum</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	SLCN02 (Reference Two)	AS-4	1				
				CHLOROPHYTA			
					<i>Cosmarium subgranatum</i>	0	P
					<i>Cylindrocystis brebissonii</i>	0	P
					<i>Dictyosphaerium elegans</i>	362	
					<i>Dispora crucigenioides</i>	574	
					<i>Elakatothrix sp.</i>	64	
					<i>Euastrum bidentatum</i>	0	P
					<i>Euastrum elegans</i>	117	
					<i>Euastrum insulare</i>	0	P
					<i>Gloeocystis schroeteri</i>	829	
					<i>Mougeotia sp.</i>	415	
					<i>Oonephris obesa</i>	64	
					<i>Penium sp.</i>	11	
					<i>Scenedesmus denticulatus</i>	0	P
					<i>Sphaerosoma granulatum</i>	744	
					<i>Spirogyra sp.</i>	53	
					<i>Staurastrum apiculatum</i>	0	P
					<i>Staurastrum borgeanum</i>	43	
					<i>Staurastrum brachiatum</i>	0	P
					<i>Staurastrum brebissonii</i>	21	
					<i>Staurastrum curvatum</i>	0	P
					<i>Staurastrum furcigerum</i>	0	P
					<i>Staurastrum lunatum</i>	0	P
					<i>Staurastrum sp.</i>	43	
					<i>Tetraedron arthrodesmiforme</i>	0	P
					<i>Unidentified filamentous green</i>	43	
					<i>Zygnema sp.</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon calciformis</i>	0	P
					<i>Dinobryon sertularia</i>	21	
					<i>Dinobryon sertularia v. protuberans</i>	821	
					<i>Dinobryon sociale</i>	43	
					<i>Isthmoclonon trispinatum</i>	21	
					<i>Kephyrion boreale</i>	85	
					<i>Ochromonas sp.</i>	0	P
					<i>Pseudokephyrion angulosum</i>	80	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake							
	SLCN02 (Reference Two)	AS-4	1				
				CHRYSTOPHYTA			
					<i>Stichogloea doederleinii</i>	0	P
					<i>Unidentified statospore</i>	276	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	808	
					<i>Anabaena lapponica</i>	1914	
					<i>Anacystis dimidiata</i>	447	
					<i>Chamaesiphon polonicus</i>	447	
					<i>Dactylococcopsis linearis</i>	53	
					<i>Gomphosphaeria naegelianum</i>	14079	
					<i>Nostoc commune</i>	0	P
					<i>Oscillatoria lutea</i>	2509	
					<i>Schizothrix calcicola</i>	19204	
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	43	
					<i>Gymnodinium uberrimum</i>	0	P
					<i>Peridinium cinctum</i>	21	
					<i>Peridinium sp.</i>	21	
					<i>Unidentified cyst</i>	22	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	0	P
					<i>Achnanthes minutissima</i>	1827	
					<i>Achnanthes minutissima v. cryptocephala</i>	128	
					<i>Anomoeoneis sp.</i>	0	P
					<i>Anomoeoneis vitrea</i>	0	P
					<i>Asterionella formosa</i>	123	
					<i>Cyclotella glomerata</i>	123	
					<i>Cymbella cymbiformis</i>	19	
					<i>Cymbella gracilis</i>	128	
					<i>Cymbella minuta</i>	21	
					<i>Cymbella sp.</i>	0	P
					<i>Eunotia curvata</i>	239	
					<i>Eunotia exigua</i>	0	P
					<i>Eunotia praerupta</i>	0	P
					<i>Frustulia vulgaris</i>	0	P
					<i>Gomphonema angustatum</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake							
	SLCN02 (Reference Two)	AS-4	1				
				BACILLARIOPHYTA			
					<i>Gomphonema constrictum</i>	0	P
					<i>Gomphonema gracile</i>	0	P
					<i>Gomphonema sp.</i>	0	P
					<i>Gomphonema subtile</i>	0	P
					<i>Navicula cryptocephala</i>	59	
					<i>Nitzschia filiformis</i>	178	
					<i>Nitzschia fonticola</i>	62	
					<i>Nitzschia sigmoidea</i>	78	
					<i>Pinnularia sp.</i>	0	P
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astraea</i>	0	P
					<i>Tabellaria fenestrata</i>	108	
					<i>Tabellaria flocculosa</i>	1832	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	57	
					<i>Ankistrodesmus falcatus v. spiralis</i>	91	
					<i>Arthrodesmus triangularis</i>	43	
					<i>Bulbochaete sp.</i>	354	
					<i>Closterium sp.</i>	0	P
					<i>Coeloastrum printzii</i>	0	P
					<i>Cosmarium granulatum</i>	0	P
					<i>Cosmarium norimbergense</i>	0	P
					<i>Cosmarium septentrionale</i>	21	
					<i>Cosmarium subgranatum</i>	0	P
					<i>Cylindrocystis brebissonii</i>	21	
					<i>Dictyosphaerium elegans</i>	246	
					<i>Dispora crucigenioides</i>	0	P
					<i>Elakatothrix sp.</i>	246	
					<i>Euastrum bidentatum</i>	0	P
					<i>Euastrum denticulatum</i>	21	
					<i>Euastrum elegans</i>	0	P
					<i>Euastrum gemmatum</i>	19	
					<i>Gloeocystis schroeteri</i>	770	
					<i>Gonatozygon sp.</i>	21	
					<i>Hyalotheca sp.</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	SLCN02 (Reference Two)	AS-4	1				
				CHLOROPHYTA			
					<i>Mougeotia sp.</i>	518	P
					<i>Oonephris obesa</i>	493	
					<i>Penium sp.</i>	21	
					<i>Pleurotaenium trabecula</i>	11	
					<i>Scenedesmus ecornis</i>	0	P
					<i>Sphaerosoma granulosum</i>	554	
					<i>Spirogyra sp.</i>	0	P
					<i>Staurastrum apiculatum</i>	21	
					<i>Staurastrum borgeanum</i>	154	
					<i>Staurastrum brebissonii</i>	0	P
					<i>Staurastrum curvatum</i>	21	
					<i>Staurastrum lunatum</i>	0	P
					<i>Staurastrum sp.</i>	43	P
					<i>Unidentified filamentous green</i>	64	
					<i>Xanthidium sp.</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon calciformis</i>	0	P
					<i>Dinobryon sertularia v. protuberans</i>	1622	
					<i>Dinobryon sociale</i>	27	
					<i>Ophiocytium sp.</i>	0	P
					<i>Pseudokephyrion angulosum</i>	149	
					<i>Stichogloea doederleinii</i>	85	
					<i>Unidentified statospore</i>	677	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	43	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	246	
					<i>Anabaena lapponica</i>	960	
					<i>Anacystis cyanea</i>	256	
					<i>Anacystis dimidiata</i>	924	
					<i>Chamaesiphon polonicus</i>	616	
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	440	
					<i>Nostoc commune</i>	0	P
					<i>Oscillatoria lutea</i>	2497	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake							
	SLCN02 (Reference Two)	AS-4	1				
				CYANOPHYTA			
					<i>Schizothrix calcicola</i>	31469	
				PYRROPHYTA			
					<i>Gymnodinium uberrimum</i>	0	P
					<i>Peridinium cinctum</i>	0	P
					<i>Peridinium sp.</i>	0	P
					<i>Unidentified cyst</i>	0	P
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	23	
					<i>Achnanthes minutissima</i>	787	
					<i>Achnanthes minutissima v. cryptocephala</i>	0	P
					<i>Anomoeoneis sp.</i>	0	P
					<i>Anomoeoneis vitrea</i>	23	
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella bodanica</i>	0	P
					<i>Cyclotella kutzingiana</i>	0	P
					<i>Cymbella gracilis</i>	69	
					<i>Cymbella minuta</i>	23	
					<i>Eunotia curvata</i>	0	P
					<i>Eunotia exigua</i>	334	
					<i>Eunotia praerupta</i>	46	
					<i>Eunotia praerupta v. bidens</i>	0	P
					<i>Eunotia triodon</i>	0	P
					<i>Fragilaria sp.</i>	23	
					<i>Frustulia vulgaris</i>	69	
					<i>Gomphonema angustatum</i>	0	P
					<i>Gomphonema constrictum</i>	0	P
					<i>Gomphonema gracile</i>	186	
					<i>Gomphonema sp.</i>	0	P
					<i>Gomphonema subtile</i>	23	
					<i>Navicula cryptocephala</i>	54	
					<i>Navicula bacillum</i>	0	P
					<i>Navicula radiosa</i>	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	225	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake							
	SLCN02 (Reference Two)	AS-4	1				
				BACILLARIOPHYTA			
					<i>Nitzschia fonticola</i>	35	
					<i>Nitzschia sigmoidea</i>	31	
					<i>Pinnularia</i> sp.	0	P
					<i>Stauroneis anceps</i>	0	P
					<i>Tabellaria fenestrata</i>	75	
					<i>Tabellaria flocculosa</i>	2988	
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	46	
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	46	
					<i>Arthrodesmus incus</i>	0	P
					<i>Arthrodesmus triangularis</i>	35	
					<i>Bulbochaete</i> sp.	200	
					<i>Cosmarium granulatum</i>	0	P
					<i>Cosmarium laeve</i>	0	P
					<i>Cosmarium norimbergense</i>	0	P
					<i>Cosmarium rectangulum</i>	0	P
					<i>Cosmarium septentrionale</i>	0	P
					<i>Cylindrocystis brebissonii</i>	23	
					<i>Dictyosphaerium elegans</i>	230	
					<i>Dispora crucigenioides</i>	369	
					<i>Elakatothrix</i> sp.	23	
					<i>Euastrum bidentatum</i>	0	P
					<i>Euastrum denticulatum</i>	0	P
					<i>Euastrum elegans</i>	23	
					<i>Euastrum insulare</i>	15	
					<i>Gloeocystis schroeteri</i>	369	
					<i>Gonatozygon</i> sp.	0	P
					<i>Hyalotheca</i> sp.	0	P
					<i>Mougeotia</i> sp.	647	P
					<i>Sphaerosoma granulatum</i>	380	
					<i>Staurastrum apiculatum</i>	0	P
					<i>Staurastrum borgeanum</i>	23	
					<i>Staurastrum curvatum</i>	0	P
					<i>Staurastrum furcigerum</i>	0	P
					<i>Staurastrum paradoxum</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake							
	SLCN02 (Reference Two)	AS-4	1				
				CHLOROPHYTA			
					<i>Staurostrum sp.</i>	46	P
					<i>Staurostrum tetracerum</i>	0	P
					<i>Unidentified filamentous green</i>	92	
					<i>Zygnema sp.</i>	0	P
				CHRYSTOPHYTA			
					<i>Dinobryon sertularia v. protuberans</i>	970	
					<i>Dinobryon sociale</i>	23	
					<i>Dinobryon tabellariae</i>	23	
					<i>Epiphyxis tabellariae</i>	23	
					<i>Ochromonas sp.</i>	23	
					<i>Ophiocytium sp.</i>	0	P
					<i>Pseudokephyrion angulosum</i>	92	
					<i>Stichogloea doederleinii</i>	0	P
					<i>Unidentified statospore</i>	299	
				CRYPTOPHYTA			
					<i>Cryptomonas erosa</i>	46	
					<i>Cryptomonas ovata</i>	0	P
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	875	
					<i>Anabaena lapponica</i>	875	
					<i>Anacystis dimidiata</i>	299	
					<i>Chamaesiphon polonicus</i>	1682	
					<i>Dactylococcopsis linearis</i>	346	
					<i>Gomphosphaeria naegelianum</i>	10550	
					<i>Oscillatoria lutea</i>	276	
					<i>Schizothrix calcicola</i>	24902	
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	0	P
					<i>Gymnodinium uberrimum</i>	23	
					<i>Peridinium sp.</i>	23	
					<i>Unidentified cyst</i>	0	P
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	0	P
					<i>Achnanthes minutissima</i>	1564	
					<i>Achnanthes minutissima v. cryptocephala</i>	61	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	SLCN02 (Reference Two)	AS-4	1	BACILLARIOPHYTA			
					<i>Anomoeoneis sp.</i>	0	P
					<i>Anomoeoneis vitrea</i>	0	P
					<i>Caloneis ventricosa</i>	0	P
					<i>Cyclotella bodanica</i>	0	P
					<i>Cyclotella kutzingiana</i>	123	
					<i>Cyclotella ocellata</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	130	
					<i>Cymbella minuta</i>	76	
					<i>Cymbella sp.</i>	20	
					<i>Eunotia curvata</i>	95	
					<i>Eunotia exigua</i>	169	
					<i>Eunotia praerupta</i>	0	P
					<i>Eunotia praerupta v. bidens</i>	0	P
					<i>Fragilaria sp.</i>	0	P
					<i>Frustulia vulgaris</i>	20	
					<i>Gomphonema acuminatum</i>	0	P
					<i>Gomphonema angustatum</i>	0	P
					<i>Gomphonema constrictum</i>	0	P
					<i>Gomphonema sp.</i>	0	P
					<i>Navicula cryptocephala</i>	61	
					<i>Navicula bacillum</i>	0	P
					<i>Navicula radiosa</i>	20	
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	245	
					<i>Nitzschia fonticola</i>	61	
					<i>Nitzschia sigmoidea</i>	128	
					<i>Opephora martyi</i>	0	P
					<i>Pinnularia sp.</i>	70	
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astraes</i>	0	P
					<i>Surirella sp.</i>	0	P
					<i>Tabellaria fenestrata</i>	176	
					<i>Tabellaria flocculosa</i>	2549	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	SLCN02 (Reference Two)	AS-4	1	CHLOROPHYTA			
					<i>Ankistrodesmus convolutus</i>	61	
					<i>Ankistrodesmus falcatus</i>	184	
					<i>Arthrodesmus incus</i>	0	P
					<i>Arthrodesmus triangularis</i>	100	
					<i>Botryococcus sp.</i>	0	P
					<i>Bulbochaete sp.</i>	920	
					<i>Closterium sp.</i>	0	P
					<i>Cosmarium anceps</i>	20	
					<i>Cosmarium granulatum</i>	0	P
					<i>Cosmarium norimbergense</i>	75	
					<i>Cosmarium septentrionale</i>	141	
					<i>Cosmarium sp.</i>	20	
					<i>Cosmarium speciosum</i>	184	
					<i>Dictyosphaerium elegans</i>	320	
					<i>Dispora crucigenioides</i>	4169	
					<i>Elakatothrix sp.</i>	0	P
					<i>Euastrum bidentatum</i>	0	P
					<i>Euastrum denticulatum</i>	20	
					<i>Euastrum elegans</i>	12	
					<i>Euastrum insulare</i>	0	P
					<i>Gloeocystis schroeteri</i>	552	
					<i>Gonatozygon sp.</i>	25	
					<i>Hyalotheca sp.</i>	0	P
					<i>Mougeotia sp.</i>	1224	
					<i>Oonephris obesa</i>	20	
					<i>Scenedesmus ecornis</i>	184	
					<i>Sphaerosoma granulatum</i>	761	
					<i>Spirogyra sp.</i>	31	
					<i>Staurastrum apiculatum</i>	0	P
					<i>Staurastrum borgeanum</i>	0	P
					<i>Staurastrum brebissonii</i>	40	
					<i>Staurastrum curvatum</i>	61	
					<i>Staurastrum sp.</i>	150	
					<i>Staurastrum tetracerum</i>	0	P
					<i>Tetraedron arthrodesmiforme</i>	61	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake							
	SLCN02 (Reference Two)	AS-4	1				
				CHLOROPHYTA			
					<i>Unidentified filamentous green</i>	368	
					<i>Xanthidium sp.</i>	0	P
				CHRYSOPHYTA			
					<i>Dinobryon calciformis</i>	552	
					<i>Dinobryon sertularia</i>	123	
					<i>Dinobryon sertularia v. protuberans</i>	4435	
					<i>Dinobryon sociale</i>	123	
					<i>Epiphyxis tabellariae</i>	0	P
					<i>Isthmocloron trispinatum</i>	0	P
					<i>Kephyrion boreale</i>	491	
					<i>Ochromonas sp.</i>	184	
					<i>Pseudokephyrion angulosum</i>	782	
					<i>Unidentified statospore</i>	1594	
				CRYPTOPHYTA			
					<i>Cryptomonas erosa</i>	61	
					<i>Cryptomonas ovata</i>	67	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	0	P
					<i>Anabaena lapponica</i>	8461	
					<i>Anacystis cyanea</i>	2724	
					<i>Anacystis dimidiata</i>	1533	
					<i>Chamaesiphon polonicus</i>	1901	
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	16381	
					<i>Nostoc commune</i>	0	P
					<i>Oscillatoria lutea</i>	0	P
					<i>Pseudanabaena sp.</i>	1226	
					<i>Schizothrix calcicola</i>	143844	
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	20	
					<i>Gymnodinium uberrimum</i>	0	P
					<i>Peridinium cinctum</i>	0	P
					<i>Peridinium sp.</i>	61	
					<i>Unidentified cyst</i>	20	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	SLCN02 (Reference Two)	AS-4	1				
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	0	P
					<i>Achnanthes minutissima</i>	931	
					<i>Achnanthes minutissima</i> v. <i>cryptocephala</i>	27	
					<i>Anomoeoneis vitrea</i>	135	
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	148	
					<i>Cymbella minuta</i>	108	
					<i>Cymbella</i> sp.	0	P
					<i>Eunotia curvata</i>	99	
					<i>Eunotia exigua</i>	54	
					<i>Eunotia praerupta</i>	0	P
					<i>Fragilaria</i> sp.	196	
					<i>Frustulia vulgaris</i>	0	P
					<i>Gomphonema angustatum</i>	0	P
					<i>Gomphonema constrictum</i>	0	P
					<i>Gomphonema gracile</i>	0	P
					<i>Gomphonema subtile</i>	0	P
					<i>Navicula cryptocephala</i>	236	
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	189	
					<i>Nitzschia fonticola</i>	0	P
					<i>Nitzschia sigmoidea</i>	140	
					<i>Stauroneis anceps</i>	7	
					<i>Stephanodiscus astraea</i>	0	P
					<i>Tabellaria fenestrata</i>	94	
					<i>Tabellaria flocculosa</i>	2423	
					Unidentified pennate diatom	0	P
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	27	
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	0	P
					<i>Arthrodesmus incus</i>	0	P
					<i>Arthrodesmus triangularis</i>	27	
					<i>Bulbochaete</i> sp.	81	
					<i>Cosmarium norimbergense</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake	SLCN02 (Reference Two)	AS-4	1				
				CHLOROPHYTA			
					<i>Cosmarium septentrionale</i>	0	P
					<i>Cosmarium speciosum</i>	0	P
					<i>Cylindrocystis brebissonii</i>	27	
					<i>Dictyosphaerium elegans</i>	108	
					<i>Dispora crucigenioides</i>	607	
					<i>Elakatothrix sp.</i>	81	
					<i>Euastrum bidentatum</i>	40	
					<i>Euastrum elegans</i>	27	
					<i>Euastrum insulare</i>	81	
					<i>Gloeocystis schroeteri</i>	54	
					<i>Gonatozygon sp.</i>	0	P
					<i>Hyalotheca sp.</i>	0	P
					<i>Mougeotia sp.</i>	1532	
					<i>Penium sp.</i>	0	P
					<i>Scenedesmus ecornis</i>	135	
					<i>Sphaerosoma granulatum</i>	459	
					<i>Staurastrum borgeanum</i>	54	
					<i>Staurastrum brachiatum</i>	0	P
					<i>Staurastrum brebissonii</i>	27	
					<i>Staurastrum furcigerum</i>	0	P
					<i>Staurastrum paradoxum</i>	0	P
					<i>Staurastrum sp.</i>	54	
					<i>Tetraedron arthrodesmiforme</i>	27	
					<i>Unidentified filamentous green</i>	783	
					<i>Xanthidium sp.</i>	27	
					<i>Zygnema sp.</i>	189	
				CHRYSTOPHYTA			
					<i>Dinobryon calciformis</i>	54	
					<i>Dinobryon sertularia v. protuberans</i>	882	
					<i>Dinobryon sociale</i>	27	
					<i>Isthmoclon trispinatum</i>	0	P
					<i>Kephyrion boreale</i>	27	
					<i>Ophiocytium sp.</i>	27	
					<i>Pseudokephyrion angulosum</i>	135	
					<i>Stichogloea doederleinii</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Control Lake							
	SLCN02 (Reference Two)	AS-4	1				
				CHRYSTOPHYTA			
					<i>Unidentified statospore</i>	270	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	27	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	1673	
					<i>Anabaena lapponica</i>	1673	
					<i>Anacystis dimidiata</i>	216	
					<i>Chamaesiphon polonicus</i>	432	
					<i>Dactylococcopsis linearis</i>	162	
					<i>Gomphosphaeria naegelianum</i>	6586	
					<i>Nostoc commune</i>	999	
					<i>Oscillatoria lutea</i>	5479	
					<i>Oscillatoria sp.</i>	0	P
					<i>Pseudanabaena sp.</i>	783	
					<i>Schizothrix calcicola</i>	35008	
					<i>Unidentified trichome</i>	0	P
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	0	P
					<i>Peridinium sp.</i>	0	P
					<i>Unidentified cyst</i>	27	
Lake C3							
	ASLC0301 (Near Field)	AS-5	1				
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	0	P
					<i>Achnanthes minutissima</i>	1600	
					<i>Achnanthes minutissima v. cryptocephala</i>	64	
					<i>Achnanthes sp.</i>	127	
					<i>Amphora ovalis</i>	1692	
					<i>Anomoeoneis sp.</i>	0	P
					<i>Anomoeoneis vitrea</i>	0	P
					<i>Asterionella formosa</i>	0	P
					<i>Bacillariophyta</i>	0	P
					<i>Caloneis ventricosa</i>	43	
					<i>Coscinodiscus rothii</i>	64	
					<i>Cyclotella bodanica</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				BACILLARIOPHYTA			
					<i>Cyclotella glomerata</i>	576	
					<i>Cyclotella kutziana</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	64	
					<i>Cymbella minuta</i>	0	P
					<i>Epithemia</i> sp.	0	P
					<i>Eunotia curvata</i>	112	
					<i>Eunotia exigua</i>	171	
					<i>Eunotia glacialis</i>	0	P
					<i>Eunotia maior</i>	21	
					<i>Eunotia peruviana</i>	191	
					<i>Eunotia praeurupta</i>	21	
					<i>Eunotia praeurupta</i> v. <i>bidens</i>	0	P
					<i>Fragilaria</i> sp.	128	
					<i>Frustulia vulgaris</i>	0	P
					<i>Gomphonema angustatum</i>	0	P
					<i>Gomphonema constrictum</i>	108	
					<i>Gomphonema gracile</i>	157	
					<i>Gomphonema subtile</i>	64	
					<i>Melosira</i> sp.	62	
					<i>Navicula cryptocephala</i>	64	
					<i>Navicula pupula</i>	733	
					<i>Navicula rhynchocephala</i>	0	P
					<i>Navicula tripunctata</i>	255	
					<i>Nedium</i> sp.	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia angustata</i>	0	P
					<i>Nitzschia filiformis</i>	21	
					<i>Nitzschia fonticola</i>	192	
					<i>Nitzschia sigmoidea</i>	32	
					<i>Pinnularia abaujensis</i>	0	P
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astra</i>	0	P
					<i>Synedra</i> sp.	0	P
					<i>Synedra ulna</i>	43	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				BACILLARIOPHYTA			
					<i>Tabellaria fenestrata</i>	25	
					<i>Tabellaria flocculosa</i>	2683	
					<i>Unidentified pennate diatom</i>	0	P
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	107	
					<i>Ankistrodesmus falcatus v. spiralis</i>	64	
					<i>Arthrodesmus triangularis</i>	64	
					<i>Botryococcus sp.</i>	0	P
					<i>Bulbochaete sp.</i>	544	
					<i>Chlamydomonas sp.</i>	43	
					<i>Closterium actum</i>	0	P
					<i>Closterium closteroides</i>	318	
					<i>Closterium kutzingii</i>	0	P
					<i>Closterium sp.</i>	0	P
					<i>Coelostrum printzii</i>	0	P
					<i>Cosmarium anceps</i>	0	P
					<i>Cosmarium granulatum</i>	0	P
					<i>Cosmarium humile</i>	0	P
					<i>Cosmarium laeve</i>	0	P
					<i>Cosmarium norimbergense</i>	64	
					<i>Cosmarium rectangulare</i>	0	P
					<i>Cosmarium septentrionale</i>	86	
					<i>Cosmarium sp.</i>	64	
					<i>Crucigenia rectangularis</i>	0	P
					<i>Cylindrocystis brebissonii</i>	0	P
					<i>Dictyosphaerium elegans</i>	960	
					<i>Dispora crucigenioides</i>	2305	
					<i>Elakatothrix sp.</i>	278	
					<i>Euastrum bidentatum</i>	22	
					<i>Euastrum bidenticulatum</i>	0	P
					<i>Euastrum denticulatum</i>	0	P
					<i>Euastrum elegans</i>	27	
					<i>Euastrum insulare</i>	21	
					<i>Euastrum pectinatum</i>	43	
					<i>Gloeocystis schroeteri</i>	64	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				CHLOROPHYTA			
					<i>Gonatozygon brebissonii</i>	0	P
					<i>Gonatozygon sp.</i>	0	P
					<i>Hyalotheca sp.</i>	128	
					<i>Mougeotia sp.</i>	693	
					<i>Oocystis sp.</i>	717	P
					<i>Oonephris obesa</i>	0	P
					<i>Pediastrum biradiatum</i>	0	P
					<i>Scenedesmus acuminatus</i>	54	
					<i>Scenedesmus denticulatus</i>	3804	
					<i>Sphaeroszma granulatum</i>	384	
					<i>Spirogyra sp.</i>	0	P
					<i>Staurastrum apiculatum</i>	64	
					<i>Staurastrum borgeanum</i>	0	P
					<i>Staurastrum brebissonii</i>	29	
					<i>Staurastrum furcigerum</i>	0	P
					<i>Staurastrum paradoxum</i>	0	P
					<i>Staurastrum punctulatum</i>	0	P
					<i>Staurastrum sp.</i>	64	P
					<i>Staurastrum tetracerum</i>	21	
					<i>Tetraedron arthrodesmiforme</i>	0	P
					<i>Unidentified filamentous green</i>	2497	
					<i>Xanthidium antilopaeum</i>	1671	
					<i>Xanthidium armatum</i>	255	
					<i>Xanthidium cristatum</i>	22	
					<i>Xanthidium sp.</i>	64	
				CHRYSTOPHYTA			
					<i>Characiopsis pyriformis</i>	0	P
					<i>Chrysophyta</i>	318	
					<i>Dinobryon sertularia v. protuberans</i>	1926	
					<i>Dinobryon sociale</i>	0	P
					<i>Epiphyxis tabellariae</i>	384	
					<i>Isthmocloron trispinatum</i>	64	
					<i>Kephyrion boreale</i>	320	
					<i>Ochromonas sp.</i>	64	
					<i>Ophiocytium sp.</i>	21	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				CHRYSTOPHYTA			
					<i>Pseudokephyrion angulosum</i>	256	
					<i>Stichogloea doederleinii</i>	128	
					<i>Unidentified statospore</i>	1408	
				CRYPTOPHYTA			
					<i>Cryptomonas erosa</i>	0	P
					<i>Cryptomonas ovata</i>	0	P
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	0	P
					<i>Anabaena lapponica</i>	2561	
					<i>Anacystis cyanea</i>	2817	
					<i>Anacystis dimidiata</i>	384	
					<i>Aphanocapsa elachista</i>	127	
					<i>Cyanophyta</i>	65	
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gloeochaete sp.</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	15492	
					<i>Nostoc commune</i>	86	
					<i>Oscillatoria lutea</i>	0	P
					<i>Schizothrix calcicola</i>	36360	
					<i>Stigonema mamillosum</i>	828	
					<i>Unidentified trichome</i>	1337	
				EUGLENOPHYTA			
					<i>Trachelomonas sp.</i>	0	P
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	0	P
					<i>Gymnodinium sp.</i>	0	P
					<i>Gymnodinium uberrimum</i>	0	P
					<i>Peridinium cinctum</i>	21	
					<i>Pyrrophyta</i>	22	
					<i>Unidentified cyst</i>	0	P
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	0	P
					<i>Anomoeoneis sp.</i>	96	
					<i>Anomoeoneis vitrea</i>	0	P
					<i>Cyclotella glomerata</i>	43	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3							
	ASLC0301 (Near Field)	AS-5	1				
				BACILLARIOPHYTA			
					<i>Cyclotella kutzingiana</i>	0	P
					<i>Cyclotella ocellata</i>	159	
					<i>Cymbella gracilis</i>	11	
					<i>Cymbella inaequalis</i>	0	P
					<i>Cymbella minuta</i>	7	
					<i>Cymbella sp.</i>	0	P
					<i>Eunotia curvata</i>	0	P
					<i>Eunotia maior</i>	0	P
					<i>Eunotia praerupta v. bidens</i>	38	
					<i>Gomphonema acuminatum</i>	40	
					<i>Gomphonema angustatum</i>	127	
					<i>Gomphonema gracile</i>	6526	
					<i>Gomphonema subtile</i>	127	
					<i>Navicula cryptocephala</i>	64	
					<i>Navicula bacillum</i>	22	
					<i>Navicula sp.</i>	43	
					<i>Nedium sp.</i>	1528	
					<i>Nitzschia amphibia</i>	51	
					<i>Nitzschia angustata</i>	54	
					<i>Nitzschia filiformis</i>	287	
					<i>Nitzschia fonticola</i>	22	
					<i>Nitzschia sigmoidea</i>	0	P
					<i>Opephora martyi</i>	1242	
					<i>Stauroneis anceps</i>	0	P
					<i>Surirella sp.</i>	0	P
					<i>Tabellaria flocculosa</i>	0	P
				CHLOROPHYTA			
					<i>Actinotaenium diplosporium</i>	446	
					<i>Ankistrodesmus convolutus</i>	301	
					<i>Ankistrodesmus falcatus v. spiralis</i>	318	
					<i>Arthrodesmus incus</i>	1464	
					<i>Arthrodesmus triangularis</i>	626	
					<i>Botryococcus sp.</i>	81947	
				CHRYSTOPHYTA			
					<i>Characiopsis pyriformis</i>	43	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				CHRYSTOPHYTA			
					<i>Dinobryon calciformis</i>	0	P
					<i>Dinobryon sertularia v. protuberans</i>	64	
					<i>Dinobryon sociale</i>	0	P
					<i>Dinobryon tabellariae</i>	21	
					<i>Epiphyxis tabellariae</i>	0	P
					<i>Isthmocloron trispinatum</i>	86	
					<i>Kephyrion boreale</i>	191	
					<i>Ochromonas sp.</i>	247	
					<i>Stichogloea doederleinii</i>	0	P
				CRYPTOPHYTA			
					<i>Cryptomonas erosa</i>	43	
					<i>Cryptomonas ovata</i>	22	
				EUGLENOPHYTA			
					<i>Euglena sp.</i>	0	P
				PYRRUPHYTA			
					<i>Glenodinium sp.</i>	0	P
					<i>Gymnodinium uberrimum</i>	1322	
					<i>Peridinium cinctum</i>	6399	
					<i>Peridinium sp.</i>	1146	
					<i>Unidentified cyst</i>	2165	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	0	P
					<i>Achnanthes minutissima</i>	472	
					<i>Achnanthes minutissima v. cryptocephala</i>	0	P
					<i>Anomoeoneis sp.</i>	0	P
					<i>Anomoeoneis vitrea</i>	71	
					<i>Caloneis ventricosa</i>	71	
					<i>Cyclotella glomerata</i>	71	
					<i>Cyclotella kutzingiana</i>	0	P
					<i>Cyclotella ocellata</i>	0	P
					<i>Cymbella cymbiformis</i>	0	P
					<i>Cymbella gracilis</i>	0	P
					<i>Cymbella minuta</i>	0	P
					<i>Eunotia curvata</i>	454	
					<i>Eunotia exigua</i>	499	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				BACILLARIOPHYTA			
					<i>Eunotia praeurupta</i>	0	P
					<i>Eunotia praeurupta</i> v. <i>bidens</i>	0	P
					<i>Fragilaria</i> sp.	0	P
					<i>Frustulia vulgaris</i>	0	P
					<i>Gomphonema gracile</i>	214	
					<i>Gomphonema subtile</i>	0	P
					<i>Navicula cryptocephala</i>	0	P
					<i>Navicula radiosa</i>	0	P
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia filiformis</i>	0	P
					<i>Nitzschia sigmoidea</i>	74	
					<i>Opephora martyi</i>	25	
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astraea</i>	36	
					<i>Tabellaria fenestrata</i>	24	
					<i>Tabellaria flocculosa</i>	3544	
				CHLOROPHYTA			
					<i>Ankistrodesmus convolutus</i>	71	
					<i>Ankistrodesmus falcatus</i>	71	
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	0	P
					<i>Arthrodesmus incus</i>	0	P
					<i>Arthrodesmus triangularis</i>	142	
					<i>Botryococcus</i> sp.	909	
					<i>Bulbochaete</i> sp.	49	
					<i>Closterium actum</i>	0	P
					<i>Closterium kutzingii</i>	0	P
					<i>Closterium</i> sp.	71	
					<i>Cosmarium anceps</i>	0	P
					<i>Cosmarium granulatum</i>	0	P
					<i>Cosmarium norimbergense</i>	0	P
					<i>Cosmarium septentrionale</i>	104	
					<i>Cosmarium speciosum</i>	71	
					<i>Cosmarium subgranatum</i>	0	P
					<i>Cylindrocystis brebissonii</i>	49	
					<i>Dictyosphaerium elegans</i>	499	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				CHLOROPHYTA			
					<i>Dispora crucigenioides</i>	1639	
					<i>Elakatothrix sp.</i>	12	
					<i>Euastrum bidenticulatum</i>	8	
					<i>Euastrum denticulatum</i>	0	P
					<i>Euastrum elegans</i>	0	P
					<i>Euastrum insulare</i>	25	
					<i>Gloeocystis schroeteri</i>	285	
					<i>Gonatozygon sp.</i>	0	P
					<i>Mougeotia sp.</i>	846	
					<i>Oocystis sp.</i>	499	
					<i>Pleurotaenium trabecula</i>	0	P
					<i>Sphaeroszma granulatatum</i>	0	P
					<i>Staurastrum apiculatum</i>	18	
					<i>Staurastrum borgeanum</i>	0	P
					<i>Staurastrum punctulatum</i>	0	P
					<i>Staurastrum sp.</i>	0	P
					<i>Staurastrum tetracerum</i>	0	P
					<i>Tetraedron arthrodesmiforme</i>	71	
					<i>Tetraedron minimum</i>	0	P
					<i>Unidentified filamentous green</i>	855	
					<i>Zygnema sp.</i>	0	P
				CHRYSTOPHYTA			
					<i>Characiopsis pyriformis</i>	71	
					<i>Dinobryon sertularia</i>	71	
					<i>Dinobryon sertularia v. protuberans</i>	873	
					<i>Dinobryon sociale</i>	71	
					<i>Epiphyxis tabellariae</i>	119	
					<i>Isthmocloron trispinatum</i>	0	P
					<i>Kephyrion boreale</i>	570	
					<i>Pseudokephyrion angulosum</i>	404	
					<i>Stichogloea doederleinii</i>	0	P
					<i>Unidentified statospore</i>	356	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	71	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				CYANOPHYTA			
					<i>Anabaena lapponica</i>	590	
					<i>Anacystis dimidiata</i>	641	
					<i>Chamaesiphon polonicus</i>	1496	
					<i>Dactylococcopsis linearis</i>	197	
					<i>Gloeochaete</i> sp.	0	P
					<i>Gomphosphaeria naegelianum</i>	1475	
					<i>Nostoc commune</i>	0	P
					<i>Oscillatoria lutea</i>	1131	
					<i>Schizothrix calcicola</i>	21302	
				PYRROPHYTA			
					<i>Glenodinium</i> sp.	25	
					<i>Gymnodinium uberrimum</i>	0	P
					<i>Peridinium</i> sp.	0	P
					Unidentified cyst	71	
				BACILLARIOPHYTA			
					<i>Achnanthes minutissima</i>	1704	
					<i>Achnanthes minutissima</i> v. <i>cryptocephala</i>	370	
					<i>Anomoeoneis</i> sp.	0	P
					<i>Anomoeoneis vitrea</i>	123	
					<i>Caloneis ventricosa</i>	42	
					<i>Cyclotella glomerata</i>	62	
					<i>Cyclotella kutziana</i>	0	P
					<i>Cyclotella ocellata</i>	0	P
					<i>Cymbella cymbiformis</i>	21	
					<i>Cymbella gracilis</i>	79	
					<i>Cymbella inaequalis</i>	0	P
					<i>Cymbella minuta</i>	21	
					<i>Cymbella</i> sp.	0	P
					<i>Eunotia curvata</i>	185	
					<i>Eunotia exigua</i>	185	
					<i>Eunotia maior</i>	0	P
					<i>Eunotia praerupta</i>	0	P
					<i>Eunotia praerupta</i> v. <i>bidens</i>	0	P
					<i>Eunotia triodon</i>	0	P
					<i>Fragilaria</i> sp.	154	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				BACILLARIOPHYTA			
					<i>Frustulia vulgaris</i>	31	
					<i>Gomphonema acuminatum</i>	0	P
					<i>Gomphonema angustatum</i>	0	P
					<i>Gomphonema subtile</i>	0	P
					<i>Navicula cryptocephala</i>	164	
					<i>Navicula bacillum</i>	0	P
					<i>Navicula radiosa</i>	0	P
					<i>Navicula sp.</i>	0	P
					<i>Nedium sp.</i>	21	
					<i>Nitzschia angustata</i>	123	
					<i>Nitzschia filiformis</i>	65	
					<i>Nitzschia sigmoidea</i>	52	
					<i>Pinnularia sp.</i>	62	
					<i>Stauroneis anceps</i>	0	P
					<i>Stephanodiscus astraea</i>	0	P
					<i>Tabellaria fenestrata</i>	28	
					<i>Tabellaria flocculosa</i>	4172	
				CHLOROPHYTA			
					<i>Actinotaenium diplosporium</i>	0	P
					<i>Ankistrodesmus convolutus</i>	62	
					<i>Ankistrodesmus falcatus</i>	308	
					<i>Ankistrodesmus falcatus v. spiralis</i>	185	
					<i>Arthrodesmus triangularis</i>	270	
					<i>Bulbochaete sp.</i>	246	
					<i>Characium sp.</i>	52	
					<i>Closterium kutzingii</i>	0	P
					<i>Closterium sp.</i>	21	
					<i>Cosmarium anceps</i>	0	P
					<i>Cosmarium granulatum</i>	42	
					<i>Cosmarium norimbergense</i>	0	P
					<i>Cosmarium septentrionale</i>	63	
					<i>Cosmarium subgranatum</i>	46	
					<i>Cylindrocystis brebissonii</i>	21	
					<i>Dictyosphaerium elegans</i>	493	
					<i>Dispora crucigenioides</i>	4003	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				CHLOROPHYTA			
					<i>Elakatothrix sp.</i>	62	
					<i>Euastrum bidenticulatum</i>	0	P
					<i>Euastrum denticulatum</i>	21	
					<i>Euastrum elegans</i>	42	
					<i>Euastrum insulare</i>	0	P
					<i>Gloeocystis schroeteri</i>	246	
					<i>Gonatozygon sp.</i>	0	P
					<i>Hyalotheca sp.</i>	0	P
					<i>Mougeotia sp.</i>	62	
					<i>Oocystis solitaria</i>	28	
					<i>Oocystis sp.</i>	2617	
					<i>Penium sp.</i>	0	P
					<i>Pleurotaenium trabecula</i>	0	P
					<i>Scenedesmus spinosus</i>	42	
					<i>Sphaeroszma granulatum</i>	493	
					<i>Staurastrum apiculatum</i>	21	
					<i>Staurastrum borgeanum</i>	31	
					<i>Staurastrum brachiatum</i>	0	P
					<i>Staurastrum brebissonii</i>	31	
					<i>Staurastrum furcigerum</i>	0	P
					<i>Staurastrum paradoxum</i>	0	P
					<i>Staurastrum punctulatum</i>	0	P
					<i>Staurastrum sp.</i>	21	P
					<i>Tetraedron arthrodesmiforme</i>	62	
					<i>Trochiscia granulata</i>	21	
					<i>Unidentified filamentous green</i>	985	
					<i>Zygnema sp.</i>	115	
				CHRYSTOPHYTA			
					<i>Characiopsis pyriformis</i>	0	P
					<i>Dinobryon calciformis</i>	585	
					<i>Dinobryon sertularia</i>	62	
					<i>Dinobryon sertularia v. protuberans</i>	1801	
					<i>Dinobryon sociale</i>	185	
					<i>Dinobryon tabellariae</i>	0	P
					<i>Epiphyxis tabellariae</i>	0	P

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				CHRYSTOPHYTA			
					<i>Isthmocloron trispinatum</i>	62	
					<i>Kephyrion boreale</i>	862	
					<i>Pseudokephyrion angulosum</i>	493	
					<i>Stichogloea doederleinii</i>	0	P
					<i>Unidentified statospore</i>	924	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	63	
					<i>Cryptomonas reflexa</i>	0	P
				CYANOPHYTA			
					<i>Anabaena lapponica</i>	2600	
					<i>Anacystis cyanea</i>	2516	
					<i>Anacystis dimidiata</i>	0	P
					<i>Chamaesiphon polonicus</i>	2279	
					<i>Dactylococcopsis linearis</i>	0	P
					<i>Gloeochaete sp.</i>	178	
					<i>Gomphosphaeria naegelianum</i>	17243	
					<i>Nostoc commune</i>	0	P
					<i>Oscillatoria lutea</i>	252	
					<i>Schizothrix calcicola</i>	96132	
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	21	
					<i>Gymnodinium uberrimum</i>	246	
					<i>Peridinium sp.</i>	62	
					<i>Unidentified cyst</i>	131	
				BACILLARIOPHYTA			
					<i>Achnanthes flexella</i>	22	
					<i>Achnanthes minutissima</i>	632	
					<i>Achnanthes minutissima v. cryptocephala</i>	67	
					<i>Anomoeoneis vitrea</i>	0	P
					<i>Caloneis ventricosa</i>	22	
					<i>Cyclotella glomerata</i>	67	
					<i>Cyclotella ocellata</i>	0	P
					<i>Cymbella gracilis</i>	0	P
					<i>Cymbella minuta</i>	45	
					<i>Eunotia curvata</i>	134	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				BACILLARIOPHYTA			
					<i>Eunotia exigua</i>	157	
					<i>Eunotia praeurupta</i>	0	P
					<i>Eunotia praeurupta</i> v. <i>bidens</i>	0	P
					<i>Eunotia triodon</i>	0	P
					<i>Fragilaria</i> sp.	0	P
					<i>Frustulia vulgaris</i>	11	
					<i>Gomphonema gracile</i>	0	P
					<i>Gomphonema subtile</i>	0	P
					<i>Navicula cryptocephala</i>	185	
					<i>Navicula bacillum</i>	22	
					<i>Nitzschia amphibia</i>	0	P
					<i>Nitzschia filiformis</i>	22	
					<i>Nitzschia fonticola</i>	22	
					<i>Nitzschia sigmoidea</i>	0	P
					<i>Pinnularia</i> sp.	30	
					<i>Stephanodiscus astraea</i>	0	P
					<i>Tabellaria fenestrata</i>	67	
					<i>Tabellaria flocculosa</i>	2375	
					<i>Unidentified pennate diatom</i>	0	P
				CHLOROPHYTA			
					<i>Ankistrodesmus falcatus</i>	60	
					<i>Ankistrodesmus falcatus</i> v. <i>spiralis</i>	45	
					<i>Arthrodesmus incus</i>	0	P
					<i>Arthrodesmus triangularis</i>	0	P
					<i>Botryococcus</i> sp.	313	
					<i>Bulbochaete</i> sp.	56	
					<i>Closterium</i> sp.	17	
					<i>Cosmarium granulatum</i>	15	
					<i>Cosmarium septentrionale</i>	7	
					<i>Crucigenia rectangularis</i>	0	P
					<i>Cylindrocystis brebissonii</i>	45	
					<i>Dictyosphaerium elegans</i>	0	P
					<i>Dispora crucigenioides</i>	1163	
					<i>Elakatothrix</i> sp.	0	P
					<i>Euastrum bidenticulatum</i>	22	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3	ASLC0301 (Near Field)	AS-5	1				
				CHLOROPHYTA			
					<i>Euastrum elegans</i>	0	P
					<i>Euastrum insulare</i>	17	
					<i>Gloeocystis schroeteri</i>	134	
					<i>Gonatozygon</i> sp.	0	P
					<i>Hyalotheca</i> sp.	0	P
					<i>Mougeotia</i> sp.	685	
					<i>Nephrocytium</i> sp.	0	P
					<i>Oocystis</i> sp.	582	
					<i>Sphaeroszma granulatum</i>	224	
					<i>Staurastrum apiculatum</i>	22	
					<i>Staurastrum borgeanum</i>	22	
					<i>Staurastrum brebissonii</i>	22	
					<i>Staurastrum</i> sp.	22	P
					<i>Staurastrum tetracerum</i>	22	
					<i>Tetraedron arthrodesmiforme</i>	0	P
					Unidentified filamentous green	1186	
					<i>Zygnema</i> sp.	0	P
				CHRYSTOPHYTA			
					<i>Characiopsis pyriformis</i>	22	
					<i>Dinobryon calciformis</i>	45	
					<i>Dinobryon sertularia</i>	22	
					<i>Dinobryon sertularia</i> v. <i>protuberans</i>	302	
					<i>Dinobryon sociale</i>	22	
					<i>Epiphyxis tabellariae</i>	45	
					<i>Isthmocloron trispinatum</i>	22	
					<i>Kephyrion boreale</i>	22	
					<i>Ochromonas</i> sp.	22	
					<i>Pseudokephyrion angulosum</i>	246	
					<i>Stichogloea doederleinii</i>	0	P
					Unidentified statospore	268	
				CRYPTOPHYTA			
					<i>Cryptomonas ovata</i>	22	
				CYANOPHYTA			
					<i>Agmenellum quadruplicatum</i>	1700	
					<i>Anabaena lapponica</i>	828	

Appendix D Table D2. Periphyton taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site Label	Map Label	Replicate	Taxonomic Group	Taxa	Density (cells/cm ²)	Presence
Lake C3							
	ASLC0301 (Near Field)	AS-5	1				
				CYANOPHYTA			
					<i>Anacystis dimidiata</i>	4470	
					<i>Chamaesiphon polonicus</i>	783	
					<i>Dactylococcopsis linearis</i>	89	
					<i>Gloeochaete sp.</i>	0	P
					<i>Gomphosphaeria naegelianum</i>	0	P
					<i>Nostoc commune</i>	0	P
					<i>Oscillatoria lutea</i>	157	
					<i>Schizothrix calcicola</i>	10716	
				EUGLENOPHYTA			
					<i>Euglena sp.</i>	0	P
				PYRROPHYTA			
					<i>Glenodinium sp.</i>	22	
					<i>Gymnodinium uberrimum</i>	17	
					<i>Peridinium sp.</i>	0	P
					<i>Unidentified cyst</i>	22	

Appendix D Table D3. Periphyton taxa used for analyses from monitoring sites in the Jericho Study Area, 1999.

Status for Density Analysis	Taxonomic Group	Taxa
Included	BACILLARIOPHYTA	<i>Achnanthes</i> <i>Tabellaria</i>
	CHLOROPHYTA	<i>Botryococcus</i> <i>Dispora</i>
	CHRYSTOPHYTA	<i>Dinobryon</i> <i>Ochromonas</i>
	CYANOPHYTA	<i>Agmenellum</i> <i>Anabaena</i> <i>Anacystis</i> <i>Gomphosphaeria</i> <i>Schizothrix</i>
Excluded	BACILLARIOPHYTA	<i>Amphora</i> <i>Anomoeoneis</i> <i>Asterionella</i> <i>Caloneis</i> <i>Coscinodiscus</i> <i>Cyclotella</i> <i>Cymbella</i> <i>Epithemia</i> <i>Eunotia</i> <i>Fragilaria</i> <i>Frustulia</i> <i>Gomphonema</i> <i>Melosira</i> <i>Navicula</i> <i>Nedium</i> <i>Nitzschia</i> <i>Opephora</i> <i>Pinnularia</i> <i>Stauroneis</i> <i>Stephanodiscus</i> <i>Synedra</i>
	CHLOROPHYTA	<i>Actinotaenium</i> <i>Arthrodesmus</i> <i>Bulbochaete</i> <i>Chlamydomonas</i> <i>Closterium</i> <i>Coeloastrum</i> <i>Cosmarium</i>

Appendix D Table D3. Periphyton taxa used for analyses from monitoring sites in the Jericho Study Area, 1999.

Status for Density Analysis	Taxonomic Group	Taxa
Excluded	CHLOROPHYTA	<i>Cylindrocystis</i> <i>Dictyosphaerium</i> <i>Elakatothrix</i> <i>Euastrum</i> <i>Gloeocystis</i> <i>Gonatozygon</i> <i>Hyalotheca</i> <i>Mougeotia</i> <i>Oocystis</i> <i>Oonephris</i> <i>Penium</i> <i>Pleurotaenium</i> <i>Scenedesmus</i> <i>Sphaerocystis</i> <i>Sphaeroszma</i> <i>Spirogyra</i> <i>Staurastrum</i> <i>Tetraedron</i> <i>Trochiscia</i> <i>Xanthidium</i> <i>Zygnema</i>
	CHRY SOPHYTA	<i>Characiopsis</i> <i>Characium</i> <i>Epiphyxis</i> <i>Isthmocloron</i> <i>Kephyrion</i> <i>Ophiocytium</i> <i>Pseudokephyrion</i> <i>Stichogloea</i>
	CRYPTOPHYTA	<i>Cryptomonas</i>
	CYANOPHYTA	<i>Ankistrodesmus</i> <i>Aphanocapsa</i> <i>Chamaesiphon</i> <i>Dactylococcopsis</i> <i>Gloeochaete</i> <i>Nostoc commune</i> <i>Oscillatoria</i> <i>Pseudanabaena</i> <i>Stigonema</i>
	PYRROPHYTA	<i>Glenodinium</i> <i>Gymnodinium</i> <i>Peridinium</i>

APPENDIX E
BENTHIC INVERTEBRATES

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	1	29-Jul-99			
				Cladocera		
				Daphnidae	1	43
				Copepoda		
				Calanoida	11	478
				Cyclopida	41	1783
				Harpacticoida	1	43
				Diptera		
				Chironomidae		
				Chironomini	8	348
				Orthocladiinae/Diaesinae	5	232
				Tanypodinae	1	29
				Tanytarsini	5	203
					2	87
				Chironomidae (p)	1	58
				Hydracarina		
				Lebertiidae	3	145
				Lebertia	0	14
				Microturbellaria		
				Mesostoma	1	43
				Mollusca		
				Pelecypoda		
				Sphaeriidae	13	551

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	1	29-Jul-99	Nematoda		
					1	43
		2	29-Jul-99	Oligochaeta		
				Tubificidae	0	14
		2	29-Jul-99	Cladocera		
					2	87
		2	29-Jul-99	Holopedidae		
					2	87
		2	29-Jul-99	Copepoda		
				Calanoida	14	609
		2	29-Jul-99	Cyclopida		
					49	2130
		2	29-Jul-99	Diptera		
				Chironomidae		
		2	29-Jul-99	Chironomini	5	232
				Tanytarsini	2	87
		2	29-Jul-99	Tanypodinae	12	522
				Orthocladiinae/Diaresinae	5	203
		2	29-Jul-99	Chironomidae (p)	15	667
					1	29
		2	29-Jul-99	Hydracarina		
					14	609

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	2	29-Jul-99	Hydracarina		
				Lebertiidae	1	43
				Mollusca		
				Pelecypoda		
				Sphaeriidae	11	464
				Nematoda		
		3	29-Jul-99	Oligochaeta	6	261
				Tubificidae	4	159
				Ostracoda		
					6	261
				Coelenterata		
				Hydridae	1	43
				Copepoda		
				Calanoida	11	478
				Cyclopida		
					29	1261
				Harpacticoida		
					2	87
				Diptera		
				Chironomidae		
					1	58
				Orthocladinae/Diaresinae	20	884

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	3	29-Jul-99	Diptera		
Carat Lake	BEMLCA01 (Near Field)	4	29-Jul-99	Cladocera		

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	4	29-Jul-99			
				Copepoda		
				Calanoida	5	232
				Cyclopida	21	928
				Harpacticoida	0	14
				Diptera		
				Chironomidae		
				Tanytarsini	12	507
				Tanypodinae	0	14
				Orthocladiinae/Diaesinae	8	348
					2	72
				Chironomini	1	58
				Chironomidae (p)		
					0	14
				Hydracarina		
				Microturbellaria	6	261
				Mesostoma		
					2	72
				Mollusca		
				Pelecypoda		
				Sphaeriidae	13	565
				Nematoda		
					9	406

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	4	29-Jul-99	Oligochaeta		
				Naididae	2	87
				Tubificidae	1	29
		5	29-Jul-99	Cladocera		
				Chydoridae	1	29
				Copepoda		
				Calanoida	6	261
				Cyclopida	7	304
				Diptera		
				Chironomidae		
				Tanytarsini	1	58
				Tanypodinae	27	1159
				Orthocladiinae/Diaresinae	5	203
				Chironomini	17	754
				Chironomidae (p)	3	116
				Hydracarina	2	101
				Mollusca	0	14
				Pelecypoda Sphaeriidae	24	1029

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	5	29-Jul-99	Nematoda	9	391
				Oligochaeta		
				Tubificidae	1	29
				Ostracoda		
				Trichoptera	2	87
				Limnephilidae		
				<i>Grensia</i>	0	14
				Cladocera		
				Chydoridae	3	130
				Daphnidae	0	14
				Copepoda		
				Calanoida	7	319
				Cyclopida	68	2971
				Diptera		
				Chironomidae		
				Tanypodinae	7	319
				Orthoclaudiinae/Diamesinae	66	2884
				Chironomini	1	43
				Tanytarsini	29	1246

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	1	29-Jul-99	Diptera		
				Chironomidae (p)	4	188
				Hydracarina		
				Microturbellaria	29	1246
				Mesosoma	6	246
				Mollusca		
				Pelecypoda		
				Sphaeriidae	28	1217
				Nematoda		
					19	826
				Oligochaeta		
				Naididae		
				Tubificidae	31	1348
					1	43
		2	29-Jul-99	Cladocera		
				Chydoridae		
				Holopedidae	1	43
				<i>Holopedium</i>	3	130
				Copepoda		
				Calanoida	8	348

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	2	29-Jul-99	Copepoda		
				Cyclopida	42	1826
				Diptera		
				Chironomidae		
				Tanypodinae	2	101
				Tanytarsini	13	551
				Chironomini	1	43
				Orthocladiinae/Diaresinae	25	1072
				Chironomidae (p)		
					6	275
		3	29-Jul-99	Hydracarina		
					6	261
				Mollusca		
				Pelecypoda		
				Sphaeriidae	18	783
				Nematoda		
				Oligochaeta	9	391
				Naididae		
				Tubificidae	29	1261
					1	43
		3	29-Jul-99	Cladocera		
					1	43

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	3	29-Jul-99			
				Cladocera		
				Chydoridae	1	43
				Copepoda		
				Calanoida	4	174
				Cyclopida	23	1000
				Diptera		
				Chironomidae		
				Tanypodinae	3	145
				Tanytarsini	17	739
				Orthocladiinae/Diaesinae	25	1072
				Chironomidae (p)	2	101
				Hydracarina		
					3	130
				Mollusca		
				Pelecypoda		
				Sphaeriidae	17	754
				Nematoda		
					7	304
				Oligochaeta		
				Naididae	17	725
				Tubificidae	1	58

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	4	29-Jul-99	Cladocera		
				Daphnidae	1	43
				Holopediidae		
				<i>Holopedium</i>	1	43
				Copepoda		
				Calanoida	24	1058
				Cyclopida	113	4899
				Diptera		
				Chironomidae		
				Tanytopodinae	2	87
				Tanytarsini	11	464
				Orthocladiinae/Diaresinae	31	1333
				Chironomidae (p)	4	174
				Hydracarina		
				Lebertiidae	23	1014
				<i>Lebertia</i>	0	14
				Mollusca		
				Pelecypoda		
				Sphaeriidae	32	1391
				Nematoda	35	1507

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	4	29-Jul-99	Oligochaeta		
				Naididae	23	1000
				Tubificidae		
					4	174
				Trichoptera		
				Limnephilidae		
		5	29-Jul-99	<i>Grensia</i>	0	14
				Cladocera		
				Chydoridae	0	14
				Daphnidae		
					3	145
				Holopedidae		
				<i>Holopedium</i>	3	130
				Copepoda		
				Calanoida		
					15	652
				Cyclopida		
					196	8536
				Diptera		
				Chironomidae		
				Tanytarsini	9	391
				Tanypodinae	9	377
				Orthocladiinae/Diaresinae	27	1159
				Chironomini	0	14
				Chironomidae (p)		
					4	188

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Carat Lake	BEMLCA01 (Near Field)	5	29-Jul-99	Hydracarina	25	1101
				Microturbellaria		
				Mesostoma	3	130
				Mollusca		
				Pelecypoda		
				Sphaeriidae	20	855
				Nematoda		
				Oligochaeta	20	855
				Naididae		
				Tubificidae	29	1275
Control Lake	BEMLCN01 (Reference Two)	1	30-Jul-99		1	43
				Cladocera		
				Daphnidae	1	29
				Holopedidae		
				<i>Holopedium</i>	0	14
				Copepoda		
				Calanoida	13	551
				Cyclopida	1	43

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	1	30-Jul-99	Diptera		
				Chironomidae	11	464
				Orthocladinae/Diamesinae	1	29
				Tanypodinae	2	87
				Chironomidae (p)	6	261
				Hydracarina		
					1	58
				Mollusca		
				Pelecypoda		
				Sphaeriidae	8	362
				Nematoda		
					61	2667
				Oligochaeta		
				Naididae	4	159
				Tubificidae	8	348
		2	30-Jul-99			
				Copepoda		
				Calanoida	12	536
				Cyclopida	7	304
				Harpacticoida	93	4043

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	2	30-Jul-99			
				Diptera		
				Chironomidae		
				Chironomini	3	130
				Orthocladiinae/Diamesinae	5	217
				Tanypodinae	2	72
				Tanytarsini	4	188
				Chironomidae (p)	5	203
				Hydracarina		
				Lebertiidae	6	246
				Lebertia	0	14
				Mollusca		
				Pelecypoda		
				Sphaeriidae	14	623
				Nematoda		
				Oligochaeta	124	5391
				Naididae	19	826
				Tubificidae	16	696
				Ostracoda	2	87

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	3	30-Jul-99			
				Copepoda		
				Calanoida	72	3130
				Cyclopida	20	870
				Harpacticoida	3	130
				Diptera		
				Chironomidae	6	275
				Tanytarsini	10	449
				Orthocladiinae/Diaesinae		
				Chironomidae (p)	12	536
				Hydracarina		
				Lebertiidae	1	43
				Lebertia	0	14
				Nematoda		
				Oligochaeta	241	10493
				Naididae	13	565
				Tubificidae	2	87
				Ostracoda	5	217

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	4	30-Jul-99			
				Cladocera		
					1	43
				Copepoda		
				Calanoida	62	2696
				Cyclopida	4	174
				Harpacticoida		
					131	5696
				Diptera		
				Chironomidae		
				Tanytarsini	33	1435
				Tanypodinae	0	14
				Orthocladiinae/Diaresinae	21	899
				Chironomidae (p)		
					10	420
				Hydracarina		
				Lebertiidae	2	87
				Lebertia	3	130
				Nematoda		
				Oligochaeta	346	15029
				Naididae		
					24	1043
				Tubificidae		
					32	1391

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	4	30-Jul-99	Ostracoda	7	304
				Trichoptera		
				Limnephilidae		
				<i>Grensia</i>	1	43
		5	30-Jul-99	Cladocera		
				Holopedidae	1	43
				<i>Holopedium</i>		
				Copepoda		
				Calanoida	19	826
				Cyclopida	1	43
				Harpacticoida	36	1565
				Diptera		
				Chironomidae		
				Tanytarsini	25	1087
				Orthocladiinae/Diamesinae	4	188
				Chironomidae (p)	6	275
				Hydracarina		
				Lebertiidae	1	43
				<i>Lebertia</i>	0	14

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	5	30-Jul-99	Mollusca		
				Pelecypoda		
				Sphaeriidae	0	14
				Nematoda		
		1	30-Jul-99	Oligochaeta	113	4899
				Naididae		
				Tubificidae	9	377
					1	29
				Cladocera		
				Chydoridae		
					8	348
				Copepoda		
				Calanoida		
					2	87
				Cyclopida		
					24	1058
				Diptera		
				Chironomidae		
				Chironomini	33	1435
				Orthocladinae/Diaresinae	33	1435
				Tanypodinae	24	1058
				Tanytarsini	40	1739
					4	174
				Chironomidae (p)		
					8	362

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	1	30-Jul-99	Hydracarina	17	754
				Lebertiidae	0	14
				Lebertia		
				Microturbellaria		
				Mesostoma	2	72
				Mollusca		
				Pelecypoda		
		2	30-Jul-99	Sphaeriidae	67	2899
				Nematoda		
				Oligochaeta	14	609
				Naididae		
				Tubificidae	12	522
				Ostracoda	23	1014
					24	1058
				Cladocera		
				Chydoridae	1	43
				Copepoda		
				Calanoida	3	130

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	2	30-Jul-99			
				Copepoda		
				Cyclopida	12	522
				Harpacticoida	0	14
				Diptera		
				Chironomidae	8	333
				Tanytarsini	28	1203
				Tanypodinae	24	1058
				Orthocladiinae/Diaresinae	20	855
				Chironomini	26	1145
				Chironomidae (p)	4	188
				Hydracarina		
				Lebertiidae	15	638
				Lebertia	2	87
				Microturbellaria		
				Mesostoma	0	14
				Mollusca		
				Pelecypoda		
				Sphaeriidae	49	2116
				Nematoda		
					21	928

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	2	30-Jul-99	Oligochaeta		
				Naididae	26	1130
				Tubificidae	22	957
				Ostracoda		
				Trichoptera	12	507
				Limnephilidae		
				<i>Grensia</i>	0	14
		3	30-Jul-99	Cladocera		
				Chydoridae	4	188
				Copepoda		
				Cyclopida	19	812
				Harpacticoida	1	43
				Diptera		
				Chironomidae		
				Chironomini	2	87
				Orthoclaadiinae/Diaresinae	33	1449
				Tanypodinae	28	1203
				Tanytarsini	24	1043
				Chironomidae (p)	25	1072
					4	159

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	3	30-Jul-99	Hydracarina		
					26	1145
				Lebertiidae		
				<i>Lebertia</i>	2	87
				Microturbellaria		
				Mesostoma	2	72
				Mollusca		
				Pelecypoda		
				Sphaeriidae	64	2768
				Nematoda		
					22	971
				Oligochaeta		
				Naididae	33	1449
				Tubificidae	15	667
				Ostracoda		
				Trichoptera	31	1362
				Limnephilidae		
				<i>Grensia</i>	1	29
		4	30-Jul-99	Copepoda		
				Cyclopida	14	609

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	4	30-Jul-99			
				Diptera		
				Chironomidae		
				Chironomini	29	1275
				Tanytarsini	43	1884
					0	14
				Orthocladiinae/Diamesinae	33	1420
				Tanypodinae	35	1507
				Chironomidae (p)	3	116
				Hydracarina		
				Lebertiidae	9	391
				Lebertia	3	145
				Mollusca		
				Pelecypoda		
				Sphaeriidae	55	2391
				Nematoda		
				Oligochaeta	22	957
				Naididae		
				Tubificidae	17	725
					15	667
				Ostracoda	26	1145

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	4	30-Jul-99	Trichoptera		
				Limnephilidae		
				<i>Grensia</i>	0	14
				<i>Apatnia</i>	0	14
		5	30-Jul-99	Copepoda		
				Cyclopida	30	1304
				Harpacticoida	1	43
				Diptera		
				Chironomidae		
				Chironomini	73	3159
				Tanypodinae	36	1580
				Tanytarsini	29	1246
				Orthoclaeniinae/Diaesinae	3	130
				Chironomidae (p)	12	536
				Hydracarina	3	116
				Lebertiidae	4	174
				<i>Lebertia</i>	1	58
				Microturbellaria		
				Mesostoma	3	130
				Mollusca		
				Pelecypoda		
				Sphaeriidae	54	2348

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Control Lake	BEMLCN01 (Reference Two)	5	30-Jul-99	Nematoda	59	2551
				Oligochaeta		
				Naididae	10	420
				Tubificidae	14	594
				Ostracoda		
					13	580
Lake C3	BEMLC0301 (Near Field)	1	29-Jul-99	Cladocera		
				Chydoridae		
					2	101
				Copepoda		
				Calanoida		
					32	1391
				Cyclopida		
					43	1870
				Diptera		
				Chironomidae		
				Orthoclaeniinae/Diamesinae	16	710
				Tanypodinae	7	290
				Tanytarsini	2	101
				Chironomini	7	304
				Chironomidae (p)		
					1	43

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Lake C3	BEMLC0301 (Near Field)	1	29-Jul-99	Hydracarina		
				Lebertiidae	6	275
				<i>Lebertia</i>	0	14
				Mollusca		
				Pelecypoda		
				Sphaeriidae	17	754
				Nematoda		
					47	2058
				Oligochaeta		
				Naididae	1	43
				Tubificidae	1	29
				Ostracoda		
		2	29-Jul-99		5	232
				Copepoda		
				Calanoida	14	609
				Cyclopida		
				Diptera	17	739
				Chironomidae		
				Tanypodinae	5	232
				Orthocladiinae/Diamesinae	4	188
					5	217

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Lake C3	BEMLC0301 (Near Field)	2	29-Jul-99	Diptera		
				Chironomidae		
				Chironomini	9	406
				Mollusca		
				Pelecypoda		
				Sphaeriidae	8	362
		3	29-Jul-99	Nematoda		
				Oligochaeta	8	348
				Tubificidae	1	58
				Cladocera		
				Chydoridae	1	58
				Daphniidae	3	130
				Holopedidae		
				<i>Holopedium</i>	0	14
				Copepoda		
				Calanoida	236	10246
				Cyclopida	82	3565
				Harpacticoida	7	304
				Diptera		
				Chironomidae	0	14

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Lake C3	BEMLC0301 (Near Field)	3	29-Jul-99			
				Diptera		
				Chironomidae		
				Chironomini	9	406
				Orthocladiinae/Diamesinae	25	1072
				Tanypodinae	16	710
				Tanytarsini	7	290
				Chironomidae (p)	2	72
				Hydracarina		
					7	304
				Lebertiidae		
					1	29
				<i>Lebertia</i>		
				Mollusca		
				Pelecypoda		
				Sphaeriidae	17	739
				Nematoda		
				Oligochaeta	111	4826
				Naididae		
					10	435
				Tubificidae		
					2	101
				Ostracoda		
					4	174

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Lake C3	BEMLC0301 (Near Field)	4	29-Jul-99			
				Cladocera		
				Chydoridae	0	14
				Copepoda		
				Calanoida	93	4043
				Cyclopida	50	2188
				Harpacticoida	4	174
				Diptera		
				Chironomidae		
				Tanypodinae	10	435
				Orthocladiinae/Diaresinae	13	580
				Tanytarsini	2	87
					2	72
				Chironomini	13	551
				Chironomidae (p)		
					0	14
				Hydracarina		
				Microturbellaria	4	188
				Mesostoma		
					1	43
				Mollusca		
				Pelecypoda		
				Sphaeriidae	18	783

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Lake C3	BEMLC0301 (Near Field)	4	29-Jul-99	Nematoda	22	957
				Oligochaeta Tubificidae	2	87
		5	29-Jul-99	Cladocera	4	159
				Chydoridae		
				Copepoda	45	1971
				Calanoida		
				Cyclopida	66	2870
				Harpacticoida	2	87
				Diptera		
				Chironomidae	14	609
				Tanytarsini	20	884
				Tanypodinae	15	652
				Orthocladiinae/Diaresinae	15	667
				Chironomini	35	1536
				Chironomidae (p)	1	29
				Hydracarina	5	217

Appendix E Table E1. Benthic macroinvertebrate taxa and density at monitoring sites in the Jericho Study Area, 1999.

Waterbody	Site	Replicate	Sample Date	Taxonomic Group	Total Number	Density (No./m ²)
Lake C3	BEMLC0301 (Near Field)	5	29-Jul-99	Hydracarina		
				Lebertiidae	0	14
				Lebertia		
				Mollusca		
				Pelecypoda		
				Sphaeriidae	24	1058
				Nematoda		
				Oligochaeta	84	3652
				Naididae	2	87
				Tubificidae	2	87
				Ostracoda	1	43

Appendix E Table E2. Benthic taxa used for analyses from monitoring sites in the Jericho Study Area, 1999.

Status for Density Analysis	Taxonomic Group	Taxa
Included	Chironomidae	<i>Chironomidae</i> <i>Chironomidae (p)</i> <i>Chironomini</i> <i>Orthoclaadiinae/Diamesinae</i> <i>Tanypodinae</i> <i>Tanytarsini</i>
	Cladocera	<i>Cladocera</i>
	Copepoda	<i>Calanoida</i> <i>Cyclopida</i> <i>Harpacticoida</i>
	Hydracarina	<i>Hydracarina</i>
	Microturbellaria	<i>Mesostoma</i>
	Nematoda	<i>Nematoda</i>
	Oligochaeta	<i>Naididae</i> <i>Tubificidae</i>
	Ostracoda	<i>Ostracoda</i>
	Pelecypoda	<i>Sphaeriidae</i>
	Trichoptera	<i>Limnephilidae</i>
Excluded	Cladocera	<i>Chydoridae</i> <i>Daphnidae</i> <i>Holopedium</i>
	Hydracarina	<i>Lebertia</i>
	Hydridae	<i>Hydra</i>
	Limnephilidae	<i>Apatnia</i>
	Trichoptera	<i>Grensia</i>

APPENDIX F

FISH TISSUES

Appendix F Table F1. Metal constituents analyzed from fish tissues, Jericho Study Area, 1996 and 1999.

Waterbody	Year	Tissue Type	Species	Fork Length (mm)	Age	Aluminum (µg/g)	Chromium (µg/g)	Copper (µg/g)	Mercury (µg/g)
Carat Lake	1996	Liver	Lake trout	410	14	8	0.5	27.8	1.43
			Lake trout	420	14	11	1.2	38.3	2.25
			Lake trout	421	15	13	0.8	93.2	1.56
			Lake trout	428	11	2	0.25	25.1	1.56
			Lake trout	439	13	3	0.7	35.6	1.52
			Lake trout	443		9	0.25	54.2	0.24
			Lake trout	465	20	37	0.5	131	3.26
			Lake trout	475	25	15	0.6	69.9	3.07
			Lake trout	481	22	49	0.8	118	3.63
			Lake trout	482	22	17	1.8	213	4.76
			Lake trout	485	16	12	1	113	1.96
			Lake trout	488	21	34	0.6	83.8	3.24
			Lake trout	488	29	25	0.8	133	4.07
			Lake trout	488	25	27	0.6	139	3.8
			Lake trout	490	22	33	0.7	124	2.92
			Lake trout	506	22	19	0.25	17.7	2.2
			Lake trout	510		29	0.9	11.4	3.17
			Lake trout	520	22	72	1	100	3.76
			Lake trout	546	24	8	0.9	105	2.35
			Lake trout	580	26	11	0.6	34.9	4.26
			Lake trout	619	25	7	0.25	43.5	3.86
			Round whitefish	340	6	0.5	0.25	7.63	0.406
			Round whitefish	358	8	4	0.25	7.84	0.702
			Round whitefish	396	12	2	0.6	8.48	0.559
			Round whitefish	407	29	30	0.8	8.71	1.72
			Round whitefish	424	10	9	0.25	10.2	0.533
			Round whitefish	445	15	4	0.25	9.4	0.767
			Round whitefish	455	23	11	0.7	7.39	0.3
			Round whitefish	455	15	0.5	0.25	6.86	0.003
			Round whitefish	455	16	15	0.7	10.1	1.07

Appendix F Table F1. Metal constituents analyzed from fish tissues, Jericho Study Area, 1996 and 1999.

Waterbody	Year	Tissue Type	Species	Fork Length (mm)	Age	Aluminum (µg/g)	Chromium (µg/g)	Copper (µg/g)	Mercury (µg/g)
Carat Lake	1996	Liver	Round whitefish	461	17	2	1.1	4.85	0.856
			Round whitefish	462	16	6	0.25	7.17	0.793
			Round whitefish	464	13	3	0.8	9.25	1.11
			Round whitefish	465	23	7	0.25	8.02	0.25
			Round whitefish	469	25	31	0.25	10.5	1.21
			Round whitefish	473	24	2	1.4	6.77	0.656
			Round whitefish	475	21	7	0.7	7.79	1.29
			Round whitefish	477	23	11	0.7	7.9	1.12
			Round whitefish	484	21	17	0.25	4.97	1.17
			Round whitefish	485	22	10	0.6	9.82	1.01
			Round whitefish	532	26	13	0.25	5.81	1.33
		Muscle	Lake trout	410	14	0.5	0.25	0.93	0.5
			Lake trout	420	14	0.5	0.25	1.19	0.75
			Lake trout	421	15	0.5	0.25	0.83	0.75
			Lake trout	428	11	0.5	0.25	0.87	0.6
			Lake trout	439	13	0.5	0.25	0.83	0.8
			Lake trout	443		0.5	0.25	0.73	0.759
			Lake trout	465	20	0.5	0.25	1.25	0.4
			Lake trout	475	25	0.5	0.25	0.94	1.55
			Lake trout	481	22	0.5	0.25	0.74	1.25
			Lake trout	482	22	0.5	0.25	0.93	0.9
			Lake trout	485	16	0.5	0.25	0.99	0.7
			Lake trout	488	25	0.5	0.25	0.87	1.15
			Lake trout	488	29	0.5	0.25	1.04	1.25
			Lake trout	488	21	0.5	0.25	0.87	0.95
			Lake trout	490	22	0.5	0.25	0.9	0.85
			Lake trout	506	22	0.5	0.25	0.79	1.2
			Lake trout	510		0.5	0.25	0.91	2.1
			Lake trout	520	22	0.5	0.25	1.53	1.1
			Lake trout	546	24	0.5	0.25	0.93	1

Appendix F Table F1. Metal constituents analyzed from fish tissues, Jericho Study Area, 1996 and 1999.

Waterbody	Year	Tissue Type	Species	Fork Length (mm)	Age	Aluminum (µg/g)	Chromium (µg/g)	Copper (µg/g)	Mercury (µg/g)
Carat Lake	1996	Muscle	Lake trout	580	26	0.5	0.25	0.62	2.1
			Lake trout	619	25	0.5	0.25	0.77	1.9
			Round whitefish	358	8	0.5	0.25	0.96	0.003
			Round whitefish	396	12	0.5	0.25	1.17	0.3
			Round whitefish	407	29	0.5	0.25	1.05	0.75
			Round whitefish	424	10	0.5	0.25	1.1	0.003
			Round whitefish	445	15	0.5	0.25	0.91	0.3
			Round whitefish	455	16	0.5	0.25	1.22	0.5
			Round whitefish	455	23	0.5	0.25	1.17	0.891
			Round whitefish	462	16	0.5	0.25	0.87	0.35
			Round whitefish	464	13	0.5	0.25	0.87	0.5
			Round whitefish	465	23	0.5	0.25	1.1	0.726
			Round whitefish	469	25	2	0.25	0.97	0.7
			Round whitefish	475	21	0.5	0.25	1.04	0.5
			Round whitefish	477	23	0.5	0.25	0.92	0.5
			Round whitefish	484	21	0.5	0.25	1.56	0.8
			Round whitefish	485	22	0.5	0.25	1.05	0.45
			Round whitefish	532	26	0.5	0.25	0.99	0.75
Control Lake	1996	Liver	Lake trout	400	19	15	0.25	128	0.26
			Lake trout	402	16	8	0.6	71.5	0.19
			Lake trout	404	11	5	0.8	56.3	0.07
			Lake trout	406	13	5	1.3	76.4	0.2
			Lake trout	408	12	12	2.4	4.34	1.4
			Lake trout	408	16	24	1.7	46.5	0.18
			Lake trout	410	20	46	0.6	94.6	0.166
			Lake trout	410	19	47	3.1	188	0.26
			Lake trout	413	14	13	0.7	85.3	0.12
			Lake trout	420	18	15	0.25	71.7	0.46
			Lake trout	423	20	39	3	84.4	2.12

Appendix F Table F1. Metal constituents analyzed from fish tissues, Jericho Study Area, 1996 and 1999.

Waterbody	Year	Tissue Type	Species	Fork Length (mm)	Age	Aluminum (µg/g)	Chromium (µg/g)	Copper (µg/g)	Mercury (µg/g)
Control Lake	1996	Liver	Lake trout	423	19	20	4.9	114	1.6
			Lake trout	424	17	23	0.7	97	0.19
			Lake trout	426	21	23	1	71.7	0.29
			Lake trout	428	23	30	1.9	189	1.23
			Lake trout	431	19	15	1.7	44.8	0.34
			Lake trout	433	14	5	1.7	10.3	0.15
			Lake trout	466	18	12	0.25	62.7	0.23
			Lake trout	473	18	24	0.9	107	0.31
			Lake trout	473	18	29	1	49.5	0.6
			Lake trout	486	19	15	1.1	232	0.16
			Round whitefish	321	8	4	2.5	9.99	0.07
			Round whitefish	332	7	3	1	7.15	0.06
			Round whitefish	335	7	3	1.7	21.3	0.317
			Round whitefish	336	7	3	2.1	7.48	0.07
			Round whitefish	336	7	5	3.4	9.24	0.08
			Round whitefish	346	9	3	0.25	10.5	0.003
			Round whitefish	375	9	5	1.7	7.6	0.317
			Round whitefish	395	11	5	1.5	7.5	0.483
			Round whitefish	400	11	6	2.1	7.5	0.5
			Round whitefish	409	10	8	2.4	10.2	0.65
			Round whitefish	413	14	4	0.8	7.17	0.13
			Round whitefish	423	15	29	1.8	25.4	0.8
			Round whitefish	423	13	5	0.8	7.78	0.1
			Round whitefish	428	18	15	0.7	6	0.667
			Round whitefish	430	17	7	1.5	8.05	0.15
			Round whitefish	431	15	5	1.8	8.72	0.07
			Round whitefish	438	21	9	0.8	11.7	0.09
			Round whitefish	440	19	7	0.25	6.83	0.17
			Round whitefish	440	20	17	1.1	11.2	0.09
			Round whitefish	441	23	16	0.7	6.46	0.14

Appendix F Table F1. Metal constituents analyzed from fish tissues, Jericho Study Area, 1996 and 1999.

Waterbody	Year	Tissue Type	Species	Fork Length (mm)	Age	Aluminum (µg/g)	Chromium (µg/g)	Copper (µg/g)	Mercury (µg/g)
Control Lake	1996	Muscle	Lake trout	400	19	0.5	0.25	0.58	1.02
			Lake trout	402	16	0.5	0.25	0.97	0.66
			Lake trout	404	11	0.5	0.25	1.06	0.528
			Lake trout	406	13	0.5	0.25	0.84	0.66
			Lake trout	408	16	0.5	0.25	0.86	0.792
			Lake trout	408	12	0.5	0.25	0.44	0.626
			Lake trout	410	20	0.5	2	0.95	0.924
			Lake trout	410	19	0.5	0.25	0.75	0.759
			Lake trout	413	14	0.5	0.25	0.86	0.66
			Lake trout	420	18	0.5	0.25	1.04	1.22
			Lake trout	423	19	0.5	0.25	0.74	0.966
			Lake trout	423	20	0.5	0.25	0.54	0.911
			Lake trout	424	17	0.5	0.25	0.49	0.759
			Lake trout	426	21	0.5	0.25	0.71	0.957
			Lake trout	428	23	0.5	0.25	0.5	1.09
			Lake trout	431	19	0.5	0.25	0.73	0.891
			Lake trout	433	14	0.5	0.25	0.82	0.825
			Lake trout	466	18	0.5	0.25	0.91	1.12
			Lake trout	473	18	0.5	0.25	0.73	2.14
			Lake trout	473	18	0.5	0.25	0.6	1.22
			Lake trout	486	19	0.5	0.25	1.24	0.693
			Round whitefish	321	8	0.5	0.25	0.93	0.198
			Round whitefish	332	7	0.5	0.25	1.19	0.165
			Round whitefish	335	7	0.5	0.25	0.7	0.177
			Round whitefish	336	7	0.5	3.6	1.3	0.231
			Round whitefish	336	7	0.5	0.25	1.06	0.231
			Round whitefish	346	9	0.5	0.25	1.15	0.003
			Round whitefish	375	9	0.5	0.6	0.95	0.177
			Round whitefish	395	11	0.5	0.25	0.7	0.177
			Round whitefish	400	11	0.5	0.25	1.07	0.177

Appendix F Table F1. Metal constituents analyzed from fish tissues, Jericho Study Area, 1996 and 1999.

Waterbody	Year	Tissue Type	Species	Fork Length (mm)	Age	Aluminum (µg/g)	Chromium (µg/g)	Copper (µg/g)	Mercury (µg/g)
Control Lake	1996	Muscle	Round whitefish	409	10	0.5	0.25	0.75	0.231
			Round whitefish	413	14	0.5	5.6	1.06	0.33
			Round whitefish	423	13	0.5	0.25	0.86	0.231
			Round whitefish	423	15	0.5	0.25	0.68	0.394
			Round whitefish	428	18	0.5	0.25	0.68	0.422
			Round whitefish	430	17	0.5	0.25	0.95	0.429
			Round whitefish	431	15	0.5	0.25	1.28	0.297
			Round whitefish	438	21	0.5	0.25	1.17	0.429
			Round whitefish	440	19	0.5	0.25	1.19	0.429
			Round whitefish	440	20	0.5	0.25	0.91	0.363
			Round whitefish	441	23	0.5	0.25	1.19	0.462
Contwoyto Lake	1996	Liver	Lake trout	330		17	1.8	20.2	0.6
			Lake trout	395	15	38	1.8	31.2	0.95
			Lake trout	427	16	15	2.1	28.3	0.633
			Lake trout	436	18	5	1.1	31.9	1.23
			Lake trout	436	14	11	1.8	28.8	0.483
			Lake trout	454	17	11	1.3	59.7	1.33
			Lake trout	461	19	6	0.9	28	0.967
			Lake trout	461	20	11	1.3	30.9	1.17
			Lake trout	469	17	8	1.4	61.6	0.85
			Lake trout	481	17	5	1.1	50.6	2.58
			Lake trout	484	16	17	1.3	46.3	1.03
			Lake trout	490	32	6	0.7	20.3	1.2
			Lake trout	495	17	42	0.7	41.8	0.983
			Lake trout	495	21	8	1	64.3	1.5
			Lake trout	510	24	38	0.25	26.8	2.08
			Lake trout	517	20	6	1.3	24.3	1.17
			Lake trout	525	33	24	1.4	75.7	4.75
			Lake trout	528	24	8	6.5	62.7	1.68

Appendix F Table F1. Metal constituents analyzed from fish tissues, Jericho Study Area, 1996 and 1999.

Waterbody	Year	Tissue Type	Species	Fork Length (mm)	Age	Aluminum (µg/g)	Chromium (µg/g)	Copper (µg/g)	Mercury (µg/g)
Contwoyto Lake	1996	Liver	Lake trout	608	20	8	1.3	48.4	1.7
			Lake trout	612	33	45	1.6	38.5	2.6
			Lake trout	684	20	8	0.9	78	4.33
		Muscle	Lake trout	330		0.5	0.25	0.44	0.476
			Lake trout	395	15	0.5	0.25	0.66	0.408
			Lake trout	427	16	0.5	0.6	1.01	0.367
			Lake trout	436	18	0.5	0.25	0.38	0.68
			Lake trout	436	14	0.5	0.25	0.7	0.299
			Lake trout	454	17	0.5	0.25	0.61	0.626
			Lake trout	461	20	0.5	0.25	0.56	0.639
			Lake trout	461	19	0.5	0.25	0.4	0.503
			Lake trout	469	17	0.5	0.25	0.39	0.544
			Lake trout	481	17	0.5	0.25	0.82	1.5
			Lake trout	484	16	0.5	0.25	0.65	0.762
			Lake trout	490	32	0.5	0.25	0.58	1.07
			Lake trout	495	21	0.5	0.25	0.71	0.952
			Lake trout	495	17	0.5	0.25	0.54	0.816
			Lake trout	510	24	0.5	0.25	0.53	0.843
			Lake trout	517	20	0.5	0.25	0.71	0.925
			Lake trout	525	33	0.5	0.25	0.43	1.63
			Lake trout	528	24	0.5	0.25	0.9	0.857
			Lake trout	608	20	0.5	0.25	0.55	1.24
			Lake trout	612	33	3	0.7	0.48	1.89
			Lake trout	684	20	0.5	0.25	2.18	2.07
Lake C3	1999	Liver	Lake trout	404	12	8.5	0.25	8.8	0.21
			Lake trout	405	11	3.5	0.25	8	0.45
			Lake trout	431	14	3.2	0.25	8.6	0.41
			Lake trout	446	17	4.7	0.25	7.8	0.51

Appendix F Table F1. Metal constituents analyzed from fish tissues, Jericho Study Area, 1996 and 1999.

Waterbody	Year	Tissue Type	Species	Fork Length (mm)	Age	Aluminum (µg/g)	Chromium (µg/g)	Copper (µg/g)	Mercury (µg/g)
Lake C3	1999	Liver	Lake trout	456	18	2.7	0.25	2.3	0.48
			Lake trout	486	14	3.5	0.25	10.7	0.44
			Lake trout	525	18	2.7	0.25	12.8	1.09
			Lake trout	532	15	4.1	0.25	23	1.43
			Lake trout	540	22	15.2	0.25	12.5	0.85
			Lake trout	637	22	8.1	0.25	14.5	2.08
		Muscle	Lake trout	404	12	1.8	0.25	0.2	0.19
			Lake trout	405	11	2.1	0.25	0.3	0.32
			Lake trout	431	14	1.5	0.25	0.2	0.22
			Lake trout	446	17	2.2	0.25	0.2	0.36
			Lake trout	456	18	1.5	0.25	0.2	0.51
			Lake trout	486	14	1.4	0.25	0.3	0.33
			Lake trout	525	18	2.6	0.25	0.2	0.52
			Lake trout	532	15	1.5	0.25	0.2	0.51
			Lake trout	540	22	1.2	0.25	0.1	0.38
			Lake trout	637	22	1	0.25	0.2	0.74

Detection limits: Al = 1; Cr = 0.5; Cu = 0.05; Hg = 0.005