MELIADINE WEST
BASELINE AQUATIC STUDIES
1997 DATA REPORT

RL&L
Environmental Services Ltd.

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Prepared for

WMC INTERNATIONAL LTD.

by

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Cover Photograph: Arctic charr female in pre-spawning condition captured in Little Meliadine Lake on 28 September 1997.

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STUDY OVERVIEW

This report summarizes the results of the first year of a two-year study of the aquatic environment within the WMC International Ltd. gold exploration area near Meliadine Lake, northwest of Rankin Inlet, Nunavut. Data collected during 1997 will be used to guide decisions regarding appropriate locations for potential infrastructure developments and to prepare a comprehensive work plan for 1998, when additional data will be collected in support of an environmental impact assessment.

The study area included Meliadine Lake (63°04'45"N, 92°19'38"), several small watersheds within a large peninsula of Meliadine Lake, and the Meliadine River, which drains the system into the Hudson Bay. Meliadine Lake (107 km^2 in area) features a highly convoluted shoreline (465 km) and over 200 islands. Unlike most lakes, it has two outlets for its waters to flow into the sea. Most of the lake drains via the Meliadine River, which originates at the south end of the lake and flows through a series of waterbodies and short river segments into Hudson Bay (a distance of 39 km). A second, smaller outflow drains the west basin of Meliadine Lake into Peter Lake, which discharges into Hudson Bay through the Diana River system.

On a large peninsula between the south and east basins of Meliadine Lake, several watersheds made up of an extensive network of small lakes, ponds, and interconnecting streams drain into Meliadine Lake. The lakes are generally small and shallow (up to 89 ha and 4.3 m deep) and are often isolated from each other by limited flow during the summer. Gold bearing ore zones have been identified in three of these peninsula watersheds (Basins A, B, and D); therefore, the sampling effort during the 1997 field season concentrated on selected lakes and streams within these watersheds. Other intensively studied areas included the east basin of Meliadine Lake (during the summer) and the lower Meliadine River (during the fall migrations of Arctic charr).

The east basin of Meliadine Lake contributes approximately 20% to the entire area of this waterbody. It is separated from the rest of the lake by a shallow constriction that features numerous rocky islands and reefs. The presence of this constriction may result in separation of the east basin from the rest of the lake if sufficient ice cover (up to 2.5 m in depth) were to develop during winter, and thus impede or restrict water flow between the basins. Based on a bathymetric survey, most of the east basin of Meliadine Lake was shallow (mean depth of 4.7 m); however, isolated areas of up to 21 m in depth were also encountered. The total volume of the east basin of Meliadine Lake was estimated at 100.4×10^6 m^3. More than one third of this volume was contributed by lake areas that are less than 2 m in depth; this indicated a considerable reduction in water volume during the winter months, when these areas may freeze to the bottom.

Vertical profiles of water temperature and dissolved oxygen concentrations in Meliadine Lake and selected peninsula lakes indicated a lack of stratification, likely due to a high degree of wind induced mixing. Diurnal fluctuations in

water temperature regimes in large lakes (Meliadine and Peter lakes) were considerably lower than in the small peninsula lakes. Whereas both east and west basins of Meliadine Lake exhibited similar water temperature regimes during mid-July, Peter Lake was 3 to 4 Celsius degrees colder. The reasons for this difference were not determined; however, such a large temperature differential during a brief summer season may affect the development rates of aquatic biota within the two systems. The highest water temperature recorded in the peninsula lakes during the summer was 19°C.

Because of the shallow nature of the peninsula streams, water temperature in the small streams showed large diurnal fluctuations that were closely related to changes in air temperature. The highest recorded stream water temperature (21.4°C) coincided with warm weather at the end of July. Low amounts of precipitation during the summer and fall 1997 resulted in a dramatic decrease in stream flows (from a maximum of 0.42 m^3/s during freshet to trace flows or dry conditions during August); this likely restricted fish movements between small lakes within the peninsula watersheds.

The water quality analysis of the study area lakes and streams indicated low nutrient levels that were typical of oligotrophic waterbodies in subarctic regions. The low total alkalinity indicated that the study area waterbodies have a poor buffering capacity against acids. Other analysed constituents also exhibited low concentrations and most were within the Canadian Water Quality Guidelines and Guidelines for Canadian Drinking Water Quality. Nevertheless, isolated cases of guideline exceedence were recorded for some constituents. For metals, these included lead and manganese in some stream sites, and copper and zinc in some lakes. Some stream and lake sites also exhibited slightly elevated levels of phenols and total extractable hydrocarbons. The sources of these elevated levels were not determined; however, these issues will be investigated in more detail during the 1998 sampling program.

The periphytic algal communities in the streams and lakes were dominated by diatoms, green algae, and cyanobacteria. Total algal densities were similar among the streams and lakes and ranged from 230 339 to 724 427 cells/cm^2. Although the species composition of periphyton in the study area was generally similar to other subarctic locations, the periphytic algal densities were lower. Periphytic chlorophyll *a* and ash-free-dry-mass concentrations were low in all sampled waterbodies and were indicative of oligotrophic conditions.

As was the case for periphyton, the phytoplankton assemblages in the study area lakes were also representative of oligotrophic waterbodies. In general, golden-brown algae had the greatest biovolumes, whereas cyanobacteria had the lowest biovolumes. Total phytoplankton biomass ranged from 359.7 to 1795 $\mu m^3 \times 10^3$/mL, whereas total phytoplankton densities ranged from 18 964 to 33 242 cells/mL. These estimates were generally greater than the ranges reported in other subarctic investigations.

Zooplankton exhibited variations in community structure among lakes and seasons. Water fleas, particularly *Holopedium gibberum*, were the most important group contributing to zooplankton biomass in the study lakes. Other

taxonomic groups (e.g., copepods and rotifers) also accounted for a considerable amount of the biomass in some peninsula lakes. In terms of density, rotifers (particularly *Keratella cochlearis*) tended to be the most abundant zooplankton species at all sampled sites during both seasons; however, due to the relatively small size of rotifers, they did not have large contributions to the community biomass. Although other subarctic studies have reported similar zooplankton community structures, total biomass and density estimated during the present study were considerably higher than in other subarctic lakes.

The benthic macroinvertebrate communities in the study area streams were dominated (in descending order of abundance) by midges, hydroids, aquatic earthworms, and seed shrimps. In contrast, the lake communities were dominated by seed shrimps, midges, benthic copepods, and aquatic roundworms. The benthic macroinvertebrate communities in the study area were typical of subarctic systems. The species composition and densities were indicative of oligotrophic systems; however, the number of taxonomic groups (49) and total densities (1609 to 87 956 organisms/m^2) were generally greater than those reported in other subarctic studies.

Using a wide variety of fish capture methods (backpack electrofishing, gill nets, fyke net, fish fence, angling and snorkel surveys), over 7000 fish were collected and released during 1997. The catch comprised nine species, five of which were members of the salmonid family (Arctic charr, lake trout, Arctic grayling, round whitefish, and cisco). Threespine and ninespine stickleback were the most common forage species, whereas slimy sculpin and burbot were captured only occasionally. Based on the patterns of seasonal distribution and life history data, the utilization of the Meliadine system by fish populations will be discussed separately for each species.

Arctic charr, the most widespread and valued of the Arctic fish species, was captured in a variety of habitats within the study area; however, each life stage had different habitat preferences. Juvenile fish (ages 1-4) were found mainly in the lower parts of peninsula watersheds and in Meliadine Lake. Most (82%) of the juveniles caught by fyke net in the east basin of Meliadine Lake were moving west towards the narrows. The scarcity of adults and subadults in the Meliadine Lake and peninsula watersheds during summer was consistent with other Arctic studies, which documented extensive spring migrations to feed in the sea. The fastest rate of growth occurred in fish between ages 4 and 6, and likely corresponded to the time when smolts make their first migrations to feed in the sea. The overall growth rate of Arctic charr in the study area was similar to other populations along the west coast of Hudson Bay.

Over 1000 Arctic charr returning from the sea were captured by a fish fence installed near the mouth of the Meliadine River in August 1997. Although most were adults, none appeared ready to spawn during fall 1997l, which indicated that these fish were alternate-year spawners. Similar to other populations, Arctic charr were found to remain in freshwater during their spawning year; adults in spawning condition were found in one of the lower peninsula lakes (D1) and in Little Meliadine Lake. Adult Arctic charr were first captured in Lake D1 in July and radio tagged individuals (including current year spawners) remained in this lake until late October. Although this

suggested that Lake D1 was used for both spawning and overwintering in 1997, it remains unclear whether this occurs on a regular basis or was related to the unusually dry conditions during fall 1997 (i.e., trace flows in the connecting streams may have prevented Arctic charr from leaving Lake D1 to spawn and overwinter elsewhere).

Most Arctic charr that entered the Meliadine River from Hudson Bay in August moved into Little Meliadine Lake (15 km upstream) and remained there until late October (and likely throughout the winter); however, at least seven fish moved farther upstream into Meliadine Lake. More information on overwintering and spring migrations will be collected in 1998 through radio tracking of 26 transmitter-implanted fish presently at large in the study area. Previous studies indicated that Arctic charr populations on the west coast of Hudson Bay do not always return to natal drainages to overwinter and may use different river systems each winter.

Lake trout were captured mostly in Meliadine Lake and the upper Meliadine River. Juveniles were most numerous in small peninsula streams and along the shores of Meliadine Lake, which provided suitable rearing habitat. Although adults were occasionally captured in the lower peninsula lakes, they did not appear to use the upper lakes. Most of the 13 radio tagged adults did not travel far from their release locations; however, at least two fish moved from the east basin of Meliadine Lake into the west basin. Similar to other Arctic populations, lake trout within the study area exhibited slow growth rates, but attained large sizes (900 mm in length) after about 30 years of growth.

Arctic grayling were captured mainly in small peninsula lakes and streams, but were also present in Meliadine Lake and the Meliadine River. Arctic grayling spawning areas were confirmed by the presence of eggs in several of the small peninsula streams and in the Meliadine River at the outflow from Meliadine Lake. The peninsula streams, as well as the inlet and outlet areas of the peninsula lakes, were used for rearing purposes by young-of-the-year and juvenile fish. The absence of predators (Arctic charr and lake trout) in the upper peninsula lakes was likely an important factor in their utilization by Arctic grayling. Arctic grayling lengths-at-age were significantly higher in Basin D than in the other peninsula basins; however, more data are required to confirm and explain these initial findings.

Most (14 of 19) Arctic grayling adults that were radio tagged in the peninsula lakes remained there from June until late October and likely overwintered in these locations. As most of these peninsula lakes appeared too shallow to provide suitable overwintering habitat, it seemed possible that the low flow conditions during summer and fall 1997 prevented their outmigration to other areas. The results of the continuing radio telemetry program in 1998 will likely determine if these fish survived the winter.

Round whitefish were recorded mainly from Meliadine Lake and Meliadine River. Unlike other salmonids in the study area, this species did not use the peninsula watersheds; only one specimen was captured in the lowermost lake in Basin A. The presence of round whitefish in the fish fence catch indicated that at least a small part of the population was using the sea for feeding purposes during the summer. Juvenile round whitefish were captured only

in Meliadine Lake, where they used nearshore areas for rearing. Growth rates were highest for fish between ages 1 and 5 and considerably lower for the older age-classes (ages 6 to 18); these patterns of round whitefish growth in the study area were similar to those from other Arctic populations.

Cisco was the most numerous fish species recorded in the 1997 catch, primarily due to the captures of large schools of juvenile fish that frequented the shallow bays of Meliadine Lake. Juvenile and adult cisco were also caught in selected peninsula lakes, including two upper lakes (A6 and B7), where they were found in association with Arctic grayling. All age-classes between age 1 and 9 were recorded in the sample; the maximum attained size was 417 mm in fork length.

Ninespine stickleback was the most abundant species in the peninsula streams. This species appeared to occupy a different niche than threespine stickleback, which was restricted largely to Meliadine Lake. These two species occurred together only in the lowermost areas of peninsula watersheds. The remaining two species recorded in the study area (burbot and slimy sculpin) were caught infrequently and were found mainly in the peninsula streams and Meliadine Lake.

A preliminary assessment of Arctic charr muscle, liver, and kidney tissues indicated low levels of background metal concentrations. The tissue sampling program will be expanded in 1998 to include lake trout, round whitefish, and cisco.

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1.0 INTRODUCTION

1.1 BACKGROUND

WMC International Ltd. is conducting advanced exploration for gold near Meliadine Lake, northwest of Rankin Inlet, Nunavut. Assay results to date have prompted extensive activity to map the ore bodies, and efforts are underway to identify the best potential locations for mine infrastructure. In order to develop a comprehensive environmental database of the area prior to planning mine development, WMC International Ltd. contracted R.L.& L. Environmental Services Ltd. to undertake baseline aquatic studies in 1997 and 1998. This report summarizes the results of the first year of the study, which focussed on determining the biological and physical characteristics of the aquatic environment within the general confines of the project area. More detailed assessments of potentially impacted waterbodies are planned for the second year of the study (i.e., after the locations of possible mining activities and infrastructure are identified).

1.2 STUDY OBJECTIVES

The overall purpose of the study is to provide accurate pre-development baseline data on the aquatic environment of waterbodies that may be impacted by mining activities in the Meliadine Lake basin. The data collected during the study will be used to support an environmental impact assessment and to establish plans for long-term monitoring of the proposed gold mine. The request for proposal (RFP) outlined the following specific objectives for the two-year study:

- document seasonal movements of fish within the Meliadine Lake basin, with special emphasis on waterbodies that may be affected by mineral extraction activities and along transportation corridors between Rankin Inlet and the ore zones;

- determine population size and life history characteristics of species with subsistence and recreational value, with special emphasis on waterbodies that may be affected by mineral extraction activities and along transportation corridors;

- collect fish tissue samples for analysis of exogenous substances (including those deposited by the long-range atmospheric transport) plus metals and metallic complexes that may be influenced by effluents and emissions from a gold mine for species of subsistence and recreational value and for other species that may be important and reliable indicators of ecosystem quality (tissues will be collected from potentially impacted lakes and from a control basin); and,

- sample aquatic primary producers and invertebrates to document sources and pathways of energy transfer in the local aquatic food chain.

Due to concerns regarding subsistence harvest of fish resources in Meliadine Lake and the Meliadine River, the RFP indicated that the fisheries populations in these waterbodies should also be examined. The RFP also outlined the following specific objectives for documenting the existing physical habitat within the study area:

- determine seasonal distribution of available fish habitat with special emphasis on waterbodies that may be affected by mineral extraction activities and transportation corridors;
- identify spawning areas of species with subsistence and recreational value;
- describe seasonal water quality characteristics of waterbodies, concentrating on those within the area and downstream of identified gold bearing zones;
- analyse sediments of waterbodies in the basin, as well as the ocean at the mouth of the Meliadine River, to determine exogenous substances (including those deposited by long-range atmospheric transport) plus metals and metallic complexes that may be influenced by effluents and emissions from a gold mine;
- determine bathymetry of lakes and ponds that may be affected by mineral extraction activities; and
- design a program for monitoring water quality during the operating and decommissioning phases of a gold mine in the study area.

1.3 STUDY AREA

The exploration area is located northwest of Rankin Inlet, at the southern end of Meliadine Lake (63°04'45"N, 92°19'38"W). The main areas of emphasis within the Meliadine Study Area included Meliadine Lake, Meliadine River, and several lakes and streams situated on a raised peninsula at the southeast end of Meliadine Lake (Figure 1.1).

Meliadine Lake is a large waterbody, with a surface area of 107 km^2 and a maximum length of 31 km (Environment Canada 1973). It encompasses four major basins, which have been designated as east (ML-E), central (ML-C), west (ML-W), and south (ML-S) to facilitate data presentation in this report (Figure 1.1). Most of the outflow from Meliadine Lake drains to the Meliadine River (MR), which originates in the south basin and flows through Little Meliadine Lake (LML) into Hudson Bay. The sections of Meliadine River downstream and upstream of Little Meliadine Lake were designated as MR-L and MR-U, respectively. A second, smaller outflow drains the west basin of Meliadine Lake into Peter Lake (ML-PL). Peter Lake drains through a short river section (PL-DL) into Diana Lake, which discharges into Hudson Bay through the Diana River system.

On the raised peninsula between the south and east basins of Meliadine Lake, there are numerous small lakes and ponds within seven main watersheds that drain into Meliadine Lake. These peninsula watersheds are designated

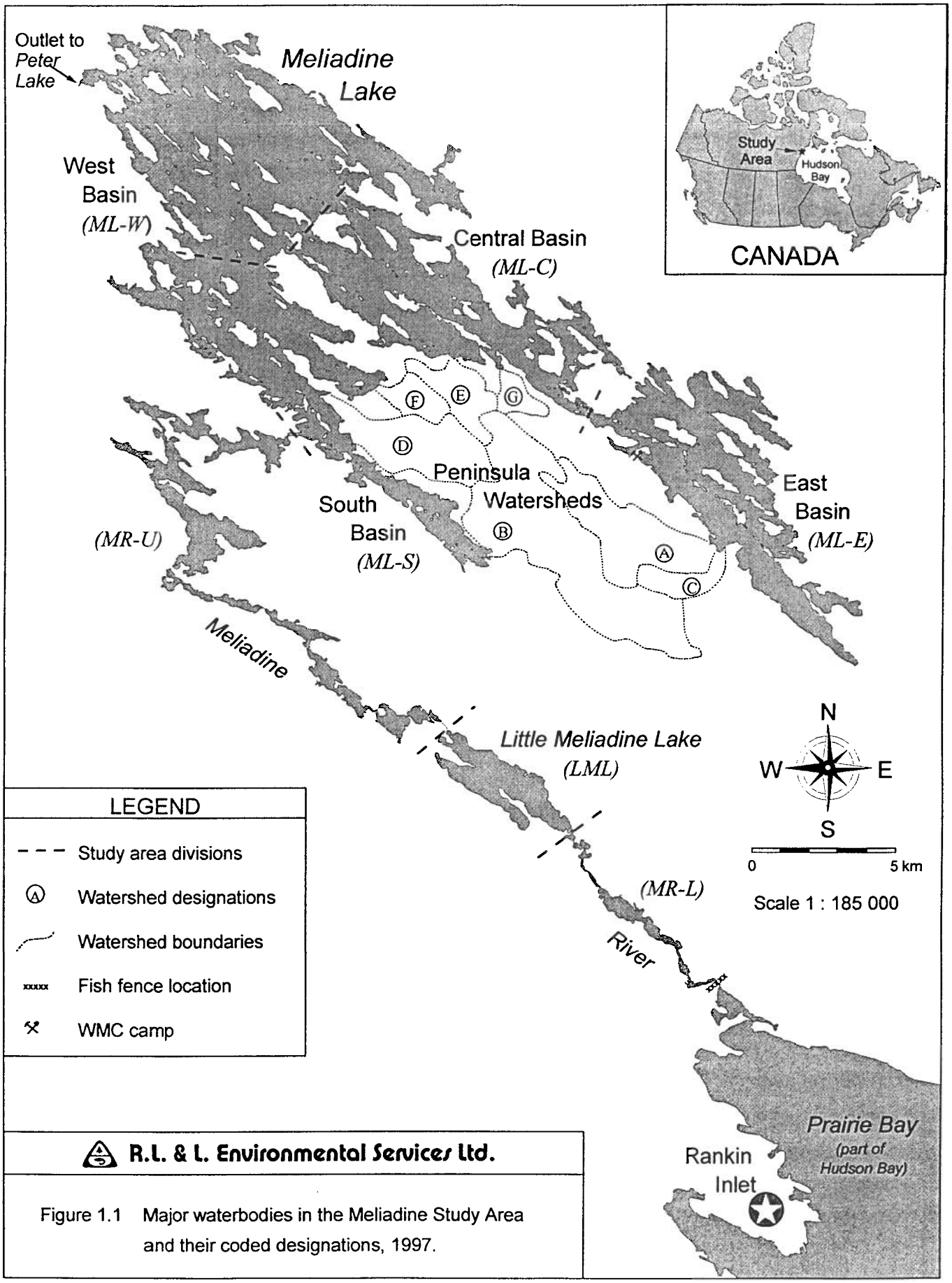

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Figure 1.1 Major waterbodies in the Meliadine Study Area and their coded designations, 1997.

as Basins A to G (as adapted from Dillon 1995) and are outlined in Figure 1.2; the drainage area and the number of waterbodies within each watershed are presented in Table 1.1. As the project is still at a preliminary stage, it is not yet known which lakes may be affected by future mining activity. Gold bearing ore zones have been identified in three watersheds (Basins A, B, and D); therefore, the sampling effort during the 1997 field season was concentrated within these watersheds. Water quality and fish sampling were also carried out in Basin G, which was selected by WMC International Inc. as a control basin due to the absence of past and likely future drilling activities. In addition, limited fish and habitat assessments were conducted on selected streams in Basin F, which may also be included in the mine development plan.

Table 1.1 Drainage area and number of waterbodies within the peninsula watersheds, Meliadine Study Area, 1997.

Watershed	Drainage Area (ha)	Number of Lakes and Ponds	Number of Streams
A	886	53	50
B	2093	93	90
C	206	10	5
D	826	37	29
E	360	15	11
F	223	18	15
G	143	9	6
Total	**4737**	**235**	**206**

To facilitate presentation of the results, individual lakes within each basin were assigned identification numbers preceded by the basin letter designation (e.g., Lake A1, A2, etc.). In general, lakes were numbered relative to their position in the drainage, with the numbers increasing in the upstream direction of the longest chain of lakes. Subsequently, all tributary lake chains within the watershed were numbered starting with the lowermost tributary lake on the north side of the basin and continuing along the periphery of the main lake chain (see Appendix A, Figures A1 to A5). Similarly, interconnecting streams between the lakes were designated using the corresponding lake identification numbers (e.g., Stream A1-2 connects Lakes A1 and A2 in Basin A).

In October 1997, the study area was expanded to include two unnamed drainage basins that enter Hudson Bay immediately east of the Meliadine River mouth. An under-ice gillnetting program was conducted between 24 October and 2 November 1997 in selected lakes within these drainages to assess their use by overwintering fish. To meet reporting deadlines, the results of this early winter program were not incorporated into the main data base of this report; they are presented separately in Section 5.5.

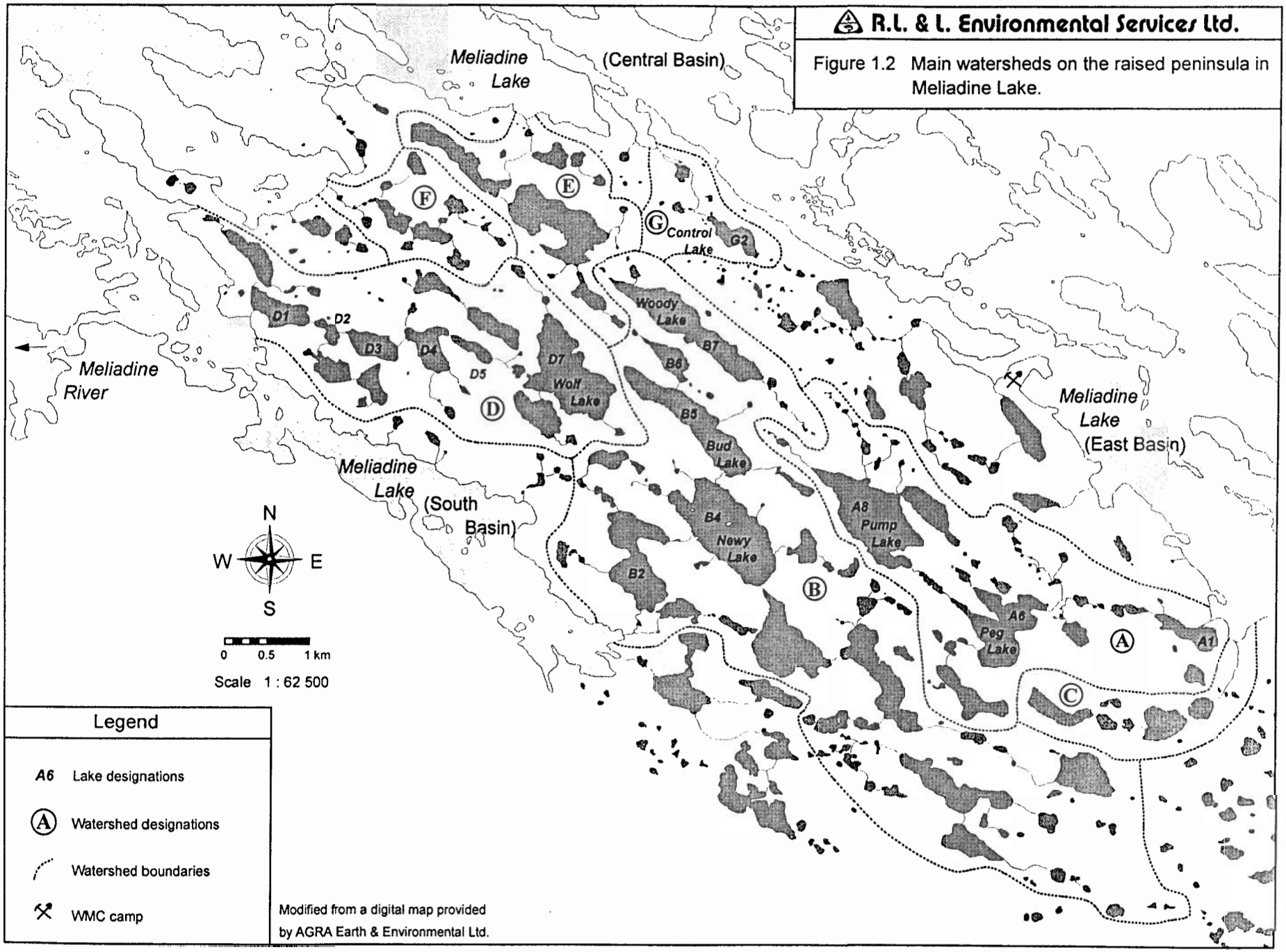


Figure 1.2 Main watersheds on the raised peninsula in Meliadine Lake.

2.0 METHODS

Prior to the commencement of the field sampling program, a thorough search of existing fisheries and limnology information relevant to the Arctic ecosystem was conducted. This information was used to prepare an annotated bibliography for the main components of the aquatic biota in the study area; it was presented under a separate cover as a supplement to this report (RL&L 1998).

To facilitate the presentation of the results of the 1997 investigations, study components were divided into three major categories: physical environment, invertebrate communities, and fish populations. Relevant activities for each study component are outlined in Table 2.1, with reference to the field sessions when data collections were carried out. General descriptions of the methods used to accomplish these tasks are provided in the following sections.

Table 2.1 Main project activities carried out in the Meliadine Study Area during the six field sessions in 1997.

Study Component / Activity	1997 Field Sessions					
	1 - 23 Jun	11 - 30 Jul	12 Aug - 5 Sep	12 - 15 Sep	26 - 29 Sep	24 - 31 Oct
Physical Environment						
Stream discharge and habitat assessments	√	√	√			
Lake bathymetry		√				
Water sample collections in streams	√		√			
Water sample collections in lakes		√				
Dissolved oxygen, pH, and conductivity measurements	√	√	√			
Water temperature monitoring	√	√	√			
Invertebrate Communities						
Periphyton and macrobenthos sampling in streams and lakes		√				
Phytoplankton and zooplankton sampling in lakes		√	√			
Fish Populations						
Backpack electrofishing in streams	√	√	√			
Gill netting in lakes		√	√		√	√
Fyke net in Meliadine Lake		√				
Fish fence in Meliadine River			√			
Angling in lakes and rivers	√	√	√			
Snorkel surveys in Meliadine River		√	√			
Egg sampling in streams	√					
Fish tissue sampling			√		√	
Implantation of radio transmitters	√	√	√		√	
Radio tracking flights	√	√	√	√	√	√

2.1 PHYSICAL ENVIRONMENT

2.1.1 Stream Discharge

Stream discharges were measured at several locations in the peninsula watersheds during June, July, and August 1997. Velocity was recorded with a direct-readout meter (Swoffer Model 2100); readings were taken while wading along a tag line positioned perpendicular to the thalweg. Water depth and mean column velocities (at 0.6 depth) were measured at a representative number of vertical stations along the cross-section. Stream discharge was calculated according to methods outlined by Bovee and Cochnauer (1977).

In addition to measurements of discharge conducted by the study team, continuous monitoring of discharge and water levels within key watersheds in the Meliadine Study Area were carried out in 1997 by AGRA Earth and Environmental Ltd.

2.1.2 Stream Habitat

Aquatic habitat in stream sections that connect the small lakes in Basins A, B, D, F and G was surveyed mainly during the spring field session; however, representative stream sections were also evaluated during the summer and fall sessions. The purpose of these surveys was to assess habitat suitability for fish utilization, with special reference to fish movements and spawning/rearing potential. Surveyed parameters included substrate, habitat type (e.g., riffles, pools, runs), channel width and depth, and presence of barriers to fish movement. The R.L.& L. habitat classification and coding system used during these surveys is outlined in Appendix A, Table A1.

In addition to the detailed habitat assessments performed at selected sites on the ground, a helicopter survey of all streams within the main peninsula watersheds was conducted on 21 June 1997 to assess their suitability for Arctic grayling movements and spawning/rearing potential. Streams were visually assessed from the air and classified into one of the following seven categories:

- Class 0 - dry or discontinuous watercourse; no defined stream channel
- Class 1 - dispersed flow through grass; no defined stream channel
- Class 2 - stream channel barely discernible; most flow dispersed over grass; substrate entirely organic
- Class 3 - well-defined stream channel; substrate mostly organic; gravel and cobble areas present but infrequent
- Class 4 - most of stream channel composed of coarse (gravel/cobble/boulder) substrate
- Class 5 - stream channel entirely composed of coarse substrate; limited holding areas (deeper pools)
- Class 6 - stream channel entirely composed of coarse substrate; holding areas present.

Streams designated as Classes 4 to 6 were considered to provide potential spawning and rearing habitat for Arctic grayling, due to a combination of suitable substrate and adequate water depth. Conversely, streams in Classes 0 to 2 were rated as low quality fish habitat. Class 3 streams were considered as marginal; however, small portions of these streams may provide potential spawning habitat.

2.1.3 Lake Morphometry

Morphometric characteristics of the study area lakes (surface area, shoreline length, island area and perimeter) were calculated from digitized 1 : 50 000 scale NTS maps using the MapInfo™ software package. Total areas of islands were presented separately (i.e., not included in the surface areas of lakes). Shoreline development indices were calculated using the following formula (from Wetzel 1983):

$$Shoreline\ Development = \frac{Shoreline\ Length}{2\sqrt{(\pi \cdot Surface\ Area)}}$$

A bathymetric survey of the east basin of Meliadine Lake was conducted in July 1997 to quantify lake volume and the area of littoral habitat. Although the original work program specified bathymetric surveys of all basins of Meliadine Lake and selected lakes within the peninsula watersheds, logistical problems and equipment malfunction necessitated postponement of most of the bathymetric surveys until the 1998 field season.

The bathymetric survey of the east basin of Meliadine Lake utilized a Raytheon (Model DE719D MK2) echo sounder that provided a graphical (paper chart) and digital (ASCII format) output of depth measurements along cross sectional transects ($n=182$) within the surveyed basin. All transects were conducted at constant speeds and in straight lines between lakeshores; distances to shore and UTM coordinates (using a Garmin 45 GPS receiver) at the start and end of each transect were recorded. These data were subsequently used to assign geographic coordinates to all digital depth measurements. The resulting depth and location database was merged with the digital shoreline data and analyzed by Vertical Mapper™ software, which created isobaths at 2 m contour intervals. Lake area and volume calculations, as well as the bathymetric map of the basin, were obtained by using the MapInfo™ software package.

2.1.4 Water Temperature

Eight thermographs (Vemco™) were deployed in selected lakes and streams on 14-15 June 1997 to electronically record water temperatures (at 30 min intervals). Five additional thermographs were deployed on 12 July 1997 to increase the number of monitoring stations. All thermographs were retrieved on 1 September 1997. Upon inspection of the downloaded data, it was discovered that only one of 13 thermographs functioned properly. The remaining thermographs erroneously recorded temperature data at 1 min intervals (instead of every 30 min as specified upon deployment) and subsequently used up their data storage capacity after only five days of operation. In most cases, only the last one or two days of thermograph records corresponded to the time when they were placed in water. Although data were not available for long-term (seasonal) monitoring, comparisons of concurrent water temperatures recorded in different waterbodies on 12-14 July 1997 were used to assess the degree of diurnal temperature fluctuations in waterbodies of variable sizes (i.e., Peter, Meliadine, and Control lakes, and Stream B1-2). The thermograph that functioned properly was deployed in Stream B1-2 and provided a continuous

water temperature record between 12 July and 1 September 1997. Thermographs will be redeployed during the 1998 field season to obtain the required water temperature data.

2.1.5 Water Quality

The primary objective of the water quality sampling program was to develop a pre-development water quality database of lakes and streams in the watersheds that may be affected by the proposed mining activities. Due to uncertainties related to the project development (i.e., mine location, tailings pond configuration, etc.), the water quality sampling program for 1997 was preliminary in nature and designed to assess basin characteristics by sampling selected lakes and streams in each watershed. The program was designed to assess spatial and seasonal differences in water quality. Streams and rivers were sampled during the spring and fall sampling sessions (i.e., under freshet and base flow conditions), whereas lakes were sampled during the summer (i.e., the most productive season) and will be sampled again in late winter (i.e., most "stressed" period) during April 1998.

The stream water samples were collected from approximately 0.1 m below water surface (surface grab) at suitable locations between 50 and 150 m downstream of corresponding lake outlets. Lake sampling stations were established near the deepest part of the lake basin. Because none of the lakes exhibited thermal stratification of the water column, lake water samples were collected using a pre-washed 4 L Van Dorn bottle submerged to a depth of 1 m. Polyethylene gloves were worn during water collection to prevent contamination of the samples. Appropriate pre-measured preservatives were added to the samples (if needed) and the samples were placed on ice and shipped (within 48 h) for analyses to Taiga Environmental Laboratory in Yellowknife. The list of water quality constituents and their detection limits are shown in Table 2.2.

As part of the QA/QC program, three water samples (one per sampling period) were split (i.e., collected from the same site but labelled as different sites) and submitted to the lab as blind controls. In addition, three samples consisting of double-distilled water (one per sampling period) were labelled as dummy sites and submitted for analyses. These QA/QC procedures were designed to document possible contamination of the samples from the bottles or the laboratory process.

In addition to the water samples collected for lab analyses, several water quality parameters were measured in the field. Dissolved oxygen concentrations ($\pm$0.1 mg/L) were measured using an Oxyguard™ Handy Mark II dissolved oxygen and temperature meter. In streams, readings were taken immediately below the surface; in lakes, measurements were taken at 1 m depth intervals. Conductivity and pH measurements were also taken in the field with an Oakton™ WD-35607-10 conductivity meter ($\pm$0.1 μS/cm) and a Fisher Scientific Accumet™ 1001 pH meter ($\pm$0.01 pH unit). Water transparency ($\pm$0.1 m) was measured with a standard Secchi disk.

Table 2.2 Water quality constituents and their detection limits, Meliadine Study Area, 1997.

Constituent	Unit	Detection Limit
pH	pH units	0.05
Conductivity	µS/cm	0.3
Total Alkalinity	mg/L	0.3
Carbonate	$mgCO_3/L$	0.3
Calcium	mg/L	0.03
Bicarbonate	mg/L	0.3
Magnesium	mg/L	0.005
Potassium	mg/L	0.002
Sodium	mg/L	0.02
Chloride	mg/L	0.08
Sulphate	mg/L	3
Reac-Silica	mg/L	0.005
Turbidity	NTU	0.1
Total Suspended Solids	mg/L	3
Total Dissolved Solids	mg/L	10
Total Hardness	mg/L	0.09
Total Kjeldahl-N	mg/L	0.01
Nitrate+Nitrite-N	mg/L	0.008
Nitrate-N	mg/L	0.008
Ammonia-N	mg/L	0.002
Total Phosphorus	mg/L	0.002
Dissolved Phosphorus	mg/L	0.002
Ortho-Phosphorus	mg/L	0.002
Total Carbon	mg/L	0.2
Total Organic Carbon	mg/L	0.2
Total Inorganic Carbon	mg/L	0.2
Cation/Anion Balance	mg/L	0.001
Total Mercury	µg/L	0.01
Total Arsenic	µg/L	0.2
Total Silver (ICP-MS)	µg/L	0.1

Constituent	Unit	Detection Limit
Total Aluminum (ICP-MS)	µg/L	0.5 or 5
Total Barium (ICP-MS)	µg/L	0.1
Total Beryllium (ICP-MS)	µg/L	0.1
Total Bismuth (ICP-MS)	µg/L	0.1
Total Cadmium (ICP-MS)	µg/L	0.1
Total Chromium (ICP-MS)	µg/L	0.2
Total Iron (AA)	mg/L	0.012
Total Cobalt (ICP-MS)	µg/L	0.1
Total Cesium (ICP-MS)	µg/L	0.1
Total Copper (ICP-MS)	µg/L	0.1
Total Lithium (ICP-MS)	µg/L	0.1
Total Manganese (ICP-MS)	µg/L	0.1
Total Molybdenum (ICP-MS)	µg/L	0.1
Total Nickel (ICP-MS)	µg/L	0.1
Total Lead (ICP-MS)	µg/L	0.2
Total Selenium (ICP-MS)	µg/L	1 or 10
Total Antimony (ICP-MS)	µg/L	0.1
Total Strontium (ICP-MS)	µg/L	0.1
Total Titanium (ICP-MS)	µg/L	0.1
Total Thallium (ICP-MS)	µg/L	0.1
Total Uranium (ICP-MS)	µg/L	0.1
Total Vanadium (ICP-MS)	µg/L	0.1
Total Zinc (ICP-MS)	µg/L	0.5 or 5
Phenols	µg/L	2
Benzene	µg/L	0.5
Toluene	µg/L	0.5
Ethylbenzene	µg/L	0.5
Xylenes	µg/L	0.5
Total Volatile Hydrocarabons	µg/L	100
Total Extractable Hydrocarbons	µg/L	50

2.2 INVERTEBRATE COMMUNITIES

The invertebrate sampling program was conducted at the same sites where water quality samples were collected. The only exception occurred at Site PL-DL (outflow from Peter to Diana lakes), which was not sampled for invertebrates. Benthic invertebrates and periphyton communities were sampled in lakes and streams only during the summer period (i.e., the most biologically productive season). Zooplankton and phytoplankton samples were collected in lakes only; they were sampled during both summer and fall seasons to account for seasonal differences in community composition. Detailed descriptions of invertebrate field sampling methods and laboratory procedures are provided in the following subsections.

2.2.1 Periphyton

Field

The periphytic community (algae, bacteria, fungi, and associated materials that surround solid surfaces) was sampled during the summer period to assess the algal community composition and to measure chlorophyll *a* (a biomass estimate of the amount of live algae) and ash-free dry mass (AFDM; a biomass estimate of the amount of organic material). At each site, five replicates were collected following the methods described in Charlton et al. (1981) and Hickman et al. (1982). Each replicate consisted of scrapings from the surface (4 cm^2) of three stones

that were randomly selected from the stream or lake bottom (near shore areas accessible by wading). Samples used for algal identification and enumeration were placed in individually labelled 250 mL opaque containers and preserved with 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 destined for chlorophyll *a* analysis were filtered onto Whatman GF/C filter paper, covered with anhydrous $MgCO_3$, and frozen. Samples for AFDM determinations were subsampled in the laboratory, from the acid-Lugol's preserved samples.

Laboratory

Three of the five replicate periphytic algal samples collected from each location were processed as outlined in Lund et al. (1958). To meet reporting deadlines, the remaining two replicates were archived. Samples were first mixed and then subjected to serial dilutions (generally 0 to 1000 fold dilutions depending on algal and organic debris in original sample). Subsequently 1 to 10 mL subsamples were dispensed into sedimentation chambers. After a 12-hour sedimentation period, the basal area of each chamber was scanned qualitatively with an inverted Lietz 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 on all five replicates 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).

2.2.2 Phytoplankton

Field

Phytoplankton samples were collected during the summer (July) and fall (August) periods. A single composite sample was collected from the euphotic zone of each lake site. The euphotic zone is equal to the depth of 1% light penetration (approximately two times the Secchi depth). Vertical collections were made using a weighted plastic

tube. A sample consisted of a composite of three discrete vertical collections within this zone. In lakes that were more shallow than two times the Secchi depth, phytoplankton hauls encompassed the entire water column to 1 m above the lake bottom (to avoid contamination of the sample with sediment). Samples were placed in labelled 1 L polyethylene containers, preserved with 5% acid-Lugol's solution, and stored in the dark. Three drops of 100% formalin were added to each sample to prevent undue growth of bacteria and fungi during storage.

Laboratory

Prior to analyses, the phytoplankton samples were gently inverted, and 10 to 100 mL subsamples were dispensed into sedimentation chambers (Lund et al. 1958). After a 24 h sedimentation period, samples were processed. To obtain a comprehensive species list, the entire basal area of the chamber was scanned qualitatively with an inverted microscope (Wild M-40). Taxonomic keys used for identification included Prescott (1970), Taft and Taft (1971), and Webber (1971).

Once a comprehensive species list was formed, cell density was assessed. To calculate cell density (cells/mL), individual cells were enumerated within a specified area of the sedimentation chamber. This was accomplished by counting the number of cells along horizontal transects placed across the specified area. To calculate the cell density of each species in the sample, the number of cells within the specified area was extrapolated to the subsample, and then to the entire sample.

Cell biovolume ($\mu m^3/m^3$) was calculated by first measuring the physical dimensions (length, width, and depth) of 10 to 30 cells of each species in the sample. Estimates of cell biovolume were then generated by multiplying the mean dimension of cells belonging to a particular species by the number of cells enumerated for that species. The mean cell biovolume estimate for the subsample was then extrapolated to the entire sample. Species that were encountered during the qualitative assessment, but not enumerated (i.e., very low numbers or located outside the enumeration transects) were recorded as present.

For diatom identification and enumeration, a separate subsample was concentrated, dried onto a coverslip, ashed in a muffle furnace to remove organic matter, and mounted in Storax.

2.2.3 Zooplankton

Field

Zooplankton samples were collected during summer (July) and fall (August) periods. Each sample consisted of a composite of two or three vertical hauls at a particular site. The depth of each haul was equal to two times the Secchi depth. In lakes that were shallower than two times the Secchi depth, zooplankton hauls encompassed the entire water column to 1 m above the lake bottom (to avoid contamination of the sample with sediment). Zooplankton collections were made with a Wisconsin plankton net (net mouth diameter 13.34 cm) constructed with 0.064 x 0.064 mm Nitex® mesh, as recommended by Green (1977) to ensure adequate sampling of rotifers. To

prevent predation by cyclopoid copepods, each sample was immediately preserved in 5% formalin and stored in labelled 500 mL polyethylene bottles. Equipment was thoroughly rinsed after sampling at each site to prevent contamination.

Laboratory

Zooplankton counts were conducted using a dissecting stereo-microscope (Wild M-5); identifications were made using a compound microscope equipped with a phase-contrast condenser (Wild M-20). Taxonomic keys used for crustacean plankton were Brooks, Wilson and Yeatman (in Edmondson 1959), supplemented by the keys of Brooks (1957), Smirnov (1971), Brandlova et al. (1972), Flössner (1972), and Kiefer (1978). The taxonomic key used for identification of rotifers was the Voigt revision by Koste (1978), supplemented by keys of Ahlstrom (1943) and Ruttner-Kolisko (1974). Chaoboridae were identified using the keys of Cook (1956) and Saether (1970). Specimens were identified to the lowest taxonomic level possible.

Enumeration of zooplankton involved different techniques that were dependent on taxonomic group. Cladocerans and copepods (all stages) were enumerated either from three 15 mL subsamples or from the entire sample using a dissecting microscope at magnifications of 12 to 50×. For cladocerans and copepods, subsampling was performed (using an automatic pipette) on samples that contained large numbers of specimens. All samples were subsampled (using an automatic pipette) for rotifer enumeration; however, each subsample was allowed to settle for 24 h before processing. An inverted microscope (100× or 200×) was used to enumerate rotifers by counting either six fields (one field = 0.02625 cm^2) or the entire counting chamber (4.907 cm^2). Subsamples were continually removed from the original sample until approximately 200 mature or identifiable rotifer organisms were processed.

Once numbers of organisms within each sample were established, these values were converted to densities per cubic metre. This was accomplished by dividing the number of organisms encountered in a sample by the total volume filtered (i.e., net mouth area × depth of haul × number of hauls).

The biomass of major taxonomic groups within each sample was also calculated. To calculate biomass, lengths were measured from the first 30 individuals observed in a sample. Lengths of larger zooplankton were measured directly with a microscope connected to a calibrated Sigma Scan digitizing tablet. Smaller zooplankton, such as rotifers, were measured using an eyepiece graticule and corrected for magnification. Using length measurements from individual organisms, weights were calculated from published length-weight regression equations (Table 2.3). For each sample, a mean individual weight was calculated by averaging the estimated weights generated from the length-weight regression equation (it is important to average weights and not lengths; Bird and Prairie 1985). Biomass for each taxonomic group was calculated by multiplying the number enumerated for that sample by the mean individual weight.

Table 2.3 Length-weight regression equations used to calculate zooplankton weights.

Organism	Equation	Reference
Copepods	$\ln W(\mu g) = 1.9526 + 2.399 \cdot \ln L(mm)$	Bottrell et al. (1976)
Daphnia spp.	$\ln W(\mu g) = 1.6 + 2.84 \cdot \ln L(mm)$	Bottrell et al. (1976)
Bosmina spp.	$\ln W(\mu g) = 3.0896 + 3.0395 \cdot \ln L(mm)$	Bottrell et al. (1976)
Holopedium spp.	$\ln W(\mu g) = 6.4957 + 3.190 \cdot \ln L(mm)$	Downing and Rigler (1984)
Rotifers	$\ln W(\mu g) = -10.3815 + 1.574 \cdot \ln L(\mu m)$	Stemberger and Gilbert (1987)

2.2.4 Benthic Macroinvertebrates

Field Methods in Streams

Benthic macroinvertebrates were collected from stream sites during summer. Five replicate samples were collected at each site. The apparatus used for this purpose was a modified (0.243 mm mesh) Surber sampler (0.093 m^2). The substrate within the area enclosed by the sampler was thoroughly stirred with a wooden dowel to a 5 cm depth to dislodge the invertebrates (larger stones were individually cleaned and rinsed by hand). The sample was then preserved with 10% formalin and stored in a labelled, polyethylene sample bag. Water velocity and substrate type were recorded at each site.

Field Methods in Lakes

Benthic macroinvertebrates were sampled from mid-basin locations (2.2 to 14.7 m water). Five replicate samples were collected at each site using an Ekman grab sampler (area equal to 0.023 m^2). Individual samples were then sieved through a 0.243 mm mesh to remove excess sediment, placed in labelled polyethylene sample bags, and preserved in 10% formalin. Water depth and substrate type were recorded for each sample location.

Laboratory

Laboratory analyses of benthic macroinvertebrates were conducted in the same manner for both stream and lake samples. Three of the five replicate samples collected at each location were processed in the laboratory. The remaining two replicates were archived because variations in the data associated with three replicates were generally at or below recommended levels for benthic samples (i.e., standard errors should be equal to or less than 20% of means; Elliott 1977). Samples were first processed to remove all extraneous substrate and organic matter. Individual samples were washed to remove the preservative and repeatedly elutriated (i.e., repeatedly rinsed and decanted) to remove silt, sand, and gravel (i.e., inorganic materials). This procedure was continued until invertebrates were no longer observed in the elutriated water. The remaining organic and inorganic material was scanned (by eye) in an enamelled tray, and large animals (greater than 0.5 cm) were removed. The sample was then fractionated (using a series of nested sieves) into the following components:

- a large fraction containing filamentous algae, macrophyte pieces, and plant material (greater than 4 mm),
- a coarse fraction (1 - 4 mm),
- a medium fraction (0.5 - 1 mm), and
- a fine fraction (0.25 - 0.5 mm).

Using a dissecting microscope (6 to 42× magnification), invertebrates were then sorted by major taxonomic groups and identified to the lowest practical taxonomic level (genus or species where possible). More difficult groups, such as nematodes, were identified to a higher taxonomic level. Keys used for identification included Baumann et al. (1977), Wiggins (1977), Wiederholm (1983), Merritt and Cummins (1984), Brinkhurst (1986), and Clifford (1991).

2.3 FISH POPULATIONS

2.3.1 Capture Methods

Assessments of fish populations in the study area lakes were conducted using a variety of sampling methods. Being cognisant of the value of the Meliadine Lake fishery to the domestic harvest of Rankin Inlet, every effort was made to minimize fish mortalities. The primary fish capture methods used in lakes were fyke nets, short duration gill net sets, and angling. Backpack electrofishers were used to collect fish from small streams and the Meliadine River. A fish fence installed in the lower reaches of the Meliadine River was used to enumerate and sample fish that migrated out of Hudson Bay during the late summer/early fall season. Other fish assessment methods included snorkelling surveys of the Meliadine River and sampling of local fishermens' catch on an opportunistic basis. In addition, egg sampling with a fine mesh dipnet was used during the spring season to collect Arctic grayling eggs, which were used to identify major spawning areas in streams. Detailed descriptions of the main fish capture methods are provided below.

Backpack Electrofishing

Shallow water habitats in small streams and in the Meliadine River were sampled using a Smith-Root Type XII high output backpack electrofisher. The electrofisher operator waded upstream along the banks and sampled in the vicinity of suspected fish holding areas (undercut banks, boulder cover, etc.). The netter, who was positioned immediately downstream, collected the stunned fish and placed them in a holding bucket. Recorded information at each sampled site included UTM coordinates, date and time of day, water temperature and conductivity, distance sampled (m), sampling effort (s), electrofisher settings, and the number and species of fish captured or observed.

Gill Netting

Variable-mesh experimental gill net sets were employed to sample deep water habitats in Meliadine Lake, Little Meliadine Lake, and in selected small lakes within Basins A, B, D, and G during the summer and fall field sessions. Each experimental gill net set was comprised of 15.2 m x 1.8 m panels of 1.9, 3.8, 6.4, 8.9, 11.4. and 14.0 cm mesh sizes (stretched measure). Experimental gill net sets were used to sample a wide range of fish size-classes and to allow comparison of catch rates. Set times were kept short (i.e., <2 h) to minimize capture related mortalities. Information recorded at each gill net site included UTM coordinates, date and time of set and lift, water temperature, water depth, wind speed and direction, cloud cover, substrate composition, and the number and species of fish captured in each mesh size.

Fyke Net

A modified Arctic fyke net was utilized to sample near-shore fish movements in the east basin of Meliadine Lake. It was installed in a sandy beach area in a small bay near the existing WMC camp. The fyke net consisted of two trap nets (to determine direction of movements), two 15 m wings, and a 30 m lead to shore. The traps were 3.7 m long and 0.9 m wide, contained two throats (15 x 25 cm each), and were constructed of 1.27 cm dark grey knotless nylon mesh. Wings and lead were constructed of 2.54 cm dark grey knotless nylon and were 1.7 m deep. The fyke net was held in place by metal stakes driven into the lake bottom. The fyke net was checked twice daily during the first week of operation (12-19 July); during the second week (20-27 July), it was checked only in the mornings. Recorded information at each fyke net check included water temperature, set duration, and the number and species of fish captured in the eastbound and westbound trap compartments.

Fish Fence

During the fall session, a fish fence (provided by DFO in Rankin Inlet) was installed in the lower section of the Meliadine River (approximately 2 km from the mouth) to assess upstream fall migrations of Arctic charr and other species from Hudson Bay. This location was previously used for the fish fence installation by DFO in 1991 (McGowan 1992); it provided a narrow and uniform channel with large substrate that limited the chance of scouring to undermine and breach the fence.

The fish fence consisted of 10 panels (3.1 x 1.5 m each) constructed of a metal frame with removable conduit rods (1.8 cm in diameter). The spacing between the rods was 1.5 cm. The panels were supported by wooden "A" frames and sandbagged into position. Upstream migrant fish were funnelled into a trap box located in mid-stream. The trap consisted of a wooden frame (2.3 m long, 1.8 m wide, and 1.6 m high) perforated with holes for holding vertical conduit sections that formed the trap walls. The entrance to the trap consisted of a wooden funnel that reduced the opening to 18 cm in width. The trap was covered with plywood to provide shade for the fish.

The fish fence was operational between 15 August and 3 September. It was checked twice daily to monitor diurnal movement patterns. Information recorded during each trap check included water temperature, set duration, and the number of captured upstream migrants.

Egg Sampling

Egg sampling at suspected Arctic grayling spawning sites within the peninsula watersheds and in the Meliadine River was conducted in conjunction with the backpack electrofishing program during the spring field session. The procedure involved positioning a fine mesh dip net on the stream bottom immediately downstream of a potential spawning site and disturbing the substrate (approximate area of 0.3 m^2) with a foot for approximately 10 seconds. The contents of each sampled area were examined in the field and a subsample of collected eggs was preserved for positive identification in the laboratory. Recorded data included the total number of sampled areas, total number of Arctic grayling eggs encountered, maximum number of eggs per sampled area, and the total number of sampled areas that did not yield eggs.

2.3.2 Fish Data Collection and Analyses

Life history information was collected from all captured fish, or from a subsample if large numbers were encountered. These data included fork length, weight, and sexual maturity (if discernible through external examination). Appropriate non-lethal ageing structures (e.g., scales, fin rays) were also collected. Floy tags were applied to sportfish larger than 250 mm in fork length to assess their movements (through subsequent recaptures); sportfish smaller than 250 mm in fork length were fin clipped (first two or three rays of pelvic fin were removed) to determine the frequency of recaptured fish during a particular sampling session. Accidental mortalities (as well as fish sacrificed for tissue samples) were examined for stomach contents and stage of sexual maturity; they were also dissected to collect otoliths (for age determinations). In addition, ovaries from four Arctic charr were collected from Little Meliadine Lake in September 1997 for subsequent fecundity determinations.

Fish ageing was conducted in accordance to the methods outlined in MacKay et al. (1990). A random sample of ageing structures were read by two independent readers and verified for accuracy by a third reader. In cases where differences in ages were noted, the samples were re-aged until a consensus was reached. Relative abundance of fish was calculated in terms of catch-per-unit-effort (CPUE) based on the number of captured fish per unit of effort that was dependent on the sampling method. The units of effort included minutes of electrofishing sampling time (backpack electrofishing), hours of net deployment (gill nets and fyke nets), and rod-hours (angling). Fish condition factors were calculated according to Carlander (1969).

To facilitate data recording and presentation of the results, all captured fish species were assigned a four-letter code in accordance with Mackay et al. (1990). The common and scientific names of all fish species mentioned in this report, as well as their corresponding coded abbreviations, are presented in Table 2.4.

Table 2.4 Common and scientific names of fish species captured in the Meliadine Study Area, and their coded abbreviations.

Family	Common Name	Scientific Name	Code[a]
Sportfish			
Salmonidae	Arctic charr	*Salvelinus alpinus* (Linnaeus)	ARCH
	Lake trout	*Salvelinus namaycush* (Walbaum)	LKTR
	Arctic grayling	*Thymallus arcticus* (Pallas)	ARGR
	Round whitefish	*Prosopium cylindraceum* (Pallas)	RNWH
	Cisco	*Coregonus artedi* Lesueur	CISC
Gadidae	Burbot	*Lota lota* (Linnaeus)	BURB
Non-sportfish			
Cottidae	Slimy sculpin	*Cottus cognatus* Richardson	SLSC
Gasterosteidae	Ninespine stickleback	*Pungitius pungitius* (Linnaeus)	NNST
	Threespine stickleback	*Gasterosteus aculeatus* Linnaeus	THST

[a]According to Mackay et al. (1990).

2.3.3 Radio Telemetry

The radio telemetry program involved two components: surgical implantation of radio transmitters in fish and subsequent tracking to determine seasonal movements and identify critical spawning, summer feeding, and

overwintering habitats. Arctic grayling and lake trout were implanted during the spring and summer field sessions, whereas most Arctic charr were implanted during the fall fish fence operations in Meliadine River. Seven radio tracking flights were carried out between 21 July and 25 October 1997; additional tracking flights are also planned for spring and summer of 1998. The following description briefly summarizes the radio telemetry procedures.

Surgical Implantation

Radio transmitters were manufactured by Lotek Engineering Inc. of Aurora, Ontario. Two models of transmitters were used for implantation. The larger model (MCFT-7A) was 83 mm in length, 16 mm in diameter, and weighed 29 g; it was used in lake trout and Arctic charr. The smaller model (MCFT-3BM) was 43 mm in length, 11 mm in diameter, and weighed 8 g; it was used in Arctic grayling. Both models were equipped with a 435 mm trailing whip antenna. Each transmitter was equipped with a microprocessor to control its activation time (time on and off). The smaller transmitter (8 g) operated 12 h on and 12 h off with a minimum life span of 358 days, while the larger transmitter (29 g) operated 18 h on and 6 h off for a minimum life span of 415 days. Both models operated on high frequencies in the 149.70 to 149.76 MHZ range. The external capsule material of the transmitters was nalgene; it was designed not to bond to protein and thus reduce the potential for rejection or expulsion from the body of the fish.

Surgical implantation procedures used during this study were based on techniques described by Bidgood (1980) and Knecht et al. (1981). A 60 L anaesthetic tank was positioned close to the river or lake. Fish selected for transmitter implantation were placed individually in the anaesthetic tank. Clove oil at a concentration of 40 ppm was used to induce rapid anaesthesia. Inducement time was normally from 2.5 to 5 minutes. Fish were then removed from the anaesthetic tank and placed on the operating table in a wetted, sponge-lined trough.

A short, longitudinal incision (approximately 3 cm in length) was made in the body wall. A sterilized No. 16 hypodermic needle was then inserted through a point in the body wall to the side and posterior to the incision. The transmitter antenna wire was inserted into the hollow needle, the needle removed, leaving the antenna wire exiting the body wall of the fish. The radio tag (sterilized in zephiran chloride and rinsed in distilled water) was placed in the body cavity of the fish, and the incision closed. A simple interrupted suture pattern was used to rejoin the incision using a monofilament absorbable suture. VetBond™ (n-butyl cyanocrylate tissue adhesive) was applied to the outside of the incision and the antenna wound. Oxygenated water was directed over the gills during the surgical procedure, and continued until the fish exhibited voluntary respiration and caudal movements. The fish was then placed in the river or lake and supported by hand until equilibrium could be independently maintained.

Tracking

Tracking was accomplished primarily from helicopter (Bell 206 Jet Ranger). A single four element Yagi antenna was mounted on the landing strut (using a specially designed mounting bracket) of the passenger's side of the aircraft in an approximately 45° forward position. Flight altitude varied from 80 to 150 m depending on the area

searched, weather conditions, and signal reception. Flights at higher altitudes increased the range at which audio signals could be detected, but in most instances low level passes were needed to acquire the transmitter code. A scanning receiver model SRX-400 (manufactured by Lotek Engineering Inc.) was utilized during surveys. The location of each radio tagged fish encountered during tracking surveys was recorded on 1:50 000 scale maps and tabulated for reference purposes.

2.3.4 Fish Tissue Sampling

To provide baseline information on the concentrations of metals in fish, samples of muscle, liver, and kidney tissues were collected from Arctic charr captured in the Meliadine River. Dorsal musculature (approx. 50 to 100 g) was dissected from the fish and sealed in sterile specimen containers. Livers and kidneys also were dissected and stored individually. All tissue samples were kept frozen until the time of analysis.

Analyses of fish tissue samples were conducted at the Elemental Research Inc. laboratory in Vancouver, B.C. Samples were prepared for analyses by first homogenizing the tissue in plastic cups using a "Vitris" shearer equipped with stainless steel blades. Approximately 1 g of homogenized tissue was then weighed into a pre-cleaned teflon digestion vessel. High purity "Seastar" nitric acid (4 mL) was added and the vessel was capped before being heated to 150°C. The resulting solution was made up to a volume of 25 mL with de-ionized water for subsequent analyses by Inducively Coupled Argon Plasma / Mass Spectrometer (ICPMS) at a dilution factor of five.

For each sample, a 27 element trace metal scan was performed using ICPMS. The instrumentation used to perform the analyses was a Finnegan MAT SOLA ICPMS. Nominal settings used were 1500 W forward power, <5 W reflected, 15 L/min coolant, 1.1 L/min auxiliary, and 0.96 L/min ebuliser flow. Optimization of the lens settings was carried out daily by maximizing the signal obtained from a 100 ppb Y solution. QA/QC procedures included running certified reference materials (NBS 1566A oyster tissue and DORM-2 dogfish tissue) as well as four sample duplicates. Moisture content was measured using 1 g of homogenized tissue. The sample was weighed in a pre-weighed 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.

3.0 PHYSICAL ENVIRONMENT

3.1 STREAM DISCHARGE

Stream discharge was measured at several small streams in selected watersheds (Basins A, B, D, F, and G) on the raised peninsula of Meliadine Lake (Figure 3.1). The streams formed short connections between the peninsula lakes; they ranged from 32 m (D1-2) to 336 m (A5-6) in length. To evaluate changes in stream discharge throughout the open water period and determine its effects on fish habitat, assessments were undertaken during June, July, and August. In addition to spot discharge measurements on selected streams, continuous monitoring of discharge was undertaken by AGRA Earth and Environmental Ltd. on key streams in the study area (A0-1, A5-6, B3-4, D4-5, ML-MR, ML-PL, and the Diana River).

All peninsula streams were characterized by a short duration of peak flows during snowmelt in June, followed by a rapid decline to low or trace flows in July, and trace or dry conditions in August (Appendix A, Table A2; Figure 3.2). Several of the surveyed streams exhibited decreases in flow volume of 90 to 95% between mid-June and mid-July. The highest flows in July (0.018 m^3/s) were recorded near the outflow of Basin B; all other basins featured very low flows (less than 0.007 m^3/s). In August, only the largest streams in Basins B and D maintained limited flow; all surveyed streams in Basins A and G were dry.

Spring flows at the lowermost survey sites in each basin were highly correlated ($r^2 = 0.983$) with their respective drainage areas (see Table 1.1 and Appendix A, Table A2). The linear relationship between discharge and drainage area (Discharge [m^3/s] = 0.021 Area [km^2] - 0.037) indicated that approximately 50 km^2 of area was required to generate 1 m^3/s of stream flow during freshet in June 1997. Spring discharges were higher in the lower reaches of Basins B, A, and D (0.417, 0.155, and 0.099 m^3/s, respectively) due to their larger drainage areas (20.9, 8.9, and 8.3 km^2, respectively). In contrast, Basins F and G drained much smaller areas (2.2 and 1.4 km2, respectively) and featured very low flows in mid-June (less than 0.02 m^3/s).

3.2 STREAM HABITAT ASSESSMENTS

Stream characteristics such as habitat type, channel type, substrate, and instream cover were assessed during the spring field session at several small streams in Basins A, B, D, F and G, as well as the Meliadine River (Figure 3.1). The detailed transect data and summary information are provided in Appendix A, Tables A3 and A4; photographs of representative habitat conditions are presented in the plates section.

The mean channel width of streams surveyed ranged between 0.3 and 33 m; overall mean width was 7.2 m. Where the flow was almost entirely confined to one channel, the widths were generally between 2 and 4 m. Average width of the Meliadine River was 51 m, with the entire flow confined to a single channel. The channel width should not be strictly interpreted as a measure of the stream's size or discharge, especially for smaller streams.

This is a result of the highly braided character of many of the surveyed streams. Although channel width may be large, this is not directly correlated to high discharge since the flow may be diverted through multiple channels or may be dispersed (i.e., no defined channel).

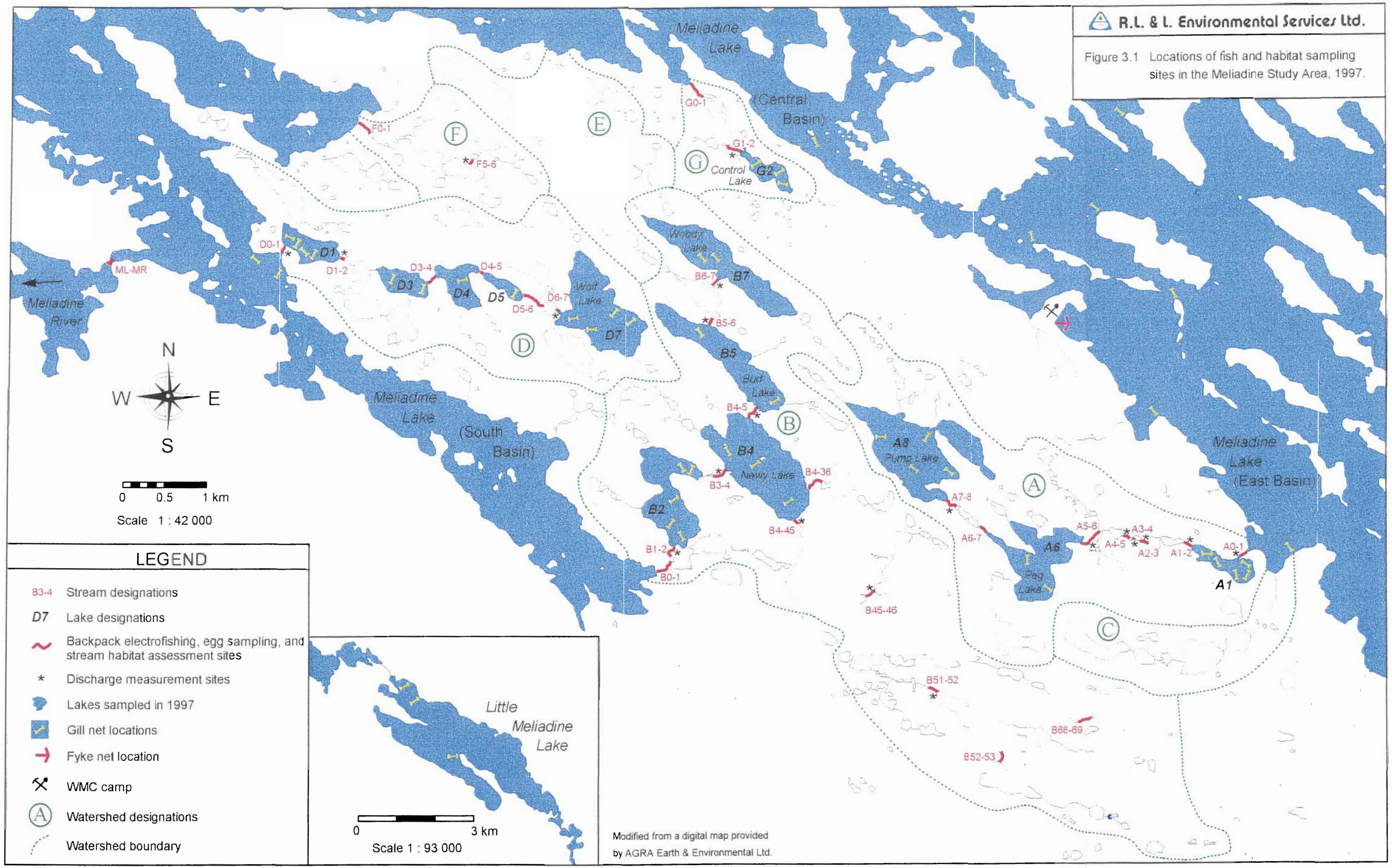
Most (77%) of the surveyed streams featured two or more channel types. In addition to the channel type C1, which is characterized by confinement of the entire flow through one channel, other commonly encountered channel types were those in which the flow was separated into two or more channels (types C2 and C3). A small portion of the streams surveyed (7%) consisted almost entirely of channel type C4, characterized by dispersed flow over grass-covered terrain.

Water depths in surveyed streams were measured along habitat transects during spring, summer and fall. Average water depth in spring ranged between 7 and 42 cm; maximum depth ranged from 12 to 140 cm. By summer, water depths had decreased substantially, with average values ranging between 3 and 14 cm and maximum recorded depths between 7 and 30 cm. During the fall session, streams with trace flow exhibited depths of 2 to 8 cm; all other streams were dry. Owing to the very shallow nature of the peninsula streams during summer and fall, the amount of stream habitat available for fish use became severely limited and caused temporary isolation of fish populations in several peninsula lakes.

In all streams surveyed, instream habitat types were dominated by shallow runs (R3) in terms of both frequency of occurrence and abundance. Other habitat types frequently encountered included riffles (RF) and riffle/boulder garden (RF/BG). High quality habitats (i.e., based on water depth and availability of cover for fish) were rare and occurred only in the form of pools (P1 and P2) and deeper run habitats (R2), indicating that the majority of the habitat was shallow (i.e., <0.5 m in depth). Substantial portions of stream habitat (especially in the smallest streams) consisted of dispersed flow over grass and suggesting very limited fisheries potential.

Substrate in most of the surveyed streams consisted primarily of coarse materials including cobble, boulder and gravel. Fine materials (e.g., silt and sand) were present in small amounts. Organic material, composed largely of grass, was the dominant substrate type in 33% ($n=10$) of the streams surveyed.

Total instream cover ranged from 8 to 90% of the surveyed area; on the average, the peninsula streams featured adequate fish cover in approximately one half (49%) of the channel area. Several types of cover were available, with boulder garden, aquatic vegetation, and submerged terrestrial vegetation being the most abundant. Limited amounts of undercut or overhanging bank were also available. Cover due to depth and/or turbulence was identified only in the Meliadine River.


R.L. & L. Environmental Services Ltd.
Figure 3.1 Locations of fish and habitat sampling sites in the Meliadine Study Area, 1997.
Meliadine Lake (Central Basin)
Meliadine Lake (South Basin)
Meliadine Lake (East Basin)
Meliadine River
Control Lake
Woody Lake
Wolf Lake
Bud Lake
Newy Lake
Pump Lake
Peg Lake
Little Meliadine Lake
G0-1
G1-2
G2
F0-1
F5-6
D0-1
D1
D1-2
D3-4
D3
D4-5
D4
D5
D5-6
D6-7
D7
ML-MR
B6-7
B7
B5-6
B5
B4-5
B4
B3-4
B4-36
B4-45
B2
B1-2
B0-1
A8
A7-8
A6-7
A6
A5-6
A4-5
A3-4
A2-3
A1-2
A0-1
A1
B45-46
B51-52
B68-69
B52-53
A
B
C
D
E
F
G
N
W
E
S
0 0.5 1 km
Scale 1 : 42 000
LEGEND
B3-4 Stream designations
D7 Lake designations
Backpack electrofishing, egg sampling, and stream habitat assessment sites
Discharge measurement sites
Lakes sampled in 1997
Gill net locations
Fyke net location
WMC camp
Watershed designations
Watershed boundary
0 3 km
Scale 1 : 93 000
Modified from a digital map provided by AGRA Earth & Environmental Ltd.

Helicopter Overview

A helicopter survey of all stream connections within the main peninsula watersheds (Basins A, B, and D) was conducted on 21 June 1997 to assess their suitability for Arctic grayling movements and spawning/rearing potential. All streams were visually assessed from the air and classified into one of seven categories (Table 3.1; Appendix A, Table A5).

Table 3.1 Aerial classification of small streams on the peninsula in Meliadine Lake, 21 June 1997.

Habitat Quality	Class	Number of Streams			Total	
		Basin A	Basin B	Basin D	Number	(%)
Low	0	14	13	1	28	*17*
	1	20	27	12	59	*35*
	2	6	20	11	37	*22*
Marginal	3	2	17	2	21	*12*
High	4	6	9	2	17	*10*
	5	2	3	1	6	*4*
	6	0	1	0	1	*1*
Total		**50**	**90**	**29**	**169**	***100***

Legend:
- Class 0 dry or discontinuous watercourse
- Class 1 dispersed flow through grass; undefined stream channel
- Class 2 stream channel barely discernible; most flow dispersed over grass; substrate entirely organic
- Class 3 well defined stream channels; substrate mostly organic; gravel and cobble areas present but infrequent
- Class 4 most of stream channel composed of coarse (gravel/cobble/boulder) substrate
- Class 5 stream channel entirely composed of coarse substrate; limited holding areas (deeper pools)
- Class 6 stream channel entirely composed of coarse substrate; holding areas present

In total, only 24 streams (15%) were rated as Classes 4 to 6, indicating the presence of potential spawning habitat. Of the remaining 145 streams that were classified, 73% were designated as Classes 0 to 2 (low quality fish habitat). Class 3 streams, some of which may provide marginal spawning habitat, accounted for 12% (n=21) of the total. Interbasin differences between the total percent of each class were observed; however, they were generally minor and confined to the first three categories (i.e., Classes 0 to 2) of streams.

3.3 LAKE MORPHOMETRY

The bathymetric survey program in 1997 was restricted to the east basin of Meliadine Lake and was carried out during 25-29 July. Based on 182 cross sectional transects (Appendix A, Figure A6), a bathymetric map of the basin was produced (Figure 3.3). The morphometric characteristics of this basin (based on the bathymetric survey) and other lakes in the study area (based on 1:50 000 NTS maps and air photo interpretations) are summarized in Table 3.2.

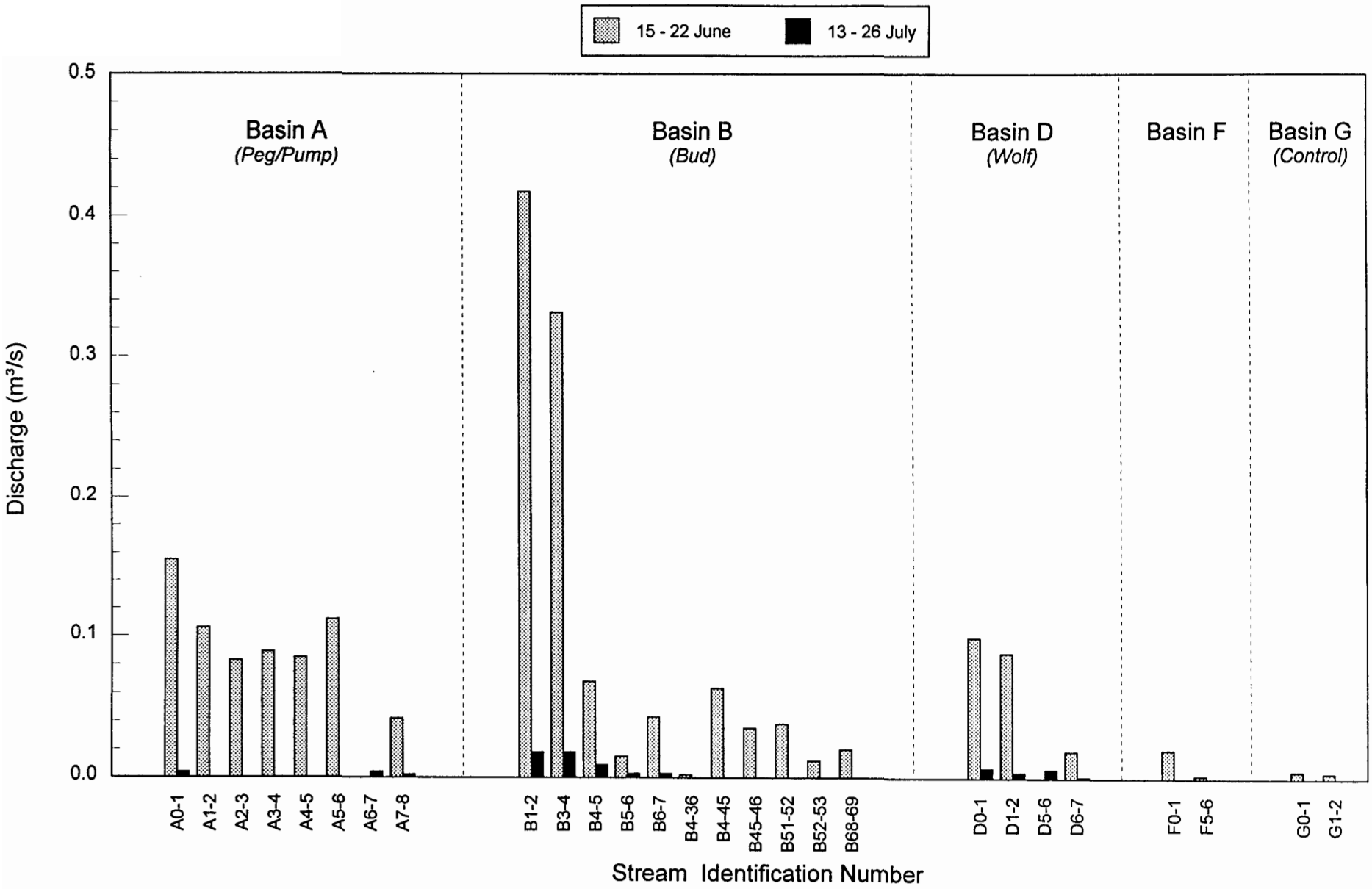
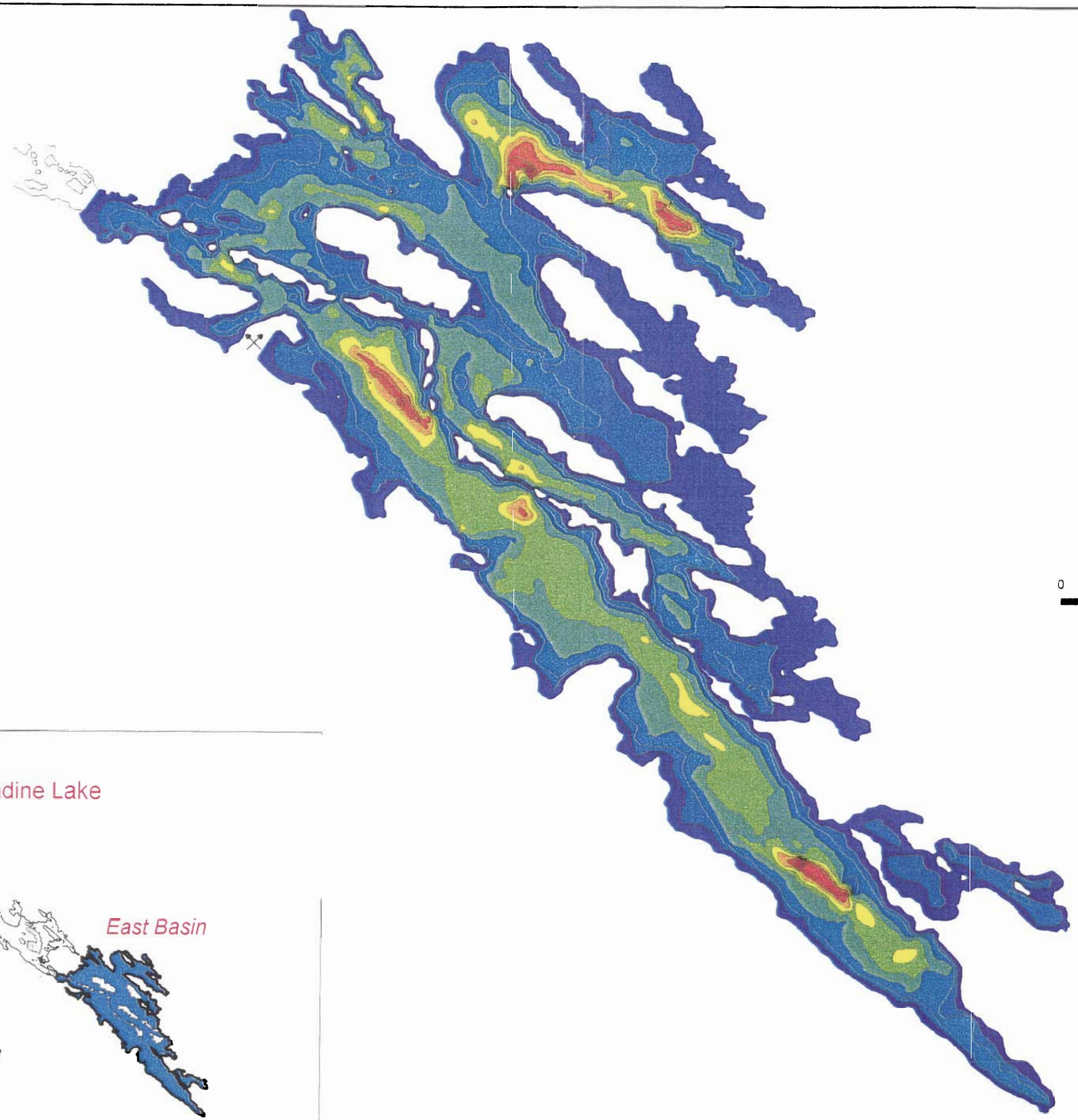
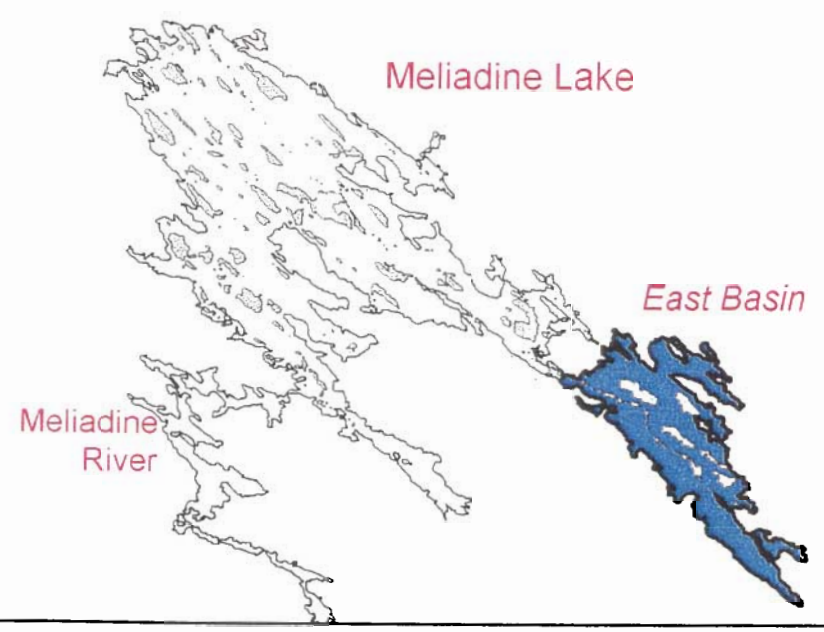


Figure 3.2 Discharge of selected streams within the peninsula watersheds of the Meliadine Study Area, June and July 1997. Discharge measurements were not carried out in August due to trace flow or dry conditions in all streams.

R.L. & L. Environmental Services Ltd.

Figure 3.3 Bathymetric map of the east basin of Meliadine Lake, 1997.





N
W E
S

Scale 1 : 40 000

0 0.5 1.0 1.5 2.0

Kilometres

LEGEND

Depth (m)

0
2
4
6
8
10
12
14
16
18
20
22

WMC Camp

Table 3.2 Morphometric characteristics of surveyed lakes within the Meliadine Study Area, 1997.

Lake	Surface Area (ha)	Lake Volume ($m^3 \times 10^6$)	Depth (m)		Shoreline Length (km)			Shoreline Development Index	Islands	
			Mean	Max.	Mainland	Islands	Total		n	Area (ha)
ML	10688.5	n.d.	n.d.	n.d.	269.8	195.3	465.1	12.69	243	1288.8
ML-E	2118.0	100.4	4.7	21.2	73.2	30.3	103.5	6.35	29	206.3
A1	14.8	n.d.	n.d.	2.0	2.2	0.0	2.2	1.61	0	0.0
A6	50.3	n.d.	n.d.	2.5	5.1	0.0	5.1	2.03	0	0.0
A8	88.6	n.d.	n.d.	3.6	7.0	0.0	7.0	2.09	0	0.0
B2	50.5	n.d.	n.d.	2.8	4.4	0.0	4.4	1.75	0	0.0
B4	83.5	n.d.	n.d.	2.4	4.6	0.4	5.0	1.52	2	0.4
B5	52.8	n.d.	n.d.	3.2[a]	4.6	0.0	4.6	1.79	0	0.0
B6	11.8	n.d.	n.d.	n.d.	1.9	0.0	1.9	1.52	0	0.0
B7	56.8	n.d.	n.d.	4.3[a]	5.1	0.0	5.1	1.89	0	0.0
D1	17.9	n.d.	n.d.	2.2	2.1	0.0	2.1	1.41	0	0.0
D3	14.7	n.d.	n.d.	2.3	1.7	0.0	1.7	1.26	0	0.0
D4	17.1	n.d.	n.d.	2.5[a]	2.2	0.1	2.3	1.56	1	0.1
D5	6.2	n.d.	n.d.	2.0	1.3	0.0	1.3	1.45	0	0.0
D7	68.0	n.d.	n.d.	3.2	4.5	0.0	4.5	1.54	0	0.0
G2	11.9	n.d.	n.d.	2.5	2.1	0.0	2.1	1.71	0	0.0

[a] from Hubert and Associates Ltd. (1996)
n.d. = not determined

The east basin of Meliadine Lake (2118 ha) contributes approximately 20% to the entire area of the lake. It is separated from the rest of the lake by a shallow and narrow area (up to 2.3 m deep, 100-300 m wide, and 800 m long) that features numerous rocky islands and reefs. This constriction may result in separation of the east basin from the rest of the lake if sufficient ice cover (up to 2.5 m in depth) were to impede or restrict water flow between the basins during winter.

A large esker bisects the east basin along its northwest to southeast orientation. The lowest areas along the esker's ridge are submerged to form a chain of 12 elongated islands. The lake basin southwest of the esker is approximately 11 km long, 1 km wide, and almost devoid of islands. A "trench" of at least 8 m in depth follows most of the esker's length; it contains two isolated "holes" that exceed 18 m in depth. The area northeast of the esker is generally more shallow and features numerous bays, extensive peninsulas, and large islands; however, it also contains the deepest point (21.3 m) within the surveyed area.

The total volume of the east basin of Meliadine Lake was estimated at 100.4×10^6 m^3. More than one third of this volume is contributed by lake areas that are less than 2 m in depth (Table 3.3; Figure 3.4); this indicates a

considerable reduction in lake volume during the winter months, when these areas may freeze to the bottom. Owing to the high shoreline development index (6.35) and the shallow nature of the lake, the littoral zones (i.e., less than 6 m in depth) contribute approximately 65% to the lake's area. Although "deep-water" regions (10 m or more in depth) were frequently encountered throughout the surveyed basin, their contribution to the total volume was small (3.1%). The mean depth of the east basin was estimated at 4.7 m.

Table 3.3 Vertical distribution of lake area and volume in the east basin of Meliadine Lake, July 1997.

Depth (m)	Area		Volume	
	(ha)	*(%)*	($m^3 \times 10^6$)	*(%)*
>0	2118.0	*100.0*	100.39	*100.0*
>2	1555.0	*73.4*	63.66	*63.4*
>4	1077.2	*50.9*	37.34	*37.2*
>6	744.0	*35.1*	19.13	*19.0*
>8	368.9	*17.4*	8.00	*7.9*
>10	116.4	*5.5*	3.15	*3.1*
>12	56.8	*2.7*	1.42	*1.4*
>14	30.1	*1.4*	0.55	*0.5*
>16	10.8	*0.5*	0.14	*0.1*
>18	1.4	*0.1*	0.02	*<0.1*
>20	0.2	*<0.1*	<0.01	*<0.1*

With a surface area of 88.6 ha, Lake A8 (Pump Lake) is the largest waterbody among the peninsula lakes; it is also one of only four lakes that exceed 3.0 m in maximum depth. The deepest spot within the peninsula lakes was recorded in Lake B7 (4.3 m). Because of the shallow nature of the peninsula lakes, the under-ice water volume during late winter is likely reduced to a small fraction of the summer lake volume, especially when the ice cover exceeds 2.0 m in depth, as is often the case (Hubert and Associates Ltd. 1996).

3.4 WATER TEMPERATURE

Due to thermograph malfunction, only 1 of 13 deployed thermographs functioned properly (in Stream B1-2); the remaining units recorded data for only three days after deployment. Although the incomplete data from the malfunctioning thermographs were of limited use for monitoring seasonal temperature changes, they were used to assess diurnal temperature fluctuations in waterbodies of variable sizes (i.e., Peter and Meliadine lakes, Lake G2, and Stream B1-2) through a comparison of simultaneously recorded water temperatures over a three-day period in July.

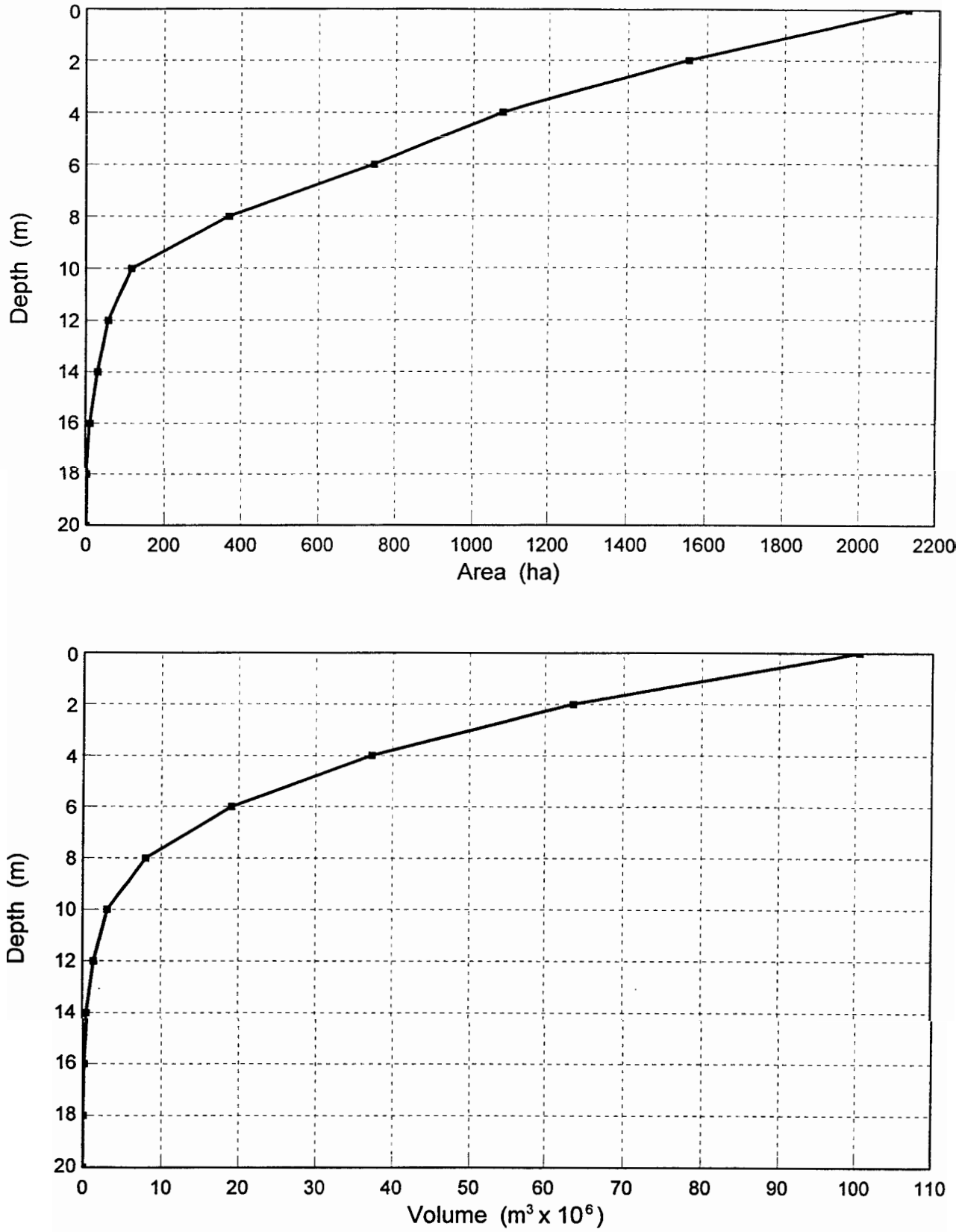


Figure 3.4 Area and volume of the east basin of Meliadine Lake as a function of its depth.

Stream B1-2

The thermograph in Stream B1-2 (the largest stream on the peninsula) operated between 12 July and 1 September 1997. Water flows during this period were low (0.018 m^3/s on 19 July), but the thermograph remained submerged during the entire period. A summary of mean daily water and air temperatures is provided in Appendix A, Table A6. Mean, minimum and maximum daily water temperatures are illustrated in Figure 3.5. Water temperatures ranged between 3.5°C (1 September) and 21.4°C (27 July); the average water temperature over the monitored period was 12.8°C. The diurnal fluctuations in temperature ranged from 1.8 to 11.8 Celsius degrees, with an average difference of 5.6 Celsius degrees between daily minimum and maximum temperatures. The period of greatest daily fluctuations in temperature occurred between 13 and 16 August, when the magnitude of changes ranged from 10.0 to 11.8 Celsius degrees. This period also corresponded to dramatic changes in air temperature, with values as low as 1.6°C and as high as 22.2°C over the four-day duration.

In terms of weekly or monthly trends, average daily water temperatures in excess of 15°C were recorded during the second half of July. By early to mid-August, the average daily water temperature had decreased by approximately 7 Celsius degrees, and the highest daily mean was only 13.6°C. From mid-August until the end of the study period, average daily temperatures exhibited less variation and were largely stabilized between 10 and 14°C. This slight increase in average temperature also corresponded to a period of increased air temperature during the third week of August.

The results suggested that the large daily fluctuations in water temperature that occurred in Stream B1-2 were likely typical of other small streams in the study area. They also indicated that the water temperature was closely related to the air temperature and sudden changes in air temperature resulted in almost immediate corresponding changes in water temperature. This close relationship between air and water temperature was largely due to the shallow nature of the stream which permitted rapid warming or cooling over a short period of time.

Three-Day Comparison of Summer Temperatures within Different Waterbodies

Diurnal fluctuations in water temperature were measured (by thermographs submerged at 1 m depth) in several lakes within the study area over a three-day period during mid-summer (12-14 July). A comparison of the results from four lake basins (ML-E, ML-W, PL, and G2) and one peninsula stream (B1-2) is provided in Figure 3.6; summary statistics are presented in Table 3.4. Over this brief period, several trends in diurnal fluctuation of water temperatures were observed. Lake G2 (Control) consistently exhibited the highest temperatures, while Peter Lake was consistently 3 to 4 Celsius degrees cooler than the next coldest lake (i.e., Meliadine Lake). Water temperatures at both stations on Meliadine Lake were similar and varied less than 1 Celsius degree over the three-day period. The maximum temperature recorded was 18.8°C (Lake G2), whereas the minimum temperature was 9.9°C (Peter Lake).

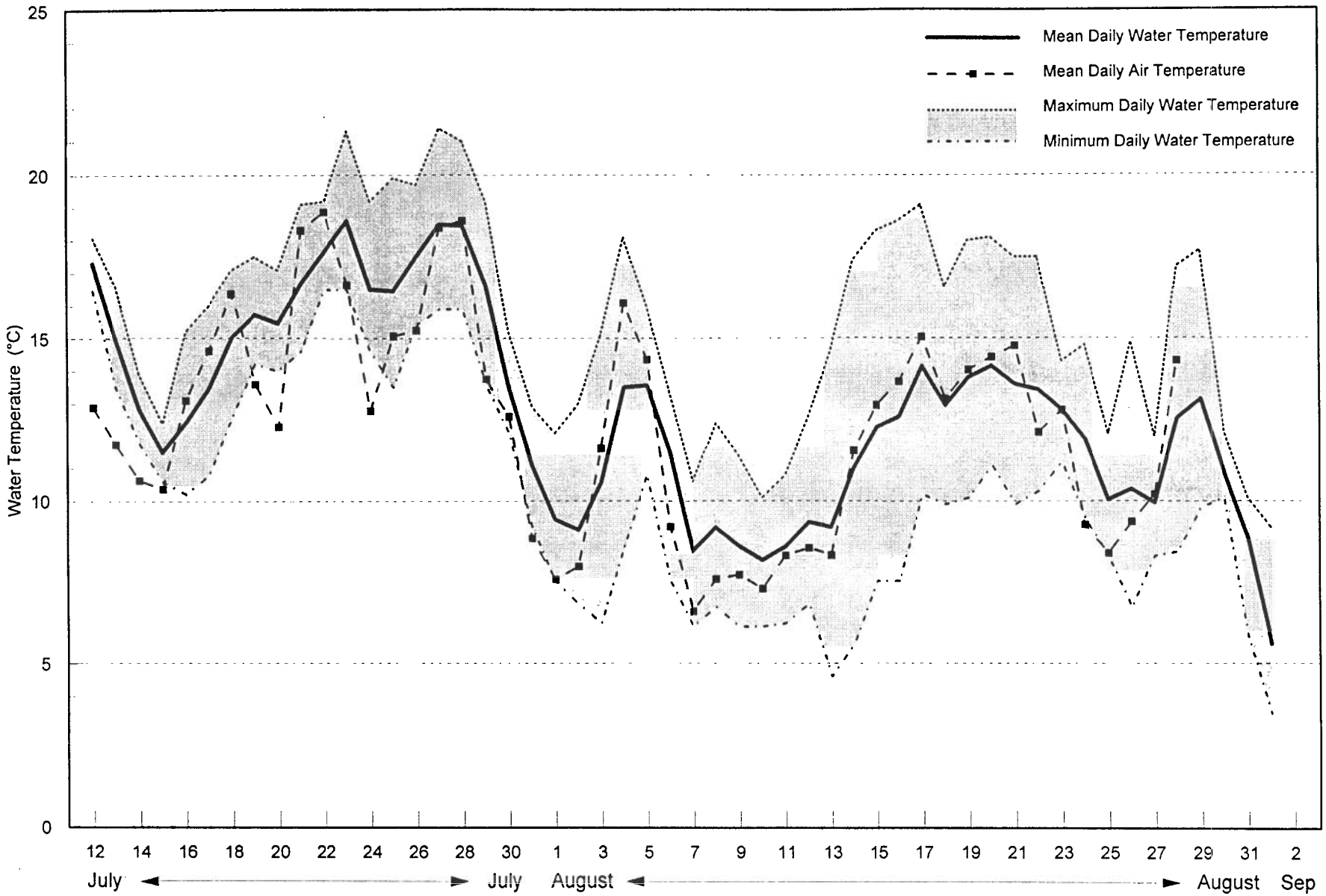


Figure 3.5 Mean, minimum and maximum daily water temperatures in Stream B1-2 compared with mean daily air temperature at the WMC camp, 12 July - 1 September 1997.

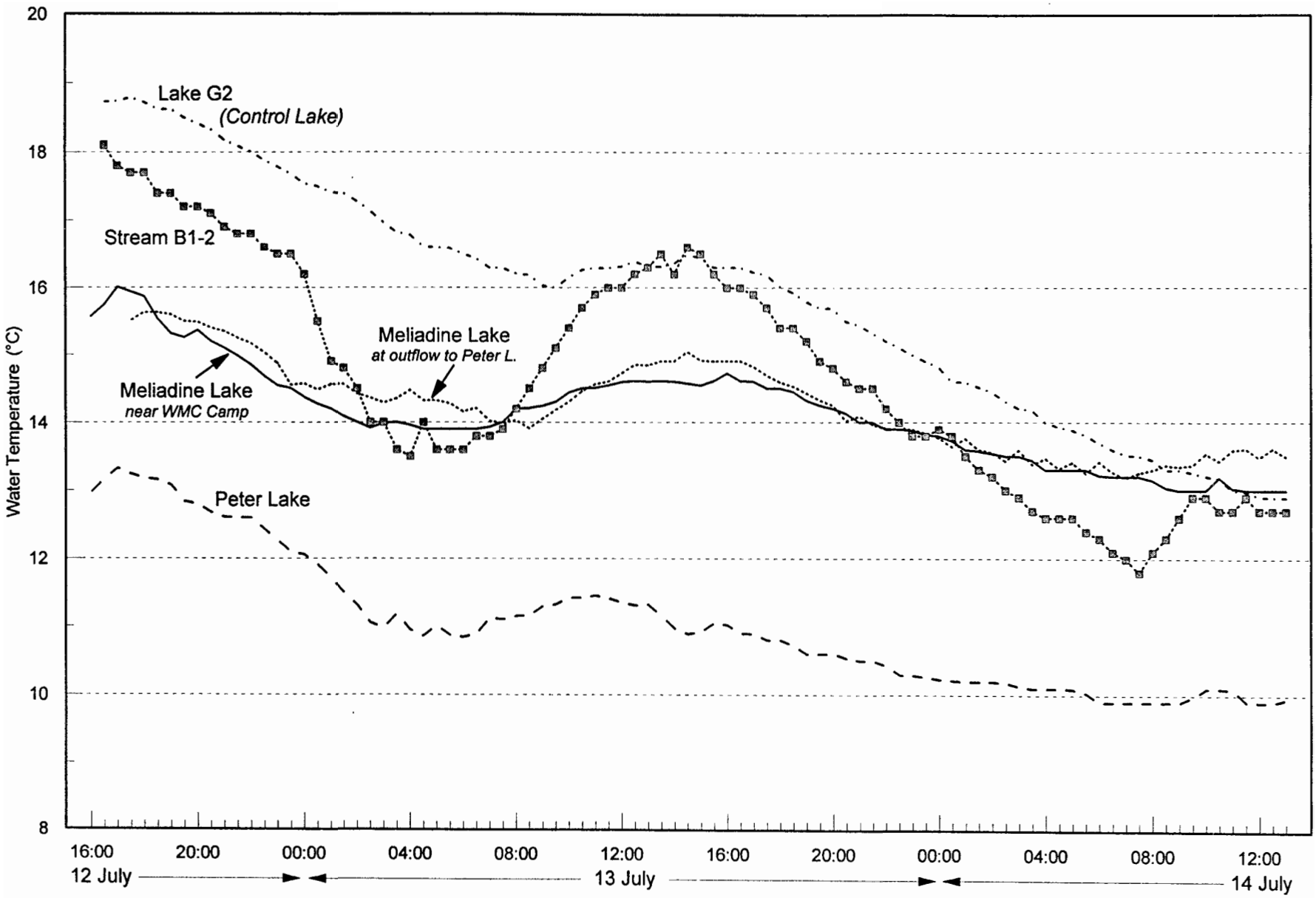


Figure 3.6 Diurnal fluctuations in water temperature (measured at 0.5 h intervals) in selected waterbodies within the Meliadine Study Area, 12 -14 July 1997.

Table 3.4 Comparison of simultaneously recorded water temperature data from five waterbodies within the Meliadine Study Area, 1600 h on 12 July until 1200 h on 14 July 1997.

Waterbody	Water Temperature (°C)			
	Mean	Minimum	Maximum	Fluctuation
Meliadine Lake (east basin near WMC camp)	14.3	13.2	15.6	2.4
Meliadine Lake (west basin near outflow to Peter Lake)	14.1	13.0	16.0	3.0
Peter Lake	11.0	9.9	13.3	3.4
Lake G2 (Control Lake)	15.8	12.9	18.8	5.9
Stream B1-2	14.7	11.8	18.1	6.3

Temperature fluctuations over the period monitored were considerably lower in the larger lakes than in the Lake G2 and Stream B1-2. Fluctuations in Meliadine Lake and Peter Lake ranged between 2.4 and 3.4 Celsius degrees. In contrast, Lake G2 exhibited temperature changes of up to 5.9 Celsius degrees, whereas temperatures in Stream B1-2 fluctuated up to 6.3 Celsius degrees. The differences in the rate of temperature change (slope of curves in Figure 3.6) are largely related to the volume of water in each waterbody. Small waterbodies are more rapidly heated or cooled by changes in air temperature than their larger counterparts. Although the rates of temperature change were similar in the largest lakes, mean temperature in Peter Lake (11.0°C) was considerably lower than in Meliadine Lake (14.3 and 14.1°C in the east and west basins, respectively). Such a large temperature difference during the peak of a brief summer season can affect the development rates of aquatic biota within the two systems.

3.5 WATER QUALITY

The water quality evaluation of streams and lakes within the Meliadine Study Area is based on data collected in June, July, and August 1997, and on historical information (Dillon 1995). The locations and dates of water sample collections are outlined in Table 3.5 and Figure 3.7. The evaluation provides a spatial and temporal characterization of the water quality according to the physical and chemical constituents. Where applicable, the constituents were assessed according to their compliance to the guidelines for the protection of aquatic life and drinking water. Where important site specific differences exist, they have been described. All relevant water quality information is provided in Appendix A, Tables A7 to A10.

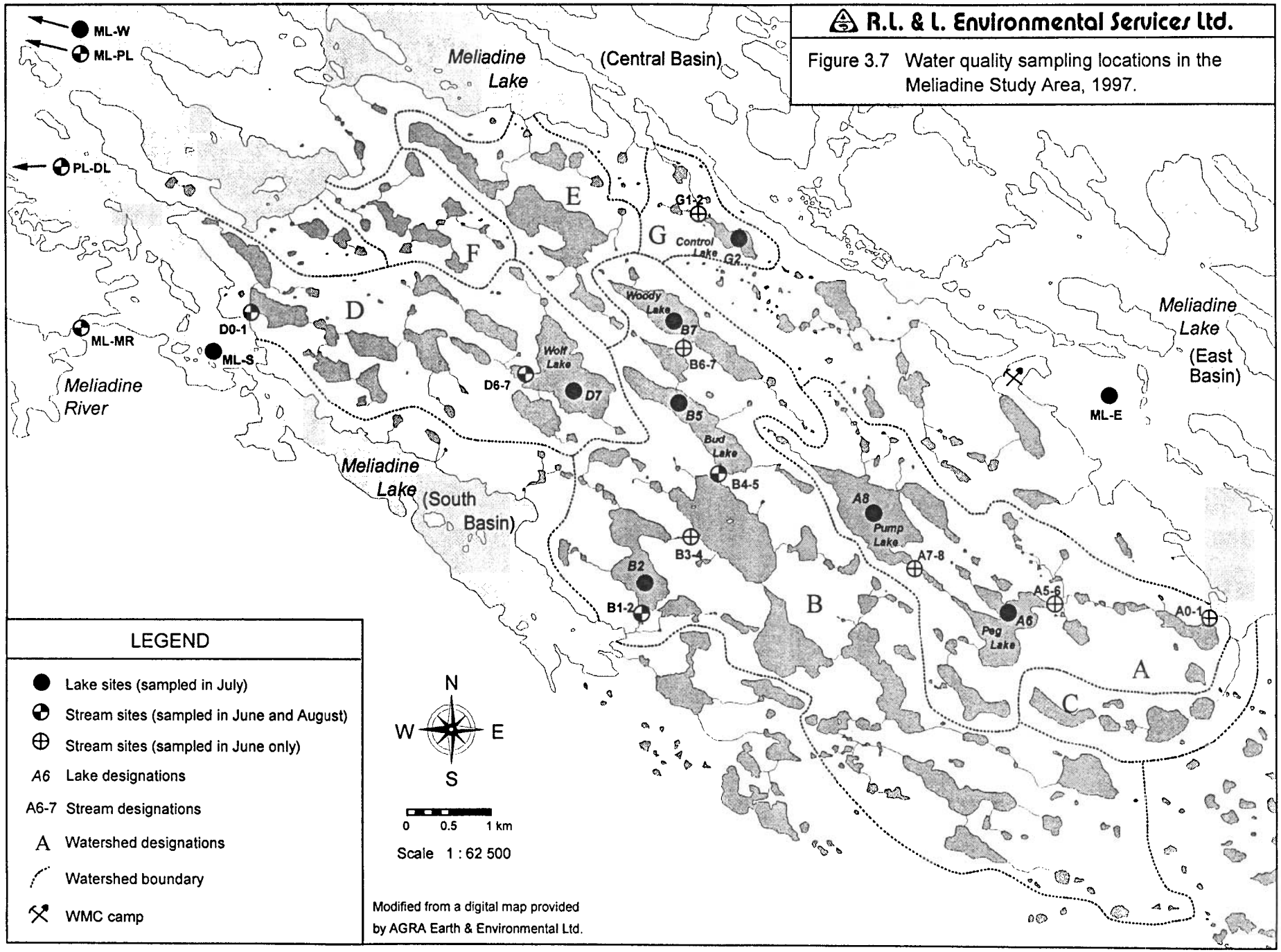


Figure 3.7 Water quality sampling locations in the Meliadine Study Area, 1997.

Table 3.5 Lakes and streams sampled for water quality in the Meliadine Study Area, 1997.

Waterbody	Basin	Station		Sample Collection Date		
				Spring	Summer	Fall *
Streams	Basin A	A0-1	(outlet of Lake A1)	15 Jun		
		A5-6	(outlet of Peg Lake)	15 Jun		
		A7-8	(outlet of Pump Lake)	15 Jun		
	Basin B	B1-2	(outlet of Lake B2)	16 Jun		25 Aug
		B3-4	(outlet of Newy Lake)	16 Jun		
		B4-5	(outlet of Bud Lake)	16 Jun		25 Aug
		B6-7	(outlet of Woody Lake)	17 Jun		
	Basin D	D0-1	(outlet of Lake D1)	18 Jun		25 Aug
		D6-7	(outlet of Wolf Lake)	18 Jun		26 Aug
	Basin G	G1-2	(outlet of Control Lake)	17 Jun		
	Meliadine Lake	ML-MR	(outflow to Meliadine River)	19 Jun		24 Aug
		ML-PL	(outflow to Peter Lake)	19 Jun		24 Aug
	Peter Lake	PL-DL	(outflow to Diana Lake)	19 Jun		24 Aug
Lakes	Basin A	A6	(Peg Lake)		23 Jul	
		A8	(Pump Lake)		22 Jul	
	Basin B	B2	(lowermost lake in Basin B)		21 Jul	
		B5	(Bud Lake)		19 Jul	
		B7	(Woody Lake)		18 Jul	
	Basin D	D7	(Wolf Lake)		17 Jul	
	Basin G	G2	(Control Lake)		24 Jul	
	Meliadine Lake	ML-E	(East Basin)		19 Jul	
		ML-S	(South Basin)		20 Jul	
		ML-W	(West Basin)		20 Jul	

* Several streams could not be sampled during the fall because they were either dry or had insufficient water flow.

3.5.1 Streams

Temperature, Dissolved Oxygen, and pH

During the June 1997 sampling, water temperatures in the streams of the Meliadine Study Area ranged from 2.5°C at Site B1-2 to 18.5°C at Site G1-2 (Appendix A, Table A7). With the exception of the high temperature recorded at Site G1-2 (18.5°C), stream temperatures in June did not exceed 10°C. Stream temperatures were slightly higher in August and ranged from 8.9°C at Site D6-7 to 13.2°C at Site PL-DL (Appendix A, Table A8).

The dissolved oxygen (DO) concentrations in June ranged from 10.4 mg/L at Site G1-2 to 14.3 mg/L at Site PL-DL. These concentrations at their corresponding water temperatures represented DO saturation levels of about 98 to 113%. In August, DO concentrations were generally lower than those recorded in June; the values ranged from 10.0 to 11.3 mg/L at Sites B1-2 and D0-1, respectively. The August DO saturation levels ranged from about 90% at Site B1-2 to as high as 105% in the majority of the remaining sites. In both June and August, Sites ML-MR, ML-PL, and PL-DL tended to have slightly higher DO concentrations than those recorded within the

remaining sites. Increased aeration due to stream turbulence in Sites ML-MR, ML-PL, and PL-DL likely accounted for the higher DO concentrations. All of the DO concentrations were within the Canadian Water Quality Guidelines (CWQG) of ≥6.5 mg/L for the protection of aquatic life.

Stream pH values ranged from 6.75 (Site PL-DL) to 8.12 (Site G1-2). These values were within the CWQG and the Guidelines for Canadian Drinking Water Quality (GCDWQ) of 6.5-9.0 and 6.5-8.5, respectively.

Turbidity and Total Suspended Solids

In June and August turbidity was low. It ranged from 0.2 to 2.0 NTU and was within the GCDWQ of 5.0 NTU. During both sampling periods, total suspended solids (TSS) in the study streams were low and ranged from <3 to 8 mg/L. The streams in Basins A and B tended to have the highest TSS.

Total Dissolved Solids and Alkalinity

The concentrations of total dissolved solids (TDS) in the streams of the Meliadine Study Area were low and did not exceed 72 mg/L. TDS did not vary within or among the study basins. Concentrations of TDS in water generally depend on geochemical weathering of rocks and soils, and the influence of anthropogenic sources. There are no TDS guidelines for the protection of aquatic life; however, the GCDWQ is 500 mg/L for drinking water.

Total alkalinity in the study streams ranged from 7.1 mg/L (Site PL-DL) to 49.9 mg/L (Site D6-7). These values are low, and are likely due to the same geochemical processes as described above for TDS. Site PL-DL had the lowest total alkalinity concentration, while Basin B sites had the highest concentration. Although there are no formal water quality guidelines for total alkalinity, levels ranging from 30 to 500 mg/L are generally acceptable for drinking water (McNeely et al. 1979). Alkalinity refers to the neutralizing capacity of water; therefore, the low total alkalinity concentrations suggest that the streams of the Meliadine Study Area have a poor buffering capacity against acids.

Major Ions and Total Hardness

The ionic constituents within the study streams had the following order of abundance (milliequivalents per litre): cations $Ca^{++} > Na^{+} > Mg^{++} > K^{+}$; anions $HCO_3^{-} > Cl^{-} > SO_4^{=}$; therefore, the streams were characterized as calcium bicarbonate based. In general, the concentrations of the major ions did not vary between basins; however, Site D6-7 tended to have the highest concentrations. Calcium, magnesium and bicarbonate concentrations were notably lower at Sites ML-MR, ML-PL and PL-DL compared to all other sampling sites in the peninsula streams. The major ions at these three sites were likely influenced by upstream lake conditions. There are no CWQG for the major ions to protect freshwater aquatic life; however, the major ion concentrations were in compliance with the GCDWQ which state that concentrations of sodium, chloride, and sulphate should not exceed 200, 250, and 500 mg/L, respectively.

Total hardness was reflected by the two major ions, calcium and magnesium, which mainly determine water hardness. Total hardness ranged from 8.2 mg/L (Site PL-DL) to 51.4 mg/L (Site D6-7). The stream waters were considered soft, where soft waters range from 31 to 60 mg/L in total hardness (McNeely et al. 1979). No CWQG or GCDWQ exist for water hardness.

Phosphorus

There was a five-fold range in total phosphorus concentrations among the study streams (0.004 mg/L at Sites ML-MR and PL-DL to 0.020 mg/L at Sites B3-4 and D6-7). These concentrations showed no spatial or temporal pattern. Total dissolved phosphorus (the phosphorus form available for primary production) concentrations were less than 0.016 mg/L and generally constituted the dominant portion of all forms of phosphorus analyzed.

Phosphorus is a nutrient that commonly limits primary productivity in freshwater ecosystems. No CWQG or GCDWQ exist for phosphorus; although, 0.10 mg/L is considered a maximum desirable concentration for streams (McNeely et al. 1979).

Nitrogen

In aquatic systems, nitrogen occurs as organic and inorganic (dissolved, nitrite, nitrate, ammonium, ammonia) compounds. Total Kjeldahl nitrogen is the sum of organic and ammonia nitrogen fractions. Total nitrogen is the sum of total Kjeldahl nitrogen and nitrite+nitrate.

The total Kjeldahl concentrations in the streams of the Meliadine Study Area were low; they ranged from 0.18 to 0.55 mg/L at Sites D0-1 and PL-DL, respectively. Concentrations of total Kjeldahl in streams that are not influenced by excessive organic inputs generally range from 0.1 to 0.5 mg/L (McNeely et al. 1979). Ammonia and nitrate+nitrite concentrations in the Meliadine Study Area streams were generally <0.012 and 0.032 mg/L, respectively. These data suggested that total nitrogen was comprised of organic forms of nitrogen. The nitrogen fractions showed higher concentrations in August than in June. There are no CWQG or GCDWQ for total Kjeldahl nitrogen. The ammonia and nitrate concentrations were within the CWQG of 1.37 and 10 mg/L, respectively.

Carbon

In streams, total organic carbon content may vary from 1 to 30 mg/L, where higher levels generally result from anthropogenic inputs (McNeely et al. 1979). Total carbon concentrations were low and ranged from 3.2 mg/L (Site PL-DL) to 18.2 mg/L (Site D0-1). Total carbon concentrations were generally lowest at Sites ML-MR, ML-PL, and PL-DL. These concentrations were similar between July and August, whereas the concentrations in Basins B and D were slightly higher in August. The total carbon concentrations consisted of 75% inorganic carbon and 25% organic carbon. There are no CWQG or GCDWQ available for carbon.

Metals

The concentration of most trace metals in the streams were low (either below their detection limits and/or below the CWQG and GCDWQ); exceptions included single point values for each of lead, manganese and selenium. The lead concentration at Site B1-2 in August was 3.1 μg/L. This value exceeded the CWQG of 1.0 μg/L, but was within the GCDWQ of 10 μg/L. The manganese concentration at Site D0-1 in August (61.5 μg/L) exceeded the GCDWQ of 50 μg/L. Selenium concentrations were <10 μg/L, and were within the GCDWQ of 10 μg/L. However, an accurate assessment may have been obscured by the variation in detection limits (1 vs 10 μg/L) that the laboratory used.

Phenol and Other Organics

Phenol concentrations generally were low (<2 μg/L). Exceptions occurred in June at Sites ML-MR and PL-DL (10 and 5 μg/L, respectively), when both values exceeded the CWQG of 1.0 μg/L. It is unknown whether the streams with concentrations <2 μg/L complied with the CWQG since the laboratory used a higher detection limit in their analysis (2 μg/L). The source of phenols is unclear because phenolic substances may occur naturally in aquatic environments or they can be released from refined oils, human and animal wastes, and chemical oxidation.

The concentrations of benzene, toluene, ethylbenzene, xylenes, and total volatile hydrocarbons were all below detection limits and within the CWQG and GCDWQ. Except for one duplicate sample collected at Site ML-MR in August, the total extractable hydrocarbon concentrations were also below the detection limit. The reason for this difference is unknown. There are no CWQG or GCDWQ for total extractable hydrocarbons.

3.5.2 Lakes

Temperature, Dissolved Oxygen, and pH

Lake surface water temperatures at the time of water sample collections in July ranged from 13.9°C in Lake ML-E to 18.7°C in Lake A6 (Appendix A, Table A9). Dissolved oxygen concentrations were similar between basins and ranged from 9.7 mg/L (Lake B2) to 10.8 (Lakes D7 and B7). These concentrations, at their corresponding water temperatures, represented DO saturation levels of approximately 106%, which exceeds the minimum level (60%) required for the protection of some sport fish. All of the DO concentrations were within the CWQG $\geq$6.5 mg/L.

The temperature and dissolved oxygen profiles measured in summer indicated that there was no thermal stratification in any of the surveyed lakes (Appendix A, Table A10). This was most likely due to a high degree of mixing induced by wind. This was even true for the deepest lake basin (total depth of 14.7 m in ML-E), which showed a temperature gradient of 0.7°C between surface and bottom.

The pH of the lakes ranged from 7.14 (Lake ML-S) to 8.38 (Lake A8). These values fall within the CWQG of 6.5 to 9.0 and GCDWQ of 6.5 to 8.5. Lakes A6 and A8 exhibited similar pH values as reported by Dillon (1995).

Turbidity and Total Suspended Solids

The lakes of the Meliadine Study Area exhibited low levels of turbidity (0.3 to 1.1 NTU) and TSS (all <3 mg/L). These levels were similar to those found in the study streams. Dillon (1995) also reported low levels of turbidity and TSS in Lakes A6 and A8. The levels of turbidity were within the GCDWQ of 5.0 NTU.

Total Dissolved Solids and Alkalinity

The TDS concentrations within the lakes were low, and ranged from 25 mg/L (Lake ML-E) to 69 mg/L (Lake D7). These concentrations were within the GCDWQ of 500 mg/L.

The total alkalinity levels ranged from 12.6 to 45.8 mg/L in Lakes ML-W and D7, respectively. No formal water quality guidelines exist for total alkalinity, but levels ranging from 30 to 500 mg/L are generally acceptable for drinking water (McNeely et al. 1979). The low levels of total alkalinity suggest that the lakes of the Meliadine Study Area have a poor buffering capacity against acids. Dillon (1995) reported lower levels of TDS and alkalinity in Lakes A6, A8 and D7.

Major Ions and Total Hardness

The concentrations of the seven major ions were low within the Meliadine Study Area lakes, as reflected by the low concentrations of TDS. Except for sulphate, which was similar among lakes, the levels of the other ions were highest in Lake D7. Concentrations of calcium, magnesium and bicarbonate were lowest in the Meliadine basin.

The low total hardness was reflected in the low levels of TDS, and the low levels of calcium and magnesium, which are the main ions that determine hardness of water. The hardness levels ranged from 13.6 mg/L in Lake ML-W to 44.5 mg/L in Lake D7. The difference between these values was reflected by the calcium and magnesium concentrations. The lake waters were considered soft; soft waters have a total hardness ranging from 31 to 60 mg/L (McNeely et al. 1979). No CWQG or GCDWQ exist for total hardness.

Phosphorus

The concentrations of total phosphorus in the Meliadine Study Area lakes were low and ranged from 0.004 to 0.033 mg/L. The total dissolved phosphorus fraction, the form that is available for primary production, was often the dominant form, similar to that exhibited by the streams. No CWQG or GCDWQ exist for phosphorus; although, 0.025 mg/L is considered a maximum desirable concentration in lakes (McNeely et al. 1979). With the exception of the maximum value (0.033 mg/L in Lake ML-W), all the remaining values were within the guideline.

Nitrogen

Of total nitrogen, the concentration of total Kjeldahl (organic+ammonia fractions) was the dominant form. Values ranged from 0.015 to 0.34 mg/L in Lake ML-W, and Lakes G2 and B2, respectively. The values of total Kjeldahl were lower in the three basins of Meliadine Lake (0.15 to 0.20 mg/L) than in the peninsula lakes (0.23 to

0.34 mg/L). Since the levels of ammonia were also very low (0.002 mg/L to 0.028 mg/L), the organic fraction of total Kjeldahl was dominant. In all of the lakes, the inorganic fraction (nitrate+nitrite) consisted mainly of the nitrate form. Although CWQG and GCDWQ guidelines do not exist for total Kjeldahl nitrogen, all ammonia levels were within the CWQG of 1.37 mg/L and all nitrate levels were within the GCDWQ of 10 mg/L.

Carbon

The concentrations of total carbon were low, and ranged from 5 to 19 mg/L. Similar to nitrogen, the carbon values were lower in Meliadine Lake (5 to 6 mg/L) than in the peninsula lakes (10 to 19 mg/L). These differences were consistent with those exhibited by the streams in the respective basins. The total carbon concentration consisted mainly of inorganic carbon. No CWQG or GCDWQ exist for carbon.

Metals

The concentrations of most heavy metals in the lakes were low (either below their detection limits and/or below the CWQG and GCDWQ). Exceptions were recorded for point samples of copper, zinc and possibly selenium. The copper concentrations at Lakes A6 and D7 (27.1 and 2.6 μg/L, respectively) exceeded the CWQG of 2.0 μg/L but complied with the GCDWQ of 1000 μg/L. Dillon (1995) reported lower copper concentrations (<10 μg/L) in Lake A6 compared to concentrations recorded in July 1997. Of the total zinc concentrations, only Lake D7 exceeded the CWQG of 30.0 μg/L. However, all zinc values were within the GCDWQ of 5000 μg/L. Dillon (1995) reported lower zinc concentrations (<5 μg/L) in August 1994 compared to the July 1997 values. Total selenium concentrations were all <10.0 μg/L, and within the GCDWQ of 10 μg/L. Dillion (1995) reported concentrations <5 μg/L for Lakes A6, A8 and D7.

Phenol and Other Organics

Phenol concentrations were generally <2 μg/L except in Lakes A8 (6 μg/L), B5 and D7 (9.0 μg/L), and B7 (10 μg/L), which exceeded the CWQG of 1.0 μg/L. It is uncertain whether the lakes with values <2 μg/L complied with the CWQG since the laboratory used a higher detection limit in their analysis (2 μg/L). The sources of the elevated phenol levels are not known; however, these issues will be addressed during the 1998 sampling season.

The concentrations of benzene, toluene, ethylbenzene, xylene, and total volatile hydrocarbons were all below the detection limits and within the CWQG and GCDWQ. Total extractable hydrocarbon concentrations ranged from <50 μg/L (Lakes A8, B5, D7 and ML-E) to 330 μg/L (Lake B2). Elevated levels were also found in Lakes A6 (210 μg/L), ML-W (190 μg/L), ML-S (83 μg/L), and G2 (79 μg/L). The reasons for the elevated levels are unclear and will be investigated in 1998.

4.0 INVERTEBRATE COMMUNITIES

This section provides summary results for the periphyton, phytoplankton, zooplankton, and benthic macroinvertebrate communities in selected streams and lakes of the Meliadine Study Area. Invertebrate samples were collected from 10 stream locations (two of which were outflows from Meliadine Lake) and 10 lake locations (three sites were established in Meliadine Lake, while one site was located on each of the remaining seven lakes). Specific sampling locations are depicted in Figure 4.1 and listed in Appendix B, Table B1.

4.1 PERIPHYTON

Periphyton refers to the community of algae, bacteria, fungi, and their secretions that grow on substrates in freshwater systems (Lock et al. 1984). Periphyton provides food and habitat resources for benthic invertebrates and herbivorous fish, especially in flowing waters (Warren et al. 1964; Hynes 1970; Horner and Welch 1981; Lock et al. 1984; Merritt et al. 1984). Although periphyton within temperate zone lake systems generally accounts for a small amount of a lake's overall primary productivity (i.e., phytoplankton accounts for the vast majority of primary productivity), it has been documented that Arctic lakes derive a large proportion (15 to 80%) of their energy inputs from benthic sources (Welch and Kalff 1974; Kalff and Welch 1974; Welch et al. 1988; Welch et al.1989). For these reasons, periphyton communities were sampled in both streams and lakes of the Meliadine Study Area.

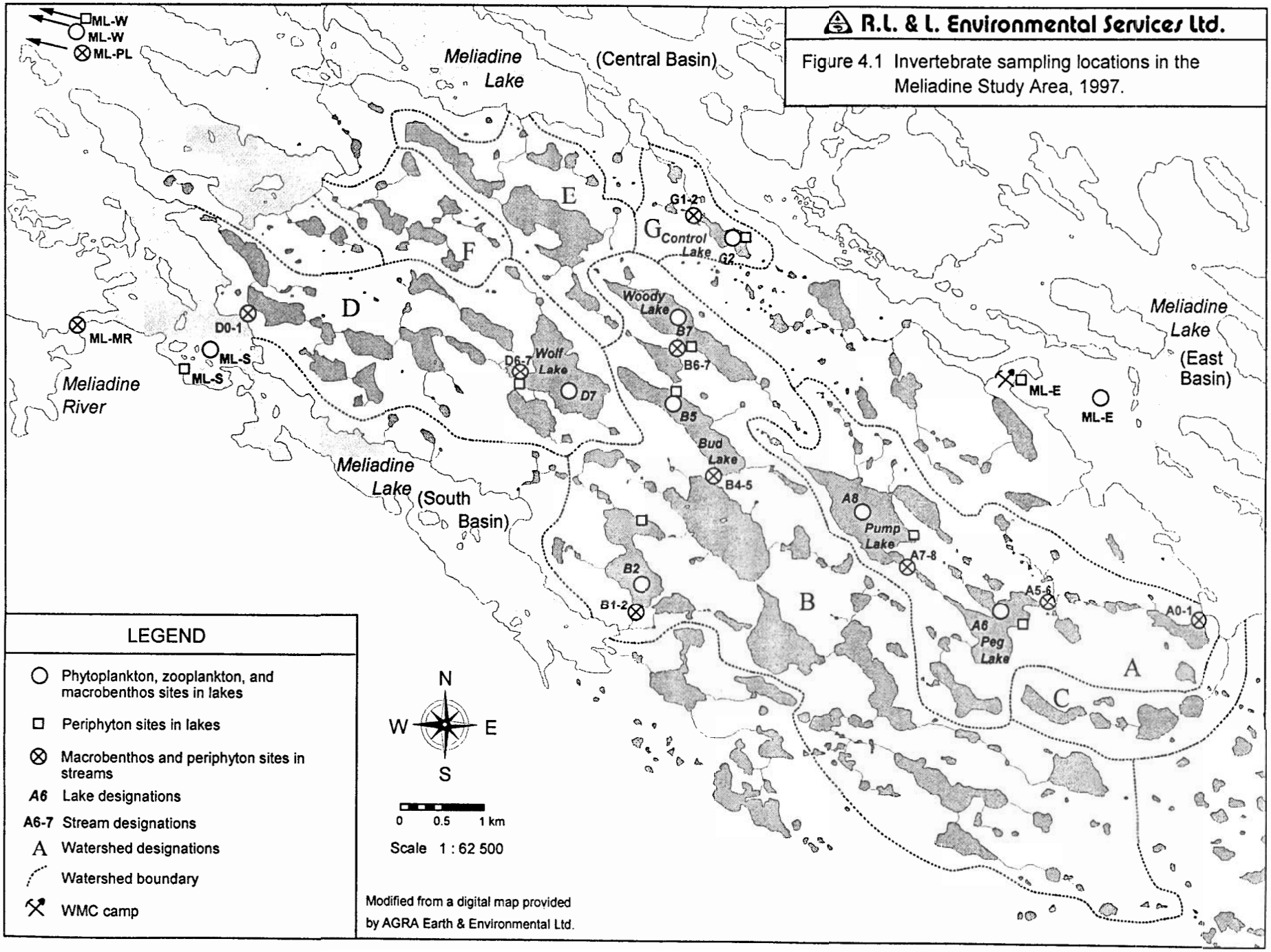
In addition to having an important role in aquatic trophic relationships (i.e., invertebrates and fish use periphyton as a source of food and shelter), the periphyton community is well suited for use as a biological indicator of environmental conditions, including those imposed by anthropogenic activities. Summary results of chlorophyll *a* concentration ($\mu g/cm^2$), ash-free-dry-mass (AFDM) concentration (mg/cm^2), and the periphyton algal community (No. cells/mL) are presented in this section.

4.1.1 Streams

Biomass

A limited periphyton sampling program was conducted in the summer of 1997. Five replicate periphyton biomass samples were collected from each of 10 streams within the Meliadine Study Area (Figure 4.1). Data are presented as means (n=5, $\pm$1 standard error). Relevant information are summarized in this section; all data are presented in Appendix B, Table B1.

Mean chlorophyll *a* concentrations in the 10 study streams ranged from methodological detection limits (less than 0.01 $\mu g/cm^2$) in Stream A7-8 to 9.27$\pm$0.99 $\mu g/cm^2$ in Stream B4-5 (Figure 4.2). AFDM estimates were more variable; means ranged from 10.9$\pm$3.71 to 172$\pm$34.4 mg/cm^2 in Streams A7-8 and ML-PL, respectively. In general, chlorophyll *a* estimates were lower in the Basin A streams than in the other study basins, while AFDM


R.L. & L. Environmental Services Ltd.
Figure 4.1 Invertebrate sampling locations in the Meliadine Study Area, 1997.
ML-W
ML-W
ML-PL
Meliadine Lake
(Central Basin)
E
F
G
Control Lake
G1-2
G2
D
D0-1
ML-MR
ML-S
ML-S
Meliadine River
Woody Lake
B7
B6-7
D6-7
Wolf Lake
D7
B5
Bud Lake
B4-5
Meliadine Lake (South Basin)
B2
B1-2
B
A6
Pump Lake
A7-8
A5-6
A6 Peg Lake
A0-1
A
C
Meliadine Lake (East Basin)
ML-E
ML-E
N
W
E
S
0 0.5 1 km
Scale 1 : 62 500
Modified from a digital map provided by AGRA Earth & Environmental Ltd.
LEGEND
Phytoplankton, zooplankton, and macrobenthos sites in lakes
Periphyton sites in lakes
Macrobenthos and periphyton sites in streams
A6 Lake designations
A6-7 Stream designations
A Watershed designations
Watershed boundary
WMC camp

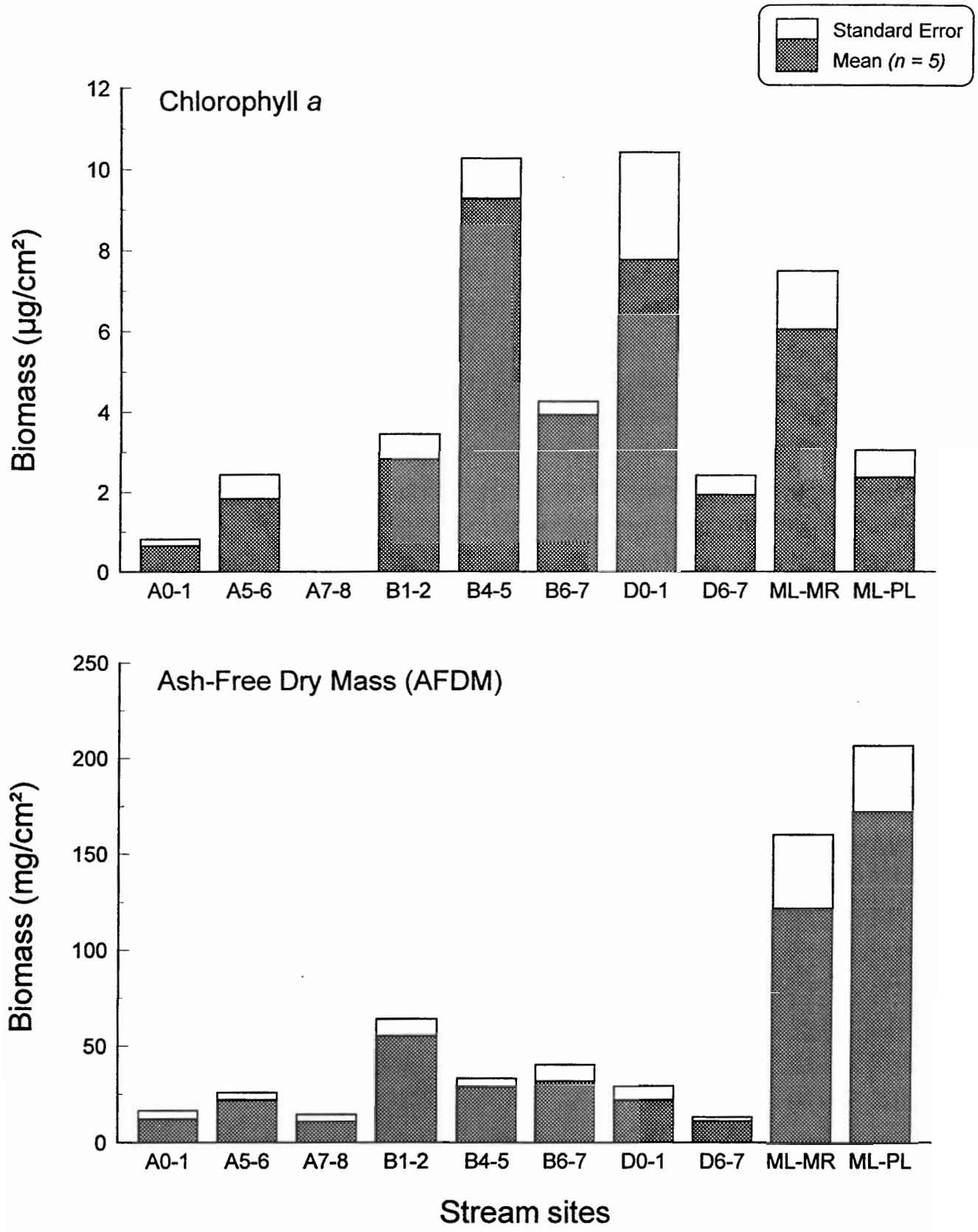


Figure 4.2 Periphyton biomass (chlorophyll *a* and AFDM) in streams of the Meliadine Study Area, July 1997. Note variation in scales between graphs.

concentrations were greater in the two Meliadine Lake outflows (ML-MR and ML-PL) than in the remaining basins.

Algal Community

Three of the five replicate periphyton samples that were collected from each of ten streams within the Meliadine Study Area (Figure 4.1) were analyzed in the laboratory. Data are presented as means ($n=3$, ± 1 standard error). Relevant information are summarized in this section; all data are presented in Appendix B, Table B2.

In total, 260 periphytic algal species were identified in the samples collected from the 10 study streams (Appendix B, Table B2). The mean number of species at each site ranged from 76 ± 3 species/cm^2 in Stream ML-MR to 92 ± 2 species/cm^2 in Stream A5-6. Mean total numbers of periphytic algae ranged from 253 419$\pm$78 197 to 724 427$\pm$118 806 cells/cm^2 in Streams D6-7 and A5-6, respectively (Figure 4.3).

The periphytic algal community was dominated by three taxonomic Divisions: Bacillariophyta (diatoms), Chlorophyta (green algae), and Cyanophyta (cyanobacteria). These three divisions accounted for more than 99% of the total number of algal cells counted among all of the stream periphyton samples (Appendix B, Table B2).

In general, the streams of Basin A tended to have the lowest numbers of diatoms, variable numbers of green algae, and the highest numbers of cyanobacteria (Figure 4.4). The streams of Basin B and Basin D had variable densities of diatoms, green algae, and cyanobacteria. The outlet streams of Meliadine Lake (ML-MR and ML-PL) tended to have large numbers of diatoms, and moderate green algae and cyanobacteria numbers. In streams D6-7 and A5-6, the periphytic algal community was dominated by cyanobacteria (129 349$\pm$47 580 to 606 061 $\pm$120 704 cells/cm^2, respectively). The numerical dominance of the algal community by cyanobacteria reflected the colonial nature and small cell size of most species in this taxonomic group.

Among the streams of the Meliadine Study Area, diatoms were well represented by the species *Achnanthes minutissima* and *Diatoma elongatum*. *Oocystis lacustris* was the single most dominant green alga. *Schizothrix calcicola*, *Anacystis montana*, and *Dichothrix gypsophilia* were among the most abundant cyanobacteria species (Appendix B, Table B2).

Summary

The chlorophyll *a* estimates were low at all stream sites. The AFDM concentrations were also low in all of the smaller streams but were higher in the two outlet streams from Meliadine Lake. The large AFDM content of periphyton in the outlet streams of Meliadine Lake likely reflected the large, deeper water habitats (i.e., more stable flows throughout the year) in these streams.

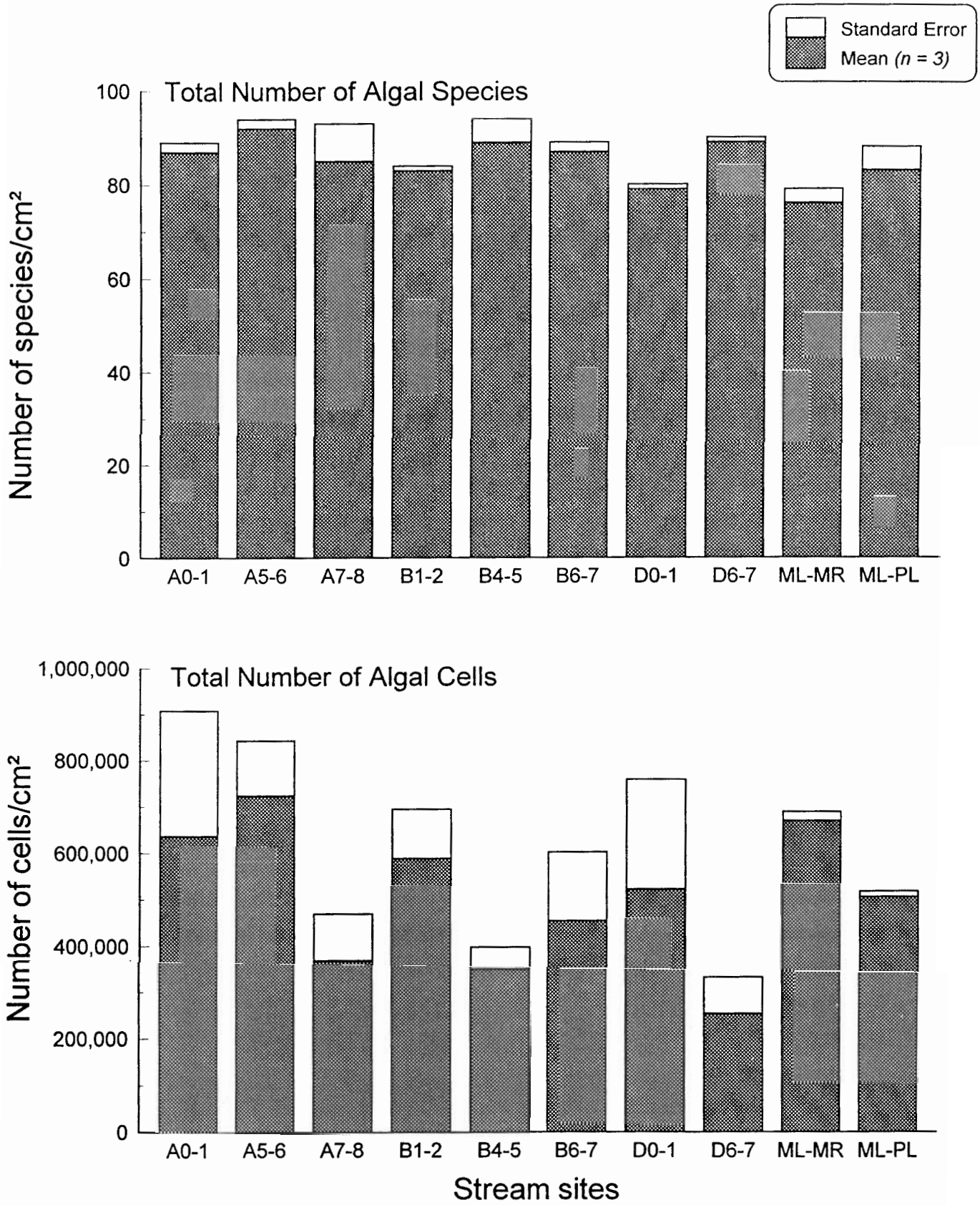


Figure 4.3 Total number of periphytic algal species and cell counts in streams of the Meliadine Study Area, July 1997. Note variation in scales between graphs.

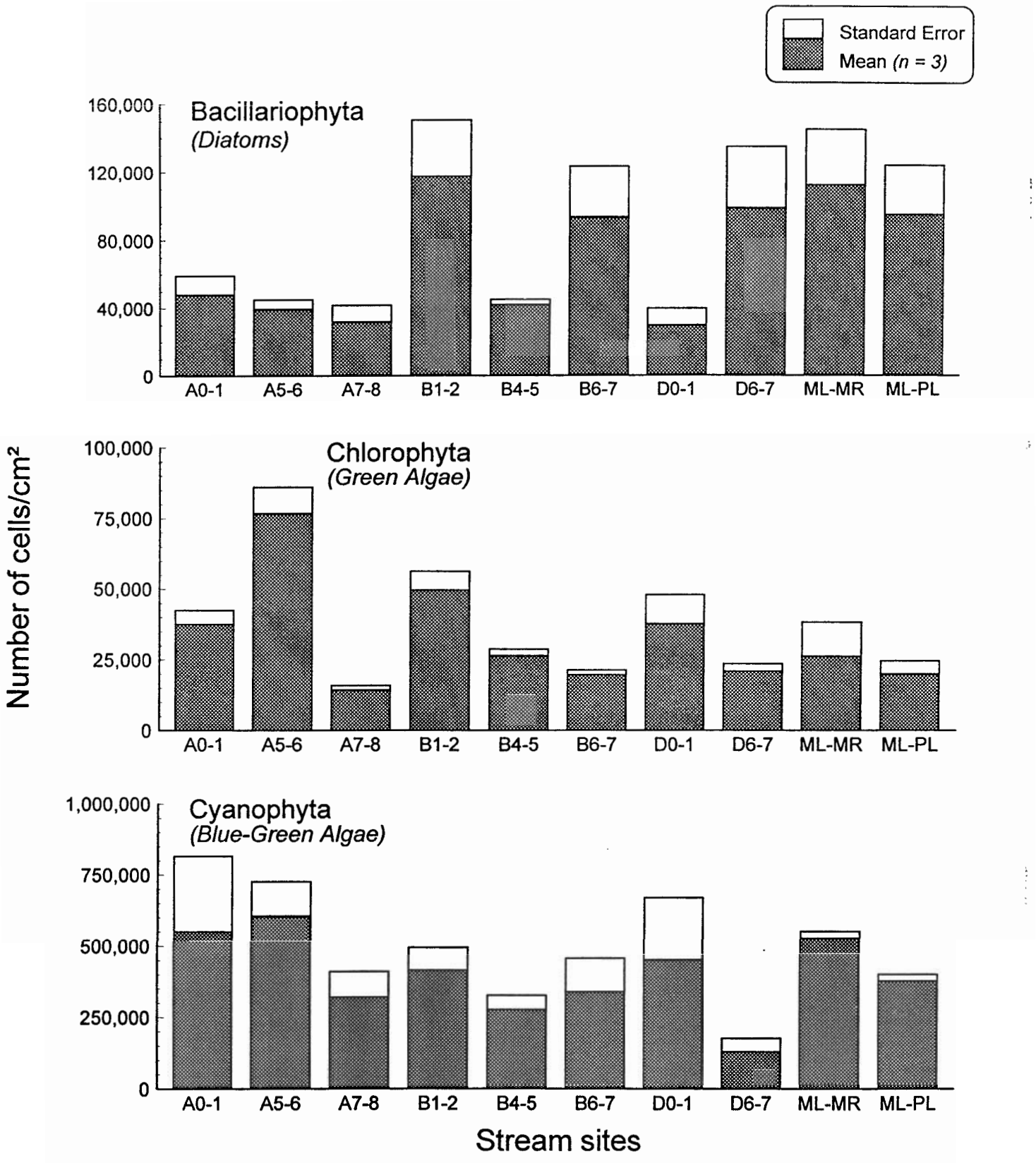


Figure 4.4 Periphytic algal densities in streams of the Meliadine Study Area, July 1997. Note variation in scales among graphs.

In streams, the amount of chlorophyll *a* and AFDM found in periphytic communities is controlled primarily by light quality and quantity, water velocity, and nutrient concentrations (Horner and Welch 1981). Moderate current velocities (20 to 100 cm/s) and increasing phosphorus concentrations (to 50 μg/L total phosphorus) promote periphytic growth. The locations sampled in the present study were not shaded by riparian vegetation, exhibited current velocities within the range reported by Horner and Welch, and were not exposed to a known toxic substance. Therefore, it is likely that nutrient concentrations were low. Total phosphorus concentrations (the nutrient most often limiting algal growth) in the 10 study streams ranged from 0.004 to 0.020 mg/L (see Section 3.5). As such, the periphytic communities in the streams of the Meliadine Study Area were characteristic of oligotrophic conditions. Phosphorus limitation in Arctic streams has been reported to have dramatic effects on overall productivity (Peterson et al. 1983, 1985, and 1986).

Periphytic chlorophyll *a* and AFDM concentrations were sampled in five streams near Contwoyto Lake, NWT (RL&L 1995, 1997a, 1997b); mean chlorophyll *a* concentrations ranged from 0.007 to 1.29 μg/cm^2 while mean AFDM levels ranged from 23.6 to 34.6 mg/cm^2. These chlorophyll *a* concentrations were similar to or lower than those recorded in the present study (below methodological detection limits of 0.01 μg/cm^2 to 9.27$\pm$0.99 μg/cm^2). The AFDM concentrations recorded in the small streams of the present study (10.9$\pm$3.71 to 55.4$\pm$8.68 mg/cm^2) were similar to the five small study streams located near Contwoyto Lake, while the two large streams in the Meliadine Study Area had much greater amounts of AFDM (means in two streams were 122$\pm$38.5 and 172$\pm$34.4 mg/cm^2).

Periphytic algal communities in other subarctic streams were also dominated by diatoms, green algae, and cyanobacteria (Roeder et al. 1975; Moore 1978a, 1978b). These studies found that *Diatoma* sp., *A. minutissima*, and *Tabellaria flocculosa* were the dominant periphytic algal species. Roeder et al. (1975) and Moore (1978a, 1978b) did not quantify cyanobacteria abundances; however, they did qualify that cyanobacteria dominated the periphytic communities in their streams. Moore (1978b) also described the filamentous green algae (Chlorophyta) *Zygnema* and *Mougeotia* spp. as occasionally occurring in large numbers. All of these aforementioned taxa were identified in samples collected from the Meliadine Study Area; however, only *Diatoma* sp., *A. minutissima*, and sometimes *Mougeotia* spp. were dominant within their respective taxonomic divisions.

In the Jericho and Project 5034 Study areas (central mainland NWT), R.L. & L. Environmental Services Ltd. (RL&L 1995, 1997a, 1997b) identified the cyanobacteria *Lyngbya nordgaardii* and *A. montana,* as well as the green algae *Zygnema* sp. as the most abundant algae within the periphytic community; the most abundant diatoms were *T. flocculosa* and *A. minutissima*. The present study had three species of cyanobacteria (*S. calcicola*, *A. montana*, and *D. gypsophilia*) that dominated the periphytic algal communities, *D. elongatum* and *A. minutissima* were the predominant diatom species, and *O. lacustris* was the predominant green alga. Differences in species domination among all of the aforementioned studies can be attributed to geographical, physical, and environmental variations.

Moore (1978a) reported total densities of periphytic algae of approximately 700 000 to 2 100 000 cells/cm^2 in two streams located in the Izok Project area (central mainland NWT). Total periphytic algal densities found during the studies conducted near Contwoyto Lake were lower (623 000 to 1 554 000 cells/cm^2). The present study had mean total algal densities that ranged from 253 419 to 724 427 cells/cm^2. Possible reasons for differences in total periphytic algal counts among these studies could be variation in the timing of sample collections, selection of different stream habitats, the amount of nutrient availability, and laboratory processing (e.g., Moore 1978a identified and counted colonies of cyanobacteria and not individual cells; J.W. Moore, pers. comm.).

4.1.2 Lakes

Biomass

A limited periphyton sampling program was conducted in the summer of 1997. Five replicate periphyton biomass samples were collected from each of 10 lake locations, including three sites in Meliadine Lake (Figure 4.1). Data are presented as means (n=5, $\pm$1 standard error). Relevant information are summarized in this section; all data are presented in Appendix B, Table B1.

Mean chlorophyll *a* concentrations in the 10 study lakes ranged from methodological detection limits (less than 0.01 μg/cm^2) in Lake G2 to 6.91$\pm$1.74 μg/cm^2 in Lake A8 (Figure 4.5). AFDM estimates were more variable; means ranged from 0.84$\pm$11 to 53.2$\pm$18.7 mg/cm^2 in Meliadine Lake (Site ML-S) and Lake D7, respectively. In general, chlorophyll *a* estimates varied considerably among the study basins; Lake A6, Lake G2, and two of the three basins of Meliadine Lake (Sites ML-E and ML-S) tended to have lower concentrations than the remaining study lakes. The highest chlorophyll *a* concentrations were identified in Lake A8. Amounts of AFDM were much lower in Lake A6 and all three basins of Meliadine Lake than in all of the remaining study lakes.

Algal Community

Three of the five replicate periphyton samples that were collected from 10 lake locations, including three sites in Meliadine Lake (Figure 4.1), were analysed in the laboratory. Data are presented as means (n=3, $\pm$1 standard error). Relevant information are summarized in this section; all data are presented in Appendix B, Table B3.

In total, 240 periphytic algal species were identified in the analysed samples. The mean number of species at each site ranged from 51$\pm$5 species/cm^2 at Site ML-S in Meliadine Lake to 94$\pm$4 species/cm^2 in Lake B2. Mean total numbers of periphytic algae ranged from 26 269$\pm$9739 to 687 043$\pm$138 053 cells/cm^2 at Site ML-S in Meliadine Lake and Lake A8, respectively (Figure 4.6).

As with the stream periphyton samples, the periphytic algal communities within the study lakes were dominated by three taxonomic Divisions: diatoms, green algae, and cyanobacteria. These three divisions accounted for more than 99% of the total number of algal cells counted among all of the lake periphyton samples (Appendix B, Table B3).

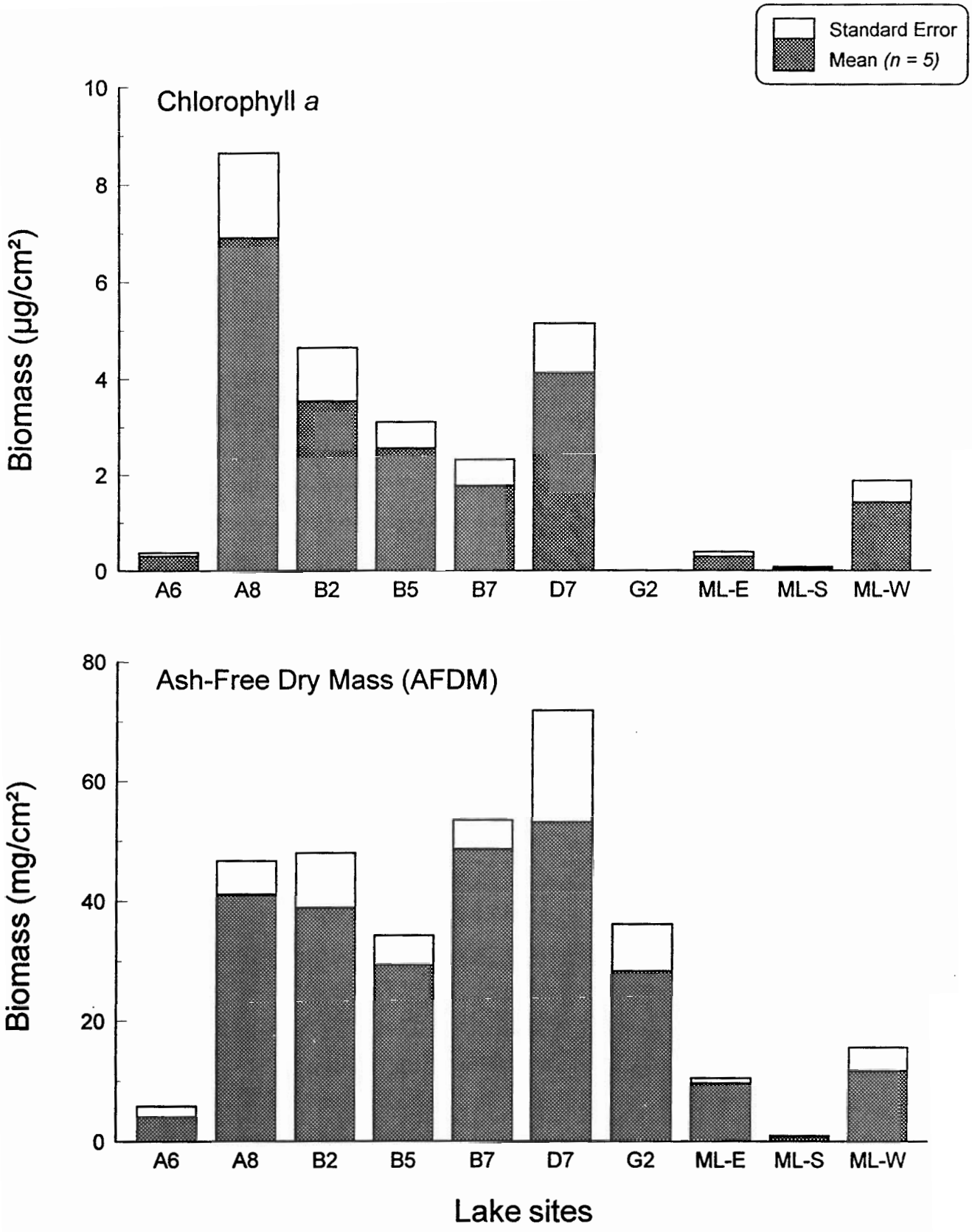


Figure 4.5 Periphyton biomass (chlorophyll *a* and AFDM) in lakes of the Meliadine Study Area, July 1997. Note variation in scales between graphs.

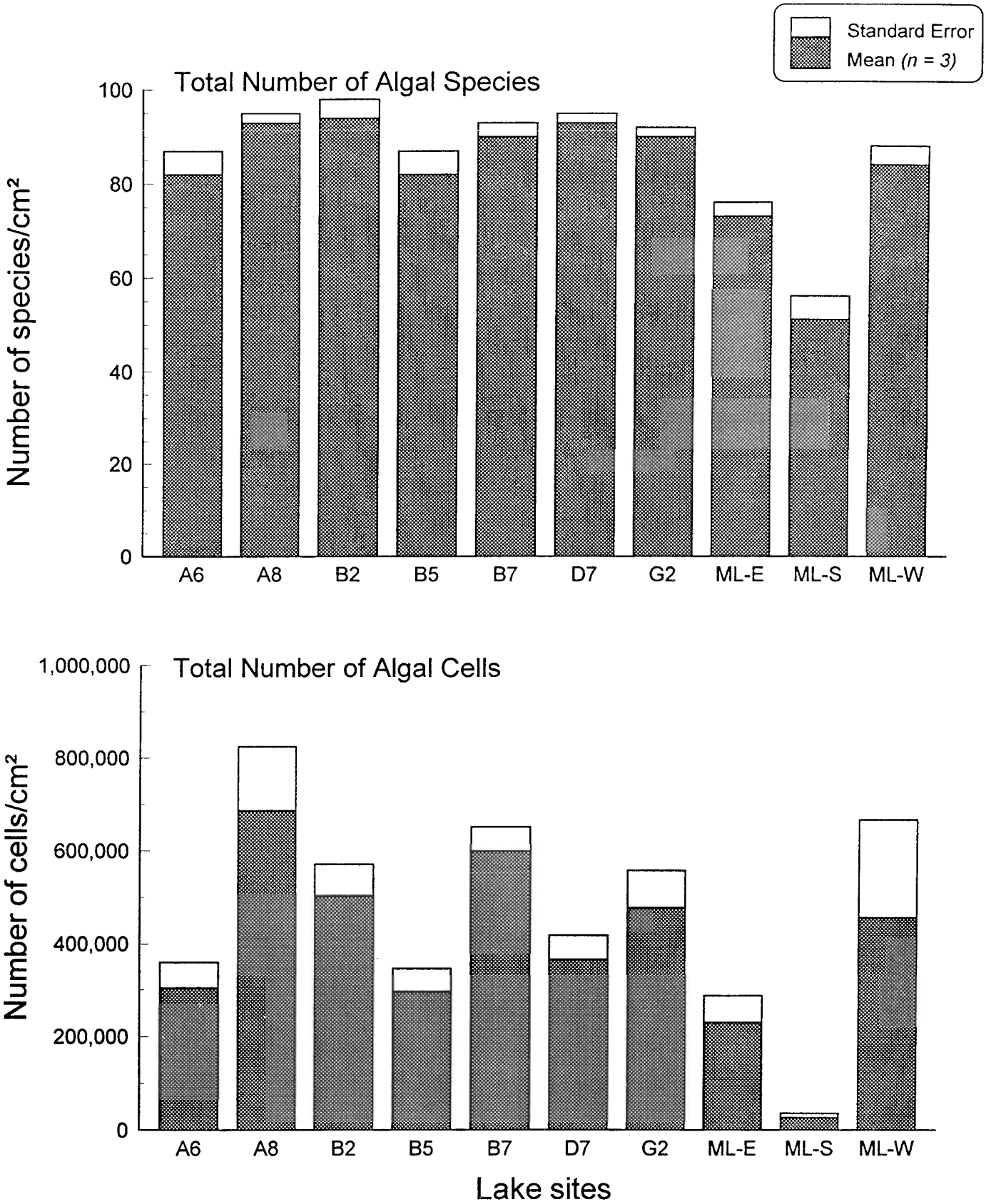


Figure 4.6 Total number of periphytic algal species and cell counts in lakes of the Meliadine Study Area, July 1997. Note variation in scales between graphs.

In general, Site ML-S of Meliadine Lake had the lowest numbers of periphytic algae (Figure 4.7). Site ML-W of Meliadine Lake had the most diatoms, Lake B2 had the largest numbers of green algae, whereas Lake A8 had the highest amounts of cyanobacteria. All of the sites had variable densities and species compositions. As observed in the study streams (Section 4.4.1), the periphytic algal community in the lakes of the Meliadine Study Area were dominated overall by cyanobacteria (20 894 $\pm$ 7758 to 651 270 $\pm$ 135 033 cells/cm^2 in Site ML-S of Meliadine Lake and Lake A8, respectively). The numerical dominance of the algal community by cyanobacteria reflected the colonial nature and small cell size of most species in this taxonomic group.

Among the lakes of the Meliadine Study Area, the diatoms were well represented by the species *A. minutissima*, *D. elongatum*, and *Synedra actinastroides*. *Oocystis lacustris* was the single most dominant green alga. *Schizothrix calcicola* was the single most dominant cyanobacterium; *A. montana*, *D. gypsophilia*, *Microcystis flos-aquae*, *Desmonema wrangelii*, and *Aphanocapsa elachista* were also among the more abundant cyanobacteria species (Appendix B, Table B3).

Summary

As with the streams (Section 4.1.1) of the Meliadine Study Area, the chlorophyll *a* content in lake periphyton were also low. Four of the 10 sampling locations had chlorophyll *a* concentrations that were below 1.00 μg/cm^2. The organic content of periphyton (i.e., AFDM) was higher in all of the smaller lakes relative to the three sites situated in Meliadine Lake. The greater AFDM values for sites in the small lakes compared to Meliadine Lake, probably reflected the scouring effects of larger waves that would be expected in Meliadine Lake proper as well as the lower water temperatures that would help to limit periphyton production (see Section 3 for morphology information). Nutrient deficiencies and light penetration would be other factors that likely affected lake periphyton biomass (Kalff and Welch 1974; Welch and Kalff 1974; Bergmann and Welch 1990). In general, the periphytic biomass estimates in the lakes of the Meliadine Study Area were low and characteristic of oligotrophic conditions.

Except for the streams and basins of Meliadine Lake, periphytic chlorophyll *a* and AFDM concentrations examined in the streams and lakes of the Meliadine Study Area were comparable (see Section 4.1.1). The AFDM concentrations in Streams ML-MR and ML-PL were an order of magnitude greater than all of the remaining stream and lake sampling locations. In addition, chlorophyll *a* and AFDM estimates in the three basins of Meliadine Lake tended to be the lowest among all of the sample sites.

The periphytic algal communities in other subarctic lakes were also dominated by diatoms, green algae, and cyanobacteria (Roeder et al. 1975; Moore 1978a and 1978b). These studies found that the diatoms *A. minutissima* and *T. flocculosa* were the dominant periphytic algal species in their study lakes. Subdominant species included the diatoms *Gomphonema angustatum*, *Nitzschia frustulum*, *Anomoeonsis serians*, and *Phormidium corium*. Roeder et al. (1975) and Moore (1978a, 1978b) did not identify any other taxonomic division (e.g., green algae, cryptomonads) as being present nor did they quantify cyanobacteria abundances. These studies, however, did

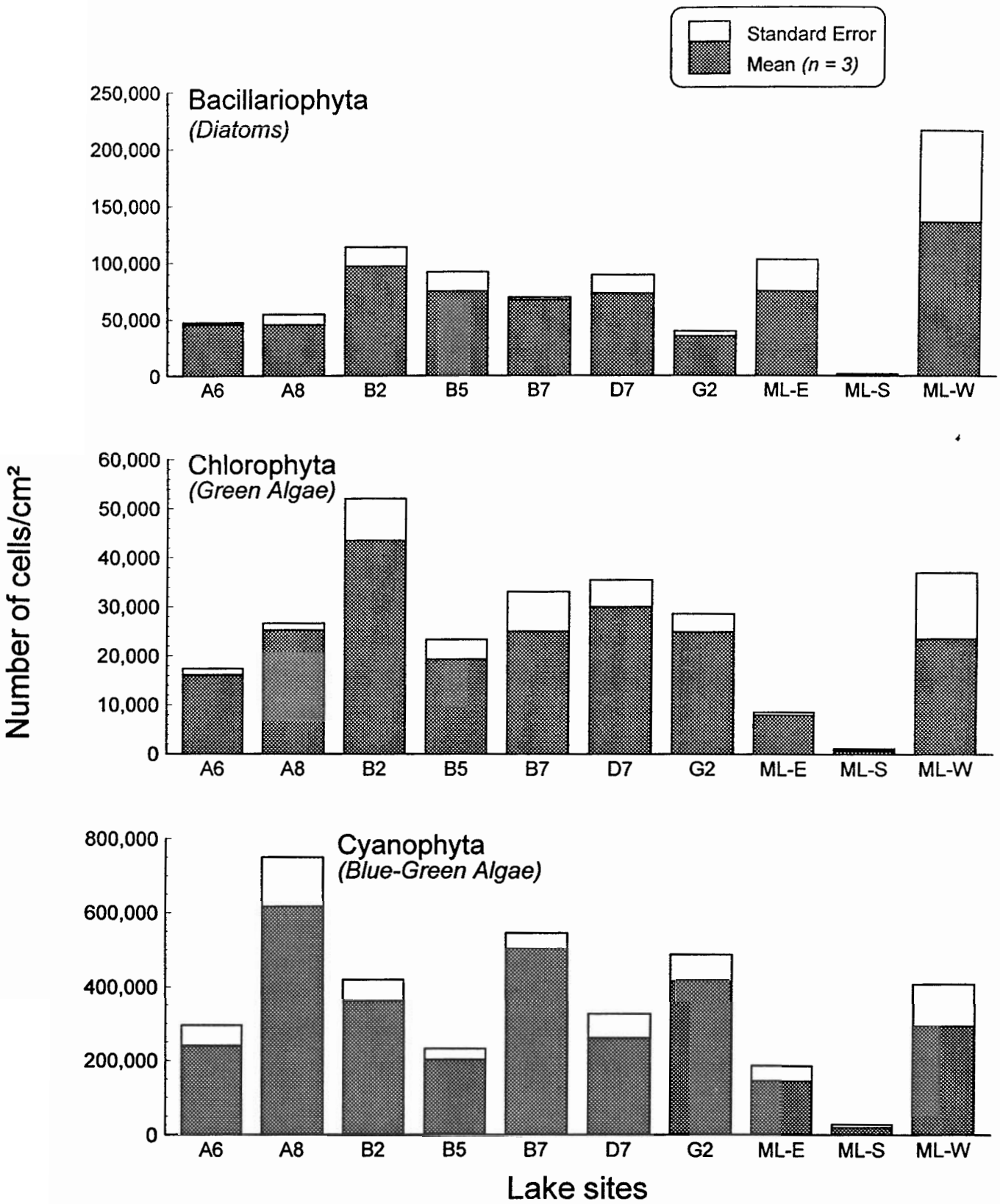


Figure 4.7 Periphytic algal densities in lakes of the Meliadine Study Area, July 1997. Note variation in scales among graphs.

qualify cyanobacteria as being dominant in their periphytic communities. Except for *P. corium* and *N. frustulum*, all of the diatom species listed above were identified in samples collected from the Meliadine Study Area; *A. minutissima* was the most abundant diatom in the present study.

Moore (1978a and 1978b) reported total densities of periphytic algae of approximately 500 to 2 800 000 cells/cm^2 among 12 lakes located in central mainland NWT (Contwoyto Lake and nearby systems). The present study had mean total algal densities that ranged from 26 269 to 687 043 cells/cm^2. Possible reasons for differences in total periphytic algal counts among these studies could be variation in the timing of sample collections, selection of different lake habitats, the amount of nutrient availability, and laboratory processing (e.g., Moore 1978a identified and counted colonies of cyanobacteria and not individual cells; J.W. Moore, pers. comm.).

4.2 PHYTOPLANKTON

To provide baseline information on the phytoplankton community, samples were collected from the Meliadine Study Area in the summer and fall of 1997. Ten sites were established among eight lakes, including three sites in Meliadine Lake (Figure 4.1). Relevant data are summarized in the following sections; all data are presented in Appendix B, Tables B4 through B6.

Phytoplankton are microscopic free-floating algae (Smith 1950). Summary results of phytoplankton biovolume (microns cubed per metre cubed or μm^3/mL) and density (No. cells/mL) are both presented in this section because density alone does not provide an accurate assessment of a taxon's importance. For example, taxa that are extremely numerous may have a low biovolume, due principally to the small size of individual organisms. Conversely, those taxa that have large biovolumes (due to large individual organism size), may not be numerically abundant. These large bodied groups can contribute significantly to lake productivity. As such, their numbers can influence the abundance and biomass of herbivores that feed on them (generally zooplankton) and they can modify nutrient availability for competing plants or algae.

Biomass

Chlorophyll *a* samples were collected from surface waters at each sampling location (Appendix B, Table B4). Chlorophyll *a* concentrations ranged from methodological detection limits (less than 0.01 μg/cm^2) to 3.08 mg/m^3. In general, the three basins of Meliadine Lake (Sites ML-E, ML-S, and ML-W) had low concentrations of chlorophyll *a* (below methodological detection limits to 0.46 mg/m^3), while Lake B5 had the highest concentrations in both summer and fall (3.03 and 3.08 mg/m^3, respectively). All of the remaining sites, except for Lake A6 in summer, had concentrations of chlorophyll *a* that generally ranged between 1 and 2 mg/m^3. In summer, the surface waters of Lake A6 had no chlorophyll *a*.

Biovolume

In total, 181 species of algae were identified from the samples collected in the Meliadine Study Area. Figure 4.8 summarizes the biovolumes of all the algae as a whole and those of the six most numerically dominant taxonomic groups that were encountered. In the summer, total biovolumes were greater in Lakes A8, B2, B5, and D7 (up to 1734 $\mu m^3 \times 10^3$/mL in Lake A8). Lake B7 and the three Meliadine Lake sites (ML-E, ML-S, and ML-W) had the lowest total biovolumes (down to 501 $\mu m^3 \times 10^3$/mL). In the fall, Lake B5 had the highest overall algal biovolume (1795 $\mu m^3 \times 10^3$/mL), while the three sites in Meliadine Lake had the lowest total algal biovolumes (360 to 653 $\mu m^3 \times 10^3$/mL). Four of the 10 sampling locations had greater total algal biovolumes in the summer than in the fall, whereas the remaining six locations had larger total biovolumes in the fall than in the summer. This suggests that seasonal algal succession occurs in the study lakes and that the direction may be unique to each waterbody.

Overall, the golden-brown algae (Chrysophyta) had the greatest biovolumes (212.8 to 1256 $\mu m^3 \times 10^3$/mL in Lakes B7 and D7, respectively) while the cyanobacteria had the lowest biovolumes (0.2 to 206 $\mu m^3 \times 10^3$/mL in Site ML-S and Lake B2, respectively) (Figure 4.8). The biovolumes of the golden-brown algae were greater in the summer than in the fall among all the sampling locations except Lake B7 where fall biovolumes were greater than summer biovolumes. In general, total diatom biovolumes tended to be greater in the fall than in the summer (true for 7 of the 10 sampling locations), while the seasonal biovolumes of cyanobacteria and the remaining taxonomic groups were more variable.

Density

The densities of the six most abundant taxonomic groups are depicted in Figure 4.9. Total algal densities were generally similar during summer and fall, and ranged from 18 964 to 33 242 cells/mL in Site ML-W and Lake B2, respectively. Golden-brown algae and cyanobacteria were the numerically dominant taxa in all the samples; densities ranged from 530 to 7807 cells/mL and from 177 to 8903 cells/mL for golden brown algae and cyanobacteria, respectively.

The golden brown alga *Chrysosphaerella rodhei* accounted for the majority of specimens encountered in this taxonomic division (126 to 5786 cells/mL in Site ML-E and Lake B2, respectively), while the cyanobacteria were numerically dominated by *Aphanothece clathrata* (up to 8149 cells/mL in Lake B2). *Cyclotella glomerata*, *Cyclotella bodanica*, and an unidentified *Synedra* species were the most abundant diatoms. Green algae and cryptomonads (Cryptophyta) were dominated by *O. lacustris* and *Rhodomonas minuta*, respectively (Appendix B, Table B6).

There were some trends in the seasonal phytoplankton densities (Figure 4.9). Golden-brown algae were more abundant in the summer than in the fall at most sampling sites (exceptions were Meliadine Lake Sites ML-E and ML-S). Cyanobacteria were more abundant in the fall than in the summer in all sites except ML-S and ML-W,

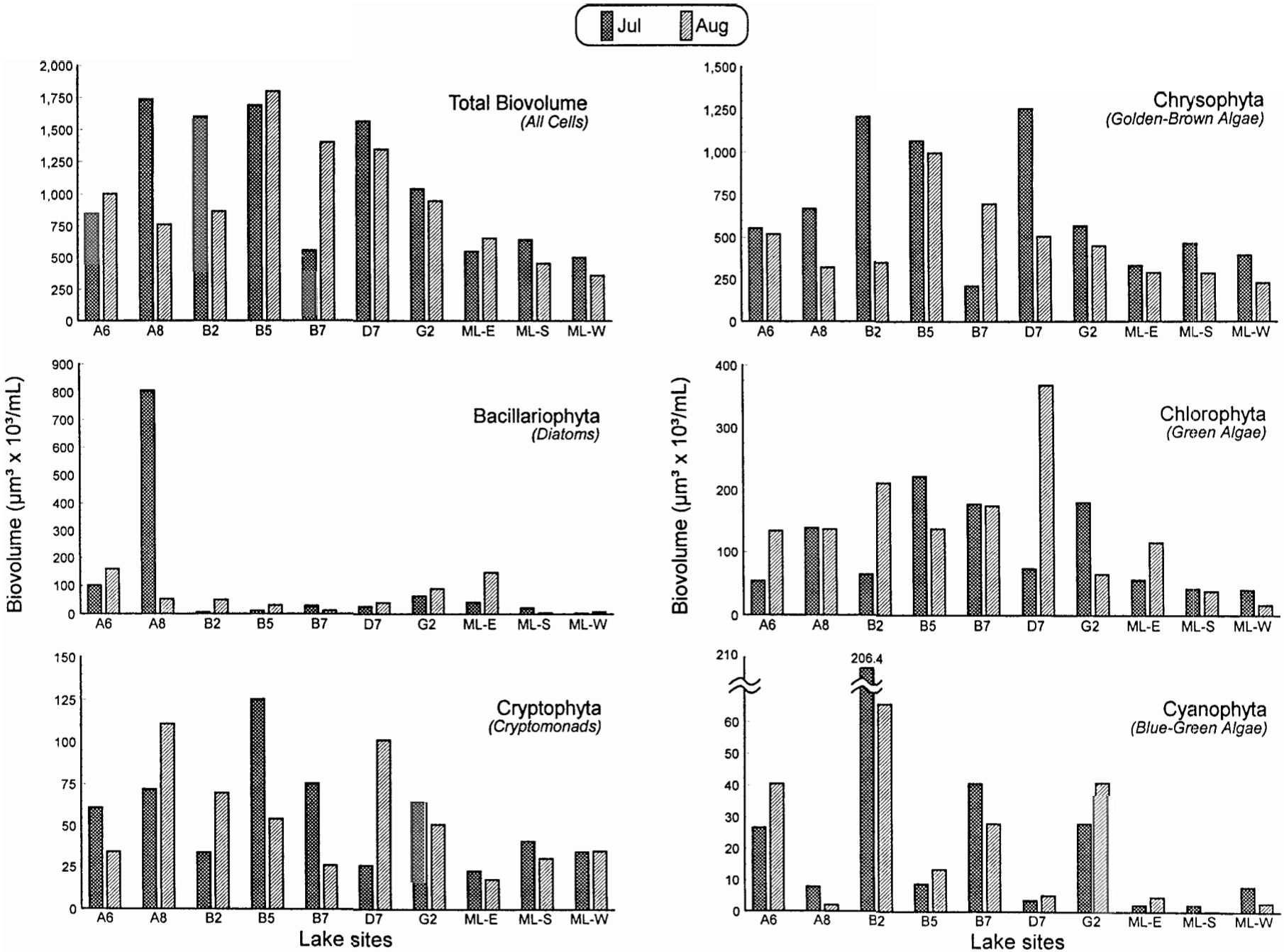


Figure 4.8 Phytoplankton biovolumes in lakes of the Meliadine Study Area, July and August 1997. Note variation in scales among graphs.

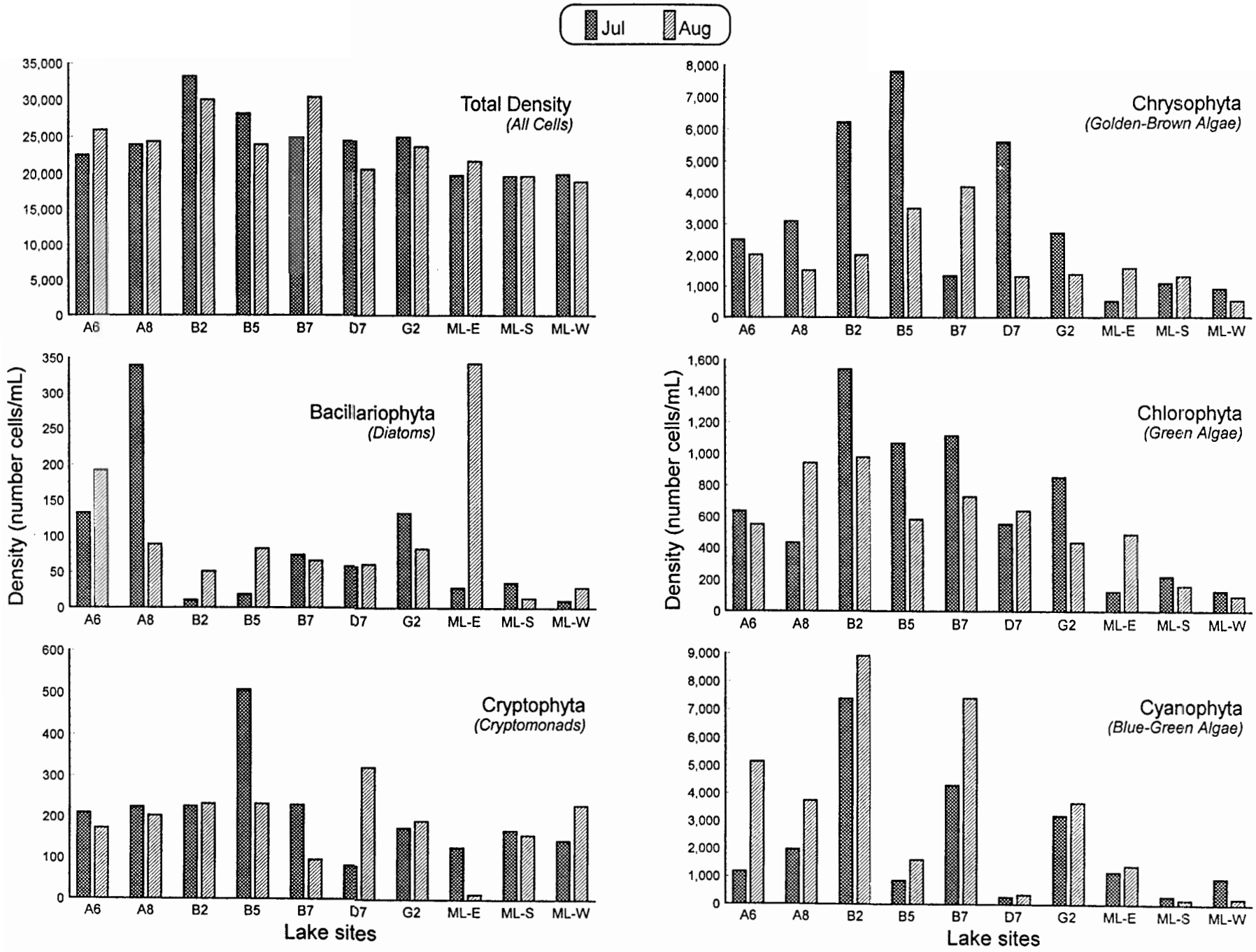


Figure 4.9 Phytoplankton densities in lakes of the Meliadine Study Area, July and August 1997. Note variation in scales among graphs.

where cyanobacteria densities were greater in the summer than in the fall. Seven of the 10 sampling sites had greater amounts of green algae in the summer than in the fall; the three exceptions were Lake A8, Lake D7, and Site ML-E of Meliadine Lake. Diatoms and cryptomonads tended to be variable with respect to seasonality.

Summary

The phytoplankton assemblages in the lakes of the Meliadine Study Area during 1997 were indicative of oligotrophic waterbodies (Wetzel 1983). In general, golden-brown algae (Chrysophyta) had the greatest biovolumes while cyanobacteria (Cyanophyta) had the lowest biovolumes. Certain species of cyanobacteria and golden-brown algae, as well as select species within these taxonomic divisions, exhibited the greatest densities; however, there was some variation in this pattern. These variations were likely due to site specific differences in the morphology and chemical properties of the lakes, as well as temporal changes in the community structure.

The cyanobacteria *Aphanothece clathrata* and *Aphanocapsa elachista* were reported to be the most abundant phytoplankton species among other subarctic lakes in the Izok Project area (RL&L 1993), the Jericho Diamond Project area (RL&L 1995 and 1997a), and the Project 5034 area (RL&L 1997b) of central mainland NWT. *A. clathrata* was identified as one of the most abundant phytoplankton species in the present study.

R.L. & L. Environmental Services Ltd. (RL&L 1993, 1995, 1997a, and 1997b) described how golden-brown algae accounted for most of the phytoplankton biovolume in the majority of their study lakes yet had densities below 1000 cells/mL, far less than the tens to hundreds of thousands reported for cyanobacteria. The data obtained in the present study also indicated that golden-brown algae dominated algal biovolumes and that cyanobacteria had the lowest biovolumes; however, the present study had densities of golden-brown algae that were similar to those of cyanobacteria. Differences in the densities of golden-brown algae and cyanobacteria as compared to the consistent biovolume results among all of the above studies is likely due to species composition. The studies conducted in central mainland NWT found that *Ochromonas* sp. was the dominant golden-brown alga, while the present study identified *C. rhodei* as the most abundant golden-brown alga. Geographical and temporal variations would also factor into observed differences among these studies.

Total phytoplankton densities ranged from 1539 to 15 800 cells/mL in lakes in the Izok Project area (RL&L 1993). In the Project 5034 area total phytoplankton densities ranged between 9275 and 23 983 cells/mL among four study lakes (RL&L 1997b). Total phytoplankton densities in the Jericho Diamond Project study ranged from 1711 to 18 103 cells/mL (RL&L 1993, 1995, 1997a, and 1997b). Total phytoplankton densities in the present study ranged from 18 964 to 33 242 cells/mL, which was somewhat greater than the ranges reported by the other investigations. These observations suggest that lakes of the Meliadine Study Area had more productive phytoplankton communities, which is likely due to greater nutrient characteristics as compared with other subarctic lakes.

Beak (1977) sampled phytoplankton from lakes in the Izok Project area in late June 1976 and found the phytoplankton communities were dominated by golden-brown algae and cryptomonads. Beak noted that the species composition and biomass of phytoplankton were typical of ultra-oligotrophic lakes (very low nutrient levels and low biological productivity), and were similar to other lakes at or near the tree line in non-permafrost areas of Canada. Similar observations were made of lakes located at Sqvaqjuac, NWT approximately 150 km north of the Meliadine Study Area (Welch et al. 1989). The phytoplankton communities described in the present study were consistent with these general observations made by Beak (1977) and Welch et al. (1989).

4.3 ZOOPLANKTON

To provide baseline information on the zooplankton community, single samples were collected from the Meliadine Study Area in the summer and fall of 1997. Ten sites were established among eight lakes; these included three sites on Meliadine Lake (Figure 4.1). Relevant data are summarized in the following sections; all data are presented in Appendix B (Tables B4, B7 and B8).

Zooplankton communities are composed of microscopic animals that live in the water column (Pennak 1978; Wetzel 1983). Summary results of zooplankton biomass (micrograms dry weight per metre cubed or $\mu g/m^3$, dry weight) and density (No./m^3) are both presented in this section because, as with phytoplankton, density alone does not provide an accurate assessment of a taxon's importance. Taxa that are extremely numerous may have a low biomass, due principally to the small size of individual organisms. Conversely, those taxa that have large biomass (due to large individual organism size) may not be numerically abundant. These large bodied groups can contribute a significant amount to lake productivity. As such, their numbers can influence the abundance and biomass of predators that feed on them (generally other zooplankton and fish) and they can modify the phytoplankton community.

Biomass

The zooplankton biomass estimates of most lakes in the Meliadine Study Area were greater in the summer than in the fall (Figure 4.10). The only exception was Site ML-W where biomass estimates were higher in the fall. Overall, Lakes B2 and B7 exhibited the highest biomass estimates (at least two-fold greater than in all the lakes). Total zooplankton biomass ranged from 76 767 $\mu g/m^3$ in Lake A8 to 2.16×10^6 $\mu g/m^3$ in Lake B7 during summer, while fall estimates ranged from 47 037 to 314 872 $\mu g/m^3$ in Lake A8 and Site ML-S, respectively.

Overall, water fleas (Cladocera) contributed the most (67%) towards overall zooplankton biomass, rotifers (Rotifera) were second in abundance (19%), followed by calanoid and cyclopoid copepods (8 and 6%, respectively). The water flea *Holopedium gibberum* accounted for the majority (62%) of the total zooplankton biomass among the 10 lake sites of the Meliadine Study Area (Appendix B, Table B7).

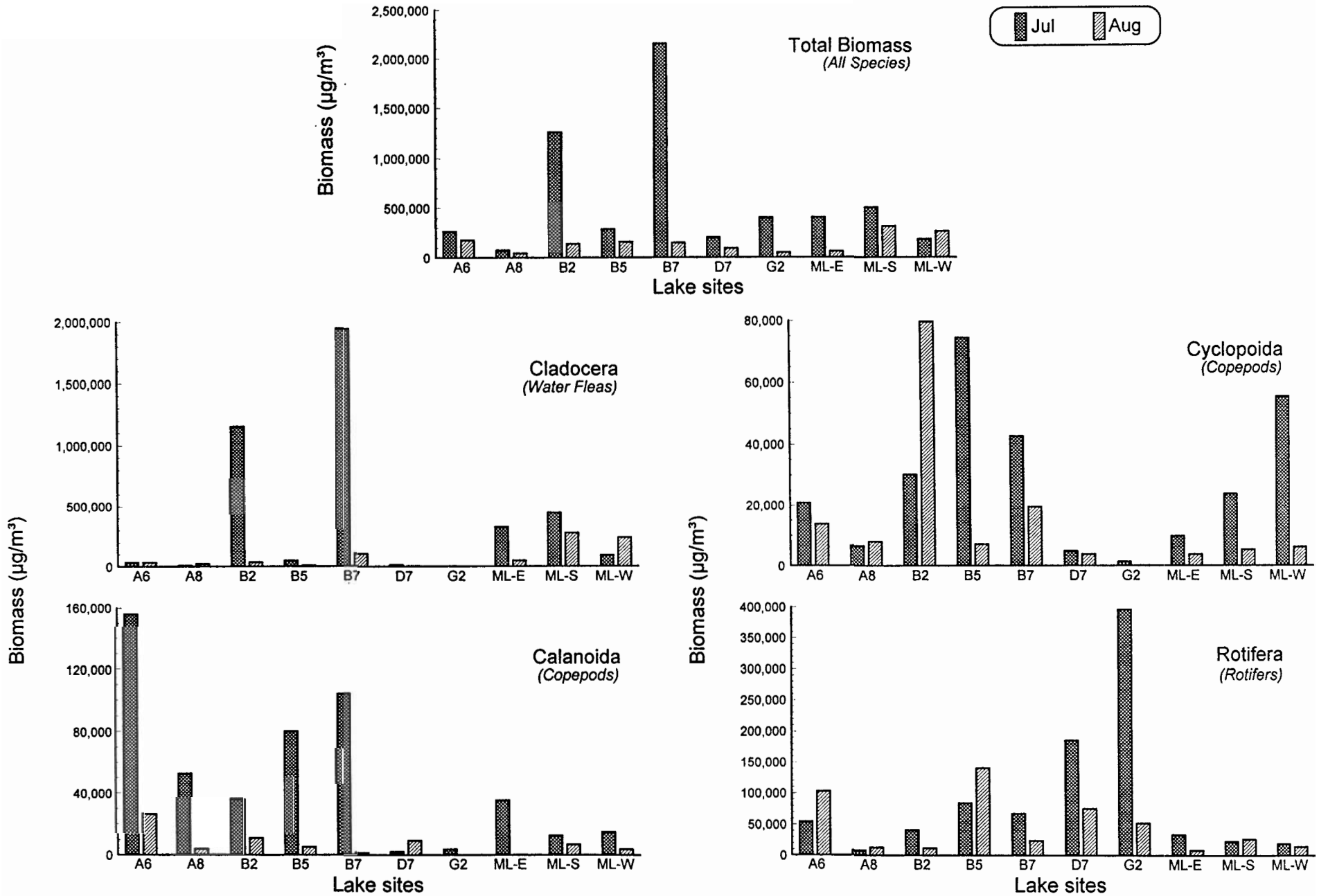


Figure 4.10 Zooplankton biomass in lakes of the Meliadine Study Area, July and August 1997. Note variation in scales among graphs.

In the summer, biomass estimates for water fleas ranged between 3000 and 1.94×10^6 $\mu g/m^3$ in Lakes G2 and B7, respectively (Figure 4.10). There was a general trend for lower water flea biomass during fall. This general trend was also observed for the calanoid and cyclopoid copepods and the rotifers. Some exceptions were noted for cyclopoid copepods (Lakes A8 and B2) and rotifers (Lakes A6, B5, and Site ML-S).

There was some variation regarding which major taxonomic group dominated the zooplankton biomass (Figure 4.10). Water fleas dominated the both summer and fall biomass estimates in Lake B7 and the three Meliadine Lake sites (ML-E, ML-S, and MLW). Rotifers dominated both summer and fall biomass estimates in Lakes D7 and G2. Calanoid copepods dominated the summertime zooplankton biomass of Lake A6 and A8. Cyclopoid copepods dominated the fall zooplankton biomass in Lake B2.

Density

The overall density of zooplankton in the lakes of the Meliadine Study Area was generally greater in summer than in fall (Figure 4.11). Exceptions to this trend included Lake A6 and Site ML-S, of Meliadine Lake. Indeed, the summer total density estimate in Lake G2 was at least 10^6 organisms/m^3 greater than in all the remaining lakes and sample dates. Summer total zooplankton densities ranged from 153 737 organisms/m^3 in Lake A8 to 2.6×10^6 organisms/m^3 in Lake G2, while fall estimates ranged from 26 047 to 1.14×10^6 organisms/m^3 in Lakes A8 and A6, respectively.

Overall, rotifers contributed the most (93.5%) towards overall zooplankton densities, cyclopoid copepods were second in abundance (4%), followed by water fleas (1.5%), and calanoid copepods (1%). The rotifer *Keratella cochlearis* accounted for the largest portion (43%) of the total zooplankton abundance among the 10 sites of the Meliadine Study Area (Appendix B, Table B8).

In the summer, rotifers had densities that ranged from 139 756 and 2.59×10^6 organisms/m^3 in Lakes A8 and G2, respectively (Figure 4.11). In the fall, there was a general trend of lower rotifer density as compared to the summer, except in Lake A6 and Site ML-S where fall densities were greater than summer densities. With some exceptions, this general trend of decreasing zooplankton abundance in the fall as compared to the summer was observed with the calanoid and cyclopoid copepods and the water fleas. The noted exceptions were cyclopoid copepods (Lakes A6, B5, and Site ML-S) and water fleas (Lakes A6, A8, B2, and Site ML-W).

Unlike the biomass estimates where there was some variation as to which major taxonomic group dominated the zooplankton community, rotifers were the exclusively dominant taxon with regard to density (Figure 4.11). Except for Lake A6 in the summer, as well as A8 and G2 in the fall, Cyclopoid copepods were the second most abundant major taxonomic group in the study lakes. Calanoid copepods were the second most abundant taxon in

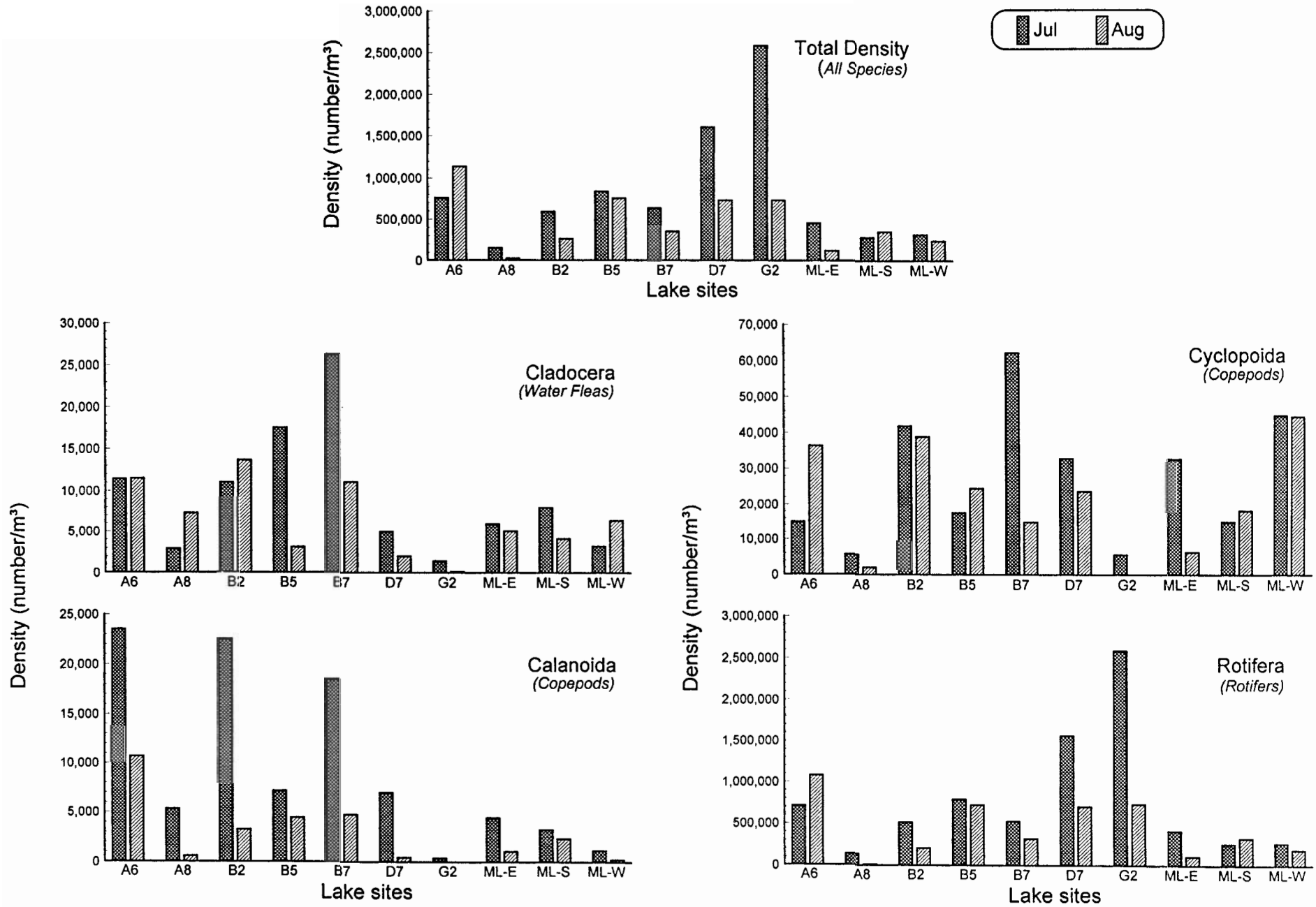


Figure 4.11 Zooplankton densities in lakes of the Meliadine Study Area, July and August 1997. Note variation in scales among graphs.

Lake A6 during the summer, while water fleas were the second dominant taxon in Lakes A8 and G2 during the fall.

Summary

In general, zooplankton within the Meliadine Study Area exhibited variations in community structure among lakes and seasons. Cladocera (water fleas) was the dominant taxonomic group in all lakes in terms of biomass. Within this group, *Holopedium gibberum* was the most important species. Other taxonomic groups, especially rotifers, also accounted for a considerable amount of the zooplankton biomass at some sites. Rotifers, particularly *Keratella cochlearis*, tended to be the most abundant zooplankton species at all sampling sites during both seasons; however, due to the relatively small size of rotifers, they did not have large contributions to the community biomass.

Species abundance varied between summer and fall, which suggested a successional change in the zooplankton community; however, the same species tended to dominate the community in each season. These changes and differences in the zooplankton community between some lakes are likely due to natural variation, as well as different water quality and morphology of the lakes.

Water fleas accounted for the majority of the zooplankton biomass in other subarctic lakes. The most important rotifers were *K. cochlearis* and *Kellicottia longispina*, while the copepods *Leptodiaptomus sicilis* and *Cyclops scutifer* were numerically dominant among several lakes in the region of Contwoyto Lake, central mainland NWT (RL&L 1993, 1995, 1997a, and 1997b). With the exception of *L. sicilis*, these species were among the most abundant taxa in the Meliadine Study Area (Appendix B, Table B8). As described in the present report, all of the above studies found that the water flea *H. gibberum* was the single most important species in terms of biomass. Other studies have described the zooplankton communities of the subarctic as having low densities of water fleas and copepods, while rotifers were the most abundant (e.g., Moore 1978a, 1978b).

R.L. & L. Environmental Services Ltd. (RL&L 1993, 1995, 1997a, and 1997b) reported total zooplankton biomass estimates that ranged from 1297 to 1.77×10^6 $\mu g/m^3$ among lakes of central mainland NWT during the summer and fall. These studies also reported total densities that ranged from 3130 to 94 724 organisms/m^3. The total biomass (47 037 to 2.16×10^6 $\mu g/m^3$) and densities (26 047 to 2.6×10^6 organisms/m^3) estimates in the present study were considerably higher, suggesting that the waterbodies within the Meliadine Study Area supported a more productive zooplankton community.

4.4 BENTHIC MACROINVERTEBRATES

Benthic macroinvertebrates are animals that exist among bottom substrata of aquatic systems. The benthic macroinvertebrate community has proven to be useful in environmental surveys because relative to water quality perturbations, they are sedentary (i.e., generally have small home ranges) and they have long life cycles (a few weeks to a few years, depending on species) which makes them useful as indicators of pollution effects (Alberta

Environment 1990; Environment Canada 1993). In addition, their ecological relationships are generally well understood (e.g., Hynes 1970; Resh and Rosenberg 1984; Rosenberg and Resh 1993), and they are the major food source for many fish species. For these reasons, evaluating benthic communities is regarded as a cost-effective means of assessing the aquatic environment.

4.4.1 Streams

A benthic macroinvertebrate sampling program was conducted on 10 streams within the Meliadine Study Area in the summer of 1997 (Figure 4.1). One sampling site was established on each of the study streams; five replicate Surber samples were collected. Three of the five replicate samples collected at each site were processed in the laboratory, the remaining two replicates were archived. Data are presented as means (n=3, $\pm$1 standard error). Relevant information are presented in this section; site specific sampling information is summarized in Appendix B, Table B9, while raw data are presented in Tables B10 and B11.

In total, 60 different taxonomic groups were identified (Appendix B, Tables B10 and B11). The mean number of taxonomic groups ranged from 20.3$\pm$0.3 taxa/sample in Stream A7-8 to 28.7$\pm$4.7 taxa/sample in Stream B1-2. The benthic macroinvertebrate community as a whole ranged from 854$\pm$122 to 8180$\pm$2410 organisms/sample (converts to means of 9191 and 87 956 animals/m^2) in Streams D6-7 and B6-7, respectively (Figure 4.12). These densities are low considering that some stream environments can be found with densities greater than 10^6/m^2 (Hynes 1970; Resh and Rosenberg 1984; Rosenberg and Resh 1993).

In terms of abundance, the benthic macroinvertebrate community in the study streams was dominated (listed in descending order) by: midges (Chironomidae), hydroids (Coelenterata), aquatic earthworms (Oligochaeta), seed shrimps (Ostracoda), roundworms (Nematoda), water mites (Hydracarina), black flies (Simuliidae), benthic copepods (Harpacticoida), and other Diptera. As a whole, the number of specimens in these taxonomic groups accounted for 90% of all benthic macroinvertebrates that were collected.

The benthic macroinvertebrate community structure differed among the 10 study streams (Figure 4.13). For example, midges were more abundant in Streams A5-6, A7-8, B6-7, and ML-MR, while Streams B1-2, D0-1, D6-7, and ML-PL had lower numbers of this taxon. Streams A5-6 and A7-8 were devoid of hydroids, yet Stream B1-2 had large numbers of these animals (1182$\pm$508 organisms/sample). Aquatic earthworms were more abundant in Streams B6-7 and ML-MR than in any of the other study streams. Stream B6-7 had the greatest numbers of seed shrimps, roundworms, and water mites (728$\pm$375, 364$\pm$210, and 434$\pm$137 organisms/sample, respectively). Black flies were almost exclusively found in Stream A0-1, while the two outlet streams of Meliadine Lake (ML-MR and ML-PL) had the greatest numbers of benthic copepods. Differences in the community structure among the streams of the Meliadine Study Area may be attributed, in part, to natural variation and differences in the physical habitat that was sampled (i.e., water depth, flow velocity, substrate composition).

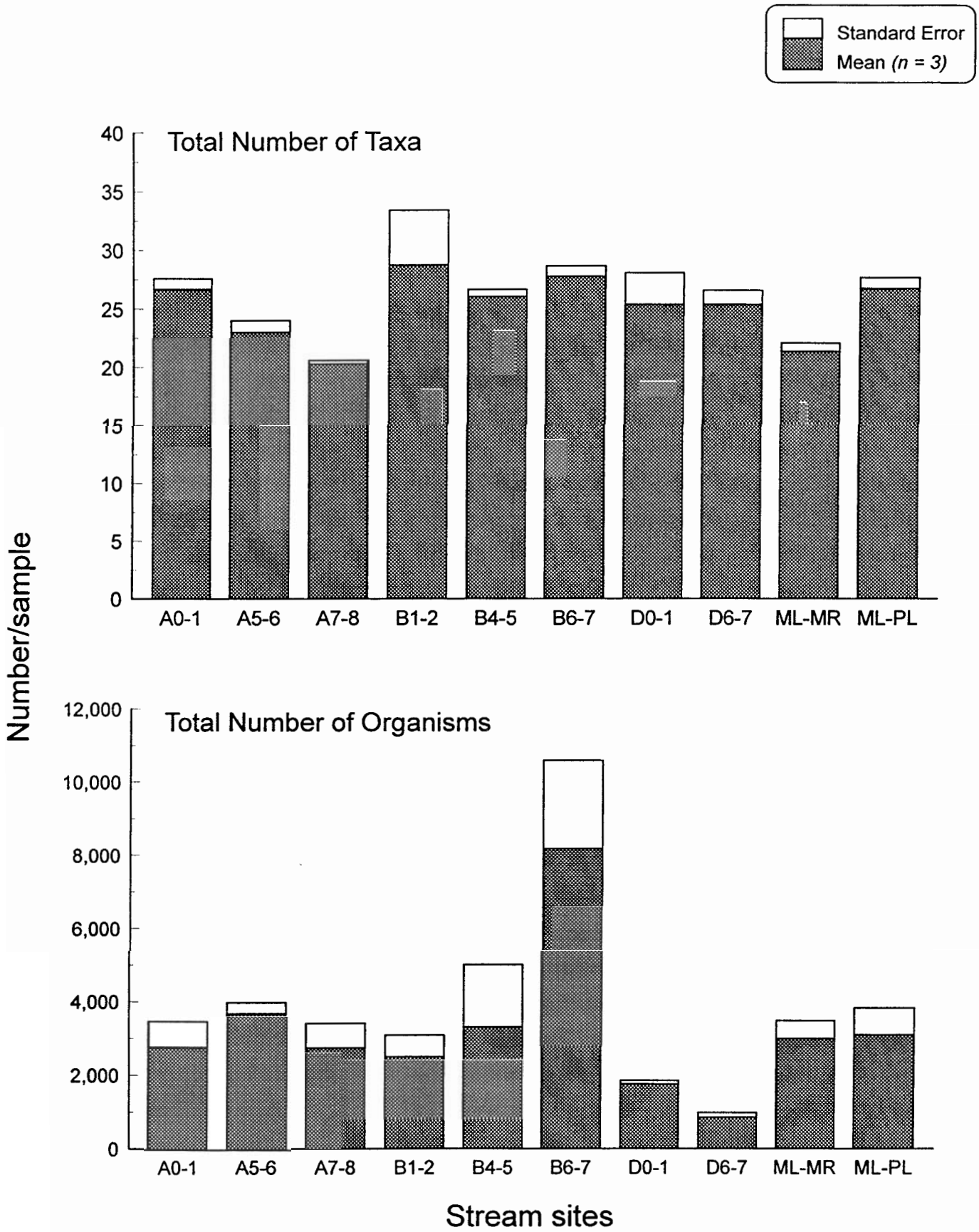


Figure 4.12 Total number of benthic macroinvertebrate taxa and total number of organisms in streams of the Meliadine Study Area, July 1997. Note variation in scales between graphs.

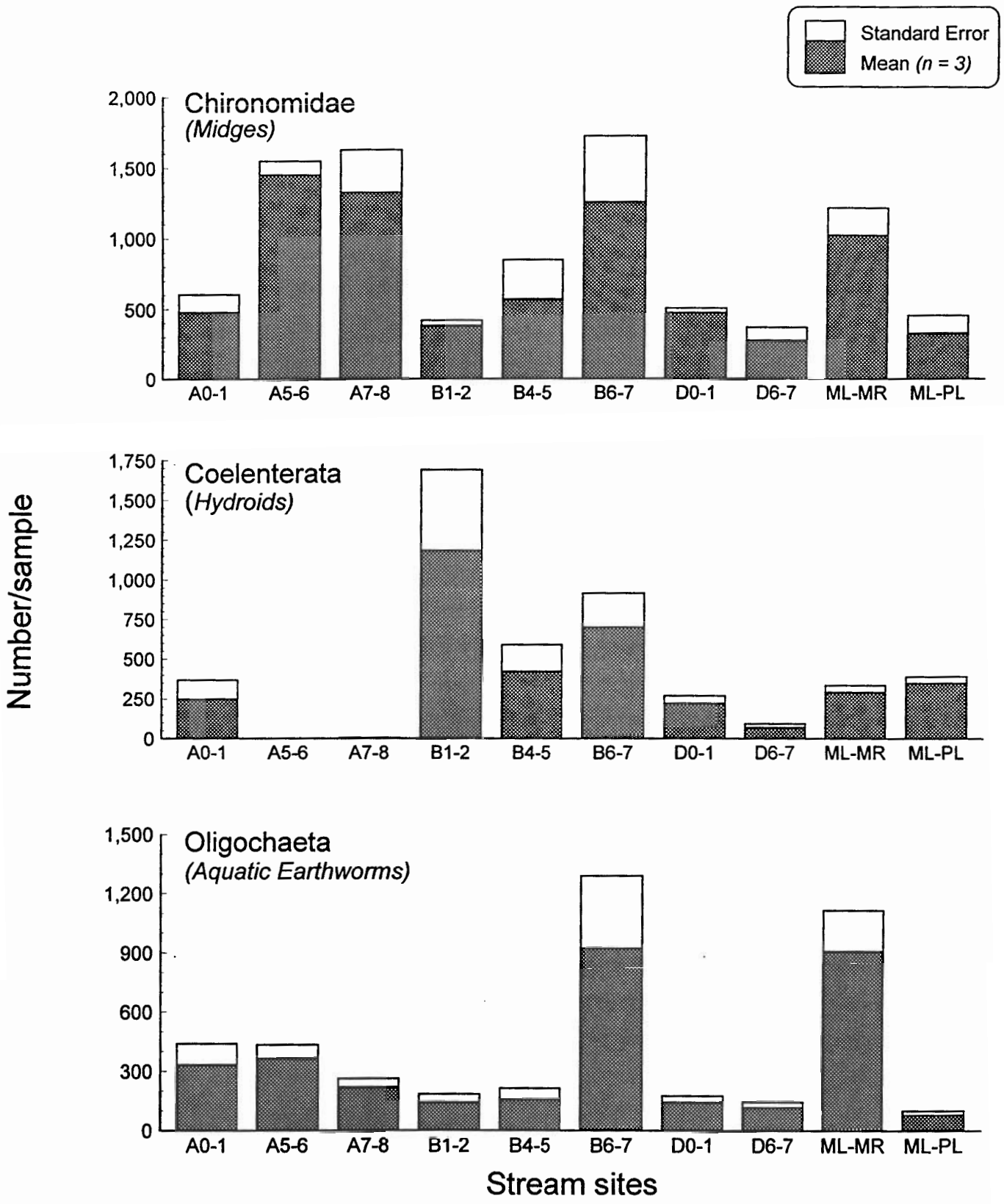


Figure 4.13 Benthic macroinvertebrate densities in streams of the Meliadine Study Area, July 1997. Note variation in scales among graphs.

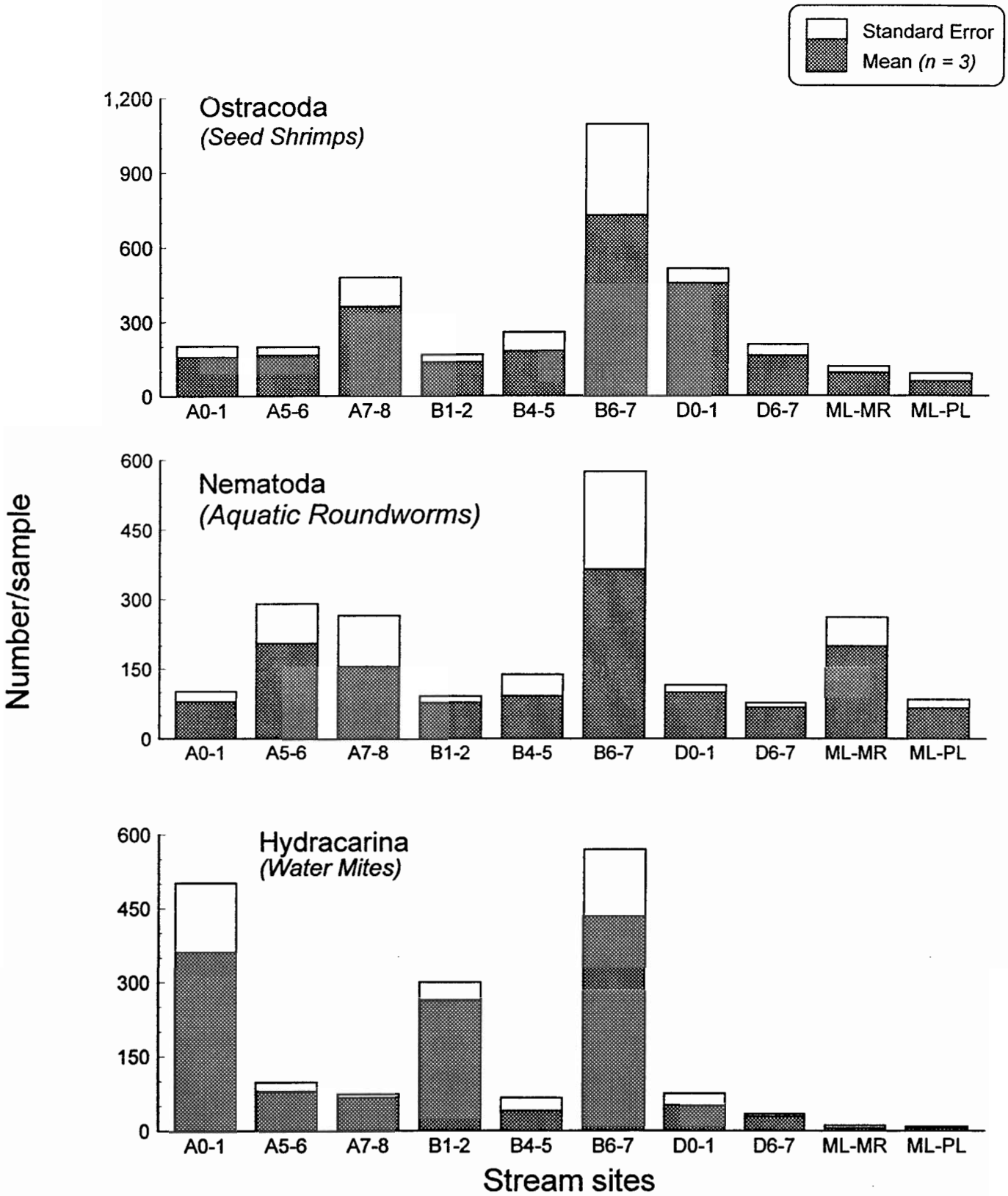


Figure 4.13 continued.

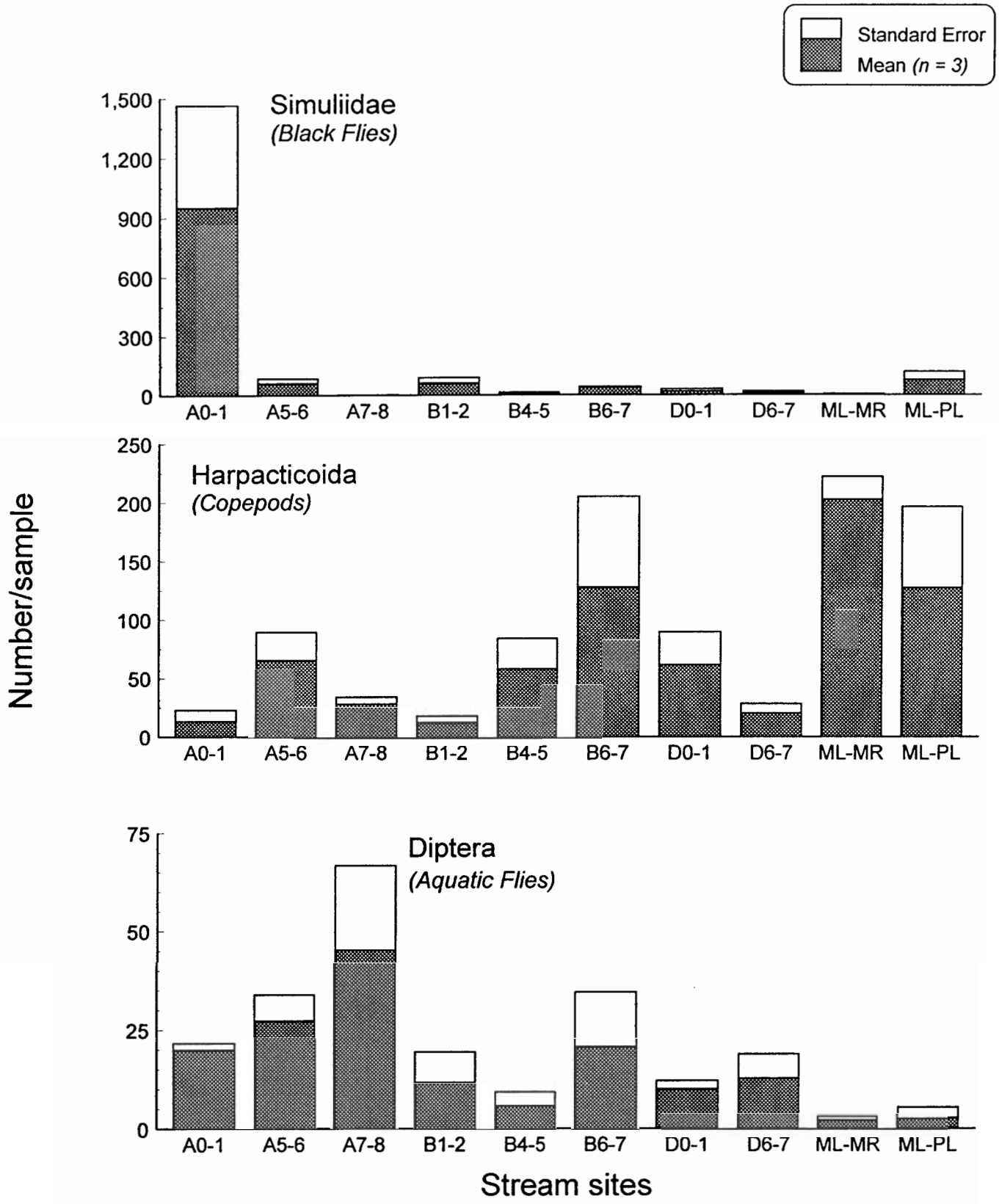


Figure 4.13 concluded.

Summary

The benthic macroinvertebrate community within streams of the Meliadine Study Area were dominated by midges, hydroids, aquatic earthworms, and seed shrimps. Individually, these taxa contributed at least 10% towards the total number of benthic animals encountered in the 10 study streams (32.1, 14.2, 13.7, and 10.2%, respectively). There were some notable differences in the benthic macroinvertebrate community structure among the study streams; variations in physical characteristics among the sampling sites and natural variability may account for these differences.

Five streams of the Jericho Diamond Project area (near Contwoyto Lake, central mainland NWT) were sampled in 1995 and 1996 (RL&L 1995 and 1997a). One nearby stream was sampled by Beak (1977) in 1976. These three studies generally identified aquatic earthworms, water mites, midges, stoneflies (Plecoptera), and crane flies (Diptera: Tipulidae) as their numerically dominant benthic macroinvertebrate taxa. Although stoneflies and crane flies were not identified among the most dominant taxa in the present study, they were encountered among the samples (Appendix B, Table B10).

The mean number of taxonomic groups (7 to 24 taxa/sample) and mean total densities (129 to 1488 organisms/sample) reported by RL&L (1995 and 1997a) were much lower than the present study (20.3±0.3 to 28.7±4.7 taxa/sample and 854±122 to 8179±2408 organisms/sample). Natural variability, geographic location, nutrient loadings, as well as differences in physical characteristics of each site (e.g., flow velocities and substrate) may account for differences observed between the two study areas.

The benthic macroinvertebrate communities in the streams of the Meliadine Study Area were representative of subarctic systems. The species composition and low densities reported by the present study and by other investigations are indicative of oligotrophic systems (i.e., low productivity and short growing seasons: Hynes 1970; Resh and Rosenberg 1984; Rosenberg and Resh 1993); however, the densities reported in the present study indicated greater productivity than in the streams of central mainland NWT.

4.4.2 Lakes

A benthic macroinvertebrate sampling program was conducted at 10 lake locations within the Meliadine Study Area in the summer of 1997 (Figure 4.1). One site was established in the centre of a basin in each of seven lakes; three sites were established in Meliadine Lake. Five replicate Ekman grab samples were collected at each site, except at Site ML-S of Meliadine Lake where one sample was collected because of sampling difficulties. Three of the five replicate samples collected at each site were processed in the laboratory, the remaining two replicates were archived. Data are presented as means (n=3, ±1 standard error). Relevant information are presented in this section; site specific sampling information is summarized in Appendix B, Table B12, while raw data are presented in Tables B13 and B14.

In total, 42 different taxonomic groups were identified (Appendix B, Tables B13 and B14). The mean number of taxonomic groups ranged from 8.7±1.8 taxa/sample in Site ML-W of Meliadine Lake to 24 taxa/sample in Site ML-S of Meliadine Lake. The benthic macroinvertebrate community as a whole ranged from 39±9.3 to 1828±408 organisms/sample (converts to means of 1609 and 79 568 organisms/m^2) in Site ML-W of Meliadine Lake and Lake D7, respectively (Figure 4.14). These densities are low considering that some lake environments can be found with densities greater than $10^6/m^2$ (Hynes 1970; Resh and Rosenberg 1984; Rosenberg and Resh 1993).

In terms of abundance, the benthic macroinvertebrate communities in the study lakes were dominated (listed in descending order) by: seed shrimps (Ostracoda), midges (Chironomidae), benthic copepods (Harpacticoida), roundworms (Nematoda), fingernail clams (Sphaeriidae), and aquatic earthworms (Oligochaeta). As a whole, the number of specimens in these taxonomic groups accounted for 95% of all benthic macroinvertebrates that were collected.

The benthic macroinvertebrate community structure differed among the 10 lake sites. Overall, Lakes B5 and D7 had much greater densities of all macroinvertebrates as a whole than in all of the remaining lake sites (Figure 4.14). Seed shrimps were very abundant in Lakes B5 and D7 (748±295 and 1031±238 organisms/sample, respectively) and almost non-existent in Lakes A6, A8 and the three Meliadine Lake locations (ML-E, ML-S, and ML-W) (Figure 4.15). Midges had much greater densities in Lakes B5, B7, and Site ML-S than in all of the remaining sample sites. All of the three Meliadine Lake sampling locations (ML-E, ML-S, and ML-W) were almost devoid of benthic copepods and fingernail clams relative to all of the remaining lake sites. Lake G2 had far more aquatic roundworms than did the remaining nine lake sites. Lake D7 had the most aquatic earthworms. Differences in the community structure among the lake sites of the Meliadine Study Area may be attributed, in part, to natural variation, nutrient concentrations (see Section 3.5), and differences in the physical habitat that was sampled (i.e., water depth, light quantity, substrate composition).

Summary

The benthic macroinvertebrate community in the lakes of the Meliadine Study Area were dominated by seed shrimps, midges, benthic copepods, and aquatic roundworms. These taxa contributed at least 10% towards the total number of benthic animals encountered in the 10 study sites (34.0, 23.3, 20.8, and 11.1%, respectively). There were some notable differences in the benthic macroinvertebrate community structure among the lakes; variations in physical characteristics and nutrient availability among the sampling sites may account for these differences.

Several lakes (greater than 12) in central mainland NWT (Contwoyto and surrounding lakes) were sampled by several researchers (Beak 1977; Moore 1978a and 1978b; RL&L 1995, 1997a, and 1997b). These studies generally identified midges, aquatic earthworms, aquatic roundworms, and fingernail clams as their numerically dominant benthic macroinvertebrate taxa. Although fingernail clams and aquatic earthworms were not identified among the

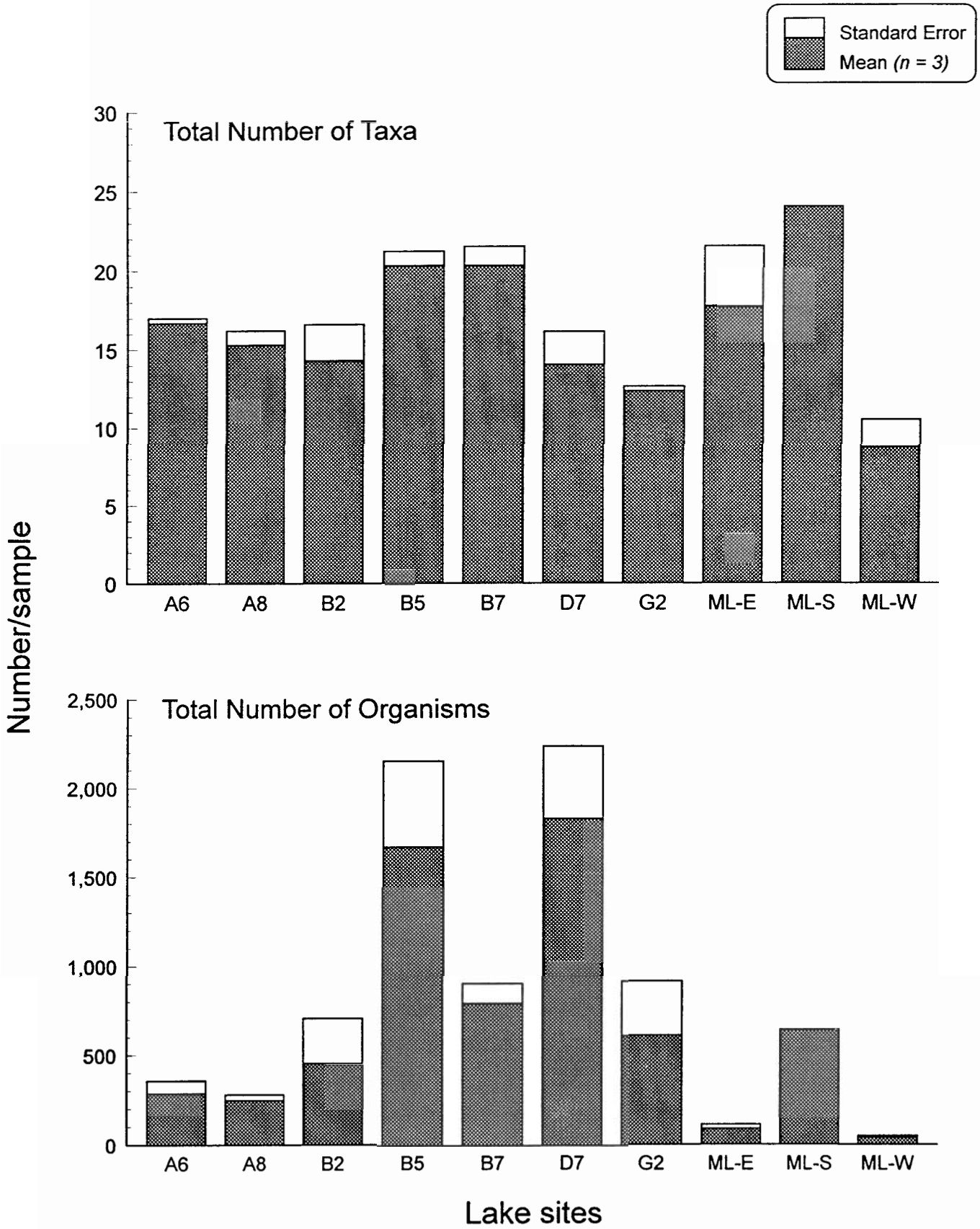


Figure 4.14 Total number of benthic macroinvertebrate taxa and total number of organisms in lakes of the Meliadine Study Area, July 1997. Note variation in scales between graphs.

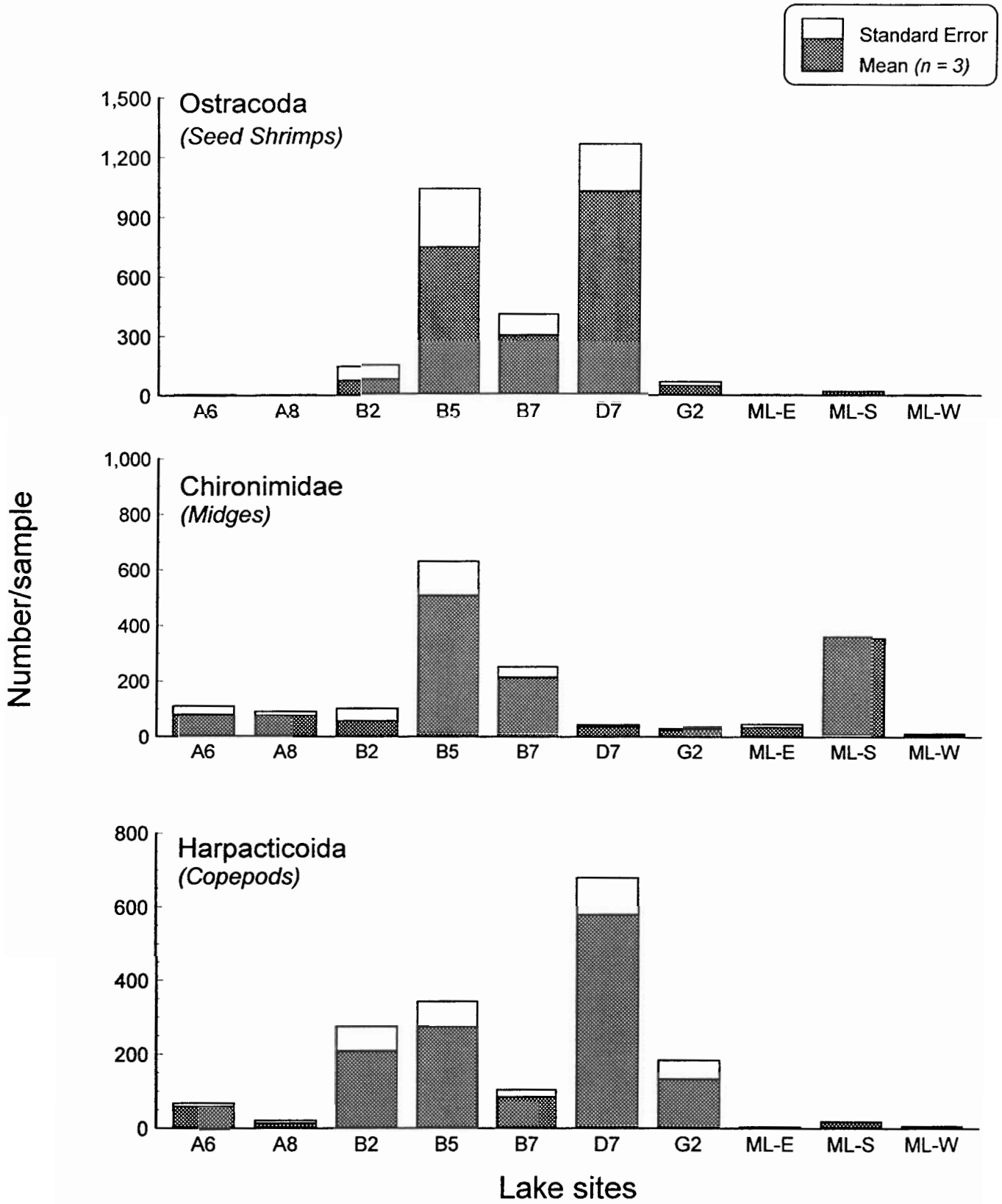


Figure 4.15 Benthic macroinvertebrate densities in lakes of the Meliadine Study Area, July 1997. Note variation in scales among graphs.

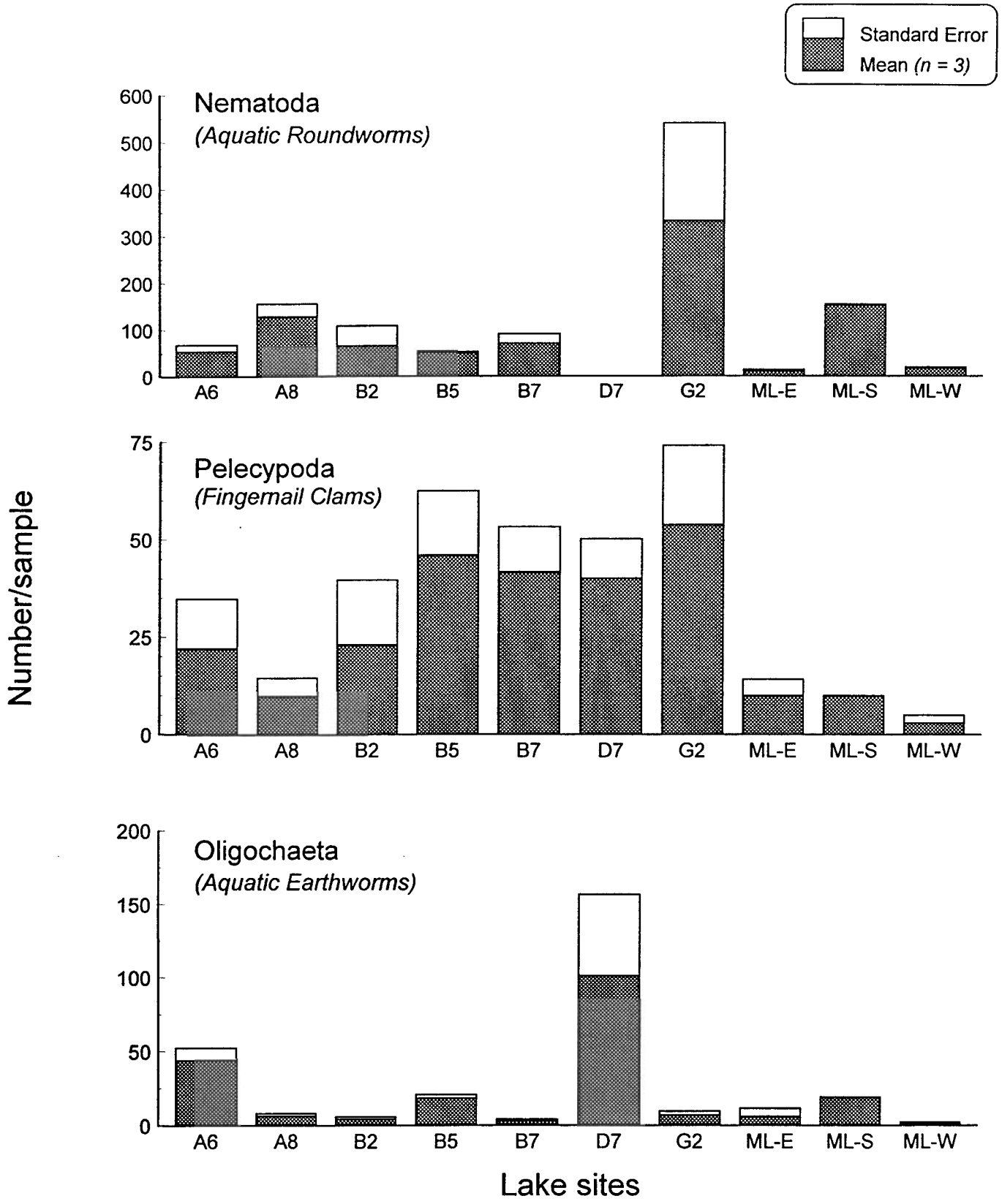


Figure 4.15 concluded.

most abundant (i.e., contributing to greater than 10% of the total number of macroinvertebrates encountered in lake samples) in the present study, they were commonly encountered among the samples and did contribute 3.9 and 3.3% towards total numbers, respectively (Appendix B, Table B13). Seed shrimps and benthic copepods were among the most abundant benthic taxa encountered in the present study, but not within the aforementioned reports. Differences in the benthic macroinvertebrate communities among the studies are likely due to geographical, temporal, and physical variations.

The mean total benthic macroinvertebrate densities (3.2 to 515 organisms/sample) reported by Moore (1978b) and RL&L (1995, 1997a, and 1997b) were much lower than the present study from (39 to 1828 organisms/sample). Natural variability in the data, geographic location, nutrient loadings, as well as differences in physical characteristics of each site (e.g., water depths and substrate composition) may account for differences observed between the two study areas.

The benthic macroinvertebrate communities in the lakes of the Meliadine Study Area were representative of subarctic systems. The species composition and low densities reported by the present study and by other investigations are indicative of oligotrophic systems (i.e., low productivity and short growing seasons: Hynes 1970; Resh and Rosenberg 1984; Hershey 1985; Welch et al. 1988; Jorgenson et al. 1992); however, the densities reported in the present study indicate greater productivity than the lakes located in central mainland NWT.

5.0 FISH POPULATIONS

5.1 SPECIES COMPOSITION AND RELATIVE ABUNDANCE

The total catch in the Meliadine Study Area in 1997 (all sampling methods, locations, and seasons combined) was 7192 fish (Table 5.1; Appendix C, Tables C1 to C11). The catch comprised nine fish species, five of which were members of the salmonid family. Cisco contributed the most (26.1%) to the total catch. Other frequently captured salmonid species included Arctic charr, Arctic grayling, lake trout, and round whitefish (19.8, 6.6, 3.9, and 1.7% of the total catch, respectively). As the most common forage species, threespine and ninespine sticklebacks contributed 22.2 and 17.5% of the catch, respectively. Slimy sculpin and burbot were captured only occasionally (2.0 and 0.2% of the catch, respectively).

Table 5.1 Number and frequency of occurrence of fish species captured in the Meliadine Study Area, 1997 (all sampling methods and seasons combined)[a].

Species	Peninsula Watersheds							Meliadine Lake		Meliadine River [b]		All Areas Combined	
	A	B	D	F	G	n	%	n	%	n	%	n	%
Arctic charr	5	19	46			70	*3.5*	298	*7.5*	1055	*84.9*	1423	*19.8*
Lake trout	16	18	8	4	4	50	*2.5*	210	*5.3*	22	*1.8*	282	*3.9*
Arctic grayling	101	184	29	4		318	*16.1*	67	*1.7*	91	*7.3*	476	*6.6*
Round whitefish	1					1	*0.1*	63	*1.6*	58	*4.7*	122	*1.7*
Cisco	4	24	18			46	*2.3*	1832	*46.1*			1878	*26.1*
Burbot		9	1			10	*0.5*	2	*0.1*			12	*0.2*
Slimy sculpin	26	49	56	1		132	*6.7*	3	*0.1*	8	*0.6*	143	*2.0*
Ninespine stickleback	242	226	709	36	45	1258	*63.7*			4	*0.3*	1262	*17.5*
Threespine stickleback	36	38	5	9	2	90	*4.6*	1499	*37.7*	5	*0.4*	1594	*22.2*
Total	**431**	**567**	**872**	**54**	**51**	**1975**	***100***	**3974**	***100***	**1243**	***100***	**7192**	***100***

[a] species composition may be biased by differences in the timing of sampling events and the selectivity of capture methods
[b] includes Little Meliadine Lake

Species composition within the catch varied greatly between the three major sampled areas (peninsula watersheds, Meliadine Lake, and Meliadine River). For example, Arctic charr comprised most (84.9%) of the catch in Meliadine River; however, they contributed only 7.5% to the catch in Meliadine Lake, and 3.5% to the catch in the peninsula watersheds. Similarly, Arctic grayling were caught more frequently in the peninsula watersheds (16.1% of the catch) than in Meliadine River and Meliadine Lake (7.3 and 1.7%, respectively). These differences were partly due to the selectivity of the various capture methods used to sample these areas; whereas most (91.0%) fish in the peninsula watersheds were captured by backpack electrofishing, fyke nets accounted for 98.0% to the total catch in Meliadine Lake, and fish fence operations contributed 85.8% to the total catch in the Meliadine

River. To eliminate the potential bias caused by gear selectivity, the patterns of relative abundance and distribution of fish within the study area will be discussed separately for each major capture method.

5.1.1 Backpack Electrofishing

Sampling by backpack electrofisher (total effort of 335.2 min) was conducted at 30 stream sites within the Peninsula Basins and in the Meliadine River at its outflow from Meliadine Lake (Figure 3.1; Appendix C, Tables C1 to C4). Sampling was carried out on a seasonal basis; however, most (65.4%) of the sampling effort occurred during the spring session in June. The total backpack electrofishing catch comprised 1831 fish that represented eight species. The species percent composition and relative abundance, expressed as catch-per-unit-effort (CPUE or catch rate), are compared between individual basins and seasons in Appendix C, Table C4. Ninespine stickleback (n=1262) was the predominant species within all sampled basins on the peninsula; its contribution to the total catch was highest in Basin D (89.6%) and lowest in Basin B (44.2%). On a seasonal basis, catch rates ranged from 1.39 fish/min in Basin B in August to 23.2 fish/min in Basin D in July (Figure 5.1).

Arctic grayling (n=248) was the second most abundant species in backpack electrofishing catches. During the spring field session, Arctic grayling were encountered at 19 of 31 sites sampled (in all peninsula basins except for Basin G); highest catch rates were recorded in Basins A and B (1.20 and 0.58 fish/min, respectively). Under much lower flow conditions in July (see Section 3.1), Arctic grayling were absent from the catch in Basin A streams; however, their catch rates in Basin B increased to 2.15 fish/min, partly due to the emergence of young-of-the-year fish. During August, Arctic grayling were captured only in Basin B (0.46 fish/min) and in the Meliadine River (0.34 fish/min).

Although lake trout (n=49) were captured in all sampled basins on the peninsula, their distribution was mostly limited to the lowermost sections of each basin and their catch rates were generally lower than those of Arctic grayling. One notable exception to this pattern was recorded in Basin A where eight juvenile lake trout, but no Arctic grayling, were captured in Stream A5-6 (downstream of Peg Lake) on 13 July during trace flow conditions. Lake trout were not encountered in the peninsula streams in August. In contrast, the lake trout catch rate in the Meliadine River in August (0.57 fish/min) was higher than during July and June (0.11 and 0.00 fish/min, respectively).

Small numbers of Arctic charr juveniles (n=24) were captured by backpack electrofishing in Basins A, B, and D and in the Meliadine River; most (17 of 24) were recorded in Stream B1-2 in August. The overall catch rates of slimy sculpin (n=140) were approximately three times higher in Basin D (1.04 fish/min) than in Basins A and B (0.38 and 0.32 fish/min, respectively). Burbot (n=10) were recorded in Basins B and D, whereas cisco (n=3) were captured only in Basin B in June.

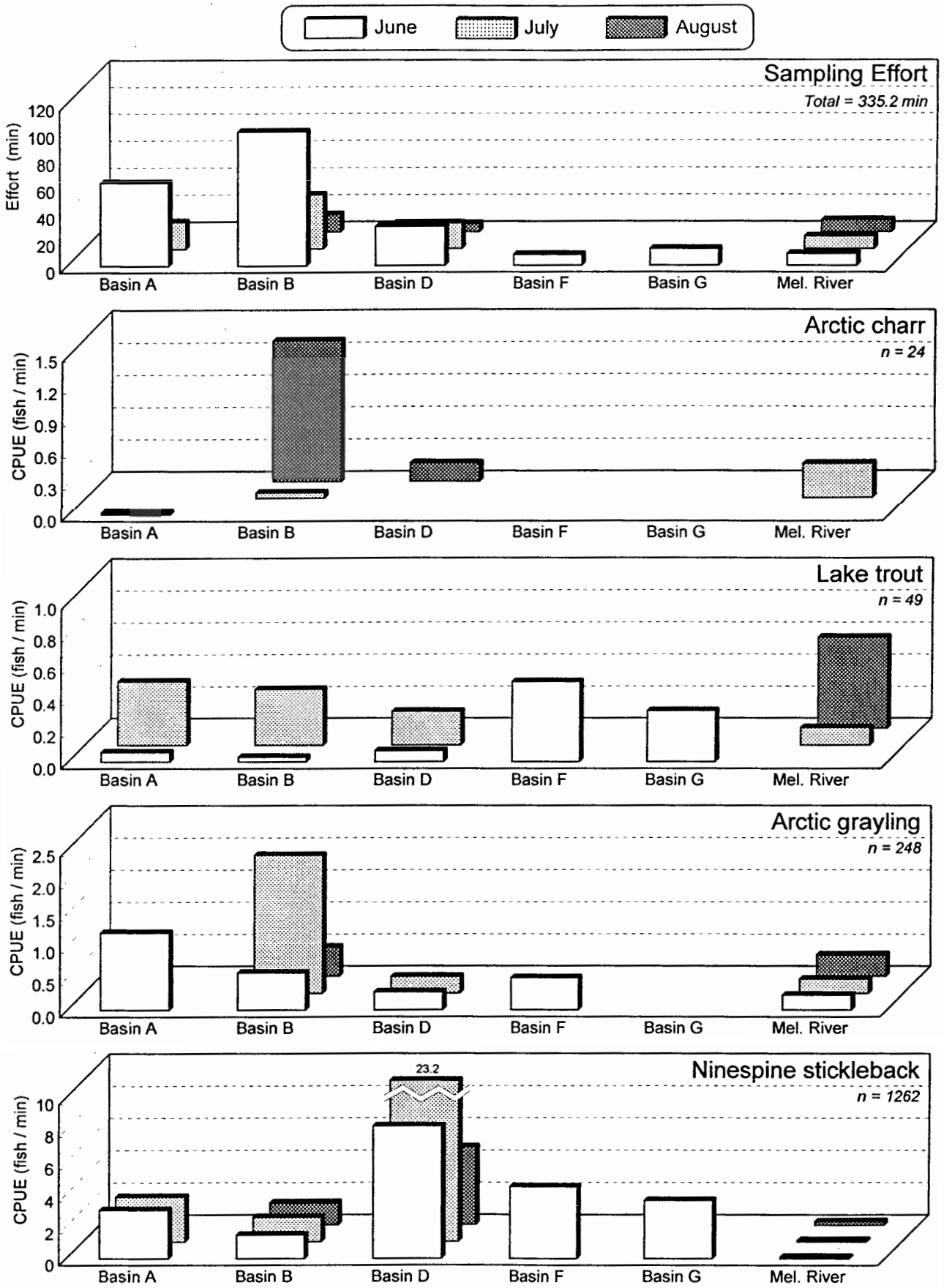


Figure 5.1 Seasonal changes in relative abundance, expressed as catch-per-unit-effort (CPUE), of the main fish species captured by backpack electrofishing in the Meliadine Study Area, 1997 (note changes in the y-axis scale).

5.1.2 Gill Nets

The gill netting program (total effort of 165.9 h) was carried out in 13 lakes within the peninsula watersheds, eight stations in Meliadine Lake, and three stations in Little Meliadine Lake (Figure 3.1; Appendix C, Tables C5 to C7). Sampling was carried out mainly in July and August; additional sampling was conducted in Little Meliadine Lake in late September. The total gill netting catch comprised 222 fish that represented five species. The species percent composition and relative abundance are compared between individual lakes and seasons in Appendix C, Table C7; catch rates for all seasons combined are illustrated in Figure 5.2.

The highest overall (all species combined) catch rates were recorded in gill nets set in the east basin of Meliadine Lake (4.36 fish/h); they comprised mainly cisco (2.23 fish/h) and lake trout (1.91 fish/h), with occasional captures of round whitefish (0.21 fish/h). The overall catch rates in the peninsula lakes were slightly lower and the species composition varied greatly from lake to lake. Whereas the catches in the upper lakes within each watershed (Lakes A8, B5, and D7) consisted entirely of Arctic grayling (2.65, 3.42, and 0.58 fish/h, respectively), the lower lakes appeared to support a more varied species assemblage. Arctic charr were the dominant species in Lake D1 (2.15 fish/min); they were also captured in Lakes A1 and D3 (0.42 and 0.32 fish/h, respectively). Lake trout were captured only in the lowermost peninsula lakes (Lakes A1, B2, and D1), but their catch rates appeared much lower (0.42, 0.10, and 0.05 fish/h). Cisco were present in all lakes that contained lake trout; they were also captured in two upper lakes (A6 and B7) in association with Arctic grayling.

Gill nets set in Lakes B4, D4, and D5 did not catch fish. These lakes were located in the mid-reaches of Basins B and D and appeared to be shallower than the surrounding upper and lower lakes. They were likely used only as movement corridors for accessing the upper lakes (B5, B7, and D7), which provided more suitable habitat. The absence of predators (i.e., Arctic charr and lake trout) in the upper lakes was likely an important factor for their colonization by Arctic grayling and cisco.

Despite a relatively large amount of effort (five gill net sets for a total of 19.9 h) used to sample Lake G2 (Control), this lake appeared not to be used by fish other than ninespine stickleback. The small drainage area of Basin G and the resulting low levels of freshet flows in the streams that connect Lake G2 to the central basin of Meliadine Lakes were likely the reasons why larger fish were unable to access this lake, even during spring.

Gill nets set in Little Meliadine Lake on 27-28 September yielded a total of 18 fish (2.09 fish/h). Round whitefish comprised one half of the catch; the remainder consisted of Arctic charr and lake trout. All captured Arctic charr (n=5) were females in pre-spawning condition, suggesting that Little Meliadine Lake may be utilized for Arctic charr spawning.

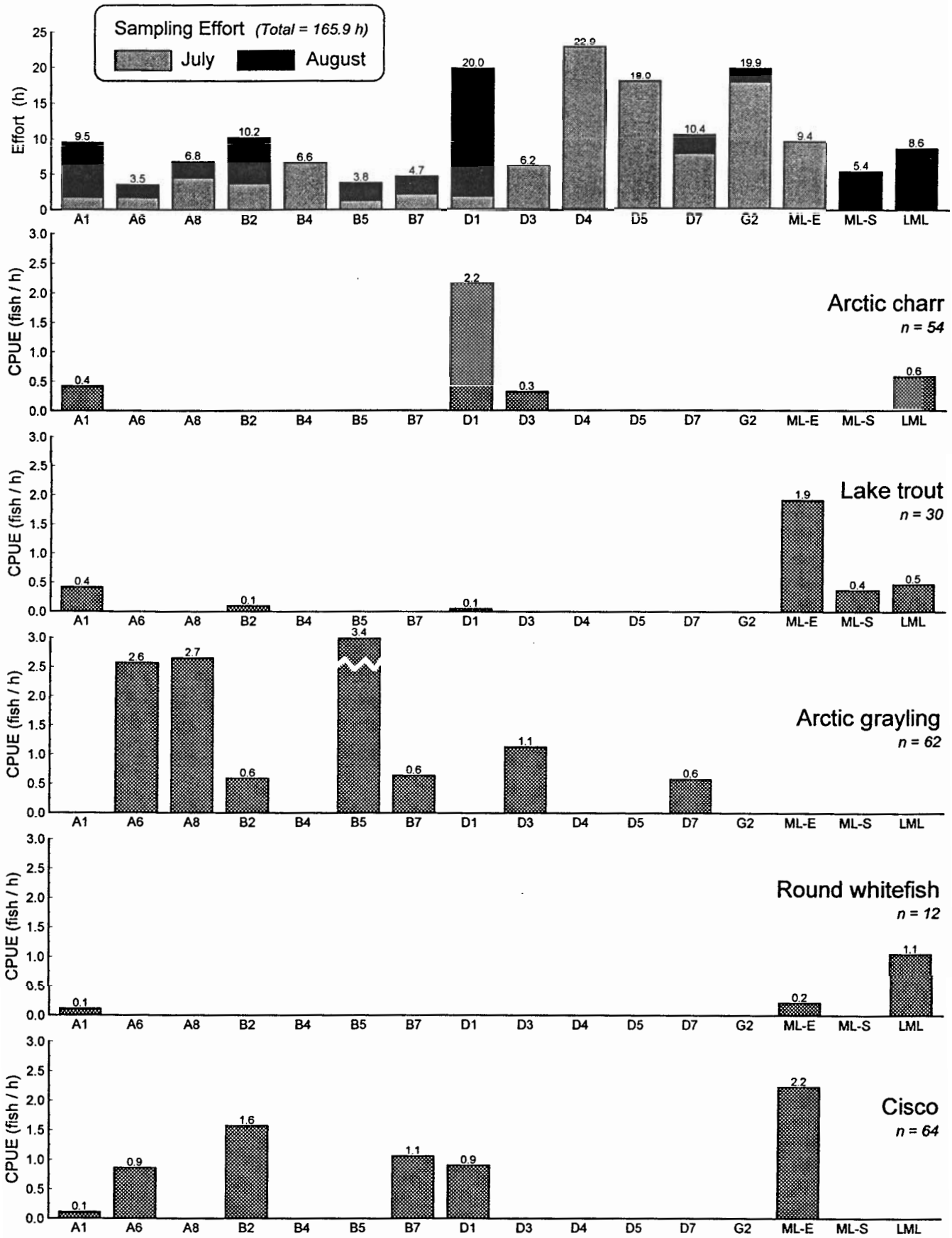


Figure 5.2 Relative abundance, expressed as catch-per-unit-effort (CPUE), of fish captured by gill nets in the Meliadine Study Area lakes, 1997.

5.1.3 Fyke Net

A modified Arctic fyke net was used to sample near-shore movements of fish in the east basin of Meliadine Lake. It was installed during 12-27 July 1997 in a sandy beach area near the WMC camp (Figure 1.1). As the fyke net consisted of two traps separated by a single lead, this "directional" set-up allowed the classification of fish movements into eastbound and westbound components. The catches recorded during the morning and evening trap checks (Appendix C, Table C8) are summarized as daily (morning to morning) catch rates in Figure 5.3. The overall catch and percent species composition are outlined in Table 5.2.

Table 5.2 Number of fish captured by fyke net in the east basin of Meliadine Lake and frequency of their occurrence in the eastbound and westbound components of the catch, 12-27 July 1997.

Species	Number Captured			Species Composition (%)			Directional Split (%)	
	East	West	Total	East	West	Total	East	West
Arctic charr	53	244	297	2.3	15.7	7.6	17.8	82.2
Lake trout	71	83	154	3.0	5.3	4.0	46.1	53.9
Arctic grayling	40	27	67	1.7	1.7	1.7	59.7	40.3
Round whitefish	30	31	61	1.3	2.0	1.6	49.2	50.8
Cisco	1303	508	1811	55.7	32.7	46.5	71.9	28.1
Burbot	2	0	2	0.1	0.0	0.1	100.0	0.0
Slimy sculpin	2	1	3	0.1	0.1	0.1	66.7	33.3
Threespine stickleback	840	659	1499	35.9	42.4	38.5	56.0	44.0
Total	**2341**	**1553**	**3894**	**100.0**	**100.0**	**100.0**	**60.1**	**39.9**

In total, the fyke net captured 3894 fish that represented eight species (Appendix C, Table C8). Cisco ($n=1811$) were the most numerous species in the overall catch; however, this was due mainly to occasional catches of large schools of juvenile fish, most of which (72%) were moving towards the east end of Meliadine Lake. Threespine stickleback ($n=1499$) were second in abundance; they were equally represented in both fyke net components, suggesting that their movements were random and likely local. In contrast, the movements of Arctic charr ($n=297$) indicated that most (82%) fish were travelling west (towards the central basin of Meliadine Lake). These westbound movements occurred mainly during 12-14 and 17-21 July; strong east winds during 15-16 July may have contributed to the low number of migrants captured during this intervening period. Lake trout ($n=154$) were captured approximately half as frequently as Arctic charr and their movements did not exhibit a directional trend. Arctic grayling ($n=67$) and round whitefish ($n=61$) were also frequently captured and did not appear to display movement trends. Slimy sculpin and burbot were also captured in the fyke net, but in very low numbers (3 and 2 fish, respectively). The low frequency of recaptured fish (see Section 5.3) indicated that most of the fish caught in the fyke net were moving to other parts of the lake (i.e., they did not remain in the bay where the fyke net was set).

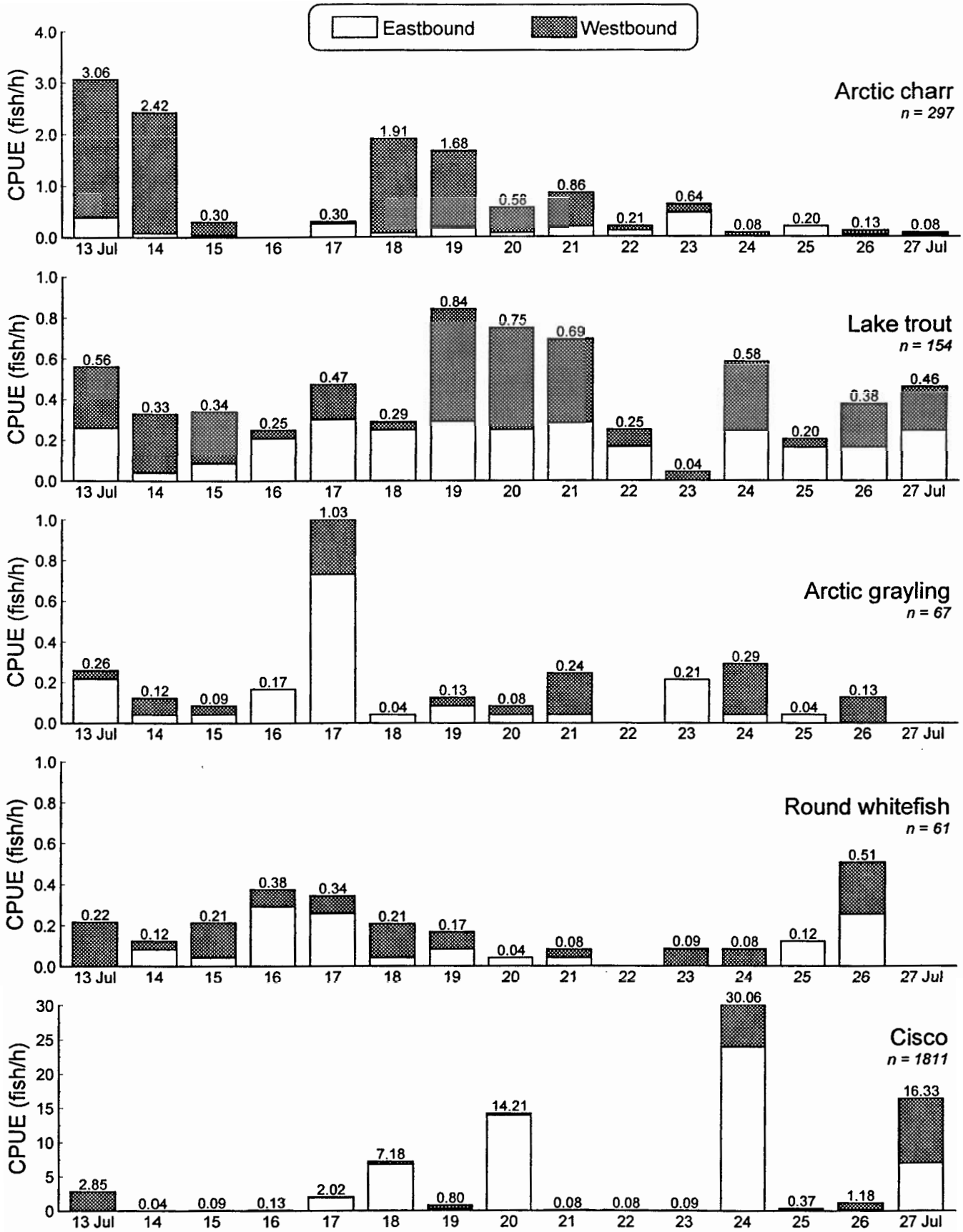


Figure 5.3 Daily changes in relative abundance, expressed as catch-per-unit-effort (CPUE), of eastbound and westbound fish captured by fyke net in the east basin of Meliadine Lake, July 1997 (note differences in y-axis scales).

5.1.4 Fish Fence

During the fall field session, a fish fence was installed in the lower section of the Meliadine River (approximately 2 km from the mouth; see Figure 1.1) to monitor upstream migrations of Arctic charr and other species from Hudson Bay. The fish fence was operational between 15 August (10:00 pm) and 3 September (7:30 am). In total, 1066 fish were captured (Appendix C, Table C9). The catch consisted entirely of salmonid species, of which Arctic charr (n=1022) was predominant (95.9% of the catch). Other captured species included round whitefish (n=29), Arctic grayling (n=13), and lake trout (n=2).

The daily catch rates at the fish fence are illustrated in Figure 5.4. In general, Arctic charr catch rates increased gradually during the first 10 days of fish fence operation (from 0.26 fish/h on 16 August to 4.67 fish/h on 25 August); subsequently they declined to 0.77 fish/h on 2 September. The peak of Arctic charr upstream movements occurred between 18 and 28 August, when 829 fish were enumerated (mean catch rate of 3.14 fish/h). None of the Arctic charr captured at the fish fence were in pre-spawning condition; this suggested that most of the current year spawners did not migrate to the sea in the spring and spent the entire year in freshwater.

5.1.5 Angling

An angling program was carried out during June, July, and August 1997 in selected study area lakes to supplement fish distribution and life history data (Appendix C, Table C10). Arctic grayling was the targeted species in peninsula lakes, where 14.4 rod-h of angling effort resulted in the capture of 15 specimens (Table 5.3). Of 17 lakes where angling was carried out, Arctic grayling were caught only in five; however, this may have been due to the low amount of sampling effort applied to most of the lakes that did not produce a catch within the first half hour. Most (80%) Arctic grayling were captured in Basin B (Lakes B2, B5, B6, and B7); the highest catch rate (3.0 fish/rod-h) was recorded in Lake B7 in June. Outside of Basin B, Arctic grayling were angled from Lake D7 in July (1.5 fish/rod-h).

Table 5.3 Summary of angling effort and catch data for the Meliadine Study Area, 1997.

Target Species	Basin	Effort (rod-h)	Number of Fish Captured			CPUE (fish/rod-h)		
			Arctic grayling	Lake trout	Total	Arctic grayling	Lake trout	Total
Arctic grayling	Basin A	1.5						**0.00**
	Basin B	8.3	12		**12**	1.45		**1.45**
	Basin D	3.8	3	1	**4**	0.79	0.26	**1.05**
	Basin G	0.8						**0.00**
	Subtotal	**14.4**	**15**	**1**	**16**	**1.05**	**0.07**	**1.11**
Lake trout	Meliadine Lake	23.4		23	**23**		0.98	**0.98**
	Meliadine River	15.0	2	10	**12**	0.13	0.67	**0.80**
	Subtotal	**38.4**	**2**	**33**	**35**	**0.05**	**0.86**	**0.91**
Total		**52.8**	**17**	**34**	**51**	**0.32**	**0.64**	**0.97**

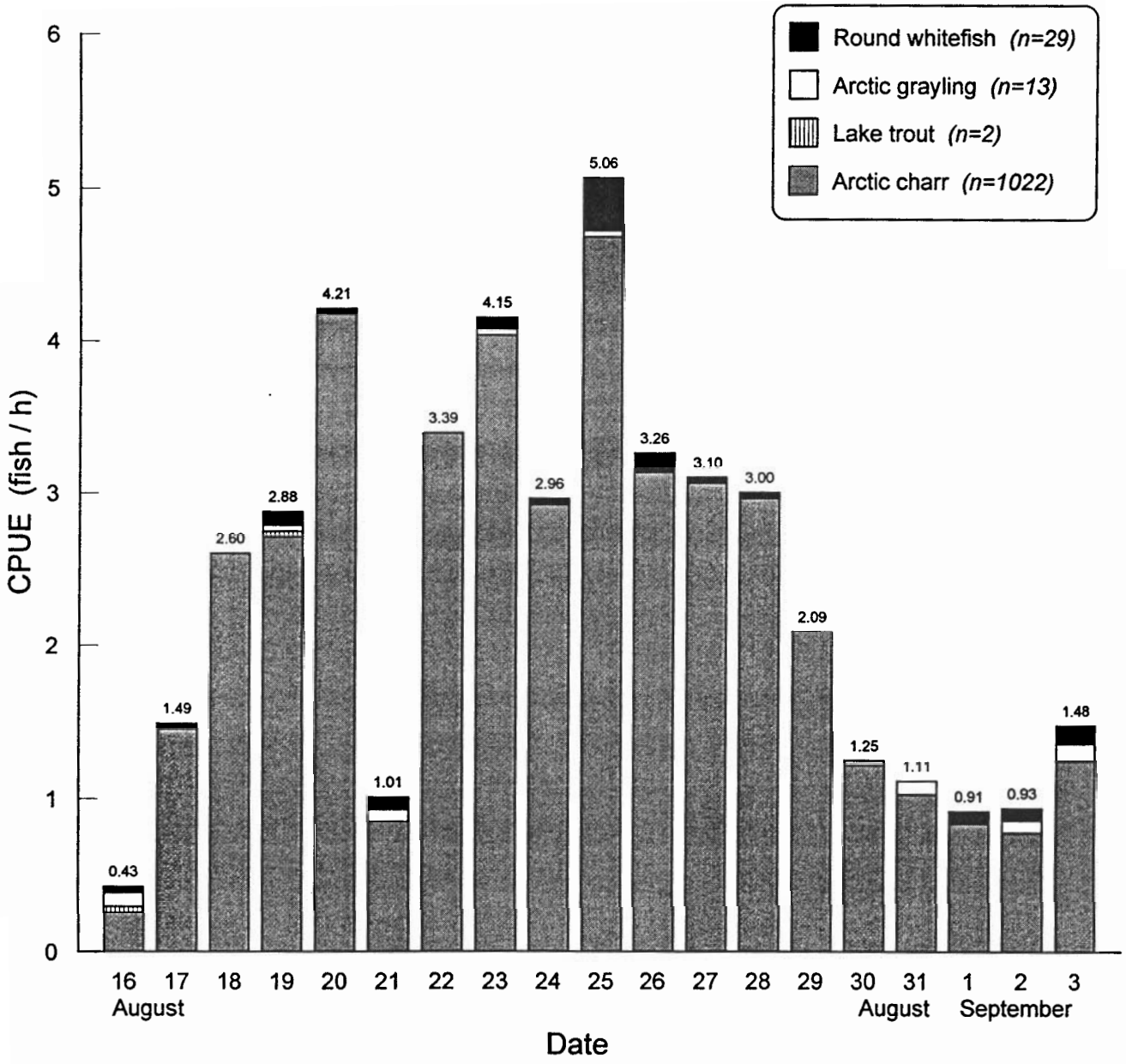


Figure 5.4 Daily changes in relative abundance, expressed as catch-per-unit-effort (CPUE), of upstream migrants captured by the fish fence installations in the lower Meliadine River, Aug-Sep 1997.

Angling effort in Meliadine Lake (23.4 rod-h) and in Meliadine River (15.0 rod-h) was targeted at lake trout, of which 33 were captured. On average, catch rates in Meliadine Lake (0.98 fish/rod-h) were one third higher than in the Meliadine River (0.67 fish/rod-h).

In addition to the fish angled by the study team, 13 lake trout and one Arctic charr were sampled for life history data from the creel of WMC personnel that fished in the east basin of Meliadine Lake. Although data on their total catch and angling effort were not available, lake trout was the only species captured (except for a single Arctic charr caught in mid-June).

5.1.6 Snorkel Surveys

Snorkel surveys were carried out in the lower reaches of the Meliadine River (near the fish fence site) on 28 July and 30 August 1997. An approximately 700 m long section of the river channel was examined during the first survey (28 July); a smaller subsection (320 m) of the same site was surveyed again one month later to determine seasonal changes in fish utilization of the river (Appendix C, Table C11). The surveyed habitats were characterized by shallow run and riffle sequences, with occasional pools of up to 1.5 m deep.

Arctic grayling and round whitefish were the only species observed during the July survey. Arctic grayling contributed 73% to the total fish count (n=74); approximately one third of the observed fish were juveniles (smaller than 250 mm in fork length). In contrast, all observed round whitefish were adults (larger than 350 mm in fork length). Whereas Arctic grayling were mostly observed in fast and shallow habitats, round whitefish appeared to prefer slower water and pool habitats.

Although Arctic charr were not observed during the July snorkel survey, they were the most frequently encountered species during the August survey when they contributed 63% to the total fish count (n=40). Most (80%) of the observed Arctic charr were adults larger than 450 mm in fork length; they were likely entering the Meliadine River after spending the summer at sea. The remainder of the fish observed during the August survey included adult and juvenile size-classes of Arctic grayling (n=10 and 5, respectively).

5.1.7 Egg Sampling Surveys

Sampling for Arctic grayling eggs was conducted during 15-22 June in 30 streams within the peninsula watersheds and in the Meliadine River at its outflow from Meliadine Lake (Appendix C, Table C12). Out of 209 sampled squares of potentially suitable gravel/cobble substrate (each square was approximately 0.1 m^2), 76 squares located within 17 individual streams yielded a total of 498 Arctic grayling eggs. Most (n=290) eggs were encountered in Basin A (at all eight sampled streams). Basin B yielded 152 eggs; however, they were encountered only at six of 12 sampled streams. In Basin D, eggs (n=49) were found only within the lowermost two of the six sampled streams. Arctic grayling eggs were not encountered in Basins F and G, but a small number of eggs (n=7) were found in the Meliadine River immediately above the rapids at the outflow from Meliadine Lake.

The relative abundance of Arctic grayling eggs, expressed as the number of eggs encountered per sampled square, is illustrated in Figure 5.5. Highest egg abundance (15.8 eggs/square) was recorded at Stream B45-46. The three lowermost streams in Basin A (A0-1, A1-2, and A2-3) also featured high abundance of eggs (7.3, 11.0, and 10.3 eggs/square). Moderate egg densities (3.3 - 5.2 eggs/square) were recorded at four streams (A5-6, B6-7, D0-1, and D1-2), whereas the remaining nine streams where Arctic grayling spawning took place featured low egg abundance (0.2 - 1.6 eggs/square). Almost half (14 of 31) of the sampled streams did not provide evidence that they were used for Arctic grayling spawning.

Arctic grayling eggs were first encountered on 15 June (in Stream A0-1) when the water temperature was 4°C. Eyed eggs were first observed on 18 June (in Stream D1-2) at water temperature of 15°C. Due to warm weather during June and the rapid rate of stream warming, it was suspected that most eggs had completed incubation prior to 23 June.

5.2 LIFE HISTORY DATA

Length, weight, and age statistics of fish sampled during 1997 are summarized in Appendix C, Tables C13 to C19; raw data from individual fish are presented in Appendix C, Table C20. Owing to the large variations in size-classes of fish captured by different sampling methods, length-frequency tabulations were performed separately for each major capture method. For length-at-age analyses, all capture methods were combined to increase sample sizes and allow comparisons of growth rates between the study area basins. The results are briefly described for each species in the following subsections.

5.2.1 Arctic Charr

Size Distribution

The length frequency distribution of the overall Arctic charr catch was widespread (fork lengths ranged from 72 to 703 mm) and exhibited three distinct modes (Figure 5.6). The smallest mode was centered around 80-100 mm and composed mainly of yearling fish caught by backpack electrofishing in the peninsula streams and by fyke net in Meliadine Lake. The second mode (170-250 mm) was contributed mostly by fyke net catches in Meliadine Lake. The largest and widest mode (340-620 mm) was composed mainly of Arctic charr returning from the sea and caught by the fish fence. Gill nets set in the peninsula lakes captured mostly (74%) fish between 300 and 580 mm in fork length. The largest Arctic charr in the sample (703 mm) was angled by one of the WMC personnel in the narrows area of the east basin of Meliadine Lake in mid-June. Except for one other large individual (480 mm) captured by fyke net in July, the remaining 278 Arctic charr sampled in Meliadine Lake were smaller than 303 mm, suggesting limited use of the lake by larger size-classes during the summer.

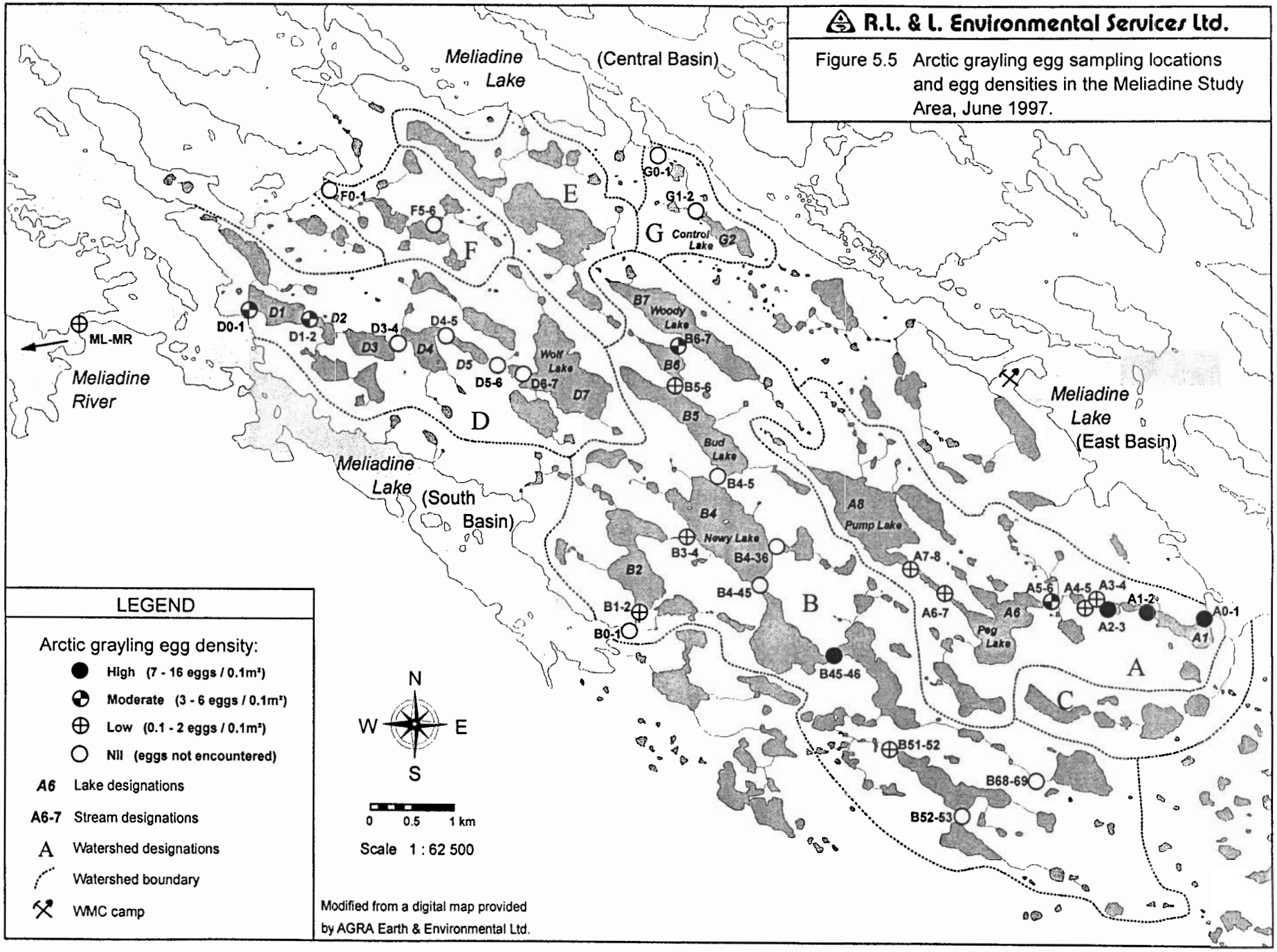


Figure 5.5 Arctic grayling egg sampling locations and egg densities in the Meliadine Study Area, June 1997.

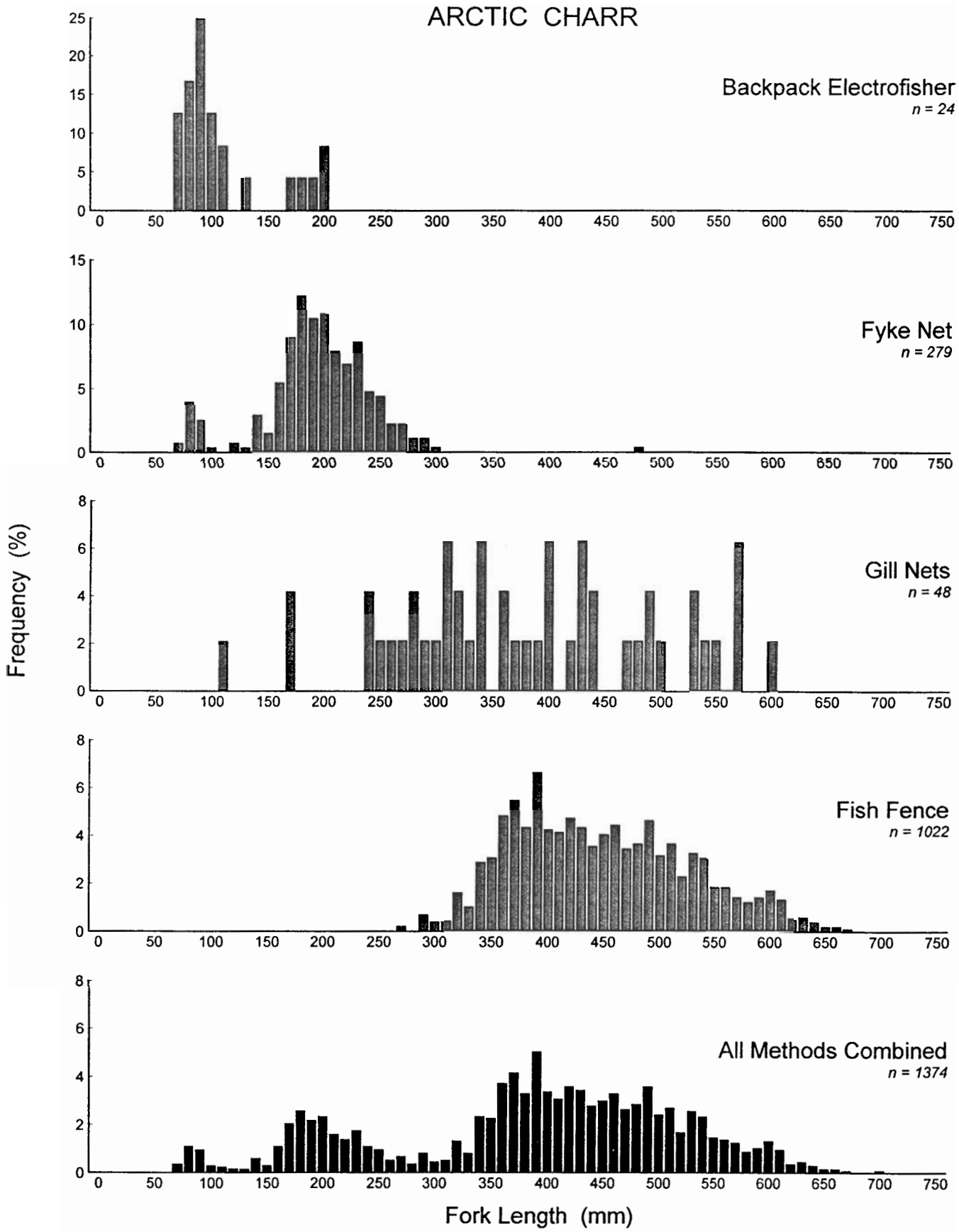


Figure 5.6 Length-frequency distribution of Arctic charr captured by different methods in the Meliadine Study Area, 1997 (all sampling sites and seasons combined; note changes in the y-axis).

Length-Weight Relationship

The length-weight regression equations for individual study basins are presented in Appendix C, Table C14; these relationships are also plotted for individual fish in Appendix C, Figure C1. The length-weight regression equation for all samples combined was:

$$\log \text{Weight} = -5.681 + 3.280 \log \text{Fork Length} \qquad (n=660;\ r^2=0.995).$$

The slope of the regression line (3.28) indicated positive allometric growth (i.e., $b>3$). Arctic charr captured in the Meliadine River (mostly adults) exhibited a higher condition factor (i.e., were "plumper" for a given length) than their juvenile counterparts captured in Meliadine Lake (1.23 and 0.86, respectively); this indicated that the weight gain was disproportionally greater than the gain in length in adults relative to the juvenile size-classes. The mean condition factor for the entire sample ($n=660$) was 1.05.

Age and Growth

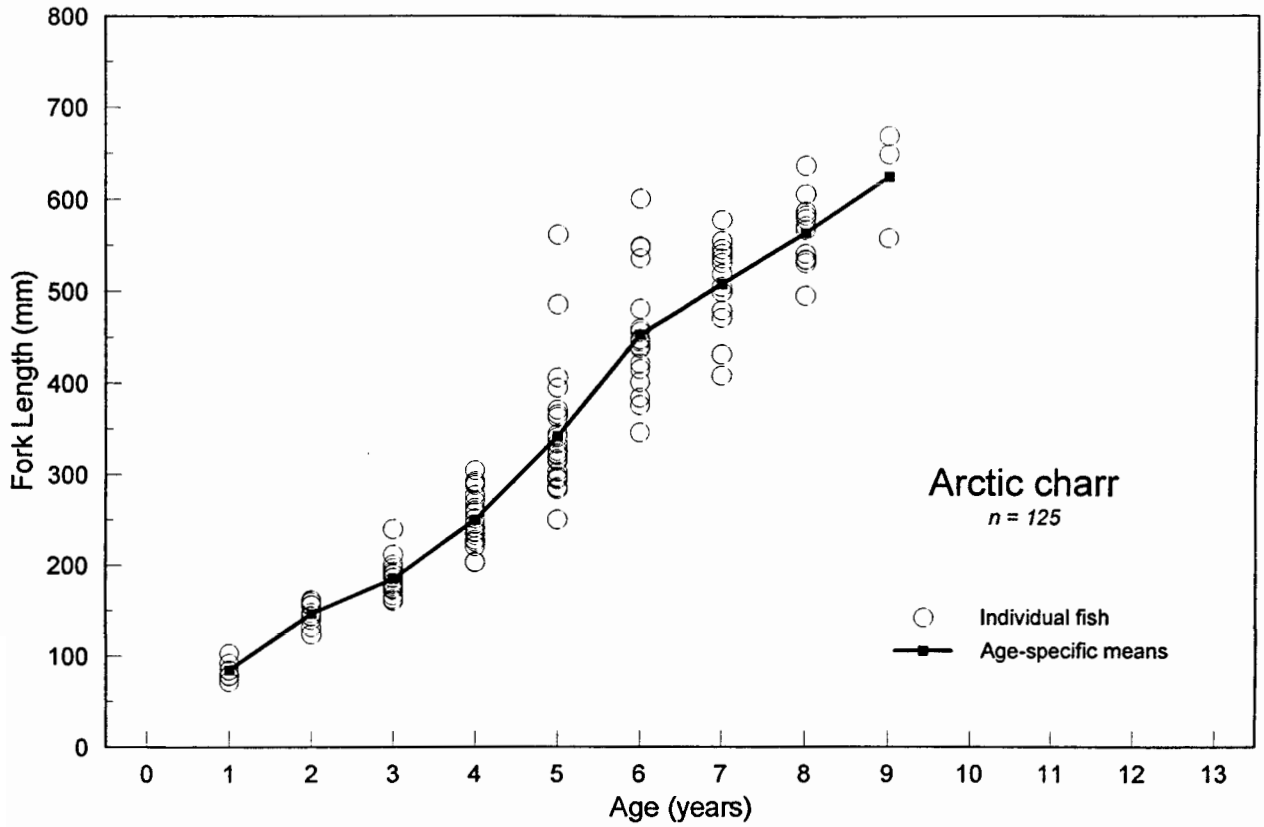
The age-length relationships for individual specimens of Arctic charr are illustrated in Figure 5.7. All age-classes between age 1 and age 9 were represented in the sample ($n=125$). The fastest rate of growth (approximately 100 mm per year) occurs between the fifth and seventh year of life (ages 4 to 6) and likely corresponds to the time when the smolts make their first migration to sea. This is similar to what has been reported by Johnson (1980) and Moshenko et al. (1984), who attributed this rapid increase in growth to better feeding conditions in the sea.

The age-specific mean fork lengths of Arctic charr recorded during the present study were similar to results from the Coronation Gulf (RL&L 1995) and the commercial fishery in Hudson Bay near Arviat (MacDonell 1989). In contrast, previous data from the Meliadine River (McGowan 1992) and the neighbouring Diana River (McGowan 1986) showed slightly lower lengths-at-age, especially among fish of age 6 and older. The reason for these differences may be related to the small sample size of the older fish that were aged and the large amount of variation in age-specific sizes among these fish (e.g., Age 6 fish in the present study ranged from 345 to 600 mm in fork length).

Sexual Maturity and Fecundity

Sex and maturity determinations for the limited number of Arctic charr that were sacrificed ($n=38$) indicated that both males and females in the Meliadine Study Area mature as early as age 5 or 6 and at lengths of about 450 mm (Appendix C, Table C20). This is a considerably younger age and smaller size for attainment of sexual maturity than reported by Moshenko et al. (1984) for the Tree River population (age 8-9 and about 500 mm in fork length).

Although most of the Arctic charr that passed through the fish fence on the lower Meliadine River were mature (based on their body size), none of the sampled individuals were in spawning condition for the 1997 season, indicating that the returning sea-run population was composed entirely of alternate year spawners and subadults. This is consistent with data reported by Johnson (1980), Moshenko et al. (1984), Grainger (1953), and Moore



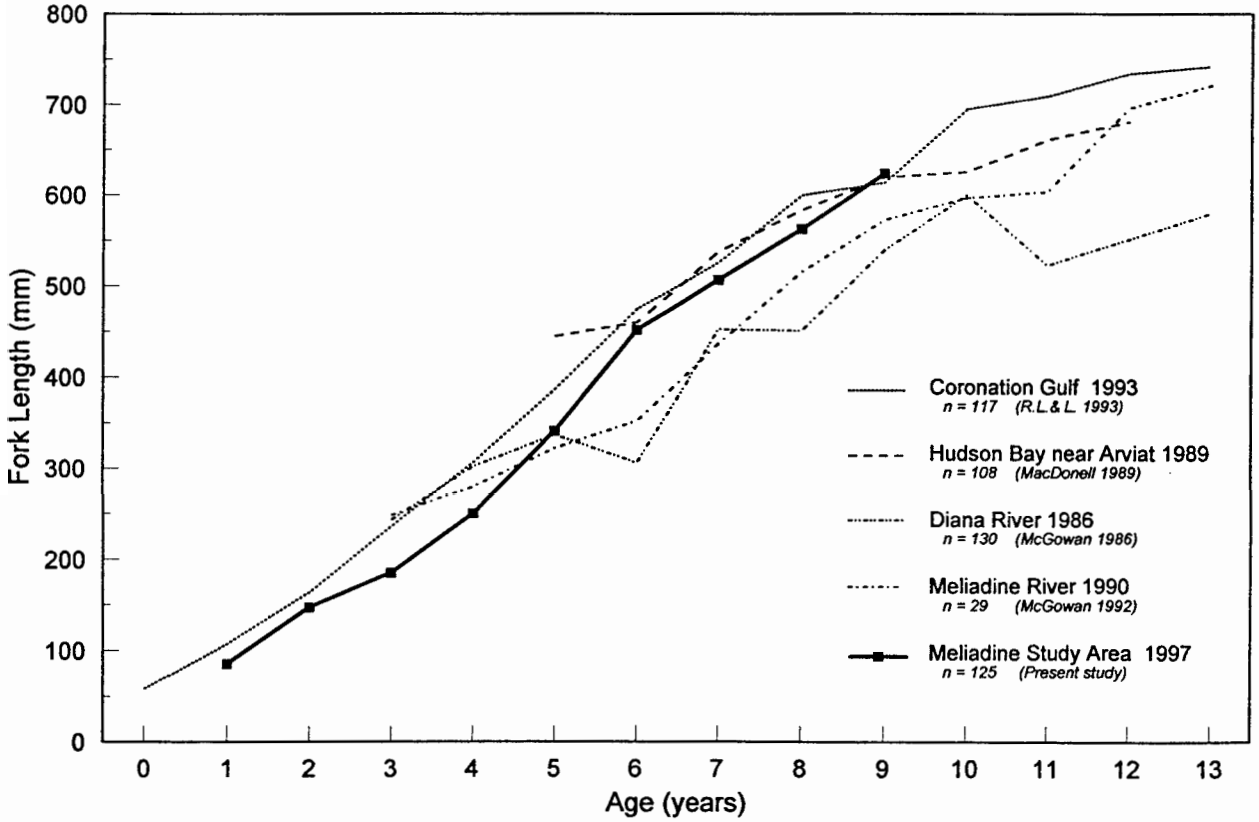


Figure 5.7 Age-length relationship for Arctic charr captured in the Meliadine Study Area in 1997, and comparison of Arctic charr mean lengths-at-age from several locations in the Arctic.

(1975a, 1975b), all of whom concluded that a large proportion of spawning fish do not migrate to sea in the year that they spawn.

Arctic charr in pre-spawning condition (i.e., current-year spawners) were captured within the study area only in Lake D1 (in July and August) and in Little Meliadine Lake (in September). It is suspected that spawning takes place in these lakes in October; however, the exact locations of the spawning areas have not been identified. Radio tagged spawners in Lake D1 were tracked within this lake from late August until late October (see Section 5.3) indicating that these fish did not leave the lake after spawning to overwinter elsewhere.

Fecundity determinations were performed on four gravid females captured in Little Meliadine Lake on 28 September; water temperature at this time was 5°C. The mean number of ova per female was 3626 (ranged from 2818 to 4300), or 184 ova per 100 g body weight (Table 5.4). These values were similar to those reported by Moshenko et al. (1984) for the Tree River population. Ova diameters ranged from 3.9 to 4.9 mm; since ova are ripe at 5.1-5.5 mm (Johnson 1980), Arctic charr in Little Meliadine Lake may not spawn until early or mid October.

Table 5.4 Fecundity determinations for Arctic charr captured in Little Meliadine Lake, 28 September 1997.

Fish Number	Age (yr)	Fork Length (mm)	Body Weight (g)	Gonad Weight (g)	Ova		
					Mean Diameter (mm)	Total Count	Number per 100 g of Body Weight
6074	8	578	2150	309	4.47	3992	186
6085	6	547	1845	153	3.90	2818	153
6086	8	570	1895	260	4.23	4300	227
6087	7	554	1990	293	4.85	3393	171
Mean	**7.3**	**562**	**1970**	**254**	**4.36**	**3626**	**184**
SD[a]	**1.0**	**14**	**134**	**70**	**0.40**	**657**	**32**

[a] standard deviation

5.2.2 Lake Trout

Size Distribution

Lake trout captured in the Meliadine Study Area ranged from 43 to 965 mm in fork length. More than half (56%) of the catch consisted of fish smaller than 200 mm in fork length; these juvenile fish were captured only by backpack electrofishing in peninsula streams and in the fyke net in the east basin of Meliadine Lake (Figure 5.8). Approximately 20% of the fyke net catch contained larger fish (400 to 850 mm in fork length) indicating that these larger size-classes often utilize the nearshore areas of Meliadine Lake. Gill net and angling catches in Meliadine Lake and the lowermost peninsula lakes (A1, B2, and D1) consisted entirely of fish larger than 250 mm.

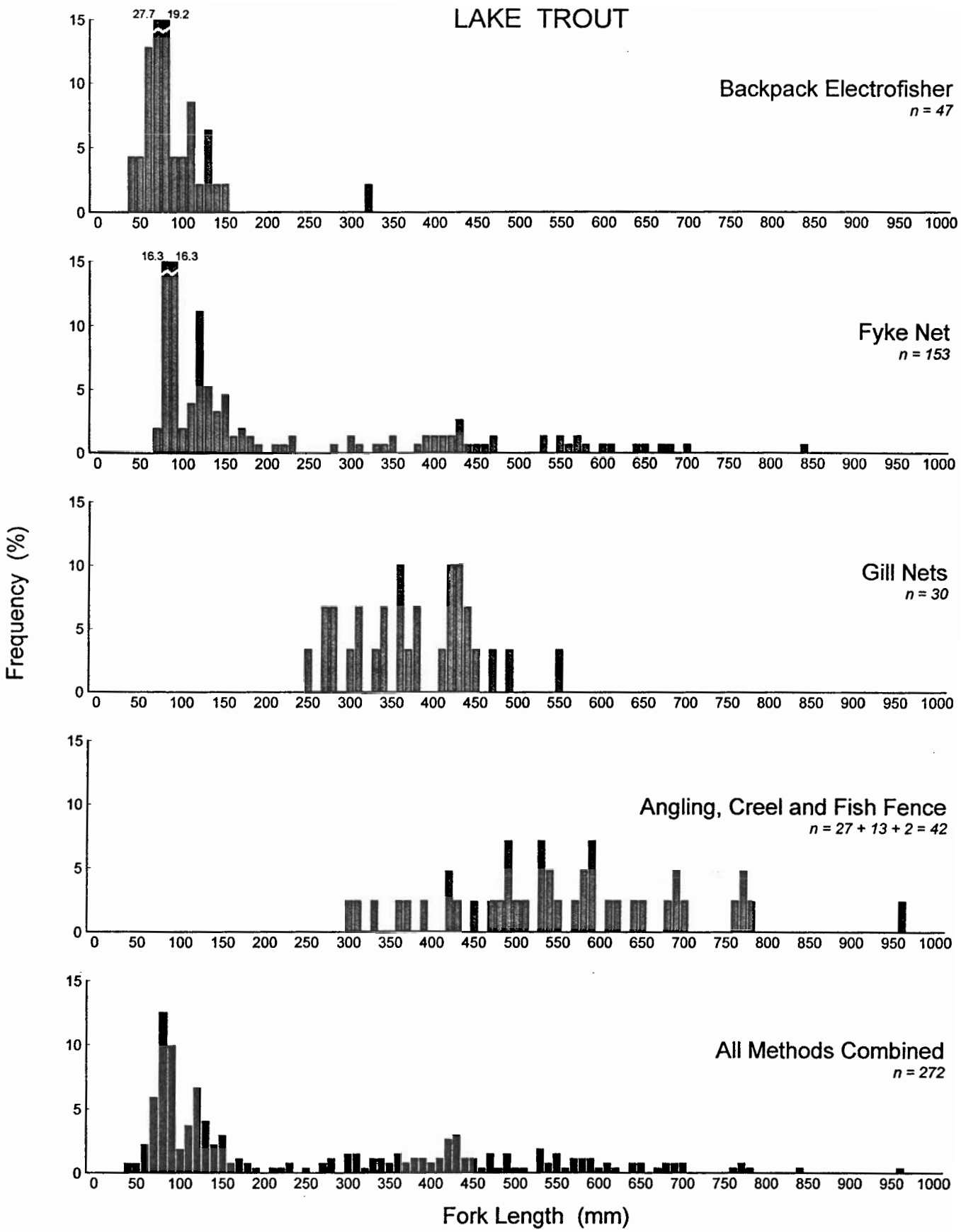


Figure 5.8 Length-frequency distribution of lake trout captured by different methods in the Meliadine Study Area, 1997 (all sampling sites and seasons combined).

The presence of most size-classes in the combined catch, suggested that all life stages of lake trout occur within the study area.

Length-Weight Relationship

The length-weight relationships for lake trout in each sampled basin are provided in Appendix C, Table C14 and plotted for individual fish in Appendix C, Figure C1. The combined length-weight regression equation for all basins was:

$$\log \text{Weight} = -5.260 + 3.113 \log \text{Fork Length} \qquad (n=247;\ r^2=0.996).$$

Age and Growth

Age-length data for lake trout is provided in Appendix C, Table C16 and in Figure 5.9. Fish in the aged sample (n=114) ranged between 1 and 30 years of age. The oldest fish in the sample (age 30) had a fork length of 780 mm; the largest fish (965 mm) was slightly younger (age 29). An analysis of variance test (ANOVA) revealed that there were no significant differences in length-at-age between basins for age 1 fish ($F=2.27$, $df=3, 24$, $p=0.106$) and age 2 fish ($F=1.09$, $df=3, 15$, $p=0.382$). These results suggested that growth rates did not vary considerably between basins for the younger age-classes. Differences between mean length-at-age could not be tested for older age-classes due to small sample sizes.

Age-specific mean fork length data for lake trout from the present study suggested higher growth rates than those of fish from the Ranch Lake Area near Contwoyto Lake (for fish age 10 and greater; RL&L 1995) and those from Kaminuriak Lake (Bond 1975). Conversely, growth rates determined from the present study were lower than those found in Great Slave Lake (Moshenko and Gillman 1978) and Great Bear Lake (Falk et al. 1974); however, this applied only to fish age 12 and younger. Comparisons of data for older fish were not possible due to small sample sizes.

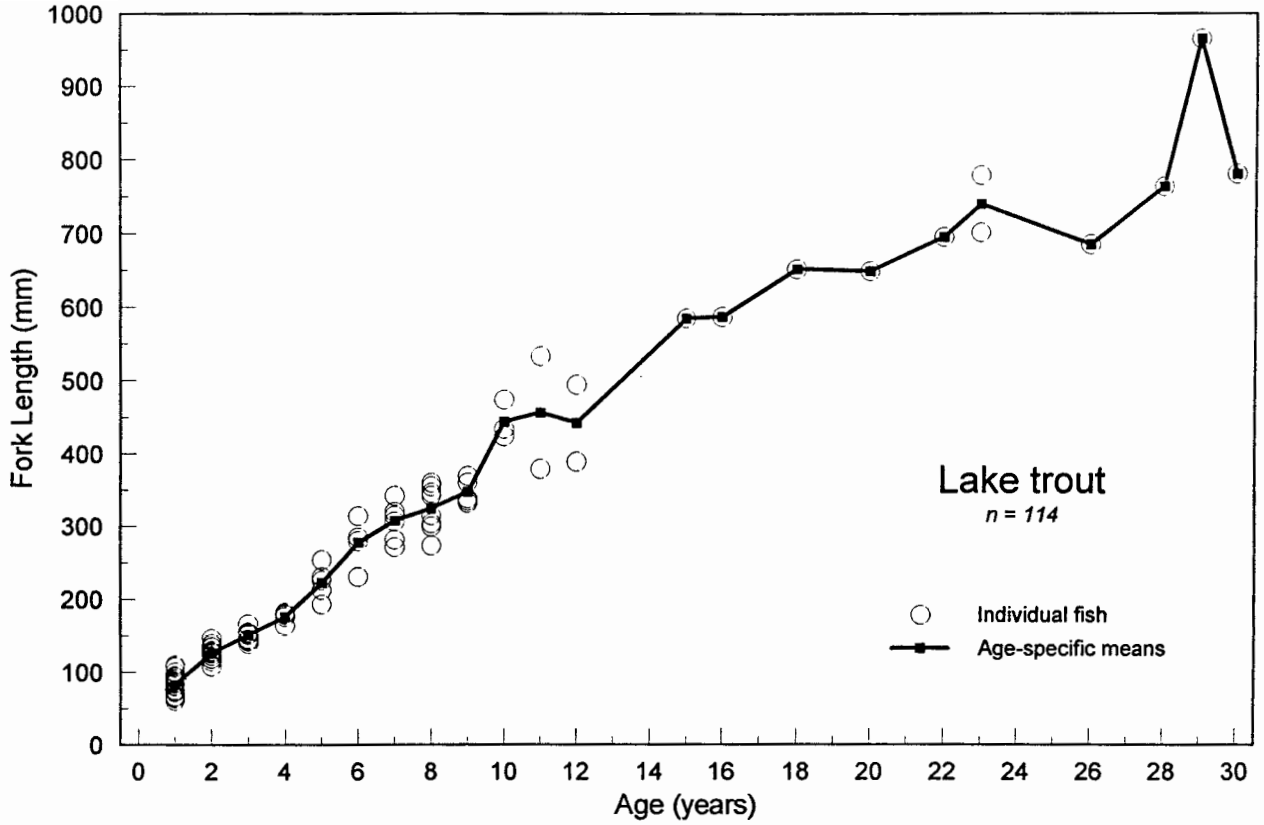
Sexual Maturity

Data on sexual maturity was collected from a small sample of fish (n=20). The majority of fish sampled were immature males and females up to 433 mm in length. The smallest mature female was 12 years old with a fork length of 493 mm, the smallest mature male was age 26 and 684 mm in length.

5.2.3 Arctic Grayling

Size Distribution

The overall length range of Arctic grayling captured in the study area was 23 to 435 mm (n=401). The length-frequency histogram exhibited numerous modes; however, fish were largely concentrated in the lower size-classes (i.e., < 150 mm) indicating an abundance of juvenile fish (Figure 5.10). Fish in size-classes in excess of 150 mm were also well represented, indicating that all life stages of Arctic grayling occurred within the study area.



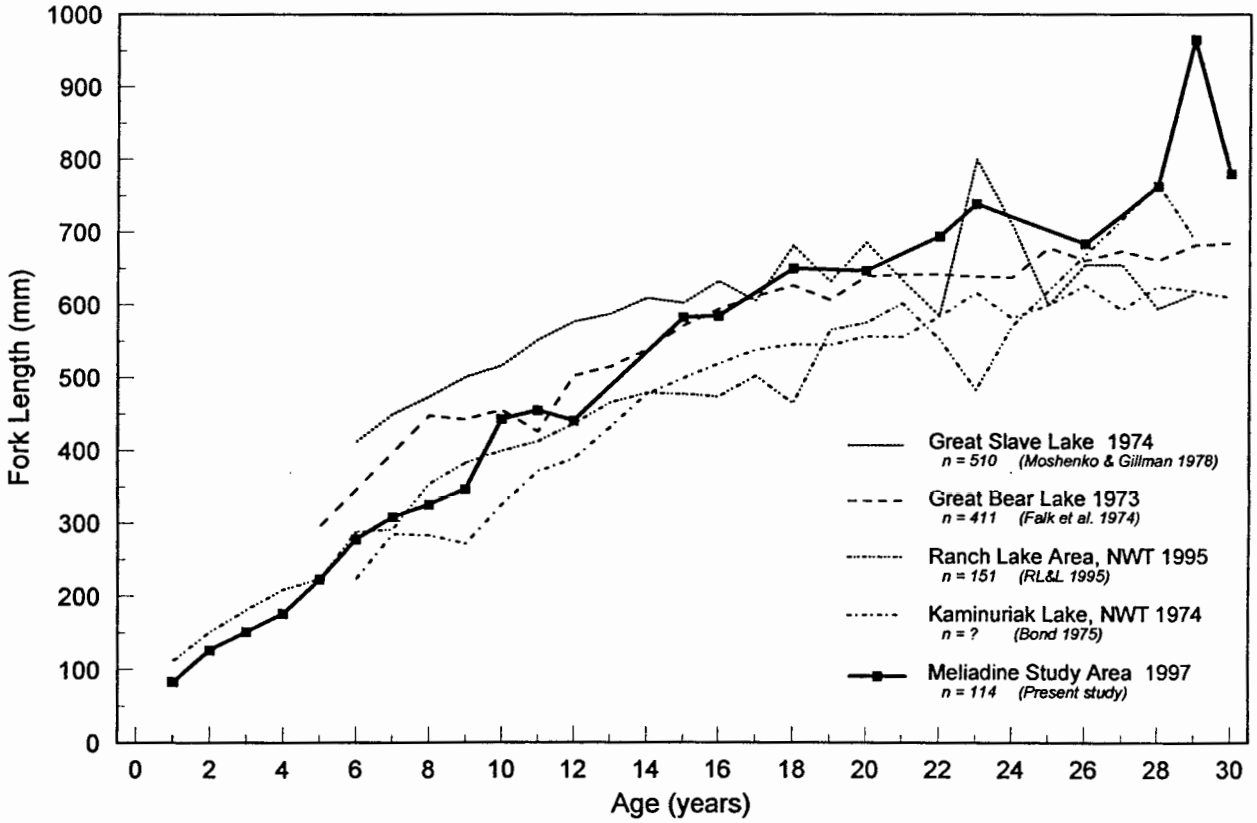


Figure 5.9 Age-length relationship for lake trout captured in the Meliadine Study Area in 1997, and comparison of lake trout mean lengths-at-age from several locations in the Arctic.

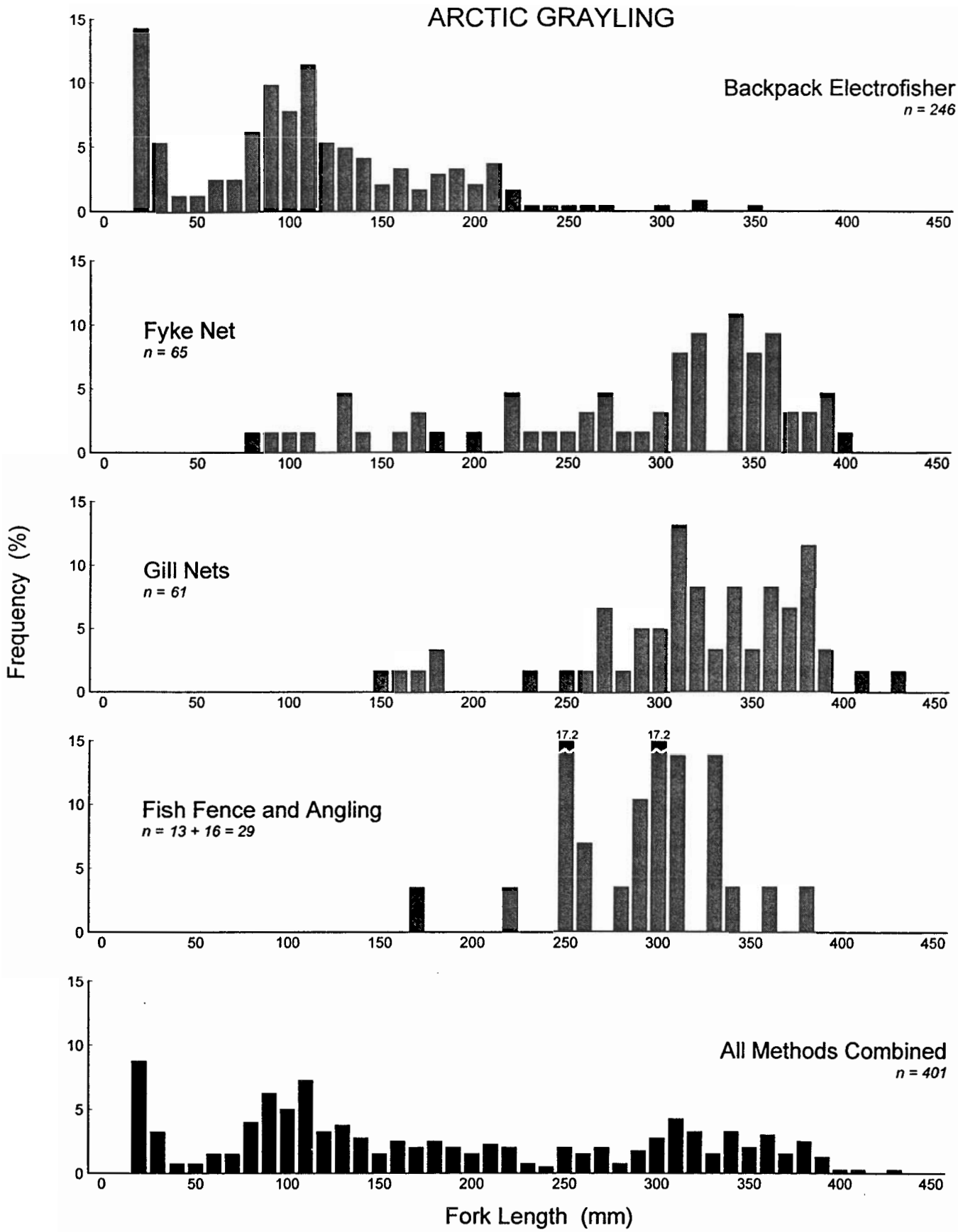


Figure 5.10 Length-frequency distribution of Arctic grayling captured by different methods in the Meliadine Study Area, 1997 (all sampling sites and seasons combined)

Backpack electrofishing in peninsula streams accounted for most of the juvenile catch, whereas all other methods captured mostly fish in larger size-classes (>250 mm).

Length-Weight Relationship

The length-weight relationships for Arctic grayling in each sampled basin are provided in Appendix C, Table C14 and plotted for individual fish in Appendix C, Figure C2. The combined length-weight regression equation for all basins was:

$$\log \text{Weight} = -5.415 + 3.189 \log \text{Fork Length} \qquad (n=316;\ r^2=0.994).$$

A condition factor was calculated for each basin; mean values ranged between 0.93 (Basin F) and 1.17 (Basin D). The combined condition factor for all basins was 1.05.

Age and Growth

Age-length data for Arctic grayling is provided in Appendix C, Table C17 and in Figure 5.11. Fish in the aged sample (n=388) ranged between age 0 (young-of-the-year) and age 10. Fish in older age-classes (age 5 and older) were well represented in the peninsula lakes and in Meliadine Lake. Growth increments during the first six years of life averaged approximately 50 mm in length per year; older fish grew considerably slower (25 mm per year).

An analysis of variance test (ANOVA) revealed significant differences in mean lengths-at-age between basins for fish in age-classes between 1 and 4 years (age 1, $F=7.62$, $df=4, 55$, $p<0.001$; age 2, $F=4.10$, $df=4, 61$, $p=0.005$; age 3, $F=36.1$, $df=5, 37$, $p<0.001$; age 4, $F=30.1$, $df=4, 50$, $p<0.001$). These results indicated that growth rates of Arctic grayling varied greatly between basins. For example, fish in Basin D attained a mean length of 296 mm by age 4, whereas their counterparts in Basins A and B had mean lengths of 200 and 209 mm, respectively. The reasons for these differences were unclear; however, they suggested that Arctic grayling may be confined to individual basins during their juvenile growth period (i.e., interbasin differences in growth would not be as pronounced if the fish utilized different basins each year).

A comparison of Arctic grayling mean lengths-at-age from the present study with several locations in the Arctic (Figure 5.11) revealed that fish in the Meliadine Study Area had lower lengths-at-age than those in Great Bear Lake (Falk and Dahlke 1974), the Mackenzie River (Falk and Gillman 1980), and Izok Lake Area (RL&L 1993); however, they were similar to those recorded in the Kavik River, Alaska (Craig and Poulin 1974).

Sexual Maturity

Sex and maturity data collected from Arctic grayling indicated that males and females in the study area mature as early as age 4 or 5, at a size of approximately 300 mm in fork length. Within a small sample size for fish for which maturity was determined (n=13), the youngest mature male was age 5 (297 mm fork length) and the

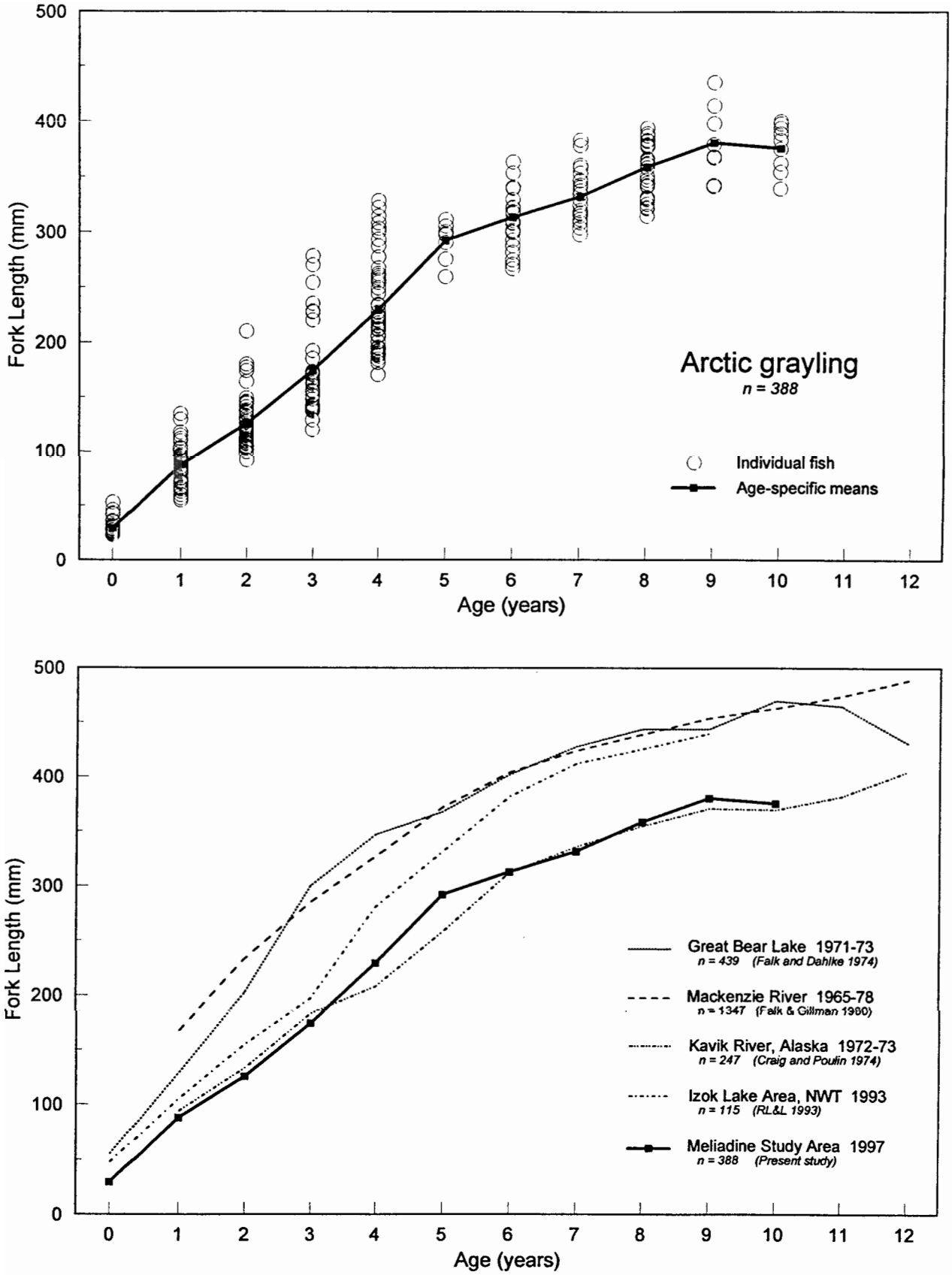


Figure 5.11 Age-length relationship for Arctic grayling captured in the Meliadine Study Area in 1997, and comparison of Arctic grayling mean lengths-at-age from several locations in the Arctic.

youngest mature female was age 4 (300 mm fork length). As the age 4 mature female was captured in Basin D (i.e., where faster growth rates were noted), the age at attainment of sexual maturity was likely greater for Arctic grayling in other parts of the Meliadine Study Area.

5.2.4 Round Whitefish

Size Distribution

The overall length range of round whitefish captured in the study area was 81 to 478 mm (n=101). The length frequency histogram (Figure 5.12) exhibited two clearly defined modes for the smaller size-classes (i.e., 80 to 110 mm and 140 to 160 mm). Size-classes between 180 and 280 mm were not as well represented in the catch as the smaller juveniles or adult fish (i.e., those approximately >300 mm). The fyke net catch in Meliadine Lake accounted for the capture of all fish smaller than 200 mm in fork length, whereas the larger size-classes were contributed mainly by the gill net and fish fence catches. The absence of juvenile fish from backpack electrofishing catches indicated that, in contrast to the species discussed above, round whitefish did not use the peninsula streams for rearing.

Length-Weight Relationship

The length-weight relationships for round whitefish in the Meliadine River and Meliadine Lake are provided in Appendix C, Table C14 and plotted for individual fish in Appendix C, Figure C2. The combined length-weight regression equation for the two sample areas was:

$$\log \text{Weight} = -5.430 + 3.162 \log \text{Fork Length} \qquad (n=81;\ r^2=0.997).$$

Age and Growth

Age-length data for round whitefish are provided in Appendix C, Table C18 and in Figure 5.13. Fish in the aged sample (n=94) ranged between ages 1 and 18. Round whitefish captured in the Meliadine River ranged in age from 4 to 15 years. In Meliadine Lake, a wide range of age-classes were encountered including fish from 1 to 18 years of age. The single round whitefish caught in a site other than Meliadine Lake or the Meliadine River, was an age 3 juvenile captured in Basin A (Lake A1).

Annual growth increments were considerably higher for fish between ages 1 and 5 (approximately 60 mm per year) than for the older age-classes (10 to 15 mm per year). This major change in growth rates roughly corresponded to the transition between juvenile and adult life stages.

Mean length-at-age data from the present study were similar to those from Great Bear Lake (Kennedy 1949), the Ranch Lake Area near Contwoyto Lake (RL&L 1995), and Izok Lake Area (RL&L 1993); however, higher mean lengths of the older age-classes were reported from Great Slave Lake (Rawson 1950; Figure 5.13).

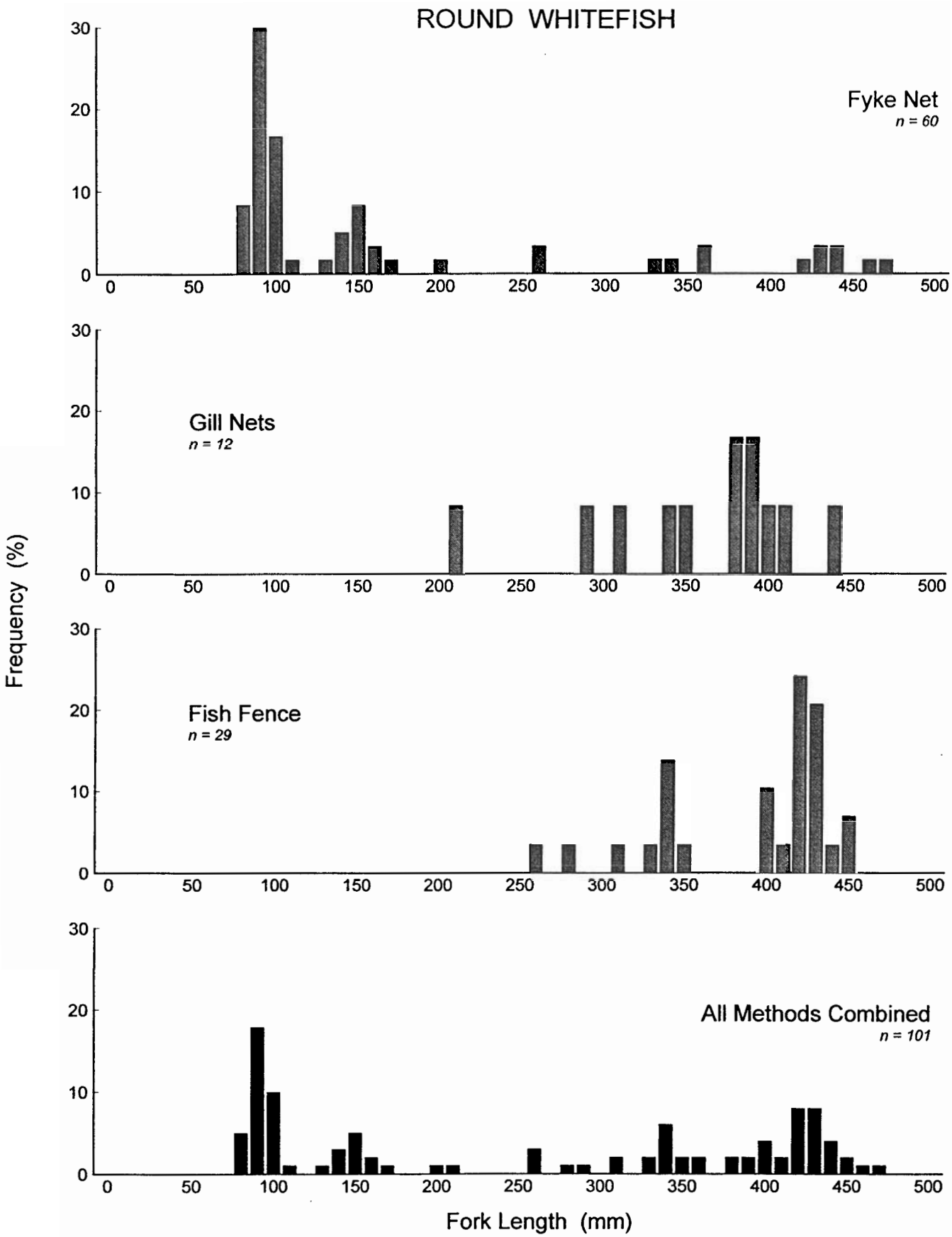


Figure 5.12 Length-frequency distribution of round whitefish captured by different methods in the Meliadine Study Area, 1997 (all sampling sites and seasons combined).

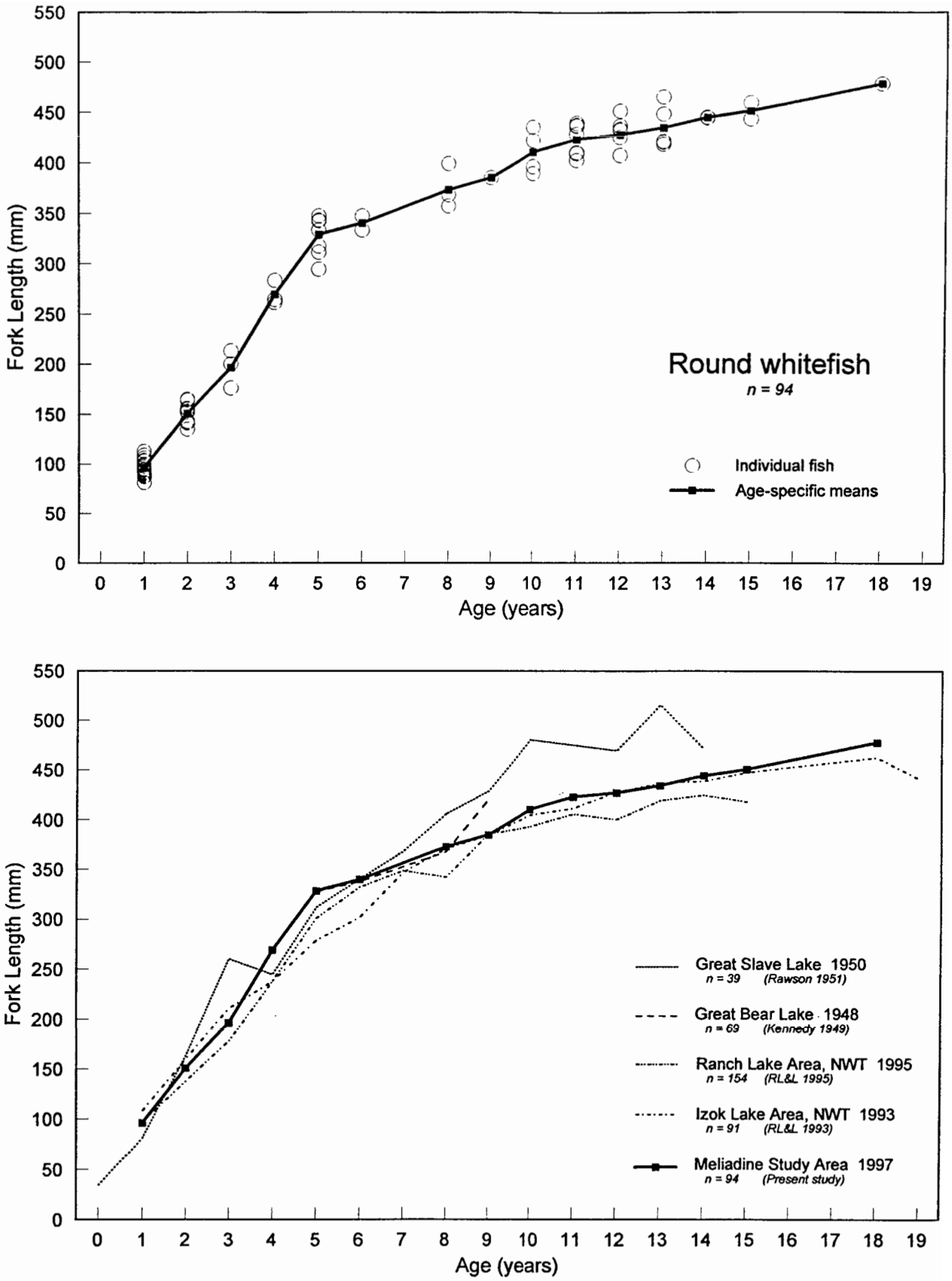


Figure 5.13 Age-length relationship for round whitefish captured in the Meliadine Study Area in 1997, and comparison of round whitefish mean lengths-at-age from several locations in the Arctic.

Sexual Maturity

Sex and maturity data collected from round whitefish indicated that males and females in the study area may mature as early as age 5, at a size of approximately 300-350 mm in fork length. More specifically, the youngest mature male and female fish in the sample were both age 5 with 294 and 342 mm in fork length, respectively.

5.2.5 Cisco

Size Distribution

The overall length range of cisco captured in the study area was 77 to 417 mm (n=925). The length-frequency histogram (Figure 5.14) indicated a predominance of fish in the 70 to 130 mm size-class, which was composed mainly of yearling fish. Larger fish (>300 mm) were also present in the sample; however, the intermediate size-classes (200-300 mm) were not well represented. The fyke net catch in Meliadine Lake accounted for the capture of the majority of the younger juveniles; of all the fish captured in the fyke net, 92% were in the 70 to 130 mm size-classes. Larger size-classes (i.e., >300 mm) were also present in the fyke net catch, but were more frequent in the gill net catches in selected peninsula lakes.

Length-Weight Relationship

The length-weight relationships for cisco captured in the Meliadine Study Area basins are provided in Appendix C, Table C14 and plotted for individual fish in Appendix C, Figure C3. The combined length-weight regression equation for all basins was:

$$\log \text{Weight} = -5.702 + 3.303 \log \text{Fork Length} \qquad (n=298;\ r^2=0.993).$$

Mean condition factors calculated for each basin ranged from 0.85 (Basin D) and 1.23 (Basin B); whereas the overall mean condition factor for the study area was 0.89. Interbasin differences in mean condition factors were likely due to the wide variations in size-class distribution between basins.

Age and Growth

Age-length data for cisco is provided in Appendix C, Table C19 and in Figure 5.15. Fish in the aged sample (n=186) ranged between 1 and 9 years of age. The oldest fish (Age 9) ranged between 333 and 367 mm in fork length; however, the largest fish (417 mm individual caught in Lake A6) was only age 7. Growth rates appeared to be highest between the ages 1 and 6, afterwards they slowed considerably (Figure 5.15). Mean length-at-age data for cisco in the Meliadine Study Area were similar to those recorded in Great Bear Lake (Falk and Dahlke 1974; Kennedy 1949).

Sexual Maturity

The majority (82%) of fish that were dissected for sex and maturity determinations were immature. The sample contained only three mature fish (males caught in Meliadine Lake and Lakes A6 and B2); they were between 6 and 7 years of age and ranged from 322 to 417 mm in fork length.

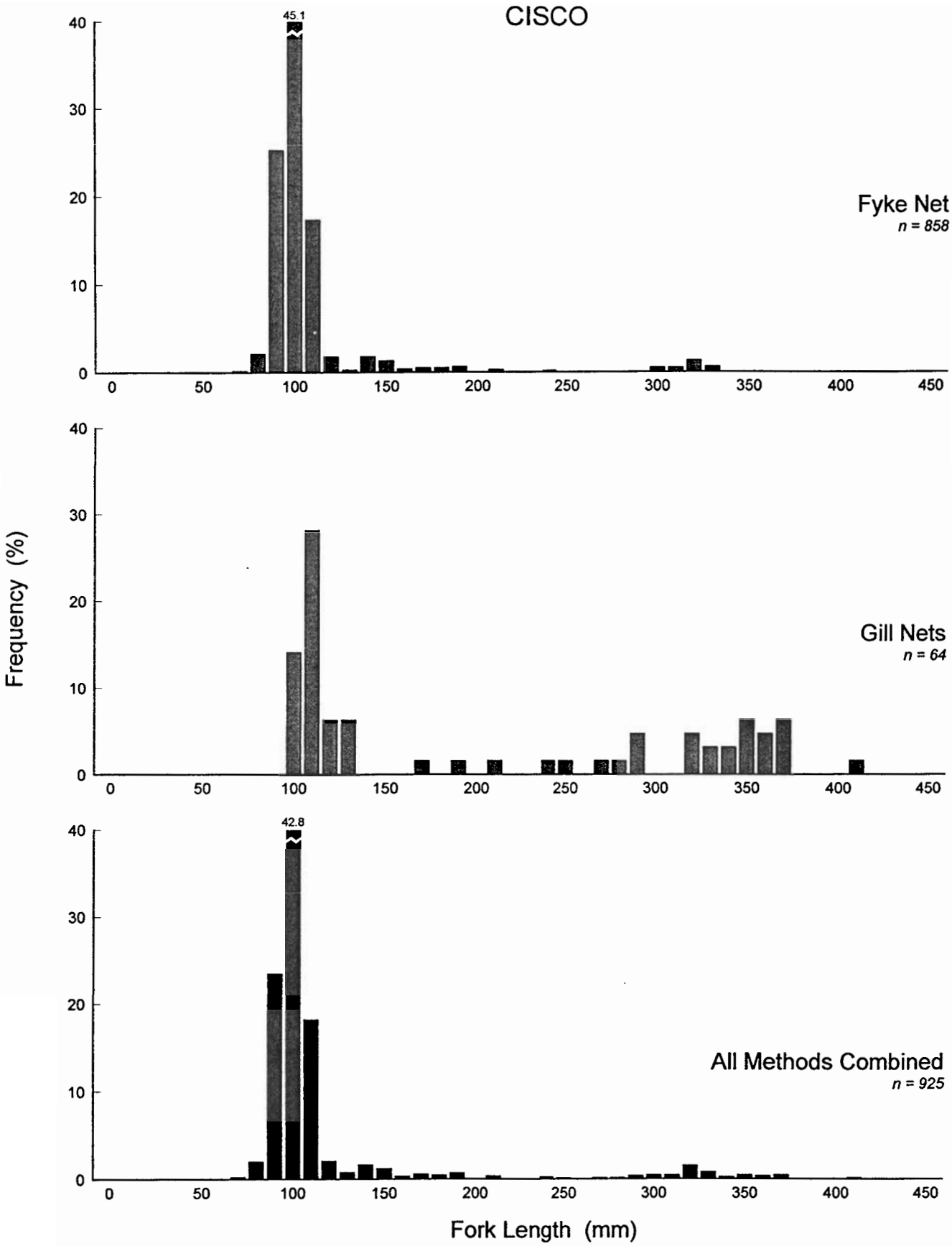


Figure 5.14 Length-frequency distribution of cisco captured by different methods in the Meliadine Study Area, 1997 (all sampling sites and seasons combined)

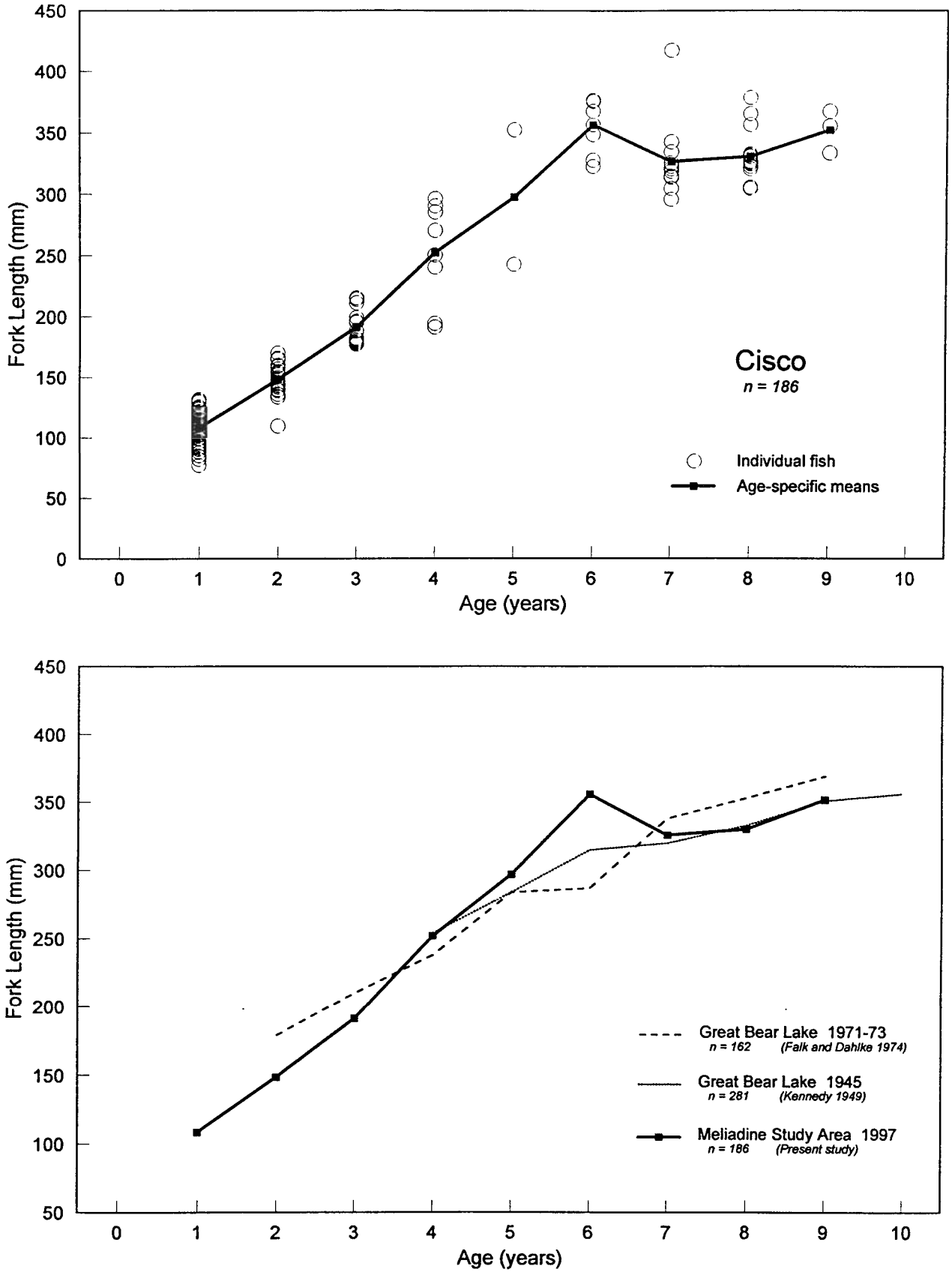


Figure 5.15 Age-length relationship for cisco captured in the Meliadine Study Area in 1997, and comparison of cisco mean lengths-at-age from several locations in the Arctic.

5.2.6 Other Species

Additional species captured and sampled for life history data included burbot, slimy sculpin, ninespine stickleback and threespine stickleback. Length frequency data for these species are presented in Figure 5.16. The burbot catch (n=12) included mostly juvenile fish; the largest individual was 318 mm in length. The majority (61%) of the slimy sculpin catch (n=132) ranged from 50 to 70 mm in length; however, few individuals (3%) were larger than 100 mm. The large sample of ninespine stickleback (n=732) included fish from 15 to 89 mm in length; most (75%) ranged between 40 and 70 mm. Threespine stickleback (n=222) ranged from 24 to 76 mm in length, most (77%) were in the 40-70 mm size class. Length weight relationships for burbot and slimy sculpin are provided in Appendix C, Table C14 and Figure C3.

5.3 FISH MOVEMENTS

Three methods were used during the present study to meet the objectives of the program: 1) surgical implantation of radio transmitters in Arctic charr, Arctic grayling, and lake trout to determine their seasonal movements and identify critical spawning, summer feeding, and overwintering habitats, 2) marking of fish with Floy™ tags to determine movements, and 3) marking of fish by fin clipping to determine the frequency of recaptured individuals during seasonal sampling events. This section provides a summary of the marking program and the preliminary movement results.

5.3.1 Fin Clipping

Individual sportfish that were too small (< 250 mm) to receive Floy™ tags were marked by fin clipping (i.e., removal of a small section of their pelvic fin). During 1997, a total of 527 fish were marked by fin clipping (Table 5.5). Most of the fin clipped individuals (69%) were caught and marked at the fyke net site in Meliadine Lake during the summer (12-27 July) The remaining fish were marked during spring (15%), summer (13%), and fall (3%) in the peninsula streams and the Meliadine River.

Of the 527 fish marked, only 24 individuals were recaptured. The majority (n=19) were recaptured in the summer at the fyke net, which indicated that recaptures accounted for a small percentage of the total catch (i.e., most fish did not remain in the vicinity of the fyke net after capture but moved to other parts of the lake). The remaining fin clipped individuals (n=5) were recaptured in the peninsula streams during the spring (n=1), summer (n=3), and fall (n=1) sampling sessions. The low number of recaptures in the peninsula streams was likely due to differences in seasonal sampling effort or out-migration of the marked fish. Several streams were either dry or had trace flows during the summer and fall sampling sessions. One juvenile Arctic charr (204 mm in fork length) marked with a left fin clip on 19 June in Stream A1-2 was recaptured in the fyke net in Meliadine Lake on 13 July (it was the only left fin-clipped Arctic charr at large during this time). This fish had moved a total distance of 4 km, suggesting that it may have used the stream for feeding purposes during the spring before returning to the lake.

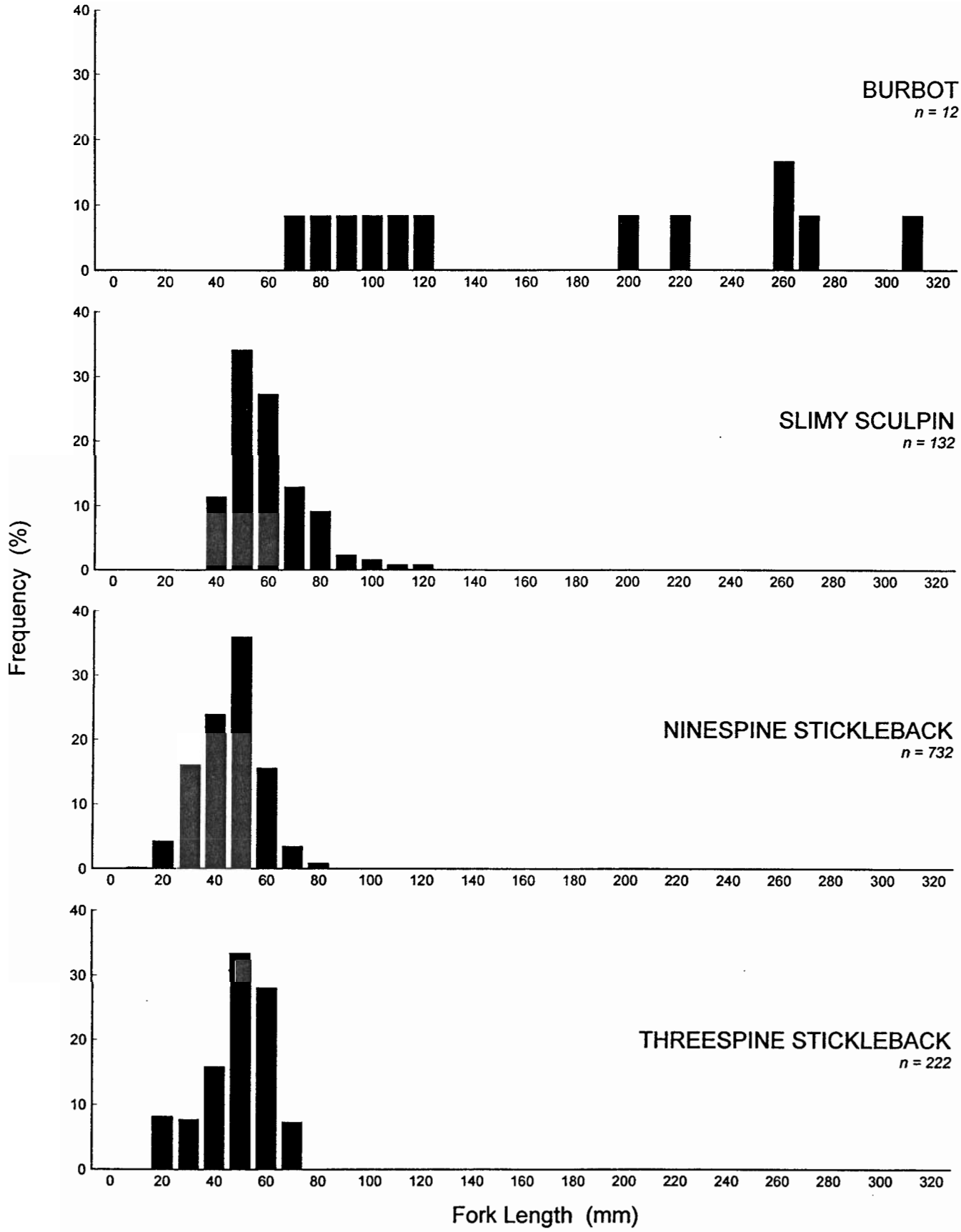


Figure 5.16 Length-frequency distribution of burbot, slimy sculpin, ninespine stickleback, and threespine stickleback captured in the Meliadine Study Area, 1997 (all sampling methods, sites, and seasons combined).

Table 5.5 Number of fish fin clipped and recaptured within the Meliadine Study Area, 1997.

Species	Number of Fin-Clipped Fish per Basin						Number of Recaptures			
	A	B	D	ML	Other[a]	**Total**	A	B	ML	**Total**
Arctic charr	1	13	5	230		**249**			18	**18**
Lake trout	8	11	4	75	3	**101**	2	1		**3**
Arctic grayling	43	64	5	14	5	**131**	1	1		**2**
Round whitefish				27		**27**			1	**1**
Cisco				19		**19**				**0**
Total	**52**	**88**	**14**	**365**	**8**	**527**	**3**	**2**	**19**	**24**

[a] includes Basins F, G, and the Meliadine River

5.3.2 Floy Tags

In total, 1305 sportfish were marked with Floy™ tags in the Meliadine Study Area. The majority (82%) of fish were tagged at the fish fence during the fall sampling session (15 August to 2 September), where a large number of Arctic charr (n=1022) were captured. The remaining fish were tagged in the spring (2%) and summer (16%) in Meliadine Lake, Meliadine River, and the peninsula lakes.

A total of 30 fish were recaptured (Appendix C, Table C21) during the study. Most fish recaptures were recorded during the fall session in the Meliadine River (n=13), the peninsula lakes (n=7), and Meliadine Lake (n=7). In addition, three individuals were recaptured in Meliadine Lake during the summer session. The recaptured fish included 26 Arctic charr, three Arctic grayling, and one lake trout (Table 5.6).

Table 5.6 Number of fish Floy- tagged and recaptured within the Meliadine Study Area, 1997.

Species	Number of Floy-Tagged Fish per Basin						Number of Recaptures				
	A	B	D	MR	ML	**Total**	B	D	MR	ML	**Total**
Arctic charr	4		30	979	27	**1040**		6	13	7	**26**
Lake trout	2	2	2	13	70	**89**				1	**1**
Arctic grayling	17	32	14	8	47	**118**	1			2	**3**
Round whitefish				25	8	**33**					**0**
Cisco		14			11	**25**					**0**
Total	**23**	**48**	**46**	**1025**	**163**	**1305**	**1**	**6**	**13**	**10**	**30**

Of the 26 Arctic charr recaptured, 20 were returned by local fisherman. Seven of these fish were tagged at the fish fence on the Meliadine River and recaptured upstream in the south basin of Meliadine Lake near its outlet to the Meliadine River; each individual had moved a minimum distance of 38 km (Figure 5.17). These movement

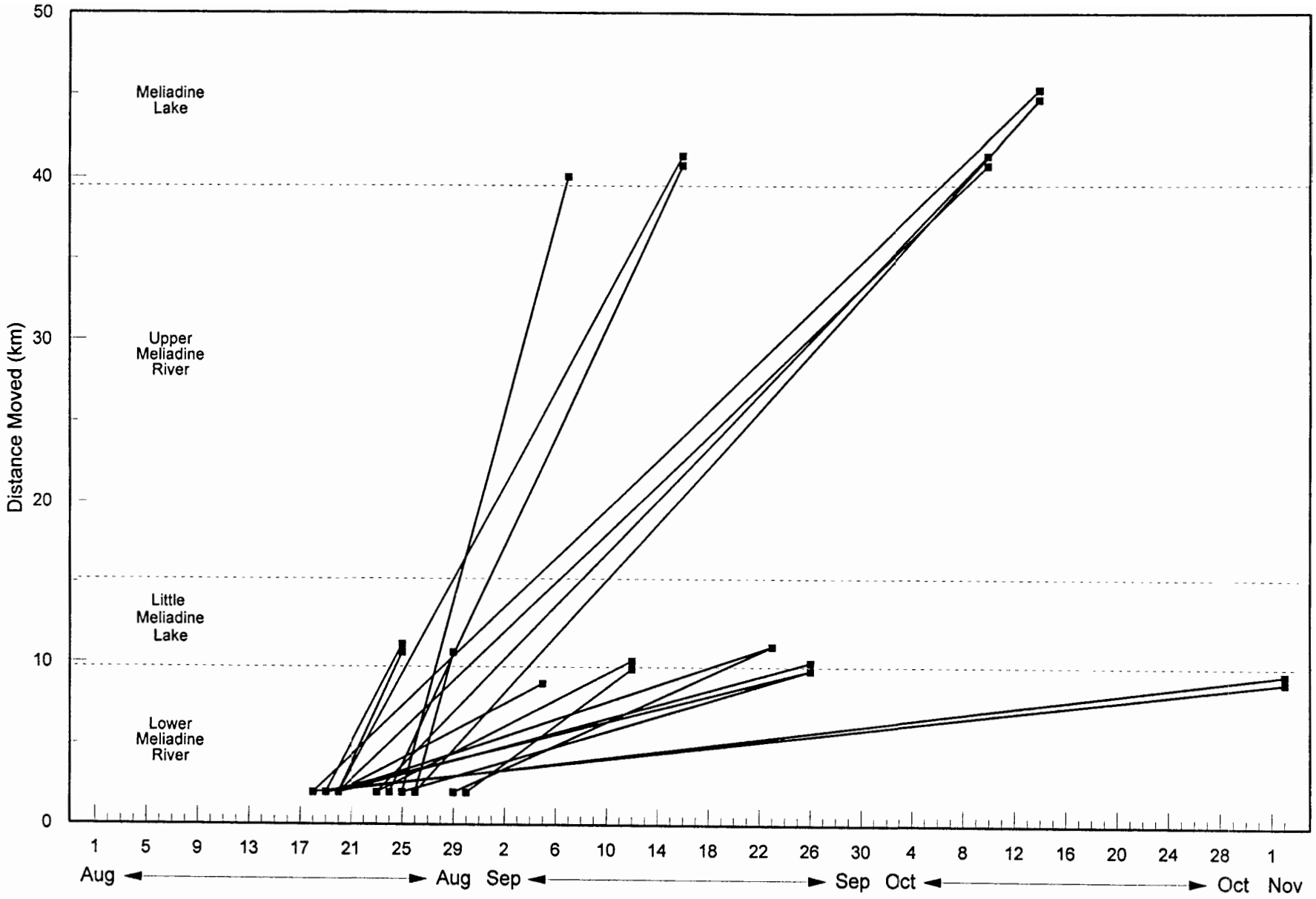


Figure 5.17 Movements of Floy tagged Arctic charr in the Meliadine River, 1997.

patterns suggested that some Arctic charr migrate upstream into Meliadine Lake to overwinter. The remaining 13 Arctic charr recaptured by the local residents were also tagged at the fish fence; their recapture locations in Little Meliadine Lake indicated upstream movements between 8 and 13 km in distance.

The remaining Floy-tagged recaptures (three Arctic grayling and one lake trout) took place during the summer session; all were recorded near the original release locations.

5.3.3 Radio Tags

Radio transmitters were surgically implanted into 59 fish that included 27 Arctic charr, 19 Arctic grayling, and 13 lake trout (Appendix C, Table C22). The majority of the radio tagged individuals were in excellent physical condition upon release and exhibited good vigour and behaviour; however, some mortalities (i.e., seven Arctic charr) were experienced at the beginning of the program, likely due to high water temperatures (i.e., > 15°C). To avoid a recurrence of this problem, surgery was postponed until water temperatures dropped below 10°C.

Two radio tagged Arctic charr were captured and killed by local fishermen on 15 and 23 September in Little Meliadine Lake. Both radio tags were returned, and one was redeployed in a gravid female Arctic charr on 28 September in Little Meliadine Lake.

Tracking flights were initiated in the summer (21-23 July, 29 July, and 17 August). Arctic grayling and lake trout were the only species available for tracking at this time; the locations of most (29 of 32) fish were determined during these early flights (Table 5.7). Tracking flights were also carried out during fall and early winter (14 September, 26-27 September, and 24-25 October), when most individuals tagged (58 of 59) were located at least once.

Table 5.7 Number of fish radio tagged and located within the Meliadine Study Area, 1997.

Species	Number of Radio-Tagged Fish				Number Located						
	Basins A,B and D	Mel. River	Mel. Lake	**Total**	21-23 Jul *[a]n=32*	29 Jul *n=32*	17 Aug *n=32*	1 Sep *n=57*	14 Sep *n=58*	26-27 Sep *n=57*	24-25 Oct *n=57*
Arctic charr	8	19		**27**				19	20	19	23
Lake trout	1		12	**13**	7	6	10	12	8	9	11
Arctic grayling	19			**19**	18	19	19	15	18	17	18
Total	**28**	**19**	**12**	**59**	**25**	**25**	**29**	**46**	**46**	**45**	**52**

[a] total number of radio tags at large.

Arctic charr

The eight Arctic charr implanted with radio transmitters in Lake D1 between 20-27 August remained in the lake until the last flight in October. This limited movement suggested that they will remain in the lake to overwinter.

Based on size at maturity data (Section 5.2.1), six of the radio tagged individuals were mature and likely have spawned in Lake D1 during late fall of 1997.

In total, 18 Arctic charr were implanted with radio tags at the fish fence between 17 August and 2 September 1997. These fish moved an average of 13 km (range 10 to 15 km) upstream to Little Meliadine Lake (Figure 5.18). During the October tracking flight, 15 of these individuals were still located in Little Meliadine Lake; this suggested that the lake provided suitable overwintering habitat. One gravid female Arctic charr implanted with a radio tag in Little Meliadine Lake on 28 September has not been located since its release and may have: 1) moved to a location outside the survey zone to spawn, 2) been captured and killed by a local fishermen, or 3) spawned in Little Meliadine Lake, but was not located during the October tracking flight.

Lake trout

The majority of the lake trout radio tagged (9 of 13) remained within 8 km of their release locations, suggesting that they were released in the vicinity of their overwintering areas (Figure 5.19). One lake trout (#6346 tagged in Lake D1 in June) moved 3 km into the Meliadine River in August and then another 3 km into the south basin of Meliadine Lake in September, where it has remained until October. Another lake trout (#6835) implanted with a transmitter in the east basin of Meliadine Lake in July moved a distance of 5 km into the central basin of Meliadine Lake in August. The remaining seven fish originally implanted within the east basin have exhibited limited movements within the east basin, with exception of one individual (#6812), which has moved 8 km to the south end of the east basin in July. The few fish that exhibited large-scale movements included two lake trout (#6886 and #6423) radio tagged in July at the WMC camp; they were tracked 18 km away in the west basin of Meliadine Lake on 17 August and 1 September, respectively. The remaining two individuals (#6414 and #6349) were radio tagged and released below the rapids in the Meliadine River on 21 June and 20 July. By October they had moved 7 and 8 km downstream respectively, into a deeper section of the Meliadine River. During the October flight, 11 of the 13 radio tagged lake trout were located; six remained within the east basin of Meliadine Lake, two were still in the upper section of the Meliadine River, and a single fish was located in each of the south, central, and west basins of Meliadine Lake.

Arctic grayling

Most (14 of 19) radio tagged Arctic grayling exhibited limited movements, and as of the 24-25 October tracking flight, they were still located within the respective peninsula lakes where they had been released (Figure 5.20). This suggested that either these lakes were used for overwintering or that the fish were unable to leave in the fall due to low discharge from the outlet streams. In contrast, by 25 October the five remaining Arctic grayling had moved out of their respective peninsula lakes and into Meliadine Lake. One Arctic grayling (#6335), radio tagged on the 16 June in Lake B2, travelled 16 km into the west basin of Meliadine Lake. Two other individuals (#6334 and #6408) radio tagged and released from Lakes B2 and D7 on the 16 June and 19 July, moved 13 and 7 km respectively into the south basin of Meliadine Lake. The remaining two individuals (#6341 and #6342) tagged and

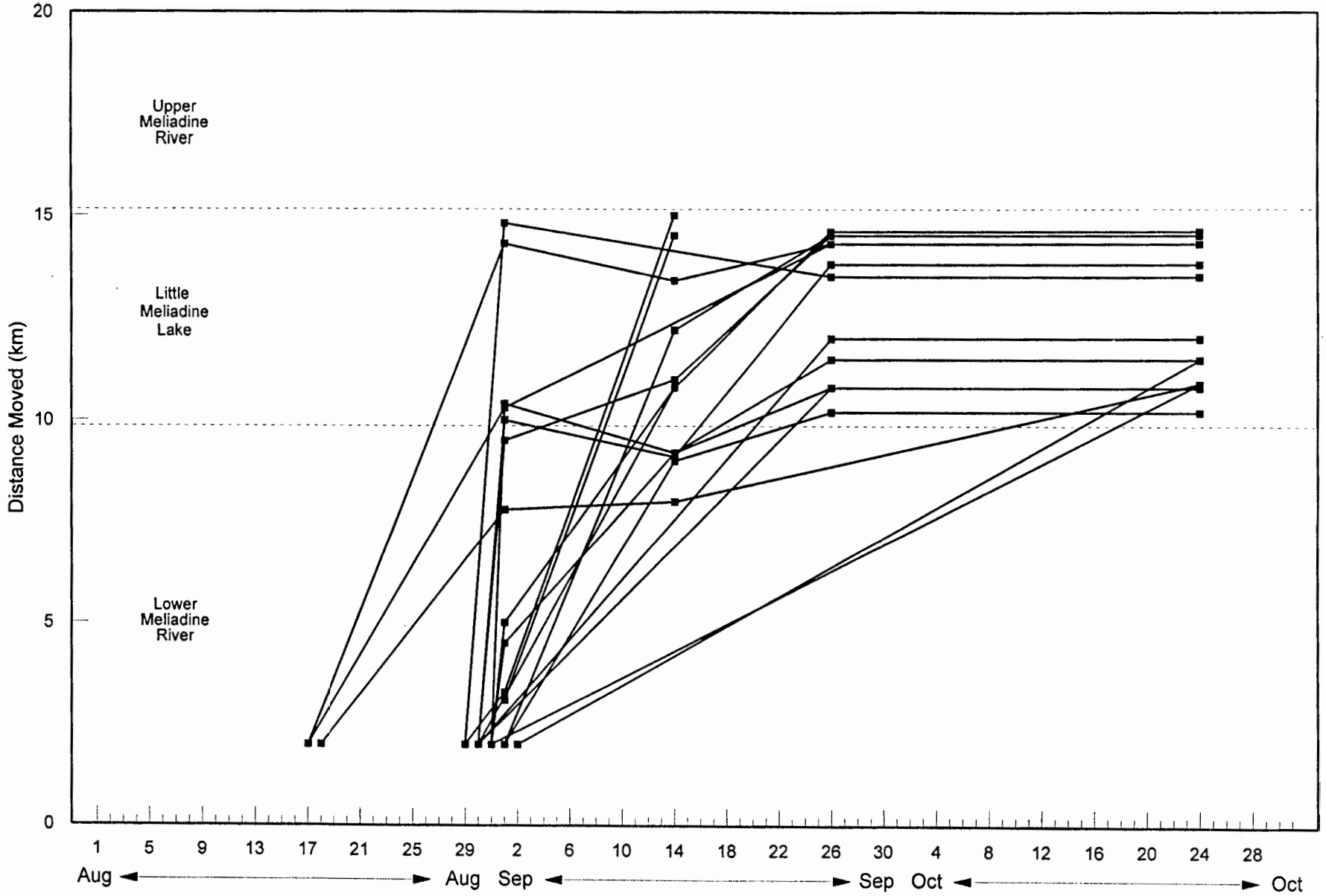


Figure 5.18 Movements of radio tagged Arctic charr in the Meliadine River, 1997.

released from Lake D1 on the 18 June, travelled less than 2 km into the south basin of Meliadine Lake. These five individuals were still located within the south and west basins on the last tracking flight in October, suggesting they overwinter in Meliadine Lake.

5.3.4 Summary

Although a large number of fish were marked using Floy tags (n=1305) and fin clips (n=527), only a low number were recaptured. Results for Floy tagged fish indicated that most (88%) exhibited limited movements and will overwinter in the vicinity of their release locations. ~~Three~~ Seven Arctic charr did migrate at least 38 km upstream in the Meliadine River to overwinter in Meliadine Lake.

Preliminary results from radio tagged fish indicated that movement patterns were species specific. Although most radio tagged Arctic charr remained close to their release locations, several did travel small distances to overwinter in Little Meliadine Lake. Several radio tagged Arctic charr may have used Lake D1 for spawning, and remained there to overwinter. Radio tagged lake trout were considered resident within the study area, and generally did not move large distances either in Meliadine Lake or the upper section of Meliadine River. Most Arctic grayling remained confined within the peninsula lakes in which they were released. These individuals may have been unable to leave in the fall due to low discharge from the outlet streams. Five other individuals did exhibit migrations from the peninsula lakes into Meliadine Lake during summer.

These results should be viewed as preliminary. Aerial tracking flights will continue in 1998 to help determine movement patterns of these species and to identify critical habitats.

5.4 METAL ANALYSIS OF FISH TISSUES

During fall 1997, a monitoring program was initiated in the Meliadine Study Area to assess background metal concentrations in fish tissues. Samples of muscle, liver, and kidney tissues were collected from 18 Arctic charr. Most (14) were captured as they were entering the Meliadine River from the sea between 21 August and 3 September 1997; the remaining 4 samples were collected from gravid females captured in Little Meliadine Lake on 28 September. The sampled fish ranged from 485 to 648 mm in fork length and represented ages 5 to 9.

The concentrations of 27 metal elements in muscle, liver, and kidney tissues of each tested fish, as well as the results of QA/QC tests for blank, duplicate, and reference samples, are presented in Appendix C, Tables C23 to C26. Average metal concentrations (including standard deviation, range, and number of samples below analytical detection limits) are provided for each tissue type in Appendix C, Table C27. The average concentrations of some of the potentially toxic trace metals (aluminum, arsenic, cadmium, mercury, lead, nickel, copper, and zinc) are summarized in Table 5.8; the results are discussed separately for each of the major elements.

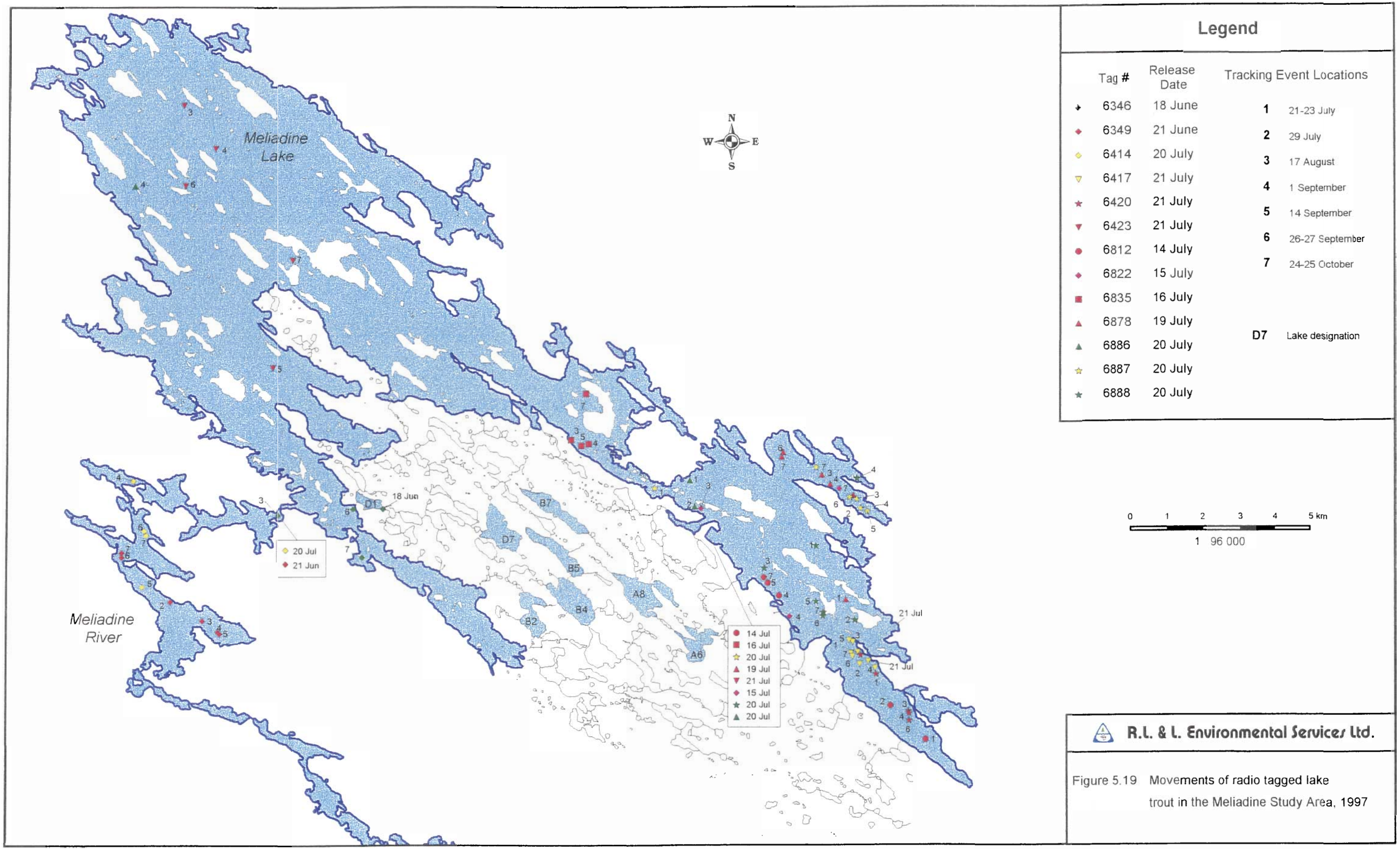


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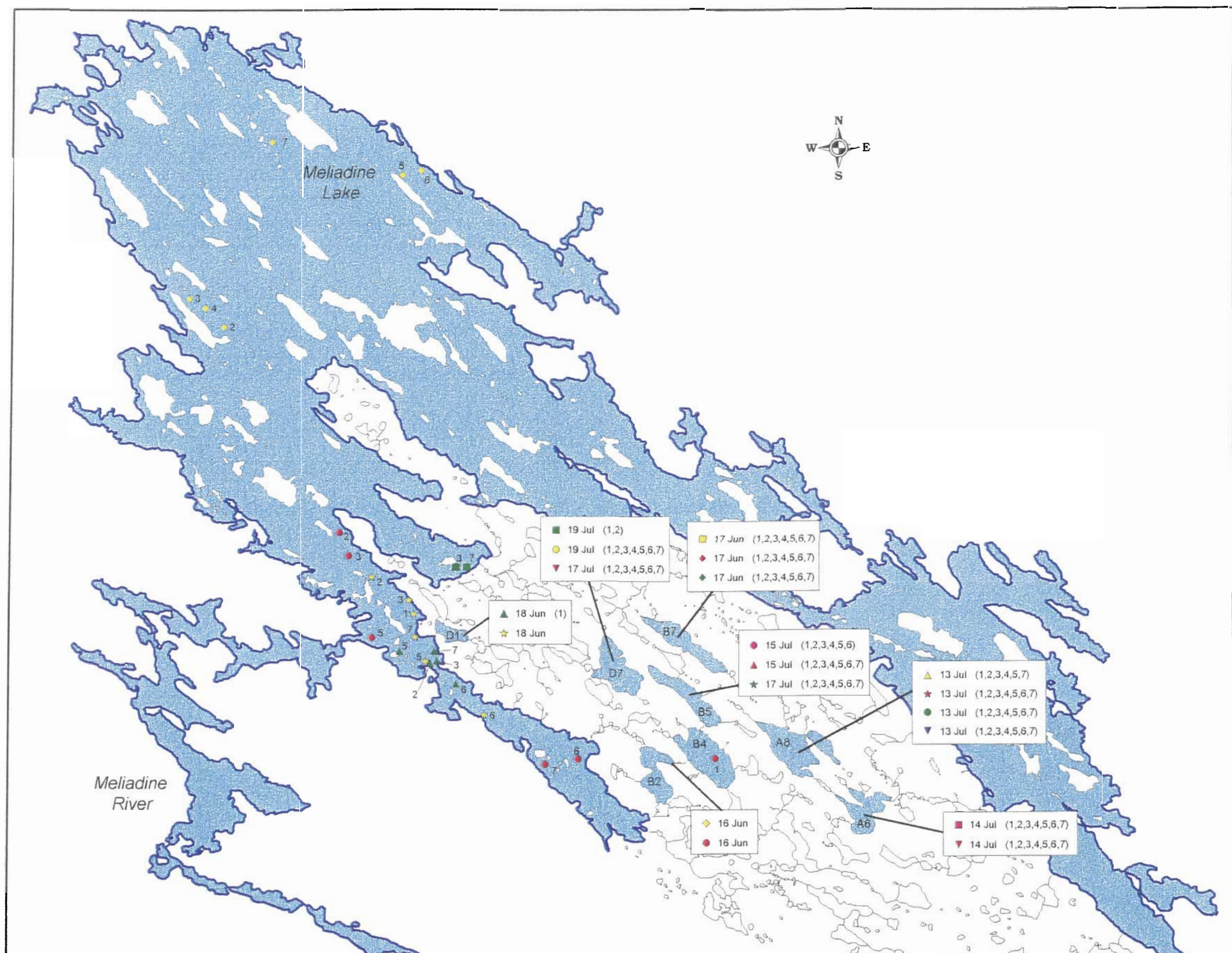
Figure 5.19 Movements of radio tagged lake trout in the Meliadine Study Area, 1997



LEGEND

Tag #	Release Date
6334	16 June
6335	16 June
6338	17 June
6339	17 June
6340	17 June
6341	18 June
6342	18 June
6352	13 July
6354	13 July
6355	13 July
6356	13 July
6359	14 July
6360	14 July
6366	15 July
6367	15 July
6373	17 July
6374	17 July
6407	19 July
6408	19 July

Tracking Event Locations

1	21-23 July
2	29 July
3	17 August
4	1 September
5	14 September
6	26-27 September
7	24-25 October
D7	Lake designation
(1,2,3...)	Indicates tracking events when fish were located in the same lake where they were released

0 1 2 3 4 5 km

1 : 88 000

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Figure 5.20 Movements of radio tagged Arctic grayling in the Meliadine Study Area, 1997

Table 5.8 Mean concentrations of metals in Arctic charr tissue samples from the Meliadine River, Aug-Sep 1997.

Tissue	Parameter	Metal Concentrations (μg/g of dry weight)							
		Al	As	Cd	Cu	Pb	Hg	Ni	Zn
Muscle	*n < D.L.*[a]	*17*	*0*	*12*	*0*	*8*	*8*	*4*	*0*
n=18	**Mean (μg/g)**	**0.53**	**3.83**	**0.04**	**2.11**	**0.43**	**0.121**	**0.51**	**12.9**
	SD[b] (μg/g)	0.12	1.47	0.03	0.52	0.89	0.164	0.71	4.0
	Min. (μg/g)	0.5	2.24	0.03	1.09	0.03	0.003	0.05	6.1
	Max. (μg/g)	1.0	7.32	0.13	2.86	2.94	0.495	2.40	19.7
Liver	*n < D.L.*[a]	*17*	*0*	*0*	*0*	*10*	*1*	*13*	*0*
n=18	**Mean (μg/g)**	**10.75**	**3.73**	**0.26**	**19.31**	**0.17**	**0.26**	**0.09**	**72.3**
	SD[b] (μg/g)	43.49	1.64	0.18	16.53	0.17	0.177	0.06	18.6
	Min. (μg/g)	0.5	1.84	0.11	3.04	0.03	0.003	0.05	42.4
	Max. (μg/g)	185	8.28	0.75	62.7	0.60	0.616	0.20	107
Kidney	*n < D.L.*[a]	*11*	*0*	*0*	*0*	*7*	*1*	*4*	*0*
n=18	**Mean (μg/g)**	**2.69**	**3.58**	**1.07**	**6.96**	**0.23**	**0.363**	**0.42**	**124.5**
	SD[b] (μg/g)	7.11	2.33	0.76	2.46	0.33	0.248	0.39	30.4
	Min. (μg/g)	0.5	0.98	0.40	3.25	0.03	0.003	0.05	86.7
	Max. (μg/g)	31	11.6	3.18	11.4	1.41	0.836	1.50	176

[a]number of samples below detection limit
[b]standard deviation

Aluminum

The availability of aluminum to aquatic organisms has been correlated with the pH of the aquatic environment (Holtze and Hutchinson 1989); however, it is unclear at what pH threshold or concentration aluminum becomes toxic to fish. Aluminum can be acutely toxic at high exposure levels but it does not bioaccumulate in aquatic organisms (Neville 1985).

Detectable concentrations of aluminum (1 μg/g or higher) were recorded in 39% of kidney samples but only in 6% of muscle and liver samples. Except for two samples with relatively high concentrations (185 and 31 μg/g in liver and kidney tissues, respectively), the remaining 52 samples tested at 3 μg/g or less. The reasons for these two higher concentrations are unclear, especially since they occurred in two different fish. Mean aluminum concentrations in muscle and liver tissues of Arctic charr from Coronation Gulf (2.8 and 10.2 μg/g, respectively; RL&L 1993) were similar to those from the present study.

Arsenic

Arsenic is more common in the earth's crust than is mercury or cadmium, and is more toxic to plants than to animals (Demayo et al. 1979). It does not appear to biomagnify through different trophic levels, and demersal species are more likely to accumulate arsenic than pelagic fish (Demayo et al. 1979). Arsenic concentrates mainly in the liver and is a cumulative toxin (Falk et al. 1973).

Arsenic levels in Arctic charr tissues ranged from 0.98 to 11.6 μg/g. Mean concentrations were similar in all three tissue types (3.83, 3.73, and 3.58 μg/g in muscle, liver, and kidney tissues, respectively). Mean aluminum

concentrations in muscle tissues of Arctic charr from Coronation Gulf (18.3 μg/g; RL&L 1993) were approximately five times higher than those from the Meliadine River.

Cadmium

Cadmium does not bioaccumulate in the food web (Reeder et al. 1979a). The rate of cadmium uptake is generally faster in hard waters, although cadmium toxicity decreases in hard water (Reeder et al. 1979a).

Cadmium levels in Arctic charr collected from the Meliadine River were considerably higher in the kidney tissues (mean value of 1.07 μg/g) than in the liver and muscle tissues (0.26 and 0.04 μg/g, respectively). The liver concentrations of cadmium were much lower than those recorded in Coronation Gulf (mean of 2.3 μg/g; RL&L 1993); the maximum values recorded in muscle tissues were similarly low in both studies (0.13 and 0.08 μg/g in Meliadine River and Coronation Gulf, respectively). Maximum cadmium concentration recorded in Meliadine River charr was 3.18 μg/g in a kidney sample.

Copper

In contrast to the non-essential trace metals (e.g., arsenic, cadmium, mercury, lead), copper is an essential element with important biochemical functions; however, in excess amounts copper is toxic to freshwater fish (Forstner and Wittman 1979). The toxicity of copper varies not only with the species of the fish, but also with ambient water characteristics such as pH and alkalinity. Copper is not considered to be a cumulative systematic poison as most of it is excreted from the body, and very little is retained (Falk et al. 1973). The main areas of the body where it concentrates are the liver, muscle, and brain tissues (Demayo and Taylor 1981).

Copper levels in the liver tissue samples from the Meliadine River Arctic charr ranged from 3.04 to 62.7 μg/g; the mean value was 19.31 μg/g. Mean concentrations in the kidney and muscle tissues were substantially lower (6.96 and 2.11 μg/g, respectively). Copper levels recorded in Arctic charr in the study area were lower than those reported for the Coronation Gulf populations (e.g., mean of 46.6 μg/g in liver tissues; RL&L 1993).

Lead

Lead tends to deposit in bone as a cumulative toxin (Falk et al. 1973). It is more toxic in soft water than in hard water (Demayo et al. 1980).

Lead concentrations in the Meliadine River Arctic charr were generally low, with 44% of muscle, 56% of liver, and 39% of kidney tissue samples showing values below the 0.05 μg/g detection limit. The mean concentrations of lead in the muscle samples (0.43 μg/g) were approximately two times higher than those in the liver and kidney samples (0.17 and 0.23 μg/g). Maximum lead concentration recorded in Meliadine River Arctic charr was 2.94 μg/g in a muscle sample; this was higher than the maximum level recorded in the muscle samples from Coronation Gulf (0.42 μg/g; RL&L 1993).

Mercury

Mercury in fish tissue is most commonly present in the form of methyl mercury. Because of other mercury forms potentially present in the environment, it is recommended that total mercury is used for setting guidelines (Reeder et al. 1979b). The maximum allowable level of mercury in muscle tissue of fish sold in Canada for human consumption is 0.5 μg/g (wet weight) which is comparable to about 2.5 μg/g when expressed on a "dry weight" basis (assuming 80% moisture content).

Mean mercury level in Arctic charr muscle tissue was 0.121 μg/g. Almost half (44%) of the muscle samples tested below the detection limit of 0.005 μg/g and the maximum recorded concentration (0.495 μg/g) was approximately five times lower than the maximum levels allowed for human consumption (>2.5 μg/g). The mean concentrations of mercury in liver and kidney tissues (0.260 and 0.363 μg/g, respectively) were higher than in the muscle tissues; however, the maximum recorded mercury level (0.836 μg/g in kidney tissue) was well within the established guidelines.

Nickel

The toxicity of nickel increases with decreasing water hardness and increasing acidity (CCREM 1996); it also increases when nickel is present with copper, likely as a result of synergism (Taylor et al. 1979). Nickel has the greatest effect on the early life stages of fish, including fertilized eggs. Nickel does not biomagnify in the food web (Taylor et al. 1979). Hutchinson et al. (1975) reported that nickel concentrations were highest in plants and lowest in top predators. Bowen (1966) considered 1 μg/g (dry weight) of nickel in fish tissue to be in the range of natural background levels.

Mean nickel concentrations in Arctic charr tissues ranged from 0.09 μg/g (liver) to 0.51 μg/g (muscle). Levels above 1 μg/g were recorded in only two muscle samples (2.3 and 2.4 μg/g) and one kidney samples (1.5 μg/g). Most (72%) of the liver samples exhibited nickel levels that were below the detection limit of 0.1 μg/g.

Zinc

Zinc primarily affects gill epithelial tissues. In excessive amounts, it can cause outright mortality or induce stress that leads to death at a later time (Falk et al. 1973). Zinc, however, is essential for plant and animal health. Zinc toxicity increases with increasing pH and decreasing water hardness. Zinc concentrations are usually greater in omnivorous than in piscivorous species, and greater in benthic invertebrates than in fish (CCREM 1996).

Mean concentrations of zinc in Arctic charr were higher in the kidney and liver tissues (124.5 and 72.3 μg/g, respectively) than in the muscle tissues (12.9 μg/g). The highest recorded value was 176 μg/g in a kidney sample. Mean zinc concentrations in muscle and liver tissues of Arctic charr from Coronation Gulf (15.8 and 96.7 μg/g, respectively; RL&L 1993) were similar to those from the present study.

Because the mine plans have not yet identified lakes that will be impacted, most of the tissue sampling program will be conducted in 1998. Sampling effort in 1998 will be concentrated on lake trout and Arctic charr (top piscivores) as well as the coregonid species (bottom and plankton feeders) to obtain samples from the extremes of the food web.

5.5 UNDER-ICE FISH SURVEYS

In response to potential changes in the design of the proposed mine infrastructure, the study area was expanded in October 1997 to include two unnamed drainage basins that enter the Hudson Bay immediately east of the Meliadine River mouth (Figure 5.21). To assess the use of these basins by overwintering fish, an under-ice gillnetting program was conducted between 26 October and 2 November 1997 in 10 of the largest lakes within these drainages. To meet reporting deadlines, the results of this early winter program were not incorporated into the fish distribution and life history information presented in the previous sections of this report; instead, they are briefly described below.

Variable-mesh gill nets were set under-ice (using a jigger) to sample the deepest areas (determined through air photo interpretations) of the selected lakes. Each gill net set was comprised of 15.2 m x 1.8 m panels of 3.8, 6.4, and 8.9 cm mesh sizes (stretched measure). Set times were kept short (i.e., <6 h) to minimize capture related mortalities. Information recorded at each gill net site included UTM coordinates, date and time of set and lift, air and water temperature, ice thickness, water depth, substrate composition, and the number and species of fish captured in each mesh size.

Maximum water depths at gill net locations ranged from 1.7 m in Lake 1 to 4.0 m in Lake 6 (Appendix C, Table C28). Two lakes (Lakes 2 and 5) were too shallow for setting nets (0.7 m or less of under-ice water depth). Ice thickness in all ten lakes ranged from 30 to 55 cm.

The under-ice gill netting program (total effort of 45.5 h) resulted in the capture of 36 fish in six of the eight lakes sampled (Table 5.9 and Appendix C, Table C29). All captured fish were part of the salmonid family and included lake trout, Arctic grayling, round whitefish, and cisco. Arctic grayling were captured in two lakes (Lakes 1 and 8), lake trout in four lakes (Lakes 6, 7, 9, and 10), whereas round whitefish and cisco were captured only in one lake (Lake 10). Gill net sets in Lakes 3 and 4 did not result in fish catches. Highest catch rate (12.9 fish/h) was recorded in Lake 10.

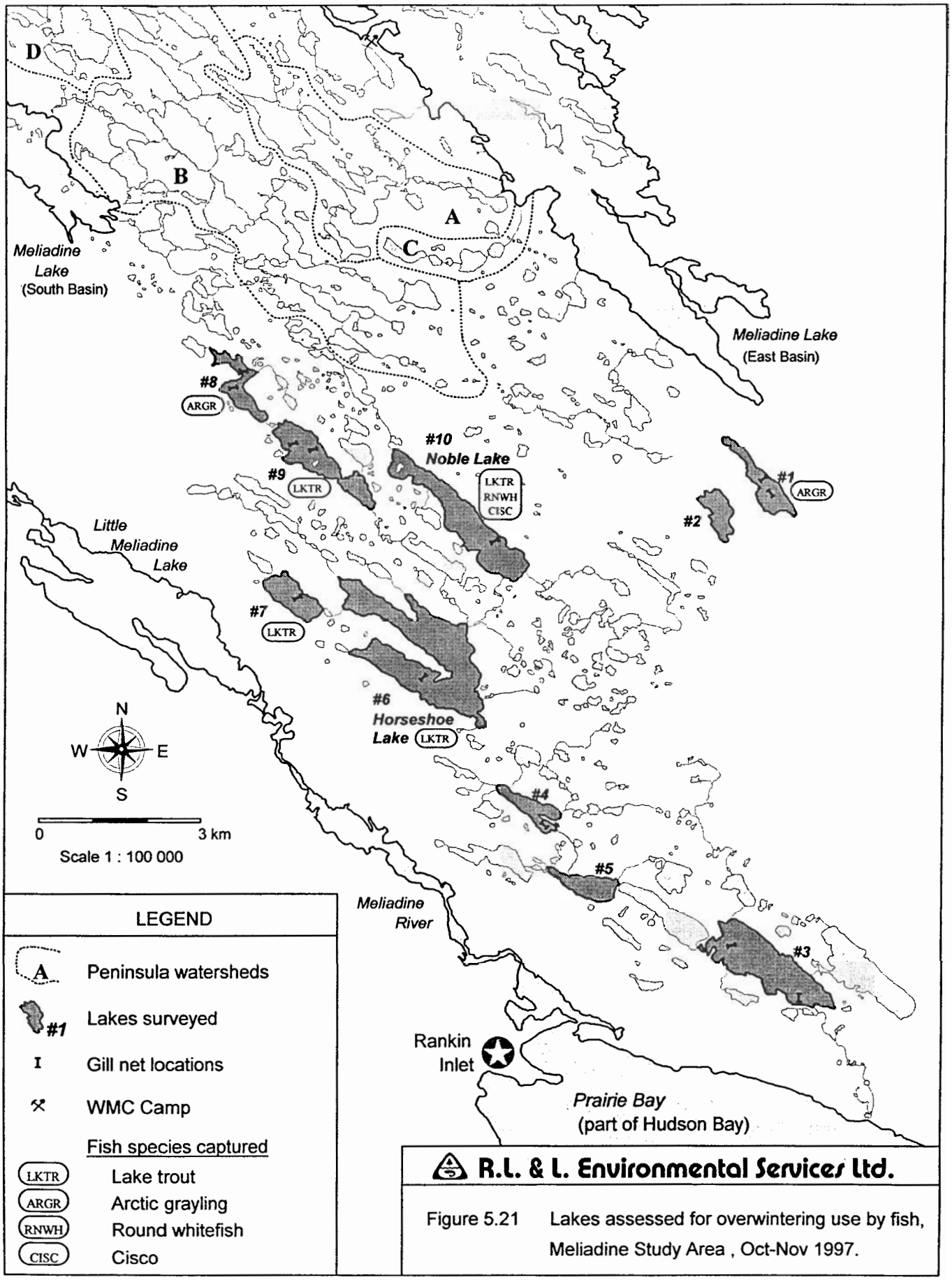

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Figure 5.21 Lakes assessed for overwintering use by fish, Meliadine Study Area , Oct-Nov 1997.

Table 5.9 Sampling effort, catch, and relative abundance (expressed as CPUE) of fish captured by gill nets set under-ice in selected lakes outside of the Meliadine Lake drainage system, October 1997.

Lake No.	Local Name	Sampling Effort (h)	Number Captured				CPUE (fish/h)			
			Lake trout	Arctic grayling	Round whitefish	Cisco	Lake trout	Arctic grayling	Round whitefish	Cisco
1	Unnamed	6.6		7				1.06		
3	Unnamed	6.1								
4	Unnamed	8.9								
6	Horseshoe	5.5	3				0.55			
7	Unnamed	4.3	3				0.70			
8	Unnamed	7.3		8				1.10		
9	Unnamed	6.1	6				0.98			
10	Noble	0.7	3		5	1	4.29		7.14	1.43
Total		**45.5**	**15**	**15**	**5**	**1**	**0.33**	**0.33**	**0.11**	**0.02**

Life history information collected from all captured fish is presented in Appendix C, Table C29. Lake trout ($n=15$) ranged from 355 to 920 mm in fork length. Most (53%) were within the 400-480 mm size-class; however, large fish (>790 mm) contributed 20% to the catch. Arctic grayling ($n=15$) ranged from 154 to 395 mm in fork length; most (60%) of the catch was composed of adults greater than 270 mm in fork length. Round whitefish ($n=5$) ranged from 273 to 460 mm in fork length; 60% of the catch was larger than 430 mm in length. The single cisco specimen captured was 225 mm in fork length.

Based on these preliminary results, most of the surveyed lakes were used for overwintering by fish. It is not clear whether the captured fish selected these lakes for overwintering because of suitable habitat characteristics, or they were simply stranded there due to low flows in the connecting streams during summer and fall 1997. Additional sampling will be required in 1998 to determine if these fish (33 were marked with Floy tags) survived the winter.

6.0 LITERATURE CITED

Ahlstrom, EH 1943. A revision of the rotatorian genus *Keratella* with descriptions of three new species and five new varieties. Bull. Amer. Mus. Nat. Hist. 80(12): 411-57.

Alberta Environment. 1990. Selected methods for the monitoring of benthic invertebrates in Alberta rivers. Prepared by A.M. Anderson and L.D. Corkum, Environmental Quality Monitoring Branch, Environmental Assessment Division, Edmonton, Alberta. 41 p.

American Public Health Association. 1993. Standard Methods for the Examination of Water and Wastewater. 18th ed. American Public Health Association, American Water Works Association and Water Pollution Control Federation, Washington, D.C. 1134 p.

Baumann, D.W., A.R. Gaufin, and R.F. Sardick. 1977. The stoneflies (Plecoptera) of the Rocky Mountains. Memoirs Am. Entomol. Soc. No. 31. 208 p.

Beak Consultants Ltd. 1977. Initial environmental evaluation and pre-operational survey in the area of the Izok Lake deposits. Rep. Prep for Texasgulf Incorporated: 53 p.

Bergmann, M.A., and H.E. Welch. 1990. Nitrogen fixation by epilithic periphyton in small Arctic lakes in response to experimental nitrogen and phosphorus fertilization. Canadian Journal of Fisheries and Aquatic Sciences 47: 1545-1550.

Bidgood, B.F. 1980. Field surgical procedure for implantation of radio tags in fish. Alberta Fish & Wildlife Division, Department of Energy & Natural Resources, Edmonton, Fisheries Research Report No. 20. 9 p.

Bird, D.F. and Y.T.-Prairie. 1985. Practical guidelines for the use of zooplankton length-weight regression equations. J. Plank. Res. 7: 955-960.

Bond, W.A. 1975. Data on the biology of lake whitefish and lake trout from Kaminuriak Lake, District of Keewatin, N.W.T. Dep. of Environment, Fish. and Marine Service. Data Rep. Ser. No. CEN/D-75-4: 27 p.

Bottrell, H.H., A. Duncan, Z.M. Gliwicz, E. Grygierczyk, A. Herzig, A. Hillbricht-Illakowska, H. Kurasawa, Larson, and P. & T. Weglenska. 1976. A review of some problems in zooplankton production studies. Contribution from the Plankton Ecology Group (EBP).

Bovee, K.D., and T. Cochnauer. 1977. Development and evaluation of weighted criteria, probability-of-use curves for instream flow assessments: fisheries. Instream Flow Inf. Pap. 3 FWS/OBS-77/63. Cooperative Instream Flow Serv. Group, Fort Collins, Colorado. 131 p.

Bowen, H.J.M. 1966. Trace elements in biochemistry. Academic Press, New York. 241 p.

Brandlova, J., Z. Brandl, and C.H. Fernando. 1972. The Cladocera of Ontario with remarks on some species and distribution. Can. J. Zool. 50(11): 1373-403.

Brinkhurst, R.O. 1986. Guide to the freshwater aquatic microdrile oligochaetes of North America. Can. Spec. Publ. Fish. Aquat. Sci. 84: 259 p.

Brooks, J.L. 1957. The systematics of North American Daphnia. Mem. Connecticut Acad. Arts Sci. 13: 1-180.

Canadian Council of Resource and Environment Ministers (CCREM). 1996. Canadian water quality guidelines. Prep. by Task Force on Water Qual. Guidelines.

Carlander, K.D. 1969. Handbook of freshwater fishery biology. Volume One. The Iowa State University Press, Ames, Iowa. 752 p.

Charrlton, S.E.D., M. Hickman, and C.G. Jenkerson. 1981. Longitudinal physiochemical and algal surveys of rivers flowing through the oil sands region of northeastern Alberta, Canada. Nova Hedwigia 35: 465-522.

Clifford, H.F. 1991. Aquatic invertebrates of Alberta. University of Alberta. Press, Edmonton. 538 p.

Cook, E.F. 1956. The Nearctic Chaoborinae (Diptera: Culicidae). Bull. Minn. Agric. Exp. Sta. 218: 102 p.

Craig, P., and V. Poulin. 1974. Life history and movements of grayling (*Thymallus arcticus*) and juvenile Arctic char (*Salvelinus alpinus*) in a small tundra stream tributary to the Kavik River, Alaska. *In*: P.J. McCart. (ed.). Life histories of anadromous and freshwater fishes in the western Arctic. Arctic Gas Biol. Rep. Ser. 20(2): 53 p.

Demayo, A., M.C. Taylor, and S.W. Reeder. 1979. Guidelines for surface water quality. Arsenic. Environment Canada, Inland Waters Directorate, Water Quality Branch, Ottawa, Ontario. 12 p.

Demayo, A., M.C. Taylor and S.W. Reeder. 1980. Guidelines for surface water quality. Lead. Environment Canada, Inland Waters Directorate, Water Quality Branch, Ottawa, Ontario. 36 p.

Demayo, A., and M.C. Taylor. 1981. Guidelines for surface water quality. Copper. Environment Canada, Inland Waters Directorate, Water Quality Branch, Ottawa, Ontario. 54 p.

Dillon, M.M. 1995. Meliadine Project - Baseline surface water and lake sediment sampling. Letter report prepared by M.M. Dillon Limited for Comaplex Minerals Corp. 3 p. + app.

Downing, J.A., and F.A. Rigler. 1984. A manual on methods for the assessment of secondary productivity in fresh waters. 2nd Edition. Blackwell Scientific Publications, Boston, Massachusetts. 495 p.

Edmondson, W.T. 1959. Freshwater biology. 2nd Edition. John Wiley and Sons, New York, New York. 1248 p.

Elliott, J.M. 1977. Some methods for the statistical analysis of samples of benthic invertebrates. 2nd edition. Freshwater Biological Association, Scientific Publication No. 25. 160 p.

Environment Canada. 1973. Inventory of Canadian Freshwater Lakes. Inland Waters Directorate, Water Resources Branch. Ottawa. 34 p.

Environment Canada. 1993. Guidelines for monitoring benthos in freshwater environments. Prepared by EVS Consultants, North Vancouver, BC. 81 p.

Falk, M.R., M.D. Miller, and S.J.M. Kostuik. 1973. Biological effects of mining wastes in the Northwest Territories. Fisheries and Marine Service, Technical Report CENT/T-73-10: 29 p.

Falk, M.R., and L.W. Dahlke, 1974. Data on the lake and round whitefish, lake cisco, northern pike and Arctic grayling from Great Bear Lake, N.W.T., 197-1973. Data Rep. Series No. CEN/D-74-1. Dep. of Environ., Fish. and Marine Serv., Fisheries Operations Directorate, Central Region, Winnipeg, Manitoba. 52 p.

Falk, M.R., Gillman, D.V., Dahlke, L.W. 1974. 1973 Creel census data from sport fishing lodges on Great Bear and Great Slave Lakes, Northwest Territories. Technical Report CEN/D-74-5: 28 p.

Falk, M.R., and D.V. Gillman. 1980. Status of the Arctic grayling and northern pike sport fisheries in the Brabant Island - Beaver Lake Area of the MacKenzie River, Northwest Territories. Can. Man. Rep. of Fish. and Aquat. Sci. No. 1553. Dep. Fish. and Oceans, Winnipeg, Manitoba. 48 p.

Flössner, D. 1972. Krebstiere, Crustacea: Kiemen und Blattfüsser, Brachiopoda, Fischäuse, Brachiura. Die Tierwelt Deutschlands. 60. Teil. Gustav Fischer Verlag, Jena. 501 p.

Forstner, U., and G.T.W. Wittman. 1979. Metal pollution in the aquatic environment. Springer-Verlag, New York. 486 p.

Grainger, E.H. 1953. On the age, growth, migration, reproductive potential and feeding habits of the arctic charr (*Salvelinus alpinus*) of Frobisher Bay, Baffin Island, Canada. J. Fish. Res. Board Can. 10: 326-370.

Green, J. 1977. Sampling rotifers. Arch. Hydrobiol. Bieh. Ergebn. Limnol. 8: 9-12.

Health and Welfare Canada. 1993. Guidelines for Canadian drinking water quality, fifth edition. Minister of National Health and Welfare. 24pp.

Hershey, A.E. 1985. Littoral chironomid communities in an Arctic Alaskan Lake. Holarctic Ecology 8: 39-48.

Hickman, M., S.E.D. Charrlton, and C.G. Jenkerson. 1982. A comparative study of benthic algal primary productivity in the AOSERP study area. Prepared for the Alberta Oil Sands Environmental Resources Program by the Department of Botany, University of Alberta and Department of Plant Sciences., University of Western Ontario. AOSERP Report 128. 139 p.

Holtze, K.E., and N.J. Hutchinson. 1989. Lethality of low pH and Al to early life stages of six fish species inhabiting PreCambrian Shield waters in Ontario. Can. J. Fish. Aquat. Sci. 46(7): 1188-1202.

Horner, R.R., and E.B. Welch. 1981. Stream periphyton development in relation to current velocity and nutrients. Canadian Journal of Fisheries and Aquatic Sciences 38: 449-457.

Hubert and Associates. 1996. Meliadine West: water quality/fish habitat Prep. for WMC International Limited, Americas Division - Exploration.

Hutchinson, T.C., A. Fedorenko, J. Fitchko, A. Kuja, J. VanLoon, and J. Lichwa. 1975. Movement and compartmentation of nickel and copper in an aquatic ecosystem. p. 565-585. *In:* Nriagu, J. (ed.). Environmental Biogeochemistry. Vol. 2. Ann Arbor Science Publication, Ann Arbor, Michigan.

Hynes. H.B.N. 1970. The ecology of running water. University of Toronto Press, Toronto, Ontario. 555 p.

Johnson, L. 1980. The Arctic charr, *Salvelinus alpinus*. *In* E.K. Balon [ed.] Charrs; Salmonid Fishes of the Genus Salvelinus. Dr. W. Junk, The Haque.

Jorgenson, J.K., H.E. Welch, and M.F. Curtis. 1992. Response of Amphipoda and Trichoptera to lake fertilization in the Canadian Arctic. Canadian Journal of Fisheries and Aquatic Sciences 49: 2354-2362.

Kalff, J., and H.E. Welch. 1974. Phytoplankton production in Charr Lake, a natural polar lake, and in Meretta Lake, a polluted polar lake, Cornwallis Island, Northwest Territories. Journal of the Fisheries Research Board of Canada 31: 621-636.

Kennedy, W.A. 1949. Some observations on the coregonine fish of Great Bear Lake, Northwest Territories. Bull. Fish. Res. Board Can. 82: 1-10.

Kiefer, F. 1978. Zur Kenntnis des Diacyclops tames (S.A. Forces, 1882) (Copepoda, Cyclopoida). Crustaceana 34(2): 214-16.

Knecht, C.D., A.R. Allen, D.J. Williams, and J.H. Johnson. 1981. Fundamental techniques in veterinary surgery. 2nd ed. W.B. Saunders Company. 305 p.

Koste, W. 1978. Rotatoria. Die Rädertiere Mitteleuropas. Ein Bestimmungswerk, begrunder von Max Voigt. Überordnung Monogononta. Gebrüder Bortraeger, Berlin, Stuttgart. Vol. I: 673 p. Vol. II: 469 p.

Lock, M.A., R.R. Wallace, J.W. Costerton, R.M. Ventullo, and S.E. Charrlton. 1984. River epilithon: Towards a structural-functional model. Oikos 42:10-22.

Lund, J.W.G., C. Kipping, and E.D. LeCren. 1958. The inverted microscope method of estimating algal numbers and the statistical basis of estimation of counting Hydrobiologia 11:143-70.

Mackay, W.C., G.R. Ash, and H.J. Norris. (eds.). 1990. Fish ageing methods for Alberta. R.L. & L. Environmental Services Ltd. in assoc. with Alberta Fish and Wildlife Division and University of Alberta, Edmonton. 113 p.

MacDonell, D.S. 1989. Report on the 1989 tagging and sampling program for arctic char near Arviat and the Maguse River, N.W.T.; vi + 62 p.

McGowan, D.K. 1987. Data on Arctic Charr, *Salvelinus alpinus* (L.) from the Diana River, Northwest Territories, 1986. Can. Data Rep. Fish. Aquat. Sci. 666: iv + 19 p.

McGowan, D.K. 1992. Data on Arctic charr, *Salvelinus alpinus* (L.), from the Meliadine River, Northwest Territories, 1990. Can. Data Rep. Fish. Aquat. Sci. 867: iv + 9 p.

McNeely, R.N., V.P. Neimanis, L. Dwyer. 1979. Water quality sourcebook, a guide to water quality parameters. Inland Waters Directorate, Water Quality Branch, Ottawa. 88pp.

Merritt, R.W., and K.W. Cummins. editors. 1984. An introduction to the aquatic insects of North America. 2nd edition. Kendall/Hunt Publishing Company, Dubuque, Iowa, U.S.A. 722 p.

Merritt, R.W., K.W. Cummins, and T.M. Burton. 1984. The role of aquatic insects in the processing and cycling of nutrients. Pages 134-163 in V.H. Resh and D.M. Rosenberg. Editors. The ecology of aquatic insects. Praeger Publishers, New York, New York. 625 p.

Moore, J.W. 1975a. Reproductive biology of anadromous Arctic char, *Salvelinus alpinus* (L.), in the Cumberland Sound of Baffin Island. J. Fish. Biol. 7: 143-152.

Moore, J.W. 1975b. Distribution movements and mortality of anadromous Arctic char, *Salvelinus alpinus*, in the Cumberland Sound area of Baffin Island. J. Fish. Biol. 7: 339-348.

Moore, J.W. 1978a. Biological and water quality surveys at potential mines in the Northwest Territories: IV. The Texasgulf copper-zinc property, Itchen Lake. Environment Canada, Environmental Protection Service. MS Report NW-78-8: 23 p.

Moore, J.W. 1978b. Biological and water quality surveys at potential mines in the Northwest Territories. Part II. INCO Gold Property, Contwoyto Lake. Prepared by Environmental Protection Service, Northwest Region, Manuscript Report NW-78-6. 39 p.

Moshenko, R.W. and Gillman, D.V. 1978. Creel census and biological investigation on lake trout, (*Salvelinus namaycush*) (Walbaum), from Great Bear and Great Slave Lakes, Northwest Territories, 1975-76. Can. Fish. Mar. Serv. MS Rep.; 1440: v + 37 p.

Moshenko, R.W., R.F. Peet, L.W. Dahlke and D.H. Dowler. 1984. The Arctic charr sport fishery at Tree River, Northwest Territories, Canada, 1964-78. p. 359-364. *In:* L. Johnson and B.L. Burns [eds.] Biology of the Arctic charr, Proceedings of the International Symposium on Arctic Charr, Winnipeg, Manitoba, May 1981. Univ. Manitoba Press, Winnipeg.

Moss, B. 1967a. A spectrophotometric method for the estimation of percentage degradation of chlorophyll *a* to phaeopohytin in extracts of algae. Limnology and Oceanography 12: 335-340.

Moss, B. 1967b. A note on the estimation of Chlorophyll *a* in freshwater algal communities. Limnology and Oceanography 12: 340-342.

Neville, C.M. 1985. Physiological response of juvenile rainbow trout, *Salmon gairdneri*, to acid and aluminum - prediction of field responses from laboratory data. Canadian Journal of Fisheries and Aquatic Sciences. 42: 2004-2019.

Pennak, R.W. 1978. Freshwater invertebrates of the United States. 2nd edition John Wiley and Sons, Toronto, Ontario. 803 p.

Peterson, B.J., J.E. Hobbie, and T.L. Corliss. 1983. A continuous-flow periphyton bioassay: tests of nutrient limitation in a tundra stream. Limnology and Oceanography 28: 583-591.

Peterson, B.J., J.E. Hobbie, A. Hershey, M. Lock, T. Ford, R. Vestal, M. Hullar, R. Ventullo, and G. Volk. 1985. Transformation of a tundra stream from heterotrophy to autotrophy by addition of phosphorus. Science (Washington, D.C.) 229: 1383-1386.

Peterson, B.J., J.E. Hobbie, and T.L. Corliss. 1986. Carbon flow in a tundra stream ecosystem. Canadian Journal of Fisheries and Aquatic Sciences 43: 1259-1270.

Prescott, G.W. 1970. Algae of the Western Great Lakes area. Wm. C. Brown Co. Publ., Dubuque, Iowa. 977 p.

Reeder, S.W., A. Demayo, and M.C. Taylor. 1979a. Guidelines for surface water quality. Cadmium. Environment Canada, Inland Waters Directorate, Water Quality Branch, Ottawa, Ontario. 19 p.

Reeder, S.W., A. Demayo, and M.C. Taylor. 1979b. Guidelines for surface water quality. Mercury. Environment Canada, Inland Waters Directorate, Water Quality Branch, Ottawa, Ontario. 15 p.

Resh, V.H., and D.M. Rosenberg. Editors. 1984. The ecology of aquatic insects. Praeger Publishers, New York, New York. 625 p.

R.L. & L. Environmental Services Ltd. 1993. Izok Project Aquatic Studies, 1993. Report Prepared for Metall Mining Corporation. R.L. & L. Report No. 371F: 227 p.+ 8 app.

R.L. & L. Environmental Services Ltd. 1995. Jericho Diamond Project Aquatic Studies 1995. Report Prepared for Canamera Geological Ltd. R.L. & L. Report No. 462BF: 122 p. + 10 app.

R.L. & L. Environmental Services Ltd. 1996. Ranch Lake Project Aquatic Studies 1995. Report Prepared for Canamera Geological Ltd. R.L. & L. Report No. 462AF: 163 p. + 10 app.

R.L. & L. Environmental Services Ltd. 1997a. Jericho Diamond Project Aquatic Studies Program (1996). Report Prepared for Canamera Geological Ltd. R.L. & L. Report No. 501F: 239 p. + 9 app.

R.L. & L. Environmental Services Ltd. 1997b. Project 5034 Aquatic Studies Program (1996). Report Prepared for Canamera Geological Ltd. R.L. & L. Report No. 502F: 100 p. + 8 app.

R.L. & L. Environmental Services Ltd. 1998. Meliadine West baseline aquatic studies: Annotated bibliography on Arctic biota in the study area. Prepared for WMC International Ltd. R.L. & L. Report No. 558F-B: 126 p.

Roeder, D.R., G.H. Crum, D.M. Rosenberg, and N.B. Snow. 1975. Effects of Norman Wells crude oil on periphyton in selected lakes and rivers in the Northwest Territories. Fisheries and Marine Service Research and Development Directorate Technical Report No. 552. 31 p.

Rosenberg, D.M., and V.H. Resh. Editors. 1993. Freshwater biomonitoring and benthic macroinvertebrates. Routledge, Chapman & Hall, Inc., New York, New York. 488 p.

Ruttner-Kolisko, A. 1974. Plankton rotifers: Biology and taxonomy. Die Binnengewasser, Vol. 26/1, Supplement. 146 p.

Saether, O.A. 1970. Nearctic and Palaearctic *Chaoborus* (Diptera: Chaoboridae). Fisheries Research Board of Canada Bulletin 174:1-57 p.

Smirnov, N.N. 1971. Fauna of the U.S.S.R. Crustacea: Chydoridae. Vol 1, No. 2. Akad. Nauk. SSSR, New Series No. 101 (Translated from Russian). Israel Program for Scientific Translations, Jerusalem. 644 p.

Smith, G.M. 1950. The freshwater algae of the United States. 2nd ed. McGraw Hill Book Company. New York, New York. 719 p.

Stemberger, R.S., and J.J. Gilbert. 1987. Planktonic rotifer defences. In W.C. Kerfoot and A. Sih (editions) Predation: Direct and Indirect Impacts on Aquatic Communities. University Press of New England. Hanover, NH. 227-239 p.

Taft, C.E., and C.W. Taft. 1971. The algae of Western Lake Erie. Bull. Ohio Biol. Surv. 4: 1-189.

Taylor, M.C., A. Demayo, and S.W. Reeder. 1979. Nickel. Environment Canada, Inland Waters Directorate, Water Quality Branch, Ottawa, Ontario.

Warren, C.E., J.H. Wales, G.E. Davis, and P. Doudoroff. 1964. Trout production in an experimental stream enriched with sucrose. Journal of Wildlife Management 28: 617-660.

Webber, C.I. 1971. A guide to the common diatoms of water pollution surveillance system stations. U.S. Environmental Protection Agency, National Environmental Research Centre Analytical Quality Control Laboratory, Cincinnati, Ohio.

Welch, H.E., and J. Kalff. 1974. Benthic photosynthesis and respiration in Charr Lake. Journal of the Fisheries Research Board of Canada 31: 609-620.

Welch, H.E., J.K. Jorgenson, and M.F. Curtis. 1988. Emergence of Chironomidae (Diptera) in fertilized and natural lakes at Saqvaqjuac, N.W.T. Canadian Journal of Fisheries and Aquatic Sciences 45: 731-737.

Welch, H.E., J.A. Legault, and H.J. Kling. 1989. Phytoplankton, nutrients, and primary production in fertilized and natural lakes at Saqvaqjuac, N.W.T. Canadian Journal of Fisheries and Aquatic Sciences 46: 90-107.

Wetzel, R.G. 1983. Limnology. 2nd Ed., Saunders College Publishing. Toronto. 767 p.

Wiederholm, T. 1983. Chironomidae of the Holarctic Region. Keys and diagnosis. Part II. Larvae. Entomologica Scadinavica Supplement No. 18.

Wiggins, G.B. 1977. Larvae of the North American caddisfly genera (Trichoptera). University of Toronto Press, Toronto, Canada. 401 p.

PHOTOGRAPHIC PLATES

Plate 1 **Site ML-MR**, *14 June 1997*. The primary outlet of Meliadine Lake, which drains into the Meliadine River.

Plate 2 **Site ML-PL**, *19 June 1997*. The secondary outlet of Meliadine Lake, which drains into Peter Lake and the Diana River system.

Plate 3 **Site B45-46**, *17 June 1997*. Sampling for Arctic grayling eggs; this site yielded the highest egg densities.

Plate 4 **Site B4-5**, *16 June 1997*. Backpack electrofishing in shallow run habitat.

Plate 5 **Site D0-1**, *18 June 1997.* Aerial view of the stream connection between Lake D1 (right side of photo) and Meliadine Lake.

Plate 6 **Site D0-1**, *18 June 1997.* Shallow riffle habitat at the outlet of Lake D1 during the spring freshet (discharge 0.099 m^3/s).

Plate 7 **Site D0-1**, *24 July 1997.* Same location as in Plate 6, but during decreased summer flows (discharge 0.007 m^3/s).

Plate 8 **Site D0-1**, *29 August 1997.* Same location as in Plates 6 and 7, but under trace flow conditions during the fall.

Plate 9 **Site A7-8**, *14 June 1997*. Shallow riffle habitat in outlet of Lake A7 during spring freshet (discharge 0.042 m^3/s).

Plate 10 **Site A7-8**, *22 July 1997*. Same location as Plate 9, but during low summer flows (discharge 0.002 m^3/s).

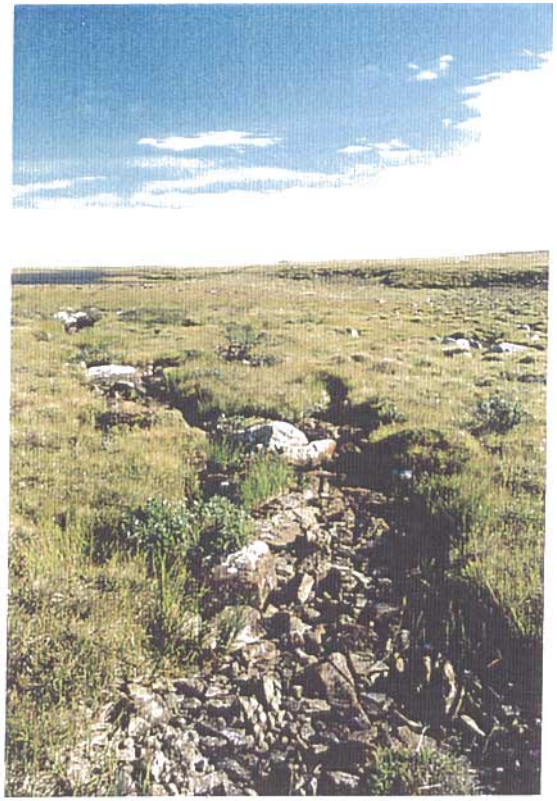


Plate 11 **Site A7-8**, *24 August 1997*. Same location as Plates 9 and 10, but channel dry during fall.

Plate 12 **Meliadine Lake**, *20 July 1997*. Final stage of radio tag implantation in lake trout, showing sutured incision and transmitter antenna.

Plate 13 Yagi antenna mounted on Bell 206 helicopter used for tracking radio tagged fish

Plate 14 **Meliadine Lake**, *20 July 1997*. Fyke net located in a small bay of the east basin of Meliadine Lake near WMC Camp.

Plate 15 **Meliadine Lake**, *22 July 1997*. Configuration of fyke net, indicating two directional traps with two 15 m wings, and 30 m lead to shore.

Plate 16 **Meliadine River**, *1 September 1997.* Aerial view of fish fence near the mouth of Meliadine River (Hudson Bay and Rankin Inlet in background).

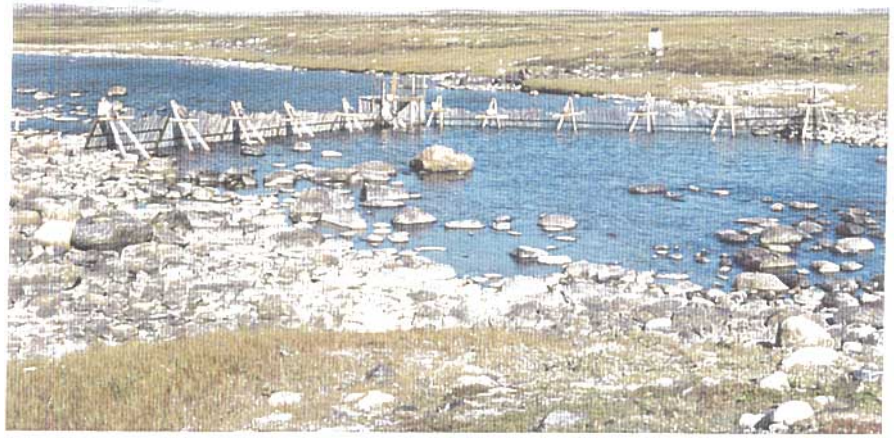


Plate 17 **Meliadine River**, *1 September 1997.* Upstream view of fish fence and trap.

Plate 18 **Meliadine River**, *25 August 1997.* Arctic charr Floy tagged and ready for release from fish fence trap.

Plate 19 **Meliadine River**, *20 August 1997.* Arctic charr inside trap box (trap entrance in upper right hand corner closed to prevent escape).

APPENDIX A

Habitat and Water Quality Data

Table A1. R.L.& L. system of habitat, cover, and substrate classification and coding for small streams.

Habitat Type		Mean Depth	Max. Depth	Surface	Turbulence	Substrate	Velocity
Riffles	RF	< 0.3 m	< 0.5 m	broken	high	coarse	high
	RF/BG	< 0.3 m	< 0.5 m	broken	high	coarse/boulders	high
Rapids	RA	> 0.3 m	> 0.5 m	broken	high	very coarse	high
Runs	R1	1.0 m	> 1.5 m	irregular	moderate	coarse	mod. - high
	R2	0.5 - 1.0 m	0.75 - 1.0 m	irregular	moderate	coarse	mod. - high
	R2/BG	0.5 - 1.0 m	0.75 - 1.0 m	irregular	moderate	coarse/boulders	mod. - high
	R3	< 0.5 m	0.75 m	rarely broken	moderate	coarse	moderate
	R3/BG	< 0.5 m	0.75 m	rarely broken	moderate	coarse/boulders	moderate
Pools	P1	1.0 m	> 1.5 m	smooth	low	variable	low
	P2	0.5 - 1.0 m	0.75 - 1.0 m	smooth	low	variable	low
	P3	< 0.5 m	0.75 m	smooth	low	variable	low
Flats	F1	1.0 m	> 1.5 m	smooth	laminar	fines	very low
	F2	0.5 - 1.0 m	0.75 - 1.0 m	smooth	laminar	fines	very low
	F2/BG	0.5 - 1.0 m	0.75 - 1.0 m	smooth	laminar	fines/boulders	very low
	F3	< 0.5 m	0.75 m	smooth	laminar	fines	very low
	F3/BG	< 0.5 m	0.75 m	smooth	laminar	fines/boulders	very low

Other Habitat Features

CH	chutes; areas of channel constriction
CA	cascade: rapid vertical descent over cobble/boulder substrate
IN	inlet; confluence with lake
OU	outlet from a lake
DIS	dispersed flow over grass without a defined channel
DRY	dry channel with no flow

Instream Cover

UC	undercut, overhanging bank
BG	boulder garden
AV	aquatic vegetation / submerged terrestrial veg.
TV	overhanging terrestrial vegetation
D/T	depth; turbulence

Channel Type

C1	entire flow through one channel
C2	entire flow through two channels
C3	flow through multiple (>2) channels
C4	no defined channel (dispersed flow)
C5	underground flow

Bank Type (%)

assigned as a percentage of well-defined banks
(e.g., 75% if one bank is well defined but
the other is poorly defined for half its length)

Substrate Classification

OM	organic material
Fi	fines (silt/sand <2 mm)
Gr	gravel (2 - 64 mm)
Co	cobble (64 - 256 mm)
Bo	boulder (>256 mm)
BR	bedrock

Bank Cover

Sh	shrubs
Gr	grasses and forbs
Ro	rock (gravel/cobble/boulder)
ES	exposed soil

Table A2. Seasonal changes in discharge, depth, and velocity of streams on the peninsula on Meliadine Lake, 1997.

Stream	Spring						Summer						Fall			
	Survey	Discharge	Water Depth (cm)		Velocity (cm/s)		Survey	Discharge	Water Depth (cm)		Velocity (cm/s)		Survey	Discharge	Water Depth (cm)	
ID	Date	(m^3/s)	Mean	Max.	Mean	Max.	Date	(m^3/s)	Mean	Max.	Mean	Max.	Date	(m^3/s)	Mean	Max.
A0-1	15-Jun	0.155	28	75	22	87	21-Jul	0.004	9	18	5	8	23-Aug	dry		
A1-2	19-Jun	0.106	25	37	47	65							23-Aug	dry		
A2-3	19-Jun	0.083	34	42	32	50							23-Aug	dry		
A3-4	19-Jun	0.089	27	34	31	84							23-Aug	dry		
A4-5	19-Jun	0.085	21	30	53	74							23-Aug	dry		
A5-6	15-Jun	0.112	30	45	20	52	13-Jul	trace	9	15	1	15	23-Aug	dry		
A6-7	19-Jun		18	25	23	70	14-Jul	0.004	10	17	4	9	23-Aug	dry		
A7-8	16-Jun	0.042	14	20	32	50	22-Jul	0.002	3	7	1	5	23-Aug	dry		
B0-1	22-Jun	-	27	50	25	60	19-Jul		6	15	13	34				
B1-2	16-Jun	0.417	22	40	53	123	19-Jul	0.018	6	15	16	49	24-Aug	trace	3	12
B3-4	16-Jun	0.331	38	100	39	82	20-Jul	0.018	10	30	5	25	24-Aug	trace	5	20
B4-5	16-Jun	0.068	22	60	19	40	15-Jul	0.009	14	20	17	30	24-Aug	trace	8	13
B5-6	17-Jun	0.015	12	25	25	45	15-Jul	0.003	10	21	6	19	24-Aug	dry		
B6-7	17-Jun	0.043	18	20	31	37	18-Jul	0.003	6	12	5	11	24-Aug	trace	3	10
B4-36	20-Jun	0.002*	9	25	3	10										
B4-45	20-Jun	0.063	37	56	3	10										
B45-46	17-Jun	0.035	18	30	29	38										
B51-52	17-Jun	0.038	8	20	24	48										
B52-53	22-Jun	0.012*	7	15	8	20										
B68-69	22-Jun	0.020*	17	30	5	15										
D0-1	18-Jun	0.099	25	40	25	65	24-Jul	0.007	3	12	13	20	25-Aug	trace	2	8
D1-2	18-Jun	0.088	22	24	52	84	26-Jul	0.004	9	12	13	17	25-Aug	trace	3	5
D3-4	18-Jun	-	11	20	18	25										
D4-5	22-Jun	-	28	35	1	3										
D5-6	18-Jun	-	42	85	7	10	17-Jul	0.006	6	15	6	11				
D6-7	18-Jun	0.019	14	25	21	40	17-Jul	0.001	10	20	19	60	25-Aug	trace	4	7
F0-1	21-Jun	0.020*	28	140	16	40										
F5-6	21-Jun	0.002	9	13	20	40										
G0-1	18-Jun	0.005*	24	55	13	35										
G1-2	17-Jun	0.004	7	12	15	30	16-Jul	dry					22-Aug	dry		

* discharge estimated - discharge data not collected

Table A3. Instream habitat characteristics of streams in the Meliadine Study Area, June 1997.

Stream ID	Survey Date	Unit #	Habitat Type[1]	Length (m)	Width[2] (m)	Area (m²)	Chan. Type[1]	Bank Type	Transect Width (m)	Water Depth (cm)					Water Velocity (cm/s)					Substrate[1] (%)					Instream Cover[1] (%)					Bank Cover[1] (%)			
										0.25w	0.5w	0.75w	Max	Mean	0.25w	0.5w	0.75w	Max	Mean	OM	Fi	Gr	Co	Bo	UC	BG	AV	TV	D/T	Sh	Gr	Ro	ES
A0-1	15-Jun	1	R3	12.0	5.0	60	C1	0	5.2	20	17	13	32	17	19	20	24	31	21			20	70	10		40	30				100		
A0-1	15-Jun	2	R3	6.0	7.0	42	C2	0																									
A0-1	15-Jun	3	R3	7.0	3.0	21	C1	50																									
A0-1	15-Jun	4	F3	48.0	20.0	960	C1	40	25.0	35	70	40	75	48	2	3	2	4	2	90			5	5			5				100		
A0-1	15-Jun	5	R3	13.0	2.0	26	C1	60																									
A0-1	15-Jun	6	RF	5.0	2.0	10	C1	80	1.8	14	14	13	17	14	35	84	84	87	68			40	25	35		30							
A0-1	15-Jun	7	R3	9.0	4.5	41	C2	60																									
A0-1	15-Jun	8	RF/BG	32.0	13.0	416	C3	80																									
A0-1	15-Jun	9	P2	5.0	3.5	18	C1	100	3.0	32	55	45	65	44	0	1	1	2	1			10	30	60	5	70	5			80	20		
A0-1	15-Jun	10	RF	10.0	5.0	50	C1	50	4.8	13	20	14	22	16	9	25	25	30	20			20	45	35		25	5			80	20		
A0-1	15-Jun	11	IN	45.0	25.0	1125	C1	80																									
A1-2	19-Jun	1	OU	4.5	6.5	29	C1	5																									
A1-2	19-Jun	2	R3	18.0	5.5	99	C2	10																									
A1-2	19-Jun	3	R3	40.0	1.0	40	C1	40	1.0	25	35	30	37	30	45	55	58	60	53		5	10	75	10	2	30	30			100			
A1-2	19-Jun	4	RF	20.0	2.6	52	C1	40	2.6	20	15	22	23	19	63	27	32	65	41		5	10	80	5	3	20	30			100			
A2-3	19-Jun	1	OU	15.0	6.2	93	C1	5																									
A2-3	19-Jun	2	R3	78.0	3.2	250	C1	30	3.2	25	35	27	39	29	42	50	31	50	41		5	10	80	5		40	30			100			
A2-3	19-Jun	3	P3	4.5	1.5	7	C1	30	1.5	35	40	42	42	39	2	19	48	48	23			5	75	20		60	10			100			
A2-3	19-Jun	4	R3	6.0	4.5	27	C2	30																									
A3-4	19-Jun	1	OU	12.0	6.2	74	C1	5	6.2	20	27	22	28	23	10	14	9	14	11	40	10	15	30	5		5	80			100			
A3-4	19-Jun	2	R3	25.0	1.4	35	C1	20	1.4	26	30	34	34	30	20	82	49	84	50		5	5	80	10	2	40	5			100			
A4-5	19-Jun	1	OU	8.0	3.7	30	C1	10																									
A4-5	19-Jun	2	R3	70.0	3.2	224	C2	10	3.2	20	27	18	27	22	35	40	27	42	34		5	15	75	5		20	35			100			
A4-5	19-Jun	3	RF	10.0	2.3	23	C1	10	2.2	15	20	13	22	16	64	70	59	72	64		5	20	65	10		30				100			
A4-5	19-Jun	4	RF/BG	15.0	2.2	33	C1	40	2.0	25	30	22	30	26	45	69	71	74	62		5	5	80	10		40	10			100			
A4-5	19-Jun	5	R3	20.0	2.0	40	C2	20																									
A5-6	15-Jun	1	OU	27.0	15.0	405	C1	40																									
A5-6	15-Jun	2	R3	28.0	2.4	67	C1	90	2.3	44	40	40	45	41	26	16	7	30	16			15	75	10	5	50	5			100			
A5-6	15-Jun	3	R3/BG	21.0	1.7	36	C1	90	1.8	15	23	17	25	18	35	50	44	52	43			25	45	30	5	30				100			
A5-6	15-Jun	4	RF/BG	28.0	1.5	42	C3	50																									
A5-6	15-Jun	5	R3	45.0	1.2	54	C3	0																									
A5-6	15-Jun	6	F3	42.0	20.0	840	C1	10	22.0	20	40	30	45	30	3	2	1	4	2	70	10		10	10			50			100			
A5-6	15-Jun	7	R3	25.0	3.5	88	C1	20																									
A5-6	15-Jun	8	RF/BG	85.0	0.7	60	C3	30																									
A5-6	15-Jun	9	F3	35.0	18.0	630	C1	10																									
A6-7	19-Jun	1	OU	89.0	15.0	1335	C2	5																									
A6-7	19-Jun	2	RF/BG	2.0	1.0	2	C3	30	1.3	10	20	15	21	15	16	20	24	26	20		5	5	70	20	2	40	25			100			
A6-7	19-Jun	3	R3	35.0	0.7	25	C3	20	1.0	15	26	20	25	20	20	15	13	23	16		5	5	75	15	2	45	25			100			
A6-7	19-Jun	4	R3/BG	55.0	0.6	33	C2	30	0.6	18	20	16	22	18	15	20	62	70	32		5	5	40	50	2	85	15			100			
A7-8	16-Jun	1	OU	13.0	10.0	130	C3	10																									
A7-8	16-Jun	2	R3	5.0	1.5	8	C2	30	2.2	11	13	14	15	13	30	35	25		30			40	45	15			10	20		100			
A7-8	16-Jun	3	RF/BG	12.0	1.1	13	C3	40	1.4	16	13	10		13	20	40	30		30			30	20	50		30							
A7-8	16-Jun	4	R3	8.0	1.3	10	C1	80	2.2	10	14	13		12	31	15	30		25			40	30	30	2	5	10			90	10		
A7-8	16-Jun	5	R3	32.0	1.0	32	C3	60	0.9	15	18	17	20	17	50	45	28		41			30	40	30	5	20	5			100			
A7-8	16-Jun	6	DIS	75.0	50.0	3750	C4	0																									
B0-1	22-Jun	1	OU	8.0	4.0	32	C2	60																									
B0-1	22-Jun	2	RF/BG	28.0	14.0	392	C3	30	1.8	15	22	20	25	19	45	35	38	60	39			20	40	40	10	30	10			100			
B0-1	22-Jun	3	R3	15.0	12.0	180	C1	40																									
B0-1	22-Jun	4	RF/BG	6.0	4.0	24	C2	60																									
B0-1	22-Jun	5	R3	32.0	18.0	576	C3	21	2.2	35	28	45	50	36	22	25	18	30	22	10	10	10	30	40	20	15	10						
B0-1	22-Jun	6	RF	7.0	6.0	42	C1	20																									
B0-1	22-Jun	7	R3	14.0	8.0	112	C1	40	6.5	28	35	30	40	31	8	5	7	10	7	5	20	40	20	15	2	10	5			100			
B0-1	22-Jun	8	RF/BG	10.0	14.0	140	C1	30	14.0	15	22	28	35	22	35	30	35	40	33			50	20	30		15				90	10		

[1] see Appendix A, Table A1 for explanation of codes

[2] wetted channel width includes areas enclosed by braided channels

continued

Table A3 (cont'd). Instream habitat characteristics of streams in the Meliadine Study Area, June 1997.

Stream ID	Survey Date	Unit #	Habitat Type[1]	Length (m)	Width[2] (m)	Area (m²)	Chan. Type[1]	Bank Type	Transect Width (m)	Water Depth (cm)					Water Velocity (cm/s)					Substrate[1] (%)					Instream Cover[1] (%)					Bank Cover[1] (%)			
										0.25w	0.5w	0.75w	Max	Mean	0.25w	0.5w	0.75w	Max	Mean	OM	Fi	Gr	Co	Bo	UC	BG	AV	TV	D/T	Sh	Gr	Ro	ES
B1-2	16-Jun	1	OU	10.0	4.5	45	C1	10																									
B1-2	16-Jun	2	R3	22.0	3.7	81	C2	25	3.6	15	25	20	30	20	52	57	44	60	51			35	60	5	5	15	5				100		
B1-2	16-Jun	3	RA	18.0	2.6	47	C1	20	2.6	25	30	35	40	30	52	64	72	74	63			30	55	15	5	20	5				100		
B1-2	16-Jun	4	RF/BG	4.5	2.3	10	C1	10	2.3	10	15	20	25	15	76	86	102	123	88			15	60	25		15					100		
B1-2	16-Jun	5	R3	25.0	4.3	108	C1	5	4.5	10	20	15	25	15	37	40	25	38	34			35	60	5		10	10				100		
B1-2	16-Jun	6	R3/BG	8.0	3.7	30	C1	10	3.7	20	30	18	32	23	44	50	47	54	47			20	70	10		15	5				100		
B1-2	16-Jun	7	R3	14.0	2.6	36	C2	30																									
B1-2	16-Jun	8	R3/BG	15.0	2.3	35	C2	30																									
B1-2	16-Jun	9	R3	60.0	2.4	144	C2	50	2.4	30	35	30	38	32	29	36	42	48	36	10		10	55	25	5	60	5	5			100		
B3-4	16-Jun	1	R3	25.0	3.2	80	C1	30	3.2	25	35	30	37	30	42	56	47	60	48			5	85	10	3	30	5			5	95		
B3-4	16-Jun	2	R3	50.0	1.8	90	C3	20	1.5	25	30	20	40	25	50	62	66	70	59			5	90	5	3	35	5				100		
B3-4	16-Jun	3	R3/BG	27.0	1.5	41	C1	35	1.3	15	20	23	25	19	57	65	70	82	64			5	80	15	4	40	3				100		
B3-4	16-Jun	4	R3	20.0	2.2	44	C1	30																									
B3-4	16-Jun	5	P3	1.2	1.0	1	C1	100	1.2	40	50	45	53	45	2	3	2	5	2		20		75	5	2	50	5				100		
B3-4	16-Jun	6	R2	15.0	1.4	21	C3	100																									
B3-4	16-Jun	7	P3	5.0	1.0	5	C3	100																									
B3-4	16-Jun	8	R2	20.0	1.2	24	C3	100																									
B3-4	16-Jun	9	P3	4.0	1.5	6	C3	100																									
B3-4	16-Jun	10	R2	25.0	1.8	45	C3	100	1.5	60	80	65	100	68	20	17	22	24	20		15	5	40	40	25	70	20	5		20	80		
B4-5	16-Jun	1	OU	7.0	6.0	42	C1	10																									
B4-5	16-Jun	2	P3	8.0	1.8	14	C3	20																									
B4-5	16-Jun	3	R3	85.0	2.0	170	C3	10	1.4	12	20	13	25	15	15	21	18	25	18	45	30	10	10	5		10	60				100		
B4-5	16-Jun	4	P3	7.0	1.5	11	C3	20	1.5	30	45	48	60	41	8	8	6	10	7	80	10	10					40						
B4-5	16-Jun	5	R3	140.0	1.8	252	C3	10	1.7	6	12	10	14	9	35	28	30	40	31	100							100				100		
B5-6	16-Jun	1	R3	15.0	1.5	23	C1	60																									
B5-6	16-Jun	2	RF/BG	3.0	1.0	3	C2	80																									
B5-6	16-Jun	3	P3	4.0	1.0	4	C1	100	1.0	20	21	17	25	19	10	15	8	18	11			40	30	30	5	10	20				100		
B5-6	16-Jun	4	R3	12.0	0.7	8	C2	80	0.8	4	12	8	15	8	15	20	18	20	18	10		20	30	40	10		40				100		
B5-6	16-Jun	5	CA	1.5	0.4	1	C3	100																									
B5-6	16-Jun	6	P3	2.5	0.6	2	C3	100																									
B5-6	16-Jun	7	CA	1.0	0.5	1	C3	100																									
B5-6	16-Jun	8	P3	3.0	0.7	2	C3	100																									
B5-6	16-Jun	9	CA	1.0	0.5	1	C3	100																									
B5-6	16-Jun	10	P3	4.0	0.6	2	C3	100																									
B5-6	16-Jun	11	RF/BG	12.0	0.7	8	C3	100	0.6	5	15	10	18	10	30	40	40	45	37			30	20	50	5	30	10				90	10	
B5-6	16-Jun	12	RF	8.0	0.5	4	C3	80	0.5	8	10	11	13	10	35	40	25	45	33			40	40	20		30	20				100		
B5-6	16-Jun	13	R3	4.0	0.6	2	C2	60																									
B5-6	16-Jun	14	CA	0.5	0.5	0	C2	100																									
B5-6	16-Jun	15	R3	5.0	0.6	3	C2	100																									
B6-7	17-Jun	1	R3	6.0	3.6	22	C1	15																									
B6-7	17-Jun	2	R3	95.0	0.6	57	C1	40	0.6	20	20	15	20	18	26	32	25	32	28		5	10	80	5	2	60	5	2		5	95		
B6-7	17-Jun	3	RF	30.0	1.4	42	C1	15	1.3	15	20	20	20	18	36	32	37	37	35		5	10	75	10	2	70	5	2		5	95		
B4-36	20-Jun	1	DIS	100.0	40.0	4000	C4	0																									
B4-36	20-Jun	2	F3	40.0	25.0	1000	C3	5	15.0	10	15	20	25	15	0	0	0	0	0	100							70				100		
B4-36	20-Jun	3	R3	8.0	0.8	6	C1	40	0.8	2	5	3	5	3	5	7	8	10	7	80	10	10					20				90	10	
B4-36	20-Jun	4	DIS	45.0	30.0	1350	C4	0	0.3	8	8	6	10	7	2	3	3	4	3	100							100				100		
B4-45	20-Jun	1	IN	18.0	4.0	72	C1	20	3.5	35	30	40	50	35	1	3	2	5	2	75	5	5	10	5		5	5				100		
B4-45	20-Jun	2	R3	15.0	2.6	39	C1	30	2.6	24	25	28	28	26	6	8	8	10	7	10	10	15	20	45	2	30	5				100		
B4-45	20-Jun	3	OU	25.0	10.0	250	C1	80	10.0	50	55	45	56	50	0	0	0	0	0	30	10	20	20	20		10	10				100		

[1] see Appendix A, Table A1 for explanation of codes

[2] wetted channel width includes areas enclosed by braided channels

continued

Table A3 (cont'd). Instream habitat characteristics of streams in the Meliadine Study Area, June 1997.

Stream ID	Survey Date	Unit #	Habitat Type[1]	Length (m)	Width[2] (m)	Area (m²)	Chan. Type[1]	Bank Type	Transect Width (m)	Water Depth (cm)					Water Velocity (cm/s)					Substrate[1] (%)					Instream Cover[1] (%)					Bank Cover[1] (%)			
										0.25w	0.5w	0.75w	Max	Mean	0.25w	0.5w	0.75w	Max	Mean	OM	Fi	Gr	Co	Bo	UC	BG	AV	TV	D/T	Sh	Gr	Ro	ES
B45-46	17-Jun	1	R3	15.0	2.2	33	C2	20																									
B45-46	17-Jun	2	R3	30.0	2.4	72	C3	30	2.4	20	25	15	30	20	16	27	24	28	22		5	10	65	20	2	70	5						
B45-46	17-Jun	3	RF	3.5	1.6	6	C1	60	1.6	10	15	17	20	14	30	37	33	38	33			5	55	40	2	80					100		
B45-46	17-Jun	4	R3	6.5	1.8	12	C1	60	1.4	15	25	18	27	19	32	30	28	34	30			10	60	30	5	80					100		
B45-46	17-Jun	5	RF/BG	45.0	1.3	59	C1	60																									
B45-46	17-Jun	6	R3	10.0	5.2	52	C1	40																									
B51-52	17-Jun	1	R3	25.0	1.0	25	C3	20																									
B51-52	17-Jun	2	RF/BG	5.0	0.6	3	C1	30	0.6	15	20	10	20	15	42	36	48	48	42		10		50	40		80	10				100		
B51-52	17-Jun	3	P1	65.0	2.1	137	C1	60	2.1	1	1	1	2	1	9	4	6	9	6		15	50	35		40		10				100		
B52-53	22-Jun	1	R3	55.0	1.5	83	C3	20																									
B52-53	22-Jun	2	RF/BG	15.0	1.5	23	C1	50																									
B52-53	22-Jun	3	R3	10.0	1.2	12	C1	50	1.2	10	10	12	15	11	4	8	7	10	6	10		20	30	40	5	20					90	10	
B52-53	22-Jun	4	RF/BG	13.0	3.0	39	C3	20	2.7	8	8	9	10	8	15	20	18	20	18			20	30	50		30					50	50	
B52-53	22-Jun	5	R3/BG	8.0	13.0	104	C1	0	10.0	3	2	4	5	3	0	1	2	2	1			5	15	80		100					20	80	
B68-69	22-Jun	1	OU	40.0	15.0	600	C1	40	18.0	18	24	22	30	21	0	0	0	0	0	60		5	5	30		10	5				80	20	
B68-69	22-Jun	2	R3/BG	32.0	3.0	96	C3	60	2.8	10	15	15	20	13	5	12	10	15	9	25		15	30	30		30							
B68-69	22-Jun	3	R3	100.0	0.6	60	C3	50																									
B68-69	22-Jun	4	RF/BG	20.0	0.8	16	C3	60																									
D0-1	18-Jun	1	R3	12.0	6.5	78	C2	30																									
D0-1	18-Jun	2	R3	30.0	4.5	135	C3	20	1.6	25	30	20	30	25	34	61	32	65	42		5	15	75	5	2	40	5			5	95		
D0-1	18-Jun	3	P3	25.0	26.0	650	C1	10	26.0	35	38	36	40	36	7	10	5	10	7		10	20	55	15		40	3				100		
D0-1	18-Jun	4	R3/BG	12.0	5.0	60	C2	10	5.2	20	22	27	27	23	24	26	20	28	23		5	20	65	10		50	15				100		
D0-1	18-Jun	5	R3/BG	10.0	7.0	70	C1	10	7.0	15	20	16	20	17	30	28	25	28	28			10	70	20		80	5				100		
D1-2	18-Jun	1	R3	32.0	0.6	19	C1	20	0.6	22	24	20	24	22	71	52	32	84	52		5	35	50	10	2	30	20			5	95		
D3-4	18-Jun	1	DIS	60.0	100.0	6000	C4	0																									
D3-4	18-Jun	2	R3	100.0	2.0	200	C3	10	1.7	5	12	15	20	11	15	20	20	25	18	100							90				100		
D3-4	18-Jun	3	R3	40.0	5.0	200	C3	20																									
D4-5	22-Jun	1	R3	7.0	4.5	32	C1	50	4.7	30	30	25	30	28	1	2	2	3	2	20	10	30	30	10		5			1	5	95		
D4-5	22-Jun	2	IN	22.0	12.0	264	C1	10	12.0	20	35	25	35	27	0	0	0	1	0	30		20	30	20		5	5				100		
D5-6	18-Jun	1	R3	100.0	20.0	2000	C3	10																									
D5-6	18-Jun	2	P2	3.0	1.0	3	C1	80																									
D5-6	18-Jun	3	R3	95.0	7.0	665	C3	0	1.0	70	80	80	85	77	2	4	5	8	4	20	10	60	10		30		10				100		
D5-6	18-Jun	4	RF	3.0	0.8	2	C3	40	4.0	30	40	40	45	37	2	3	4	10	3	100							50				100		
D5-6	18-Jun	5	R3	45.0	25.0	1125	C3	10	0.6	35	40	40	45	38	20	15	15		17	20		40	30	10	30	30	10				100		
D5-6	18-Jun	6	IN	22.0	15.0	330	C3	20	6.0	15	25	10	30	17	5	6	3	8	5	20	10	5	5	60		80	10				90	10	
D6-7	18-Jun	1	OU	17.0	9.0	153	C1	70																									
D6-7	18-Jun	2	R3	8.0	0.7	6	C1	80																									
D6-7	18-Jun	3	R3	12.0	1.2	14	C2	60																									
D6-7	18-Jun	4	RF	4.0	0.6	2	C1	70	0.6	7	12	10	15	10	25	30	30	40	28			30	50	20		20					100		
D6-7	18-Jun	5	R3	5.0	0.7	4	C1	80	0.8	15	20	20	25	18	18	15	10	25	14			40	50	10	5	20				10	90		
F0-1	21-Jun	1	R3	120.0	0.4	48	C3	10	0.3	10	15	25	35	17	20	25	25	30	23	90		10			30		40				100		
F0-1	21-Jun	2	P1	8.0	1.5	12	C1	80	1.8	30	40	86	140	52	2	3	2	4	2	90			10		10						100		
F0-1	21-Jun	3	R3	15.0	1.5	23	C1	80																									
F0-1	21-Jun	4	P3	5.0	1.2	6	C1	60	0.7	30	35	35	40	33	10	12	10	15	11	30	10	20	30	10	20	5					100		
F0-1	21-Jun	5	R3	20.0	0.6	12	C3	20	0.6	8	10	12	16	10	30	30	25	40	28	10	10	20	40	20	20	10	10				95	5	
F5-6	21-Jun	1	R3	22.0	0.5	11	C1	90	0.6	11	12	10	13	11	10	12	10	15	11	40	10	20	20	10	15	5	5				100		
F5-6	21-Jun	2	CA	1.0	0.2	0	C1	100																									
F5-6	21-Jun	3	R3	55.0	0.2	11	C1	90	0.2	5	7	7	10	6	25	30	30	40	28	60	10	15	15		30	5					100		

[1] see Appendix A, Table A1 for explanation of codes

[2] wetted channel width includes areas enclosed by braided channels

continued

Table A3 (cont'd). Instream habitat characteristics of streams in the Meliadine Study Area, June 1997.

Stream ID	Survey Date	Unit #	Habitat Type[1]	Length (m)	Width[2] (m)	Area (m²)	Chan. Type[1]	Bank Type	Transect Width (m)	Water Depth (cm)					Water Velocity (cm/s)					Substrate[1] (%)					Instream Cover[1] (%)					Bank Cover[1] (%)			
										0.25w	0.5w	0.75w	Max	Mean	0.25w	0.5w	0.75w	Max	Mean	OM	Fi	Gr	Co	Bo	UC	BG	AV	TV	D/T	Sh	Gr	Ro	ES
G0-1	18-Jun	1	RF	10.0	0.5	5	C1	80																									
G0-1	18-Jun	2	R3	18.0	1.2	22	C1	90																									
G0-1	18-Jun	3	R3	90.0	0.2	18	C1	100																									
G0-1	18-Jun	4	CA	1.0	0.4	0	C1	100																									
G0-1	18-Jun	5	P2	2.0	0.8	2	C1	100																									
G0-1	18-Jun	6	R3	16.0	0.5	8	C1	100																									
G0-1	18-Jun	7	RF	8.0	0.5	4	C1	100	0.5	4	5	5	7	5	20	25	20	30	22	25	10	50	15			5					100		
G0-1	18-Jun	8	R3	34.0	0.4	14	C1	100																									
G0-1	18-Jun	9	P2	2.0	0.8	2	C1	100																									
G0-1	18-Jun	10	R3	6.0	0.3	2	C1	100																									
G0-1	18-Jun	11	P3	4.0	0.6	2	C1	100	0.6	40	45	50	55	45	1	3	2	5	2	70		20	10		30						100		
G0-1	18-Jun	12	R3	40.0	0.3	12	C1	100																									
G0-1	18-Jun	13	P3	2.0	0.6	1	C1	100	0.6	35	45	40	45	40	2	3	5	8	3	80	5	10	5		5						100		
G0-1	18-Jun	14	R3	4.0	0.4	2	C1	100	0.4	3	5	8	10	5	28	30	20	35	26	90		5	5		10		10				60		40
G0-1	18-Jun	15	CA	2.0	0.2	0	C1	100																									
G0-1	18-Jun	16	P3	1.0	0.6	1	C1	80																									
G0-1	18-Jun	17	IN	6.0	1.0	6	C1	80																									
G1-2	17-Jun	1	OU	35.0	6.5	228	C1	50																									
G1-2	17-Jun	2	R3	60.0	0.5	30	C1	50	0.5	5	10	10	12	8	10	12	9	10	10	100					5		25				100		
G1-2	17-Jun	3	RF	35.0	0.4	14	C1	50	0.4	5	6	5	10	5	15	20	25	30	20	30	25	20	20	5		5	15				100		
G1-2	17-Jun	4	R3	110.0	0.4	44	C3	15																									
ML-MR	21-Jun	1	RF/BG	35.0	70.0	2450	C1	100																									
ML-MR	21-Jun	2	R3	80.0	60.0	4800	C1	100	80.0	30	35	40	60	35	20	25	25	30	23			30	30	40		30				5	75	20	
ML-MR	21-Jun	3	P1	40.0	10.0	400	C1	100	40.0	200	250	200	300	217	5	8	7	10	7		10	20	40	30		30			30				
ML-MR	21-Jun	4	RA	70.0	55.0	3850	C1	100	65.0	20	25	30	40	25	80	70	85	120	78			10	30	60		40			10	5	80	15	

[1] see Appendix A, Table A1 for explanation of codes

[2] wetted channel width includes areas enclosed by braided channels

Table A4. Summary of instream habitat characteristics of streams in the Meliadine Study Area, June 1997.

Stream	Survey	Total Length	Total Area	Mean Width	Habitat Type (% of total length)														Channel Type (% of total length)				Substrate (% of total area)					Instream Cover (% of total area)					
ID	Date	(m)	(m²)	(m)	RF	RF/BG	RA	CA	R2	R3	R3/BG	P1	P2	P3	F3	IN	OU	DIS	C1	C2	C3	C4	OM	Fi	Gr	Co	Bo	UC	BG	AV	TV	D/T	Total
A0-1	15-Jun	192	2768	14.4	8	17				24			3		25	23			76	8	17		18		18	35	29	1	33	9			43
A1-2	19-Jun	83	220	2.7	24					70							5		78	22				5	10	78	8	3	25	30			58
A2-3	19-Jun	104	376	3.6						81				4			14		94	6				3	8	78	13		50	20			70
A3-4	19-Jun	37	109	3.0						68							32		100				20	8	10	55	8	1	23	43			66
A4-5	19-Jun	123	350	2.8	8	12				73							7		27	73				5	13	73	8		30	15			45
A5-6	15-Jun	336	2221	6.6		34				29	6				23		8		53		47		23	3	13	43	17	3	27	18			48
A6-7	19-Jun	181	1395	7.7		1				19	30						49			80	20			5	5	62	28	2	57	22			80
A7-8	16-Jun	145	3943	27.2		8				31							9	52	6	3	39	52			35	34	31	2	14	6	5		27
B0-1	22-Jun	120	1498	12.5	6	37				51							7		38	12	50		4	8	30	28	31	8	18	6			32
B1-2	16-Jun	177	536	3.0		3	10			69	13						6		37	63			2		24	60	14	3	23	5	1		31
B3-4	16-Jun	192	357	1.9					31	49	14			5					38		62			7	4	74	15	7	45	8	1		61
B4-5	16-Jun	247	489	2.0						91				6			3		3		97		75	13	7	3	2		3	67			70
B5-6	16-Jun	77	64	0.8	10	20		5		47				18					25	32	43		3		33	30	35	5	18	23			45
B6-7	17-Jun	131	121	0.9	23					77									100					5	10	78	8	2	65	5	2		74
B4-36	20-Jun	193	6356	32.9						4					21			75	4		21	75	93	3	3					63			63
B4-45	20-Jun	58	361	6.2						26						31	43		100				38	8	13	17	23	1	15	7			22
B45-46	17-Jun	110	233	2.1	3	41				56									59	14	27			2	8	60	30	3	77	2			81
B51-52	17-Jun	95	165	1.7		5				26		68							74		26			13	25	43	20	20	40	10			70
B52-53	22-Jun	101	260	2.6		28				64	8								33		67		3		15	25	57	2	50				52
B68-69	22-Jun	192	772	4.0		10				52	17						21		21		79		43		10	18	30		20	3			23
D0-1	18-Jun	89	993	11.2						47	25			28					39	27	34			5	16	66	13	1	53	7			60
D1-2	18-Jun	32	19	0.6						100									100					5	35	50	10	2	30	20			52
D3-4	18-Jun	200	6400	32.0						70								30			70	30	100							90			90
D4-5	22-Jun	29	296	10.2						24						76			100				25	5	25	30	15		5	3	1		8
D5-6	18-Jun	268	4125	15.4	1					90			1			8			1		99		40	5	26	11	18	15	28	20			63
D6-7	18-Jun	46	179	3.9	9					54							37		74	26					35	50	15	3	20				23
F0-1	21-Jun	168	101	0.6						92		5		3					17		83		55	5	13	20	8	20	4	13			36
F5-6	21-Jun	78	22	0.3				1		99									100				50	10	18	18	5	23	5	3			30
G0-1	18-Jun	246	100	0.4	7			1		85			2	3		2			100				66	4	21	9		11	1	3			15
G1-2	17-Jun	240	316	1.3	15					71							15		54		46		65	13	10	10	3	3	3	20			25
ML-MR	21-Jun	225	11500	51.1		16	31			36		18							100					3	20	33	43		33			13	47

Table A5. Aerial classification of streams in the Meliadine Study Area, 21 June 1997.

Stream ID	Class
A 0 - 1	4
A 1 - 2	5
A 1 - 18	0
A 2 - 3	5
A 3 - 4	4
A 4 - 5	4
A 5 - 6	4
A 5 - 19	1
A 5 - 50	1
A 6 - 7	4
A 6 - 30	1
A 6 - 31	1
A 6 - 44	2
A 7 - 8	4
A 8 - 9	1
A 8 - 35	1
A 8 - 37	1
A 8 - 40	1
A 9 - 10	2
A 10 - 11	1
A 11 - 12	1
A 12 - 13	1
A 13 - 14	0
A 14 - 15	1
A 15 - 16	0
A 16 - 17	0
A 19 - 20	0
A 19 - 22	2
A 22 - 23	0
A 22 - 24	1
A 24 - 25	1
A 25 - 26	1
A 26 - 27	2
A 27 - 28	1

Stream ID	Class
A 28 - 29	0
A 31 - 32	0
A 35 - 36	0
A 37 - 38	1
A 38 - 39	1
A 40 - 41	2
A 41 - 42	2
A 42 - 43	0
A 44 - 45	3
A 45 - 46	3
A 45 - 49	0
A 46 - 47	0
A 47 - 48	0
A 50 - 51	1
A 51 - 52	1
A 51 - 53	0
B 0 - 1	5
B 1 - 2	4
B 1 - 40	2
B 2 - 3	4
B 2 - 11	2
B 2 - 14	2
B 3 - 4	4
B 4 - 5	3
B 4 - 19	3
B 4 - 22	2
B 4 - 35	1
B 4 - 36	2
B 4 - 39	2
B 4 - 45	4
B 5 - 6	4
B 5 - 30	2
B 5 - 31	3
B 5 - 32	1

Stream ID	Class
B 5 - 33	1
B 5 - 34	2
B 6 - 7	5
B 6 - 24	1
B 7 - 8	2
B 7 - 25	1
B 7 - 27	1
B 7 - 28	0
B 8 - 9	2
B 9 - 10	0
B 10 - 29	0
B 11 - 12	2
B 12 - 13	3
B 14 - 15	3
B 15 - 16	2
B 16 - 17	2
B 17 - 18	0
B 19 - 20	1
B 19 - 21	2
B 22 - 23	1
B 25 - 26	1
B 30 - 31	3
B 31 - 32	1
B 36 - 37	1
B 37 - 38	1
B 40 - 41	1
B 41 - 42	0
B 44 - 45	3
B 45 - 46	4
B 46 - 47	1
B 46 - 52	3
B 46 - 57	1
B 46 - 59	3
B 46 - 64	1

Stream ID	Class
B 46 - 65	2
B 47 - 48	2
B 48 - 49	5
B 48 - 93	1
B 49 - 50	4
B 49 - 86	3
B 50 - 51	4
B 51 - 52	6
B 52 - 53	4
B 52 - 74	0
B 52 - 75	1
B 52 - 78	2
B 53 - 54	2
B 54 - 55	3
B 55 - 56	1
B 56 - 83	1
B 57 - 58	1
B 59 - 60	1
B 59 - 62	1
B 60 - 61	3
B 60 - 63	0
B 65 - 66	2
B 66 - 67	3
B 67 - 68	3
B 68 - 69	3
B 69 - 70	1
B 69 - 71	0
B 69 - 72	0
B 69 - 73	1
B 69 - 76	1
B 76 - 77	2
B 78 - 79	1
B 79 - 80	0
B 86 - 87	3

Stream ID	Class
B 86 - 92	0
B 87 - 88	3
B 89 - 90	0
B 90 - 91	0
D 0 - 1	4
D 1 - 2	5
D 1 - 12	2
D 2 - 3	2
D 2 - 17	1
D 2 - 35	2
D 3 - 4	2
D 3 - 36	2
D 4 - 5	3
D 4 - 21	2
D 4 - 31	1
D 4 - 33	1
D 5 - 6	3
D 5 - 22	1
D 6 - 7	4
D 7 - 8	2
D 7 - 28	2
D 7 - 30	1
D 8 - 9	1
D 12 - 13	1
D 12 - 14	1
D 14 - 15	1
D 14 - 16	1
D 22 - 23	2
D 23 - 24	2
D 24 - 25	1
D 28 - 29	0
D 35 - 36	2
D 36 - 37	1

LEGEND:

Class 0	dry or discontinuous watercourse
Class 1	dispersed flow through grass; undefined stream channel
Class 2	stream channel barely discernible; most flow dispersed over grass; substrate entirely organic
Class 3	well defined stream channels; substrate mostly organic; gravel and cobble areas present but infrequent
Class 4	most of stream channel composed of coarse (gravel/cobble/boulder) substrate
Class 5	stream channel entirely composed of coarse substrate; limited holding areas (deeper pools)
Class 6	stream channel entirely composed of coarse substrate; holding areas present

See Appendix A, Figures A1 to A4 for stream locations

Table A6. Mean daily water temperatures and diurnal fluctuations in Stream B1-2, compared to daily air temperatures recorded at WMC camp, Jul - Aug 1997.

	Water Temperature (°C)			Air Temperature (°C)		
Date	Mean	Range	Fluctuation	Mean	Range	Fluctuation
12-Jul-97 [1]	**17.3**	16.5 - 18.1	1.6	**12.9**	8.7 - 16.4	7.8
13-Jul-97	**15.0**	13.5 - 16.6	3.1	**11.8**	8.2 - 15.0	6.8
14-Jul-97	**12.8**	11.8 - 13.9	2.1	**10.6**	8.5 - 14.4	5.9
15-Jul-97	**11.5**	10.6 - 12.4	1.8	**10.4**	8.2 - 12.6	4.5
16-Jul-97	**12.4**	10.2 - 15.2	5.0	**13.1**	8.6 - 17.5	8.8
17-Jul-97	**13.5**	10.8 - 16.0	5.2	**14.6**	8.3 - 20.0	11.7
18-Jul-97	**15.0**	12.6 - 17.1	4.5	**16.3**	9.7 - 21.8	12.1
19-Jul-97	**15.7**	14.2 - 17.5	3.3	**13.6**	5.8 - 19.2	13.3
20-Jul-97	**15.5**	14.0 - 17.1	3.1	**12.3**	6.2 - 17.1	10.9
21-Jul-97	**16.7**	14.6 - 19.1	4.5	**18.3**	9.4 - 27.2	17.8
22-Jul-97	**17.7**	16.5 - 19.2	2.7	**18.9**	13.1 - 24.1	11.0
23-Jul-97	**18.6**	16.5 - 21.3	4.8	**16.6**	10.7 - 23.5	12.8
24-Jul-97	**16.5**	14.6 - 19.2	4.6	**12.8**	9.9 - 16.4	6.4
25-Jul-97	**16.5**	13.5 - 19.9	6.4	**15.1**	8.8 - 21.2	12.3
26-Jul-97	**17.5**	15.4 - 19.7	4.3	**15.2**	6.6 - 22.2	15.5
27-Jul-97	**18.5**	15.9 - 21.4	5.5	**18.4**	9.5 - 25.3	15.8
28-Jul-97	**18.5**	15.9 - 21.0	5.1	**18.6**	13.6 - 25.5	11.9
29-Jul-97	**16.6**	13.6 - 19.2	5.6	**13.8**	9.6 - 17.8	8.2
30-Jul-97	**13.5**	12.1 - 15.2	3.1	**12.2**	9.0 - 16.2	7.2
31-Jul-97	**11.1**	9.2 - 12.9	3.7	**8.8**	7.2 - 12.3	5.2
01-Aug-97	**9.4**	7.5 - 12.1	4.6	**7.6**	5.2 - 11.2	6.0
02-Aug-97	**9.1**	6.8 - 13.0	6.2	**8.0**	5.5 - 11.7	6.2
03-Aug-97	**10.6**	6.2 - 15.1	8.9	**11.6**	5.5 - 17.4	11.9
04-Aug-97	**13.5**	8.6 - 18.1	9.5	**16.1**	8.7 - 21.9	13.2
05-Aug-97	**13.6**	10.8 - 16.0	5.2	**14.4**	8.4 - 21.2	12.7
06-Aug-97	**11.5**	7.5 - 13.3	5.8	**9.2**	5.3 - 14.3	9.0
07-Aug-97	**8.4**	6.1 - 10.6	4.5	**6.6**	3.6 - 9.9	6.3
08-Aug-97	**9.2**	6.7 - 12.4	5.7	**7.6**	4.4 - 10.8	6.4
09-Aug-97	**8.6**	6.1 - 11.4	5.3	**7.7**	4.9 - 10.2	5.3
10-Aug-97	**8.2**	6.1 - 10.1	4.0	**7.3**	5.0 - 9.2	4.2
11-Aug-97	**8.6**	6.2 - 10.8	4.6	**8.3**	6.8 - 10.8	4.0
12-Aug-97	**9.3**	6.8 - 12.6	5.8	**8.5**	4.7 - 12.8	8.1
13-Aug-97	**9.2**	4.6 - 14.6	10.0	**8.3**	1.6 - 13.4	11.8
14-Aug-97	**11.0**	5.6 - 17.4	11.8	**11.5**	5.8 - 18.7	12.9
15-Aug-97	**12.3**	7.5 - 18.3	10.8	**12.9**	5.2 - 20.3	15.1
16-Aug-97	**12.6**	7.5 - 18.6	11.1	**13.7**	5.3 - 22.2	16.8
17-Aug-97	**14.1**	10.2 - 19.1	8.9	**15.0**	9.0 - 22.6	13.6
18-Aug-97	**12.9**	9.9 - 16.6	6.7	**13.1**	8.5 - 18.3	9.9
19-Aug-97	**13.8**	10.1 - 18.0	7.9	**14.0**	8.9 - 20.6	11.7
20-Aug-97	**14.2**	11.1 - 18.1	7.0	**14.4**	10.1 - 19.5	9.4
21-Aug-97	**13.6**	9.9 - 17.5	7.6	**14.8**	7.4 - 21.7	14.3
22-Aug-97	**13.4**	10.3 - 17.5	7.2	**12.1**	9.3 - 16.3	6.9
23-Aug-97	**12.8**	11.2 - 14.3	3.1	**12.8**	10.6 - 15.7	5.1
24-Aug-97	**11.9**	9.5 - 14.8	5.3	**9.3**	6.4 - 13.5	7.1
25-Aug-97	**10.0**	8.3 - 12.1	3.8	**8.4**	6.8 - 10.9	4.1
26-Aug-97	**10.4**	6.7 - 14.9	8.2	**9.4**	5.0 - 16.0	11.0
27-Aug-97	**9.9**	8.3 - 12.0	3.7	**10.2**	5.2 - 14.6	9.4
28-Aug-97	**12.6**	8.4 - 17.2	8.8	**14.3**	8.9 - 22.1	13.2
29-Aug-97	**13.1**	9.8 - 17.7	7.9			
30-Aug-97	**10.9**	10.1 - 12.1	2.0			
31-Aug-97	**8.9**	5.8 - 10.1	4.3			
01-Sep-97 [2]	**5.6**	3.5 - 9.2	5.7			
12 Jul - 1 Sep	**12.8**	**3.5 - 21.4**	**5.6**	**12.3**	**1.6 - 27.2**	**9.8**

[1] from 15:30 h until 24:00 h

[2] from 00:00 h until 14:30 h

Table A7. Water quality data for streams and rivers in the Meliadine Study Area, June 1997.

		Guidelines*		Stream No.							
Constituent	Unit	GCDWQ	CWQG	A0-1	A5-6	A7-8	B1-2	B3-4	B3-4 **	B4-5	B6-7
Date Sampled				15-Jun	15-Jun	15-Jun	16-Jun	16-Jun	16-Jun	16-Jun	17-Jun
Time Sampled				10:15	14:40	16:35	08:50	10:30	10:30	16:15	13:15
Air Temp. (field)	°C			6.8	8.2	5.0	5.0	8.1	8.1	9.5	15.2
Water Temp. (field)	°C			4.0	6.0	4.8	2.5	5.5	5.5	7.5	10.0
Diss-Oxygen (field)	mg/L		>6.5	12.5	12.8	12.9	13.5	12.7	12.7	12.8	12.7
Conductivity (field)	µS/cm			102.0	91.3	93.3	100.9	107.3	107.3	85.7	81.9
pH (field)	pH	6.5 - 8.5	6.5 - 9.0	7.64	7.78	7.60	6.83	7.20	7.20	7.28	7.55
pH (lab)	pH			7.66	7.65	7.62	7.65	7.73	7.71	7.62	7.56
Conductivity (lab)	µS/cm			80.4	72.4	74.3	80.0	85.3	85.9	70.7	66.7
Tot-Alkalinity	mg/L			33.4	30.9	30.4	32.1	34.1	34.2	28.8	27.8
Carbonate	$mgCO^3/L$			<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Calcium	mg/L			12.6	13.1	12.0	12.4	14.3	13.2	12.4	10.5
Bicarbonate	$mgCO^3/L$			33.4	30.9	30.4	32.1	34.1	34.2	28.8	27.8
Magnesium	mg/L			1.27	1.20	1.44	1.19	1.31	1.32	1.25	1.15
Potassium	mg/L			0.676	0.632	0.643	0.790	0.844	0.840	0.636	0.660
Sodium	mg/L	200		2.13	1.79	1.84	2.76	3.00	2.98	2.02	1.83
Chloride	mg/L	250		4.38	3.24	4.24	4.69	5.01	5.04	3.66	3.01
Sulphate	mg/L	500		<3	4	4	<3	<3	4	4	5
Reac-Silica	mg/L			0.972	0.870	0.977	0.454	0.413	0.419	0.450	0.648
Turbidity	NTU	5.0		0.6	0.6	2.0	1.2	0.7	1.5	0.7	0.6
Tot-Susp-Solids	mg/L		bckgr +10	4	3	3	5	3	8	7	<3
Tot-Diss-Solids	mg/L	500		53	48	52	54	57	60	49	42
Tot-Hardness	mg/L			36.7	37.7	35.9	35.9	41.1	38.4	36.1	31.0
Tot-Kjeldahl-N	mg/L			0.30	0.27	0.30	0.30	0.36	0.30	0.28	0.35
Nitrate+Nitrite-N	mg/L		0.06 (NO^3)	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	0.011
Nitrate-N	mg/L	10		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	0.011
Ammonia-N	mg/L		1.37	0.004	0.004	0.005	0.008	0.007	0.008	0.008	0.006
Tot-Phosphorus	mg/L			0.009	0.009	0.008	0.014	0.020	0.019	0.008	0.006
Diss-Phosphorus	mg/L			0.006	0.007	0.006	0.008	0.007	0.011	0.005	0.004
Ortho-Phosphorus	mg/L			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Tot-Carbon	mg/L			11.0	10.0	10.0	11.0	11.0	11.0	10.0	10.0
Tot-Org-Carbon	mg/L			3.4	2.8	2.8	2.8	3.2	3.0	3.2	3.4
Tot-Inorg-Carbon	mg/L			8.0	7.0	7.0	8.0	8.0	8.0	7.0	7.0
Cation/Anion-Balance				6.77	12.1	7.43	13.6	17.1	9.12	11.9	5.41
Tot-Mercury	µg/L	1.0	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tot-Arsenic	µg/L	25	50	0.4	0.7	0.9	0.3	0.4	0.4	0.4	0.6
Tot-Rubidium	µg/L						0.9	1.0	1.1		0.9
Tot-Silver	µg/L		0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Aluminum	µg/L		10	4.4	1.4	0.9	<0.5	2.9	2.5	<5	<5
Tot-Barium	µg/L	1000		10.7	9.8	10.7	10.4	11.5	11.7	10.4	10.1
Tot-Beryllium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot- Bismuth	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Cadmium	µg/L	5	0.2	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Chromium	µg/L	50	2.0	0.7	0.5	0.4	0.2	<0.2	<0.2	0.3	0.4
Tot-Iron	mg/L	0.3	0.3	0.136	0.088	0.109	0.066	0.087	0.113	0.095	0.066
Tot-Cobalt	µg/L			<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	<0.1
Tot-Cesium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Copper	µg/L	1000	2.0	0.8	0.7	1.0	1.2	0.7	1.2	0.8	0.8
Tot-Lithium	µg/L			0.9	0.7	1.0	0.9	1.0	1.1	0.9	0.8
Tot-Manganese	µg/L	50		7.6	12.8	13.5	9.0	8.9	8.6	14.3	4.6
Tot- Molybdenum	µg/L			0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1
Tot-Nickel	µg/L		25	0.8	0.7	1.6	<0.1	<0.1	<0.1	0.6	0.1
Tot-Lead	µg/L	10	1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Tot-Selenium	µg/L	10	1.0	<1	<1	<1	<10	<10	<10	<10	<10
Tot-Antimony	µg/L			0.5	0.5	0.2	0.3	0.2	0.3	0.4	3.2
Tot-Strontium	µg/L			41.9	38.4	47.0	41.3	48.3	50.8	46.5	50.1
Tot-Titanium	µg/L			0.5	0.1	<0.1	<0.1	0.1	1.2	<0.1	<0.1
Tot-Thallium	µg/L			0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Uranium	µg/L			<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.1	<0.1
Tot-Vanadium	µg/L			0.3	0.2	0.2	<0.1	0.1	0.1	0.3	<0.1
Tot-Zinc	µg/L	5000	30	<0.5	1.0	0.8	<0.5	0.8	0.7	<5	<0.5
Phenols	µg/L		1.0	<2	<2	<2	<2	<2	<2	<2	<2
Benzene	µg/L	5	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	24	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L		700	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	µg/L	300		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Volatiles	µg/L			<100	<100	<100	<100	<100	<100	<100	<100
Total Extractables	µg/L			<50	<50	<50	<50	<50	<50	<50	<50

* GCDWQ = Guidelines for Canadian Drinking Water Quality (Health & Welfare Canada 1993)
CWQG = Canadian Water Quality Guidelines (CCREM 1996)

** duplicate sample (for QA/QC)

continued

Table A7 (cont'd). Water quality data for streams and rivers in the Meliadine Study Area, June 1997.

		Guidelines*		Stream No.						
Constituent	Unit	GCDWQ	CWQG	D0-1	D6-7	G1-2	ML-MR	ML-PL	PL-DL	Blank
Date Sampled				18-Jun	18-Jun	17-Jun	19-Jun	19-Jun	19-Jun	18-Jun
Time Sampled				08:10	10:55	15:00	13:40	09:50	10:15	08:10
Air Temp. (field)	°C			9.0	12.0	17.5	12.5	14.0	15.0	9.0
Water Temp. (field)	°C			7.0	7.2	18.5	6.9	4.9	5.1	
Diss-Oxygen (field)	mg/L		>6.5	12.7	12.7	10.4	14.1	13.9	14.3	
Conductivity (field)	µS/cm			79.4	95.2	72.3	62.0	50.6	38.5	
pH (field)	pH	6.5 - 8.5	6.5 - 9.0	7.55	7.31	8.12	7.15	7.02	6.75	
pH (lab)	pH			7.57	7.55	7.67	7.22	7.20	6.92	5.62
Conductivity (lab)	µS/cm			64.0	82.8	59.1	50.3	42.1	31.0	1.2
Tot-Alkalinity	mg/L			26.1	33.7	24.9	16.2	12.4	7.9	<0.3
Carbonate	mgCO³/L			<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Calcium	mg/L			10.3	12.2	9.57	6.86	5.38	3.18	0.3
Bicarbonate	mgCO³/L			26.1	33.7	24.9	16.2	12.4	7.9	<0.3
Magnesium	mg/L			1.11	1.59	0.879	0.743	0.593	0.52	0.008
Potassium	mg/L			0.579	0.764	0.806	1.71	0.598	0.562	0.024
Sodium	mg/L	200		1.78	3.24	1.74	2.53	2.19	1.82	<0.02
Chloride	mg/L	250		3.30	5.00	2.74	4.24	3.66	2.74	<0.08
Sulphate	mg/L	500		4	<3	<3	5	<3	4	3
Reac-Silica	mg/L			0.310	0.194	0.330	0.297	0.180	0.273	0.005
Turbidity	NTU	5.0		0.8	0.8	0.6	0.2	0.3	0.3	0.5
Tot-Susp-Solids	mg/L		bckgr +10	<3	3	<3	<3	<3	<3	<3
Tot-Diss-Solids	mg/L	500		39	49	34	38	26	15	<10
Tot-Hardness	mg/L			30.3	37.0	27.5	20.2	15.9	10.1	0.88
Tot-Kjeldahl-N	mg/L			0.26	0.30	0.41	0.25	0.26	0.25	0.08
Nitrate+Nitrite-N	mg/L		0.06 (NO³)	<0.008	<0.008	0.012	<0.008	<0.008	<0.008	<0.008
Nitrate-N	mg/L	10		<0.008	<0.008	0.012	<0.008	<0.008	<0.008	<0.008
Ammonia-N	mg/L		1.37	0.004	0.003	0.006	0.005	0.005	0.012	<0.002
Tot-Phosphorus	mg/L			0.007	0.006	0.006	0.004	0.005	0.004	0.004
Diss-Phosphorus	mg/L			0.007	0.004	0.004	0.004	0.004	0.004	0.004
Ortho-Phosphorus	mg/L			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Tot-Carbon	mg/L			8.0	10.0	11.0	6.0	4.0	4.0	1.0
Tot-Org-Carbon	mg/L			2.3	2.3	4.6	1.6	1.4	1.6	<0.2
Tot-Inorg-Carbon	mg/L			6.0	8.0	6.0	4.0	3.0	2.0	1.0
Cation/Anion-Balance				8.43	14.2	16.5	6.86	17.2	0.001	55.3
Tot-Mercury	µg/L	1.0	0.1	<0.01	<0.01	<0.01				<0.01
Tot-Arsenic	µg/L	25	50	0.3	0.3	0.3	<0.3	<0.3	<0.3	<0.3
Tot-Rubidium	µg/L			0.7	0.9	1.3	1.1	1.0	1.2	<0.1
Tot-Silver	µg/L		0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Aluminum	µg/L		10	<5	5	<5	<0.5	<0.5	<0.5	1.8
Tot-Barium	µg/L	1000		8.6	13.7	13.5	6.8	5.4	8.3	<0.1
Tot-Beryllium	µg/L			<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1
Tot- Bismuth	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Cadmium	µg/L	5	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Chromium	µg/L	50	2.0	<0.2	0.9	0.7	0.9	<0.2	0.7	0.2
Tot-Iron	mg/L	0.3	0.3	0.133	0.086	0.074	0.013	0.019	0.041	0.014
Tot-Cobalt	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Cesium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Copper	µg/L	1000	2.0	1.5	1.2	1.6	1.4	1.0	1.6	0.2
Tot-Lithium	µg/L			1.2	1.4	1.0	0.6	0.6	0.7	<0.1
Tot-Manganese	µg/L	50		6.8	16.7	1.7	2.6	1.5	1.9	0.1
Tot- Molybdenum	µg/L			0.1	0.2	0.1	0.2	0.1	<0.1	<0.1
Tot-Nickel	µg/L		25	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Lead	µg/L	10	1.0	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2
Tot-Selenium	µg/L	10	1.0	<10	<10	<10	<10	<10	<10	<10
Tot-Antimony	µg/L			0.4	0.5	0.8	0.3	0.2	0.3	0.2
Tot-Strontium	µg/L			41.5	51.6	46.8	26.7	21.0	17.4	0.3
Tot-Titanium	µg/L			0.9	0.4	0.4	<0.1	<0.1	0.4	0.1
Tot-Thallium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Uranium	µg/L			<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Vanadium	µg/L			0.3	0.1	0.2	0.2	0.1	0.1	<0.1
Tot-Zinc	µg/L	5000	30	<0.5	22.7	16.2	<0.5	<0.5	<0.5	1.4
Phenols	µg/L		1.0	<2	<2	<2	10	<2	5	<2
Benzene	µg/L	5	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	24	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L		700	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	µg/L	300		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Volatiles	µg/L			<100	<100	<100	<100	<100	<100	<100
Total Extractables	µg/L			<50	<50	<50	<50	<50	<50	<50

* GCDWQ = Guidelines for Canadian Drinking Water Quality (Health & Welfare Canada 1993)
CWQG = Canadian Water Quality Guidelines (CCREM 1996)

Table A8. Water quality data for streams and rivers in the Meliadine Study Area, August 1997.

		Guidelines*		Stream No.								
Constituent	**Unit**	***GCDWQ***	***CWQG***	**B1-2**	**B4-5**	**D0-1**	**D6-7**	**ML-MR**	**ML-MR****	**ML-PL**	**PL-DL**	**Blank**
Date Sampled				25-Aug	25-Aug	25-Aug	26-Aug	24-Aug	24-Aug	24-Aug	24-Aug	26-Aug
Time Sampled				09:00	16:40	14:20	08:50	08:40	08:50	10:55	12:00	09:15
Water Temp. (field)	°C			10.2	12.8	12.7	8.9	11.6	11.6	12.5	13.2	
Diss-Oxygen (field)	mg/L		*>6.5*	10.0	10.4	11.3	10.8	11.1	11.1	11.2	11.0	
Conductivity (field)	µS/cm			114.7	96.5	138.0	157.0	61.6	61.6	52.3	34.7	
pH (field)	pH	*6.5 - 8.5*	*6.5 - 9.0*	7.05	7.14	7.49	7.14	7.48	7.48	7.50	7.35	
pH (lab)	pH			7.53	7.74	7.78	7.89	7.32	7.36	7.37	7.19	5.60
Conductivity (lab)	µS/cm			94.7	75.7	113.0	135.0	50.4	49.9	42.3	28.9	1.3
Tot-Alkalinity	mg/L			34.7	28.4	44.6	49.9	15.2	14.8	11.9	7.1	<0.3
Carbonate	$mgCO^3/L$			<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Calcium	mg/L			12.4	10.3	15.8	16.1	5.43	5.17	4.06	2.44	<0.03
Bicarbonate	$mgCO^3/L$			34.7	28.4	44.6	49.9	15.2	14.8	11.9	7.1	<0.3
Magnesium	mg/L			1.47	1.43	2.1	2.71	0.77	0.76	0.64	0.52	<0.005
Potassium	mg/L			0.952	0.734	0.978	2.520	0.725	0.702	0.651	0.554	0.006
Sodium	mg/L	*200*		3.48	2.28	3.43	5.09	2.59	2.57	2.43	1.75	<0.02
Chloride	mg/L	*250*		5.90	4.11	6.21	8.09	4.25	4.24	3.93	2.56	0.13
Sulphate	mg/L	*500*		4	<3	3	<3	<3	<3	3	<3	<3.0
Reac-Silica	mg/L			0.772	0.609	0.875	0.289	0.385	0.388	0.269	0.218	<0.005
Turbidity	NTU	*5.0*		0.8	0.7	1.7	0.5	0.9	0.3	0.2	0.2	<0.1
Tot-Susp-Solids	mg/L		*bckgr +10*	<3	<3	<3	<3	<3	<3	<3	<3	<3.0
Tot-Diss-Solids	mg/L	*500*		66	61	72	<10	38	39	34	19	<10
Tot-Hardness	mg/L			37.0	31.6	48.1	51.4	16.7	16.0	12.8	8.2	<0.09
Tot-Kjeldahl-N	mg/L			0.27	0.40	0.55	0.38	0.28	0.20	0.22	0.18	0.06
Nitrate+Nitrite-N	mg/L		*0.06 (NO^3)*	0.027	0.023	0.080	0.025	0.024	0.032	0.023	0.015	<0.008
Nitrate-N	mg/L	*10*		0.027	0.023	0.080	0.025	0.024	0.032	0.023	0.015	<0.008
Ammonia-N	mg/L		*1.37*	0.009	0.003	0.020	0.006	0.010	0.008	0.011	0.006	<0.002
Tot-Phosphorus	mg/L			0.014	0.017	0.019	0.020	0.009	0.009	0.008	0.007	0.003
Diss-Phosphorus	mg/L			0.014	0.004	0.011	0.016	0.005	0.002	0.005	0.007	0.003
Ortho-Phosphorus	mg/L			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total-Carbon	mg/L			12.9	11.7	18.2	16.5	6.1	6.0	4.8	3.2	1.5
Tot-Org-Carbon	mg/L			3.9	4.7	7.2	4.5	2.1	2.0	1.8	1.2	0.5
Tot-Inorg-Carbon	mg/L			9.0	7.0	11.0	12.0	4.0	4.0	3.0	2.0	1.0
Cation/Anion-Balance				6.15	13.2	8.95	12.6	11.7	10.9	1.5	15.0	0.001
Tot-Mercury	µg/L	*1.0*	*0.1*	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tot-Arsenic	µg/L	*25*	*50*	1.2	1.3	0.6	0.5	<0.2	0.3	<0.02	<0.2	<0.2
Tot-Silver	µg/L		*0.1*	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Aluminum	µg/L		*10*	<0.5	1.1	3.6	2.0	<0.5	<0.5	0.8	1.5	<0.5
Tot-Barium	µg/L	*1000*		9.9	7.1	14.4	16.7	6.3	6.1	4.8	6.3	<0.1
Tot-Beryllium	µg/L			0.3	0.1	0.2	0.2	0.2	0.2	0.3	0.5	0.2
Tot- Bismuth	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Cadmium	µg/L	*5*	*0.2*	<0.1	<0.1	<0.1	0.1	0.1	<0.1	0.1	0.1	<0.1
Tot-Chromium	µg/L	*50*	*2.0*	<2	<2	<2	2.0	2.0	<2	<2	<2	<2
Tot-Iron	mg/L	*0.3*	*0.3*	0.143	0.117	0.305	0.084	0.021	0.025	0.019	0.022	<0.012
Tot-Cobalt	µg/L			0.1	0.2	0.2	0.2	0.2	0.1	0.3	0.1	<0.1
Tot-Cesium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Copper	µg/L	*1000*	*2.0*	1.7	0.9	1.6	1.0	1.0	1.0	0.9	1.1	0.1
Tot-Lithium	µg/L			0.8	0.9	1.2	2.0	0.5	0.4	0.5	0.3	<0.1
Tot-Manganese	µg/L	*50*		26.2	13.8	61.5	16.3	2.8	2.9	1.7	0.9	<0.1
Tot- Molybdenum	µg/L			0.5	0.2	0.5	0.5	0.1	0.1	0.1	<0.1	<0.1
Tot-Nickel	µg/L		*25*	0.7	0.8	1.1	1.0	0.6	0.3	0.4	0.4	<0.1
Tot-Lead	µg/L	*10*	*1.0*	3.1	0.2	0.2	0.2	<0.2	0.2	<0.2	<0.2	0.4
Tot-Selenium	µg/L	*10*	*1.0*	<10	<10	<10	1.0	<10	<10	<10	<10	<10
Tot-Antimony	µg/L			0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3
Tot-Strontium	µg/L			48.0	50.3	70.1	86.2	26.3	25.1	18.9	13.2	<0.1
Tot-Titanium	µg/L			0.7	0.6	1.3	1.3	0.6	<0.1	<0.1	0.5	0.1
Tot-Thallium	µg/L			<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Tot-Uranium	µg/L			<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Vanadium	µg/L			0.4	0.1	0.4	0.2	0.1	0.1	0.1	0.2	<0.1
Tot-Zinc	µg/L	*5000*	*30*	1.1	0.8	1.6	<5	1.4	1.0	<0.5	0.5	<0.5
Phenols	µg/L		*1.0*	<2	<2	<2	<2	<2	<2	<2	<2	<2
Benzene	µg/L	*5*	*300*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	*24*	*300*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L		*700*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	µg/L	*300*		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Volatiles	µg/L			<100	<100	<100	<100	<100	<100	<100	<100	<100
Total Extractables	µg/L			<50	<50	<50	<50	<50	75	<50	<50	<50

* GCDWQ = Guidelines for Canadian Drinking Water Quality (Health & Welfare Canada 1993)
CWQG = Canadian Water Quality Guidelines (CCREM 1996)

** duplicate sample (for QA/QC)

Table A9. Water quality data for lakes in the Meliadine Study Area, July 1997.

Constituent	Unit	Guidelines* GCDWQ	Guidelines* CWQG	Lake No. A6	A8	B2	B5	B7	D7	G2
Date Sampled				23-Jul	22-Jul	21-Jul	19-Jul	18-Jul	17-Jul	24-Jul
Time Sampled				15:00	15:30	14:45	10:00	14:00	16:30	17:00
Air Temp. (field)	°C			20.2	23.0	19.5				16.0
Water Temp. (field)	°C			18.7	17.7	17.0	15.1	14.3	14.1	17.4
Diss-Oxygen (field)	mg/L		>6.5	10.3	9.9	9.7	10.5	10.8	10.8	9.9
Conductivity (field)	µS/cm			92.8	95.5	101.7	81.8	84.0	136.4	67.4
pH (field)	pH	6.5 - 8.5	6.5 - 9.0	7.85	8.38	8.07	7.54	7.41	7.97	7.83
pH (lab)	pH			7.64	7.75	7.70	7.63	7.50	7.83	7.47
Conductivity (lab)	µS/cm			79.2	76.6	83.7	67.5	70.3	144.0	56.6
Tot-Alkalinity	mg/L			32.9	32.0	33.3	27.0	29.0	45.8	23.7
Carbonate	$mgCO^3/L$			<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Calcium	mg/L			10.7	10.3	11.0	8.65	9.31	13.9	7.2
Bicarbonate	$mgCO^3/L$			32.9	32.0	33.3	27.0	29.0	45.8	23.7
Magnesium	mg/L			1.34	1.58	1.35	1.29	1.29	2.39	0.84
Potassium	mg/L			0.679	0.709	0.868	0.667	0.787	1.140	0.755
Sodium	mg/L	200		1.89	1.87	3.05	1.94	1.90	4.57	1.53
Chloride	mg/L	250		3.47	4.26	5.20	3.60	3.22	7.43	2.31
Sulphate	mg/L	500		<3	<3	<3	<3	<3	<3	<3
Reac-Silica	mg/L			0.816	1.070	0.589	0.422	0.702	0.300	0.501
Turbidity	NTU	5.0		0.5	0.5	0.6	1.1	0.6	1.1	0.5
Tot-Susp-Solids	mg/L		bckgr +10	<3	<3	<3	<3	<3	3	<3
Tot-Diss-Solids	mg/L	500		50	49	49	47	38	69	44
Tot-Hardness	mg/L			32.2	32.2	33.0	26.9	28.6	44.5	21.5
Tot-Kjeldahl-N	mg/L			0.23	0.25	0.34	0.30	0.29	0.31	0.34
Nitrate+Nitrite-N	mg/L		0.06 (NO^3)	<0.008	<0.008	<0.008	0.011	<0.008	<0.008	<0.008
Nitrate-N	mg/L	10		<0.008	<0.008	<0.008	0.011	<0.008	<0.008	<0.008
Ammonia-N	mg/L		1.37	0.013	0.004	0.014	0.012	0.011	0.028	0.012
Tot-Phosphorus	mg/L			0.009	0.004	0.010	0.015	0.100	0.018	0.004
Diss-Phosphorus	mg/L			<0.002	0.004	0.004	0.010	0.009	0.008	<0.002
Ortho-Phosphorus	mg/L			<0.002	<0.002	<0.002	0.005	0.002	0.003	<0.002
Total-Carbon	mg/L			19.0	11.0	12.0	10.0	12.0	15.0	10.0
Tot-Org-Carbon	mg/L			4.0	3.6	3.8	3.8	4.5	4.2	3.8
Tot-Inorg-Carbon	mg/L			15.0	7.0	8.0	6.0	7.0	11.0	6.0
Cation/Anion-Balance				7.8	6.8	8.7	9.0	8.6	8.8	6.9
Tot-Mercury	µg/L	1.0	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
Tot-Arsenic	µg/L	25	50	2.1	2.1	1.2	1.3	0.9	0.7	0.9
Tot-Silver	µg/L		0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Aluminum	µg/L		10	<0.5	<5	<5	4.3	1.7	6.9	<0.5
Tot-Barium	µg/L	1000		7.6	9.4	9.4	8.3	8.2	15.1	12.3
Tot-Beryllium	µg/L			<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Tot- Bismuth	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Cadmium	µg/L	5	0.2	<0.1	0.1	0.1	<0.1	<0.1	0.2	<0.1
Tot-Chromium	µg/L	50	2.0	<2	<2	<2	<2	<2	<2	<2
Tot-Iron	mg/L	0.3	0.3	0.044	0.051	0.085	0.075	0.063	0.113	0.067
Tot-Cobalt	µg/L			<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Cesium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Copper	µg/L	1000	2.0	27.1	1.1	1.6	1.4	0.8	2.6	1.1
Tot-Lithium	µg/L			1.1	1.6	1.1	0.4	<0.1	1.0	1.0
Tot-Manganese	µg/L	50		5.8	3.0	4.9	11.8	2.4	10.8	1.9
Tot- Molybdenum	µg/L			0.2	0.4	0.4	0.4	0.1	0.4	0.1
Tot-Nickel	µg/L		25	0.8	1.0	0.7	1.1	1.1	4.1	0.5
Tot-Lead	µg/L	10	1.0	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	<0.2
Tot-Selenium	µg/L	10	1.0	<10	<10	<10	<10	<10	<10	<10
Tot-Antimony	µg/L			0.3	0.5	0.6	0.5	0.2	0.3	0.2
Tot-Strontium	µg/L			43.0	27.1	47.8	47.6	47.9	65.0	42.2
Tot-Titanium	µg/L			<0.1	0.5	<0.1	0.2	<0.1	0.7	<0.1
Tot-Thallium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Uranium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
Tot-Vanadium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Zinc	µg/L	5000	30	9.7	<5	7.6	12.8	<5	123.0	<5
Phenols	µg/L		1.0	<2	6	<2	9	10	9	<2
Benzene	µg/L	5	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	24	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L		700	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	µg/L	300		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Volatiles	µg/L			<100	<100	<100	<100	<100	<100	<100
Total Extractables	µg/L			210	<50	330	<50	62	<50	79

* GCDWQ = Guidelines for Canadian Drinking Water Quality (Health & Welfare Canada 1993)
CWQG = Canadian Water Quality Guidelines (CCREM 1996)

continued

Table A9 (cont'd). Water quality data for lakes in the Meliadine Study Area, July 1997.

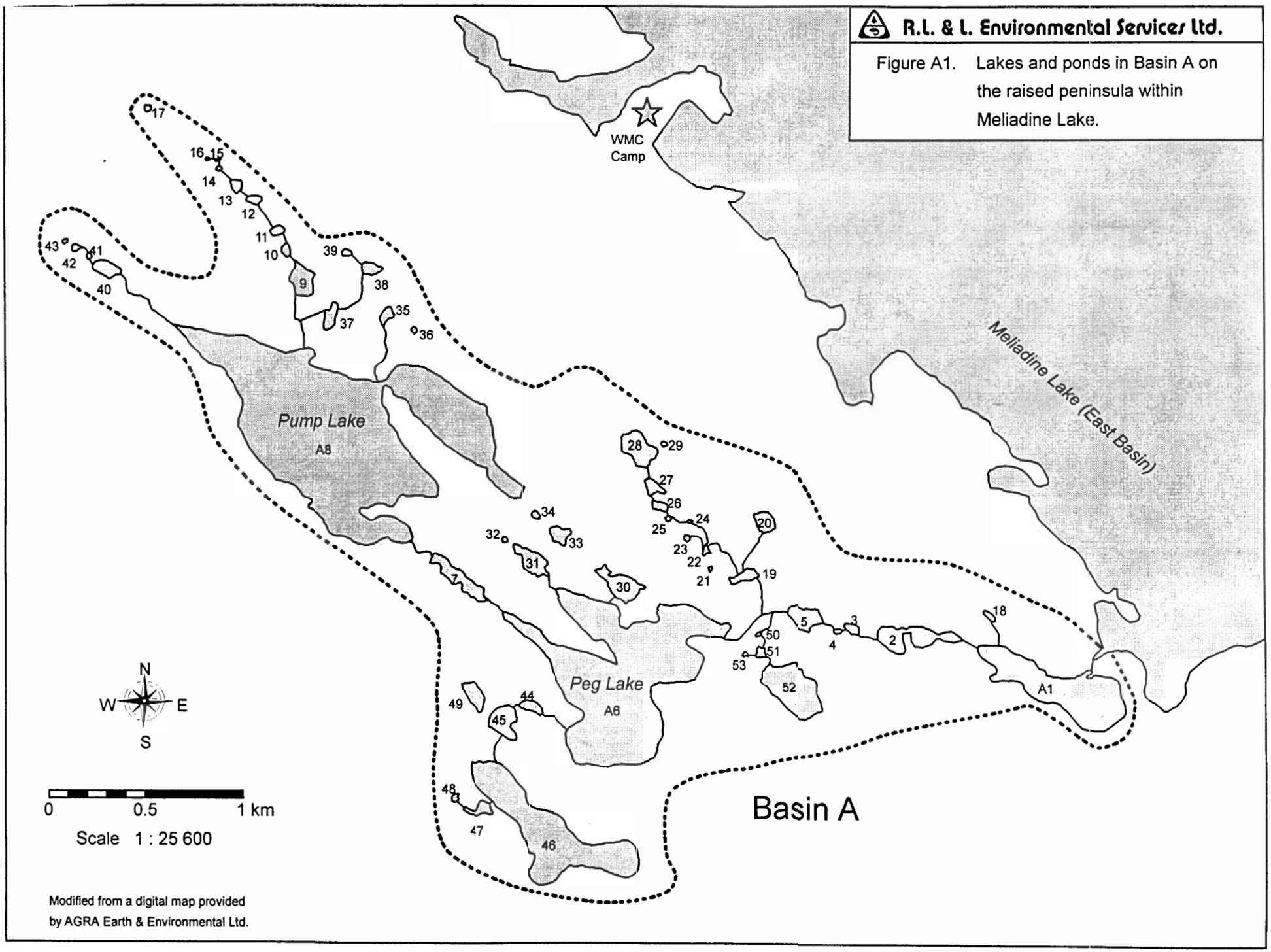
Constituent	Unit	Guidelines* GCDWQ	Guidelines* CWQG	Lake No. ML-E	ML-W	ML-S	ML-S **	Blank
Date Sampled				19-Jul	20-Jul	20-Jul	20-Jul	22-Jul
Time Sampled				14:15	17:30	14:00	14:30	18:00
Air Temp. (field)	°C				18.0	17.0	17.0	
Water Temp. (field)	°C			13.9	14.3	14.6	14.6	
Diss-Oxygen (field)	mg/L		>6.5	10.2	9.9	10.2	10.2	
Conductivity (field)	µS/cm			59.3	51.4	58.4	58.4	
pH (field)	pH	6.5 - 8.5	6.5 - 9.0	7.30	7.24	7.14	7.14	
pH (lab)	pH			7.31	7.26	7.31	7.30	5.86
Conductivity (lab)	µS/cm			49.1	42.1	48.4	47.6	<0.1
Tot-Alkalinity	mg/L			13.2	12.6	15.3	15.1	0.3
Carbonate	$mgCO^3/L$			<0.3	<0.3	<0.3	<0.3	<0.3
Calcium	mg/L			4.53	4.36	5.24	5.15	<0.03
Bicarbonate	$mgCO^3/L$			13.2	12.6	15.3	15.1	0.3
Magnesium	mg/L			0.79	0.66	0.73	0.73	<0.005
Potassium	mg/L			0.671	0.642	0.668	0.668	0.006
Sodium	mg/L	200		2.94	2.26	2.44	2.40	<0.02
Chloride	mg/L	250		5.34	3.80	4.10	4.08	<0.08
Sulphate	mg/L	500		<3	<3	<3	<3	<3
Reac-Silica	mg/L			0.354	0.196	0.305	0.280	<0.005
Turbidity	NTU	5.0		0.5	0.4	0.4	0.3	0.1
Tot-Susp-Solids	mg/L		bckgr +10	<3	<3	<3	<3	<3
Tot-Diss-Solids	mg/L	500		25	28	26	29	<10
Tot-Hardness	mg/L			14.6	13.6	16.1	15.9	<0.09
Tot-Kjeldahl-N	mg/L			0.20	0.15	0.17	0.19	0.02
Nitrate+Nitrite-N	mg/L		0.06 (NO^3)	<0.008	<0.008	<0.008	<0.008	0.015
Nitrate-N	mg/L	10		<0.008	<0.008	<0.008	<0.008	0.015
Ammonia-N	mg/L		1.37	0.006	0.004	0.003	0.002	<0.002
Tot-Phosphorus	mg/L			0.009	0.033	0.010	0.010	0.004
Diss-Phosphorus	mg/L			0.007	0.008	0.008	0.008	0.004
Ortho-Phosphorus	mg/L			0.004	0.002	0.002	0.003	<0.002
Total-Carbon	mg/L			5.0	5.0	6.0	6.0	2.0
Tot-Org-Carbon	mg/L			2.4	2.1	2.1	2.2	0.5
Tot-Inorg-Carbon	mg/L			3.0	3.0	4.0	4.0	1.0
Cation/Anion-Balance				8.9	20.2	16.8	10.0	0.001
Tot-Mercury	µg/L	1.0	0.1	<0.01	<0.01	<0.01	<0.01	<0.01
Tot-Arsenic	µg/L	25	50	0.3	<0.3	<0.3	<0.3	<0.3
Tot-Silver	µg/L		0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Aluminum	µg/L		10	1.4	0.8	0.6	1.5	<5
Tot-Barium	µg/L	1000		5.4	5.8	5.9	5.7	<0.1
Tot-Beryllium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1
Tot- Bismuth	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Cadmium	µg/L	5	0.2	<0.1	<0.1	<0.1	<0.1	0.1
Tot-Chromium	µg/L	50	2.0	<2	<2	<2	<2	<2
Tot-Iron	mg/L	0.3	0.3	0.031	<0.012	0.026	0.019	<0.012
Tot-Cobalt	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Cesium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Copper	µg/L	1000	2.0	0.8	1.6	1.1	0.9	3.4
Tot-Lithium	µg/L			<0.1	<0.1	<0.1	0.2	<0.1
Tot-Manganese	µg/L	50		2.5	1.9	2.9	2.8	17.2
Tot- Molybdenum	µg/L			0.1	<0.1	0.1	0.1	0.4
Tot-Nickel	µg/L		25	0.6	0.7	0.6	0.5	<0.1
Tot-Lead	µg/L	10	1.0	<0.2	0.2	<0.2	<0.2	<0.2
Tot-Selenium	µg/L	10	1.0	<10	<10	<10	<10	<10
Tot-Antimony	µg/L			0.2	0.3	0.1	0.3	0.4
Tot-Strontium	µg/L			21.1	20.5	22.5	23.0	<0.1
Tot-Titanium	µg/L			<0.1	0.6	<0.1	0.3	<0.1
Tot-Thallium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Uranium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Vanadium	µg/L			<0.1	<0.1	<0.1	<0.1	<0.1
Tot-Zinc	µg/L	5000	30	<5	6.4	6.5	14.7	<5
Phenols	µg/L		1.0	2	<2	<2	<2	<2
Benzene	µg/L	5	300	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	24	300	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L		700	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes	µg/L	300		<0.5	<0.5	<0.5	<0.5	<0.5
Total Volatiles	µg/L			<100	<100	<100	<100	<100
Total Extractables	µg/L			<50	190	64	83	<50

* GCDWQ = Guidelines for Canadian Drinking Water Quality (Health & Welfare Canada 1993)
CWQG = Canadian Water Quality Guidelines (CCREM 1996)

** duplicate sample (for QA/QC)

Table A10 Vertical profiles of water temperature and dissolved oxygen concentrations in lakes within the Meliadine Study Area, July and August 1997.

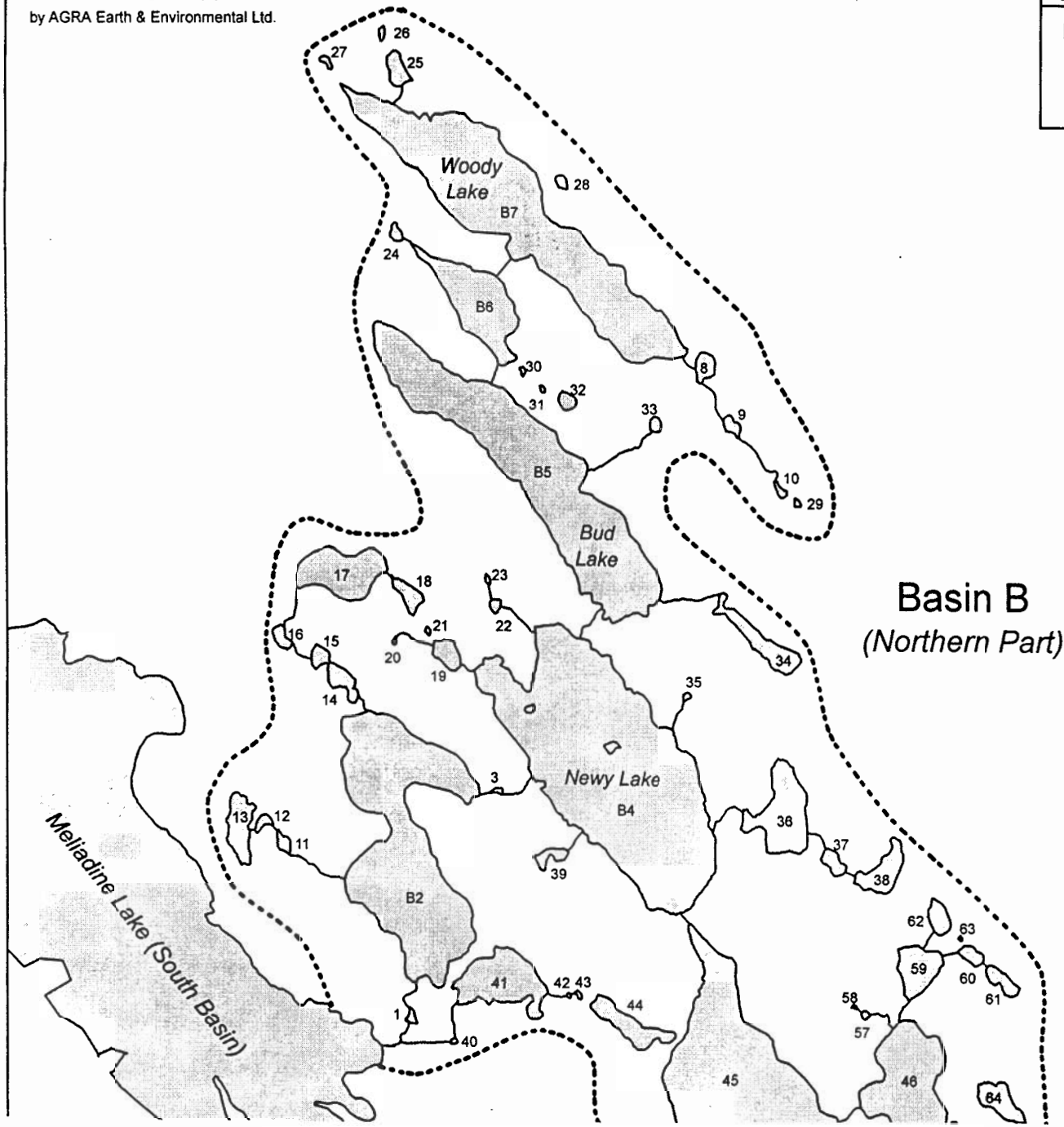
Parameter	Lakes Sampled in July										Lakes Sampled in August											
	A6	A8	B2	B5	B7	D7	G2	ML-E	ML-S	ML-W	A1	A6	A8	B2	B5	B7	D1	D7	G2	ML-E	ML-S	ML-W
Date	23-Jul	22-Jul	21-Jul	19-Jul	18-Jul	17-Jul	24-Jul	19-Jul	20-Jul	20-Jul	23-Aug	17-Aug	18-Aug	18-Aug	18-Aug	19-Aug	19-Aug	19-Aug	22-Aug	17-Aug	16-Aug	16-Aug
Time	13:00	14:00	14:00	10:00	13:30	17:00	16:30	15:30	13:30	17:30	09:30	17:00	10:00	13:30	17:00	10:00	16:30	14:00	16:30	10:00	10:00	14:00
UTM Easting	541777	540123	537540	537794	537685	536724	538579	542941	532280	524254	544360	541816	540108	537441	537799	537701	533066	536774	538611	543003	532283	524294
(Zone 15V) Northing	6985645	6987122	6986964	6988576	6989544	6988687	6990582	6988744	6989378	7000982	6985425	6985549	6987096	6986909	6988532	6989443	6989437	6988690	6990476	6988672	6989227	7000981
pH	7.85	8.38	8.07	7.54	7.41	7.97	7.83	7.30	7.14	7.24	8.09	7.86	7.87	7.84	7.67	7.94	8.14	8.10	7.91	7.39	6.97	7.10
Conductivity (µS/cm)	92.8	95.5	101.7	81.8	84.0	136.4	67.4	59.3	58.4	51.4	150.3	101.9	103.7	109.9	89.5	92.2	134.9	150.6	74.5	59.4	55.5	52.2
Total Depth (m)	2.5	3.6	2.6	2.7	3.2	2.2	2.3	14.7	6.3	8.1	1.8	2.5	3.4	2.5	2.3	3.8	2.2	2.2	2.1	13.0	6.2	8.5
Secchi Transparency (m)	>2.5	>3.6	>2.6	>2.7	>3.2	>2.2	>2.3	7.5	>6.3	7.9	>1.8	>2.5	>3.4	>2.5	>2.3	>3.8	>2.2	>2.2	>2.1	6.7	>6.2	>8.5
Water Temperature (°C)																						
0.1 m	19.0	17.7	17.4	15.1	14.3	14.0	17.4	13.9	14.6	14.3	14.7	15.7	14.2	15.3	15.1	15.1	16.7	15.8	16.0	15.3	13.2	13.6
0.5 m	18.9		17.1			14.0	17.3				14.8	15.5	14.3	15.0	15.1	14.8	16.4	15.6	16.0			
1.0 m	18.8	17.5	16.6	15.1	14.3	14.0	17.3	13.9	14.4	14.2	14.8	15.3	14.3	14.9	15.1	14.7	16.1	15.4	16.0	13.6	12.8	13.3
1.5 m	18.8		16.3	15.1		13.9	17.3				14.9	15.2	14.3	14.9	15.1	14.5	15.8	15.3	16.0			
2.0 m	18.4	17.1	16.1	15.1	14.3	13.5	17.3	13.8	14.3	14.1		15.1	14.3	14.8	15.1	14.5	15.7	15.2	16.0	12.8	12.5	13.1
2.5 m	18.2		16.0	15.1						14.0			14.3			14.4						
3.0 m		16.6			14.3			13.8	14.3	14.0			14.2			14.4				12.5	11.9	12.9
3.5 m		16.4														14.3						
4.0 m								13.8	14.3	14.0										12.0	11.8	12.3
5.0 m								13.8	14.3	14.0										11.8	11.6	12.0
6.0 m								13.7	14.3	14.0										11.6	11.4	11.7
7.0 m								13.7		14.0										11.5		11.6
8.0 m								13.7		13.9										11.4		11.4
9.0 m								13.7												11.4		
10.0 m								13.6												11.3		
11.0 m								13.5												11.3		
12.0 m								13.4												11.2		
13.0 m								13.3														
14.0 m								13.2														
14.5 m								13.2														
Dissolved Oxygen (mg/L)																						
0.1 m	10.3	9.9	9.7	10.5	10.8	10.8	9.9	10.2	10.2	9.9	10.0	11.4	11.0	11.0	10.9	10.6	10.3	10.7	10.4	11.3	11.6	11.3
0.5 m	10.0		9.7			10.9	9.9				9.9	11.5	11.0	11.2	10.9	10.7	10.5	10.8	10.4			
1.0 m	10.1	9.9	9.7	10.4	10.8	10.9	9.9	10.2	10.2	9.9	9.8	11.5	10.9	11.2	10.8	10.7	10.6	10.8	10.3	11.3	11.5	11.2
1.5 m	10.2		9.9	10.6		10.9	9.9				9.8	11.5	10.8	11.2	10.8	10.8	10.8	10.9	10.2			
2.0 m	10.5	10.0	10.1	10.6	11.2	11.1	9.9	10.2	10.2	9.9		11.6	10.8	11.4	10.8	10.8	10.8	10.9	10.2	11.6	11.6	11.3
2.5 m	10.6		10.2	10.5									10.9			10.8						
3.0 m		9.9			11.2			10.2	10.3	10.0			10.8			10.8				11.6	11.8	11.4
3.5 m		10.0														10.8						
4.0 m								10.2	10.3	10.0										11.6	11.7	11.4
5.0 m								10.2	10.3	10.0										11.7	11.9	11.6
6.0 m								10.3		10.0										11.7	11.8	11.8
7.0 m								10.2		10.1										11.8		11.8
8.0 m								10.3		10.1										11.6		11.9
9.0 m								10.3												11.5		
10.0 m								10.2												11.7		
11.0 m								10.2												11.5		
12.0 m								10.2												11.6		
13.0 m								10.2														
14.0 m								10.2														
14.5 m								10.1														


R.L. & L. Environmental Services Ltd.
Figure A1. Lakes and ponds in Basin A on the raised peninsula within Meliadine Lake.
WMC Camp
Meliadine Lake (East Basin)
Pump Lake
A8
Peg Lake
A6
A1
Basin A
N
W
E
S
0
0.5
1 km
Scale 1 : 25 600
Modified from a digital map provided by AGRA Earth & Environmental Ltd.

Modified from a digital map provided by AGRA Earth & Environmental Ltd.

R.L. & L. Environmental Services Ltd.

Figure A2. Lakes and ponds in the northern part of Basin B on the raised peninsula within Meliadine Lake.



Basin B
(Northern Part)

N
W E
S

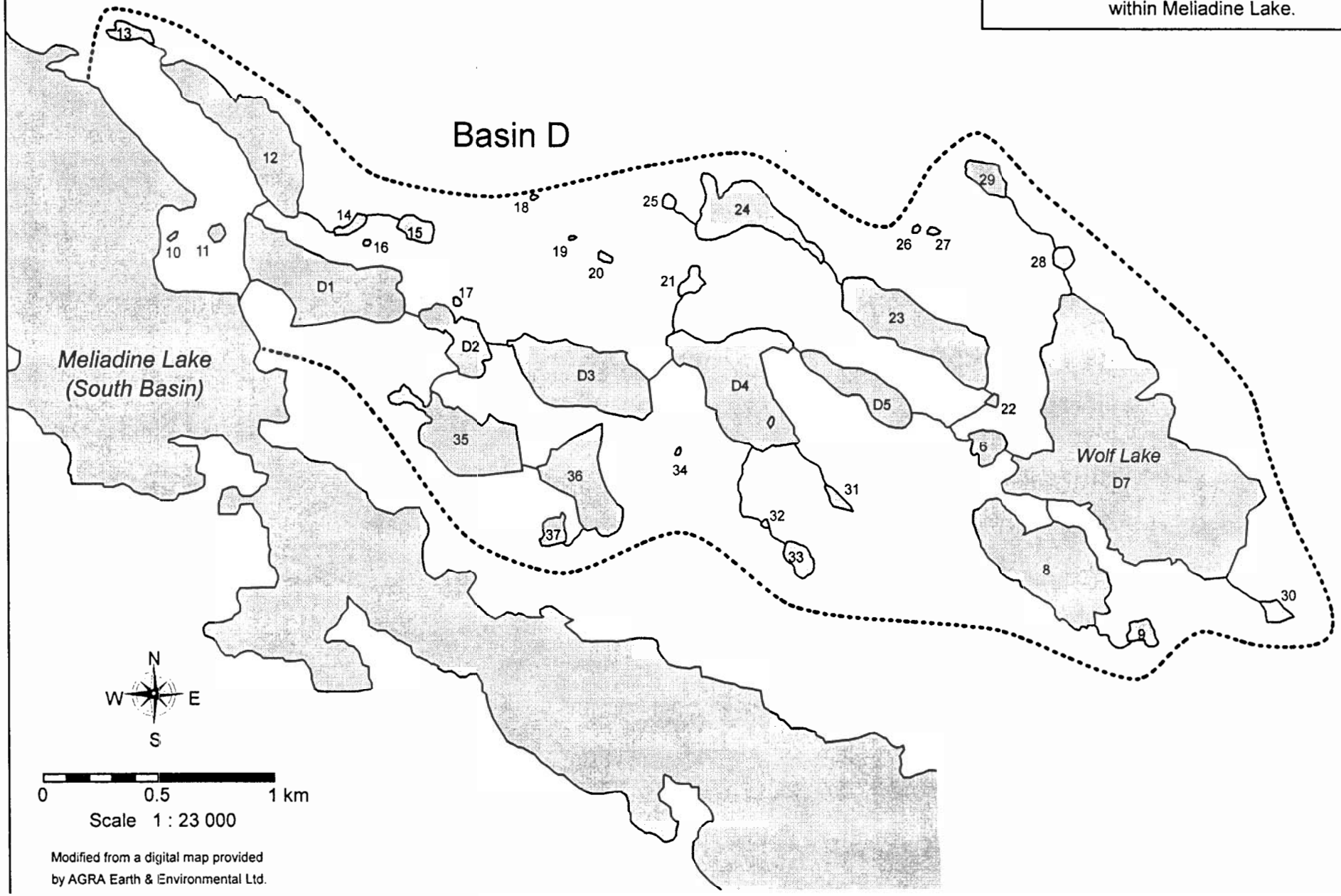
0 0.5 1 km

Scale 1 : 33 300

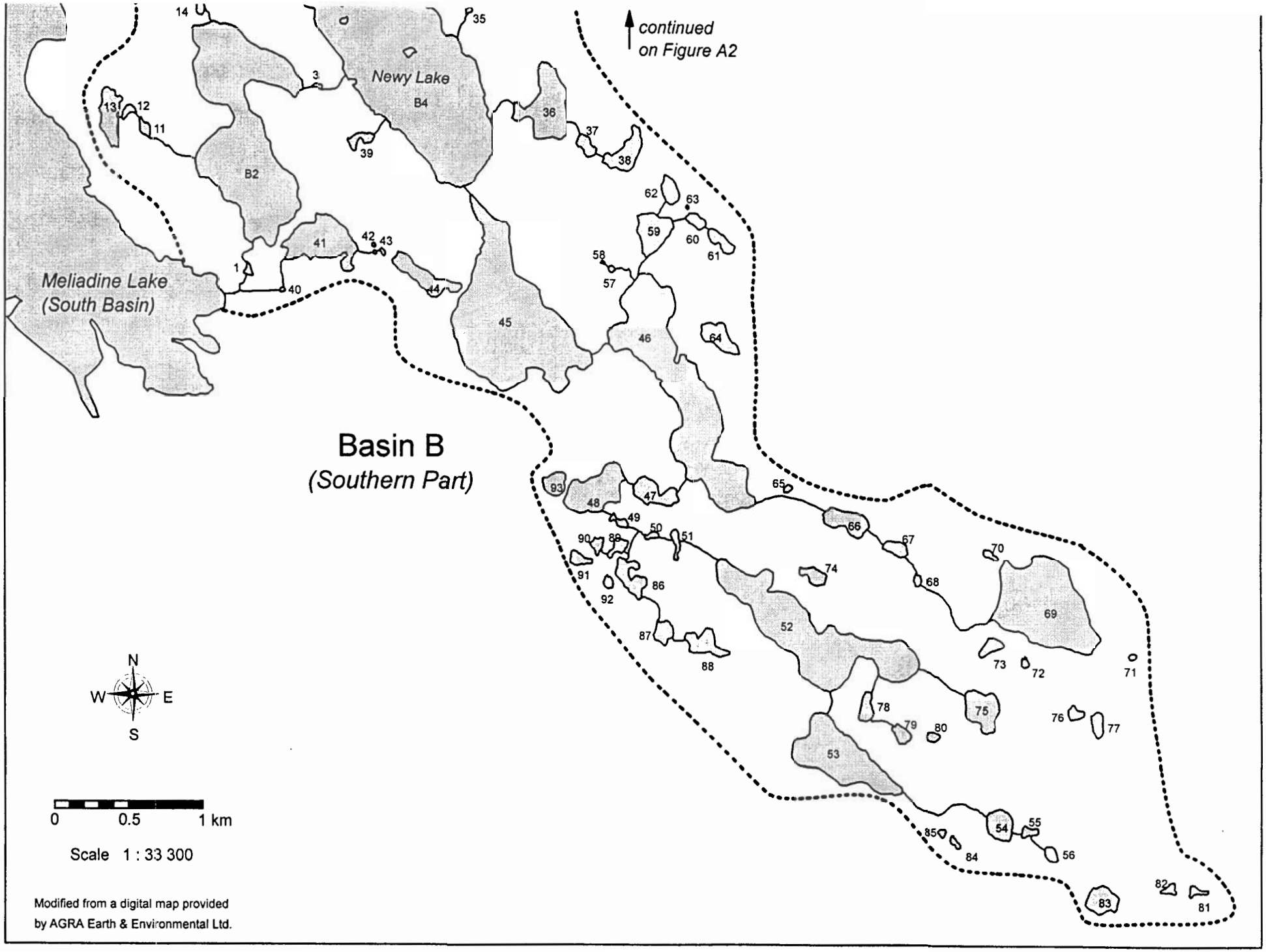
continued on Figure A3

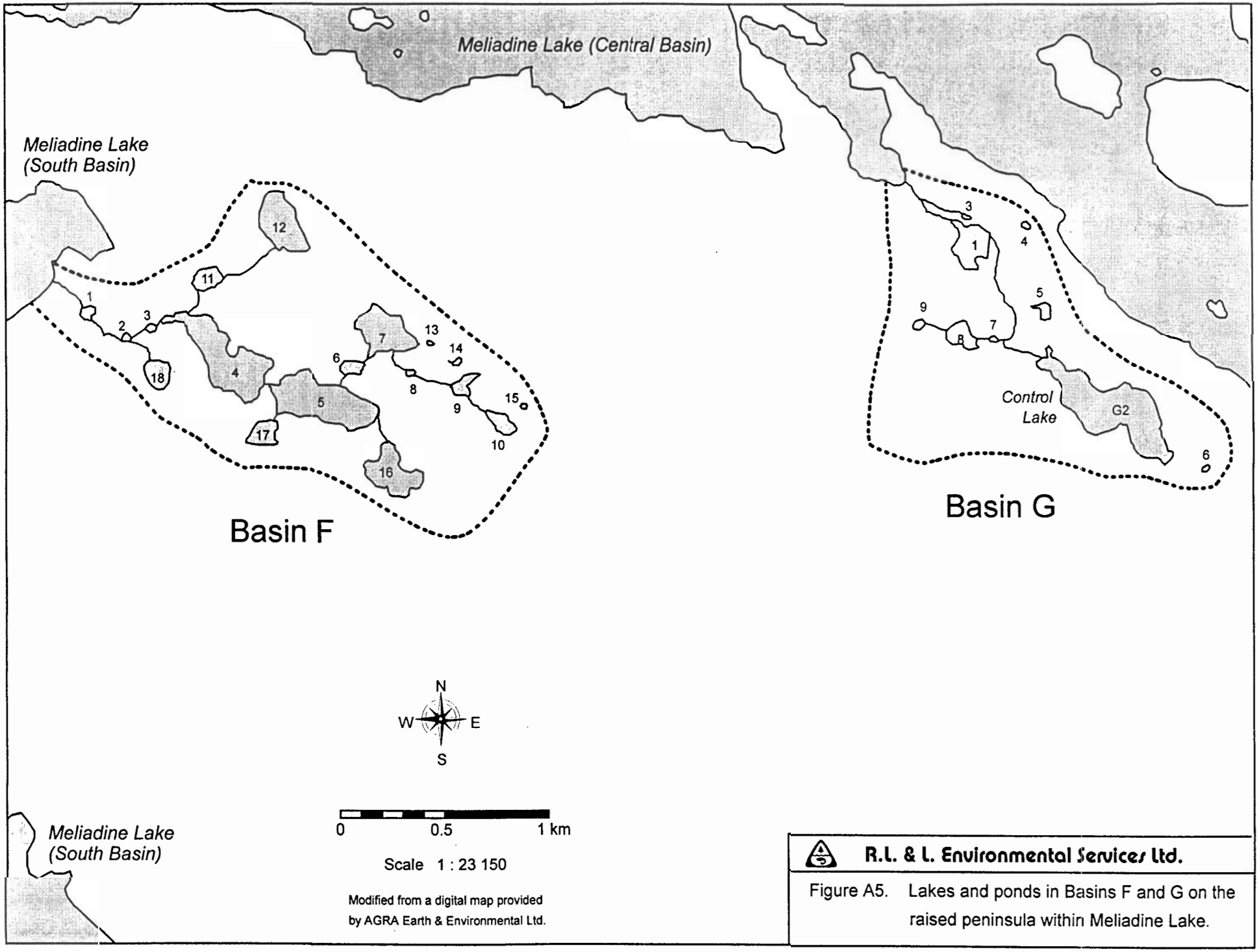
R.L. & L. Environmental Services Ltd.

Figure A4. Lakes and ponds in Basin D on the raised peninsula within Meliadine Lake.



Modified from a digital map provided by AGRA Earth & Environmental Ltd.


continued
on Figure A2
Newy Lake
B4
B2
Meliadine Lake
(South Basin)
Basin B
(Southern Part)
N
W
E
S
0
0.5
1 km
Scale 1 : 33 300
Modified from a digital map provided
by AGRA Earth & Environmental Ltd.



R.L. & L. Environmental Services Ltd.

Figure A5. Lakes and ponds in Basins F and G on the raised peninsula within Meliadine Lake.

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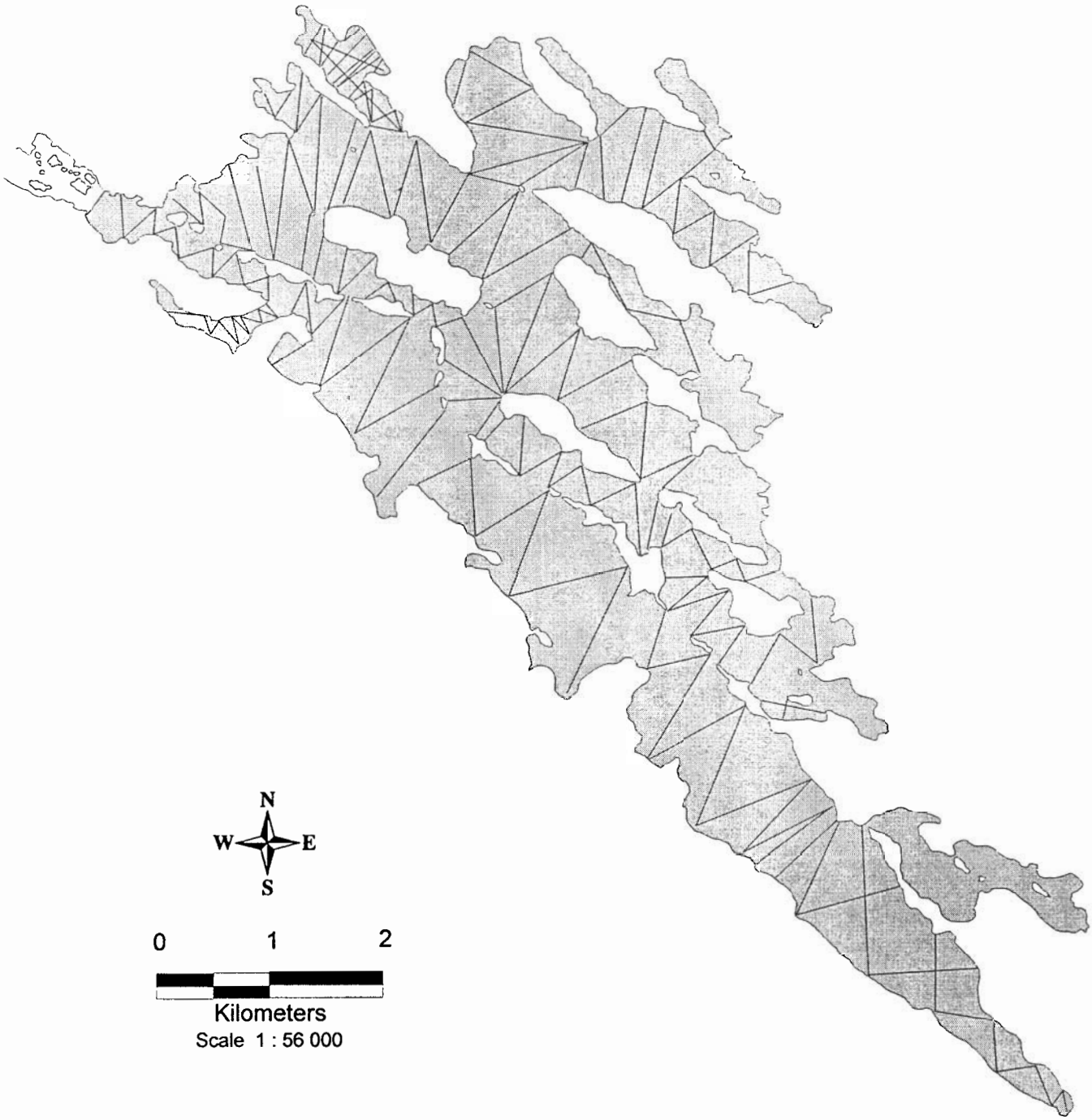
Figure A6. Locations of bathymetric transects in the east basin of Meliadine Lake, 1997.



APPENDIX B

Invertebrate Data

Table B1. Periphyton chlorophyll a and ash-free-dry-mass (AFDM) concentrations in the Meliadine Study Area, 1997.

			Chlorophyll a (µg/cm²)							AFDM (mg/cm²)						
Waterbody	**Site**	**Date**	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	**Mean**	*SE*
Streams	A0-1	21-Jul-97	0.87	0.80	0.97	0.00	0.60	**0.65**	*0.17*	10.61	29.43	6.73	8.61	5.35	**12.15**	*4.41*
	A5-6	23-Jul-97	3.85	1.34	1.40	0.26	2.29	**1.83**	*0.60*	20.28	24.17	31.75	25.27	9.57	**22.21**	*3.66*
	A7-8	22-Jul-97	0.00	0.00	0.00	0.00	0.00	**0.00**	*0.00*	14.16	18.44	17.56	4.10	0.10	**10.87**	*3.71*
	B1-2	21-Jul-97	1.28	2.15	3.76	2.13	4.71	**2.81**	*0.62*	45.52	66.78	35.15	83.39	46.13	**55.39**	*8.68*
	B4-5	24-Jul-97	11.59	10.30	7.09	10.64	6.72	**9.27**	*0.99*	36.95	36.26	25.47	31.71	13.79	**28.84**	*4.28*
	B6-7	17-Jul-97	2.74	4.31	4.09	3.75	4.71	**3.92**	*0.33*	30.72	8.85	38.20	21.85	59.61	**31.85**	*8.49*
	D0-1	24-Jul-97	8.97	17.33	3.63	6.41	2.41	**7.75**	*2.65*	13.69	33.81	2.45	17.88	42.77	**22.12**	*7.21*
	D6-7	17-Jul-97	0.99	1.01	1.41	3.04	3.14	**1.92**	*0.48*	10.82	5.86	16.74	8.68	14.19	**11.26**	*1.93*
	ML-MR	23-Jul-97	9.85	1.38	5.69	8.09	5.13	**6.03**	*1.44*	20.65	107.63	236.91	176.52	67.52	**121.85**	*38.49*
	ML-PL	22-Jul-97	2.71	0.92	2.00	4.74	1.43	**2.36**	*0.67*	282.79	105.91	144.59	108.50	219.81	**172.32**	*34.43*
Lakes	A6	23-Jul-97	0.48	0.42	0.31	0.08	0.24	**0.31**	*0.07*	1.49	1.87	4.35	10.88	1.79	**4.08**	*1.78*
	A8	22-Jul-97	8.60	5.24	2.76	12.80	5.16	**6.91**	*1.74*	58.89	47.33	30.03	29.27	40.40	**41.18**	*5.56*
	B2	21-Jul-97	1.87	2.22	1.91	7.65	4.03	**3.54**	*1.10*	33.63	30.70	18.42	72.98	38.95	**38.94**	*9.15*
	B5	18-Jul-97	3.03	0.88	2.48	4.19	2.24	**2.56**	*0.54*	17.38	19.11	43.00	37.21	30.01	**29.34**	*4.98*
	B7	18-Jul-97	2.16	3.65	1.47	0.58	0.98	**1.77**	*0.54*	41.82	40.93	65.82	42.02	53.22	**48.76**	*4.83*
	D7	17-Jul-97	3.94	1.59	4.27	2.94	7.78	**4.10**	*1.03*	27.22	42.84	53.48	18.69	124.03	**53.25**	*18.70*
	G2	24-Jul-97	0.00	0.00	0.00	0.00	0.00	**0.00**	*0.00*	18.48	59.03	17.18	25.95	21.22	**28.37**	*7.81*
	ML-E	19-Jul-97	0.00	0.15	0.53	0.31	0.45	**0.29**	*0.10*	9.48	7.63	9.55	12.53	9.16	**9.67**	*0.80*
	ML-S	20-Jul-97	0.13	0.00	0.00	0.12	0.00	**0.05**	*0.03*	0.91	0.91	0.42	1.01	0.94	**0.84**	*0.11*
	ML-W	20-Jul-97	1.10	3.15	0.80	0.72	1.34	**1.42**	*0.45*	15.94	20.88	2.01	16.98	2.97	**11.76**	*3.87*

Table B2. Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site A0-1					Site A5-6					Site A7-8				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
BACILLARIOPHYTA (Diatoms)															
Achnanthes detha							1116	1046	721	361	1322	1992	765	1360	355
Achnanthes flexella	P	P	P			125	P	P	42	42	P	P	P		
Achnanthes lanceolata															
Achnanthes minutissima		19610	37488	19033	10826	8018	9732	11156	9635	907	12192	26645	6431	15089	6012
Achnanthes minutissima v.cryptocephala	14625		4608	6411	4317	349	744	4183	1759	1218	2645	5790		2812	1674
Amphora sp.			P												
Amphora ovalis	129		P	43	43			P				P			
Anomoeoneis vitrea															
Asterionella formosa															
Caloneis ventricosa															
Caloneis ventricosa v. truncatula							P								
Cocconeis placentula															
Cocconeis placentula v. euglypta															
Cocconeis sp.															
Cyclotella sp.	360	P	P	120	120										
Cyclotella antiqua						P	P	P			120	125	383	209	87
Cyclotella comta											P				
Cyclotella kutzingiana															
Cyclotella meneghiniana															
Cyclotella ocellata													P		
Cyclotella striata															
Cymbella amphioxys								P			70	125	P	65	36
Cymbella cistula															
Cymbella cuspidata		P	P				P								
Cymbella cymbiformis	P					44			15	15					
Cymbella cymbiformis v. nonpunctata	120	261	261	214	47	349	155	530	345	108	301	125	64	163	71
Cymbella gracilis											120	P	P	40	40
Cymbella minuta	120	915	1276	770	341	349	310	1743	801	471	721	1660	765	1049	306
Cymbella sinuata															
Cymbella turgida	P		P			349	279	397	342	34		P	213	71	71
Cymbella turgidula															
Cymbella sp.	646		P	215	215	P	P	P			120	P		40	40
Denticula tenuis	P	261	523	261	151	697	744	1394	945	225	421	623	128	391	144
Diatoma elongatum	1651	2843	2216	2237	344	1743	3376	4647	3255	840	1262	3279	1929	2157	593
Diatoma vulgare															
Didymosphenia geminata															
Diploneis sp.															
Diploneis elliptica															
Diploneis ovalis															
Epithemia sorex	480	1160	1002	881	205	P		P			240	P	P	80	80
Eunotia arcus															
Eunotia exigua															
Eunotia flexuosa															
Eunotia glacialis															
Eunotia major															
Eunotia papilio															
Eunotia praerupta	P	P	P			P	P	P			P	P	P		
Eunotia praerupta v. bidens											P				
Eunotia sudetica															
Eunotia sp.	P														
Fragilaria crotonensis	P	915	685	533	275	697	P	1743	813	507	P	P	383	128	128
Fragilaria pinnata	3604	7060	4183	4949	1069	349			116	116	P	P			
Frustulia vulgaris															
Gomphonema acuminatum v. coronata												P	P		
Gomphonema angustatum	P	1569	249	606	487	P	P				P	125		42	42
Gomphonema constrictum	P					P		P					P		
Gomphonema parvulum															
Navicula sp.		P	P												
Navicula amphibola															
Navicula bacillum															
Navicula decussis															
Navicula dolosa															
Navicula cryptocephala	P	523	1307	610	380	349	1673	3023	1682	772	361	903	255	506	201
Navicula cryptocephala v. intermedia	3964	3203	2614	3260	391	872	744		539	272	2565	125	2296	1662	772
Navicula exigua						P	P	P			P	P			
Navicula laevissima															
Navicula pseudoscutiformis															
Navicula pupula							P	P			P	P			
Navicula radiosa	240	P	3461	1234	1116	436	1329	614	793	273	160	2407	383	983	715
Navicula reinhardtii															
Nedium sp.															
Nedium hitchcockii nr		P	P												
Nedium iridis v. amphigomphus			P												
Nitzschia sp.															
Nitzschia acicularis							2603		868	868					
Nitzschia amphibia															
Nitzschia angustata															
Nitzschia dissipata															
Nitzschia filiformis	129	131	498	253	123	P		1046	349	349	60	P		20	20
Nitzschia fonticola	646		1569	738	455										
Nitzschia palea															
Nitzschia sigmoidea	129	P	233	121	67						P		P		
Pinnularia sp.							P				P				
Pinnularia biceps	129	P	P	43	43	P									
Pinnularia borealis															
Pinnularia nodosa															
Pinnularia streptoraphe															
Rhizosolenia longiseta															
Rhopelodia gibba	P	P	P				249		83	83	P	31		10	10
Stauroneis anceps		P													
Stauroneis phoenicenteron	P		P												
Stauroneis smithii															
Stauroneis sp.															
Stephanodiscus astraea															
Surirella sp.															
Synedra actinastroides	3749	2091	3370	3070	502	6422	6321	5637	6127	247	4207	2106	1817	2710	753
Synedra acus						697	372	1977	1015	490	180	P	478	219	139
Synedra sp.															
Synedra ulna	742	P	62	268	238	1759	1162	1002	1308	230	150	519	191	287	117
Tabellaria fenestrata	420	1297	1899	1205	429	2440	558	4996	2665	1286	481	342	P	274	143
Tabellaria flocculosa	119	523	2117	920	510	3661	8274	3950	5295	1492	992	3185	744	1640	776
Total Bacillariophyta	32002	42362	69621	47995	11119	29705	39741	49084	39510	5596	28690	50107	17225	32007	9618

continued...

Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area. July 1997.

Taxonomic Group	Site A0-1					Site A5-6					Site A7-8				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
CRYPTOPHYTA (Cryptomonads)															
Cryptomonas erosa															
Cryptomonas ovata	120		125	82	41										
Cryptomonas reflexa															
Katablepharis ovalis															
Rhodomonas minuta															
Total Cryptophyta	120		125	82	41										
CHRYSOPHYTA (Golden-Brown Algae)															
Chrysidiastrum catenatum															
Chrysococcus sp.	P														
Chrysosphaerella rodhei							349		116	116					
Dinobryon crenulatum															
Dinobryon divergens	120		P	40	40		349		116	116	P				
Dinobryon sertularia	120	P	523	214	158	744	697	349	597	125	P	125	638	254	195
Dinobryon sertularia v.protuberans	129	P	261	130	75		P				P	P	P		
Dinobryon sociale												P			
Dinobryon tabellariae															
Ishtmochloron trispinatum						P	349		116	116		125		42	42
Kephyrion boreale						P									
Ochromonas spa						744			248	248					
Ophiocytium sp.											15			5	5
Pseudokephyrion sp.															
Stichogloea doederleinii															
Synura sp.															
Unidentified statospore	P	261		87	87	155		697	284	211	361	P		120	120
Total Chrysophyta	369	261	784	471	159	1643	1744	1046	1478	218	376	250	638	421	114
PYRROPHYTA (Dinoflagellates)															
Gymnodinium sp.															
Gymnodinium uberrimum	P	P	31	10	10	349	155	132	212	69	15	P		5	5
Peridinium sp.			P			349		P	116	116	P	P			
Peridinium aciculiferum	258	P	747	335	219	349	372	P	240	120	120	P	510	210	154
Peridinium cinctum	120	P		40	40										
Peridinium palatinum													P		
Peridinium palustre															
Peridinium willei							P								
Unidentified cyst		261	125	129	75						P				
Total Pyrrophyta	378	261	903	514	197	1047	527	132	569	265	135		510	215	153
EUGELNOPHYTA															
Euglena sp.															
Phacus sp.															
Trachelomonas sp.	P	P				155	P		52	52		2		1	1
Total Euglenophyta						155			52	52		2		1	1
CHLOROPHYTA (Green Algae)															
Ankistrodesmus convolutus	1081	784	1307	1057	151	3094	7158	8367	6206	1595		P	191	64	64
Ankistrodesmus falcatus	360	P		120	120							125	128	84	42
Ankistrodesmus falcatus v. spiralis	1787	1438	1046	1424	214	3138	1859	3138	2712	426	P	125	128	84	42
Ankistrodesmus gelifactus															
Arthrodesmus triangularis													P		
Bulbochaete sp.	3363	523	3050	2312	899	1220	2603	P	1274	752	P	P	P		
Chlamydomonas sp. a						349			116	116					
Chlamydomonas sp. b															
Closterium sp.															
Closterium acerosum		P													
Closterium actum			P												
Closterium dianae															
Closterium pseudolunula															
Coeloastrum sp.															
Coelastrum microporum	4805	P	996	1934	1464		P	P			P				
Coeloastrum printzii	P	1177	125	434	373	747	372	P	373	216					
Coeloastrum sphaericum	P	4183	1494	1892	1224	1992	2169	6487	3549	1470		872		291	291
Cosmarium sp.	P														
Cosmarium sp.	P														
Cosmarium anceps		P									P	P			
Cosmarium biculatum		523		174	174							93		31	31
Cosmarium botrytis											120	374	85	193	91
Cosmarium contracta												P			
Cosmarium coronatum															
Cosmarium depressum	129			43	43	125	155	265	182	43	P	P	255	85	85
Cosmarium granulatum	P		93	31	31		P				P		P		
Cosmarium holmiense v. intermedium						P									
Cosmarium humile v. lacustre	P		P			349	P	132	160	102		P			
Cosmarium impressulum v.suborthogonum		P	P			P		349	116	116	P		P		
Cosmarium laeve															
Cosmarium norimbergense	P										P				
Cosmarium phaseolus v. phaseolus															
Cosmarium pseudoprotuberans															
Cosmarium rectangulare												P			
Cosmarium reniforme															
Cosmarium repandum															
Cosmarium septentrionale															
Cosmarium speciosum			125	42	42	P	P	697	232	232	P	P	P		
Cosmarium tetraopthalmum						498	P		166	166	P	P			
Cosmarium turpinii	30	88	P	39	26		372	P	124	124	P	P			
Cosmarium turpinii v. podolicum															
Crucigenia apiculata															
Crucigenia quadrata		1046		349	349										
Crucigenia rectangularis	P	P				P					P				
Cylindrocystis brebissonii	129	P		43	43	349	155	2092	865	616	180	125	P	102	53
Desmidium swartzii v. quadrangulatum															
Dictyosphaerium pulchellum															
Elakatothrix sp.			261	87	87		P	349	116	116		125	765	297	237
Euastropsis richteri			P												
Euastrum sp.															
Euastrum bidentatum						125			42	42		P			
Euastrum dubium v. maius	P					125	372	132	210	81	P	P	P		
Euastrum elegans	P	P	P			436	651	265	451	112	120	P	P	40	40
Euastrum gemmatum															
Euastrum obesum															
Euastrum ohioense															
Euastrum sinosum															
Euastrum verrucosum								P							
Gemellicystis neglecta		P													
Geminella interrupta						P	P					1992		664	664
Gloeocystis schroeteri	3423	6275	6537	5412	997	17780	1305	19523	12869	5804	4147	5354	3444	4315	558

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Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site A0-1					Site A5-6					Site A7-8				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
Gloeotila pelagica															
Golenkinia radiata v. brevispina	240			80	80		372	349	240	120					
Gonatozygon brebissonii															
Gonatozygon monotaenium			P			349	136	P	162	102	P	P			
Kirchneriella sp.		261		87	87	1743		349	697	532	361	125		162	106
Koliella longiseta															
Lagerheimia subsalsa															
Lagerheimia wratislawiensis															
Monoraphidium sp.															
Mougeotia sp. a	P	P	778	259	259	8193	12986	7583	9587	1708	120	P	128	83	41
Nephrocytium limneticum						P					P	P			
Oocystis elliptica	3357	1307	498	1721	851	1494	P	530	675	437	2044	2739	552	1778	645
Oocystis lacustris	2042	11243	12550	8612	3306	6624	11528	17954	12035	3281	120		2934	1018	959
Oonephris obesa	P					P	1549	P	516	516					
Quadrigula closterioides															
Phacotus sp.		261	261	174	87			349	116	116					
Pandorina morum															
Pediastrum boryanum	P	P	P			P	P	P							
Pediastrum boryanum v. ellesmerense	P	523	249	257	151			P							
Pediastrum duplex															
Pediastrum duplex v. clathratum		P						P							
Pediastrum integrum v. scutum															
Pediastrum tetras	904	1177	1494	1192	170							P			
Penium sp.															
Penium margaritaecum															
Pleurotaenium trabecula															
Scenedesmus bijuga	1201	2615	P	1272	756	1743	1487	3486	2239	628	240	747	P	329	220
Scenedesmus acuminatus	P	261		87	87		620		207	207					
Scenedesmus arcuatus							2603	P	868	868					
Scenedesmus denticulatis						P		P							
Scenedesmus ecornis															
Scenedesmus incrassatulus	2883	3138	3922	3314	313	6275	2231	15339	7948	3875	1082	498	510	697	193
Scenedesmus quadricauda	3003	4706	784	2831	1135	697	1487	P	728	430			P		
Staurastrum sp.	P		249	83	83	996	465		487	288	240	125	P	122	69
Staurastrum sp. b												P			
Staurastrum sp. c												P			
Staurastrum anatinum v. biradiatum															
Staurastrum antilopaeum							P								
Staurastrum anatinum															
Staurastrum apiculatum							P	349	116	116					
Staurastrum borgeanum						125		794	306	246					
Staurastrum brebissonii							P	132	44	44		P			
Staurastrum clevei															
Staurastrum cuspidatum															
Staurastrum dejectum	P	P	P			249	P		83	83		374	P	125	125
Staurastrum furcigerum															
Staurastrum gladiosum															
Staurastrum hystrix															
Staurastrum longebranchiatum															
Staurastrum lunatum															
Staurastrum manfeldtii															
Staurastrum pachyrhynchum		P				P		P			P	P			
Staurastrum pilosum												P			
Staurastrum proboscidium															
Staurastrum rhabdophorum															
Staurastrum subcruciatum															
Staurastrum tetracerum	129			43	43	P	P								
Staurastrum varians	129			43	43	P	P								
Staurodesmus triangularis															
Teilingia granulata		654	249	301	191	3486	4091	2092	3223	592	721	2366	128	1072	669
Tetraedron tumidulum	P										P	P	128	43	43
Tetraedron limneticum		P													
Tetraedron minimum	120	3661	522	1434	1119	1743	372	1046	1054	396	240	125	255	207	41
Tetraedron muticum		523		174	174	3495	5206	2789	3830	718					
Tetraedron arthrodesmiforme															
Tetraedron caudatum															
Trochiscia granulata															
Xanthidium antilopaeum								P							
Zygnema sp.	P		560	187	187	1394	3841	261	1832	1056	3246	1297	2626	2390	575
Total Chlorophyta	29115	46367	37150	37544	4984	68933	66145	95198	76759	9255	12981	17581	12257	14273	1667
CYANOPHYTA (Cyanobacteria)															
Agmenellum quadruplicatum		13596	2988	5528	4125	P	P					P	1020	340	340
Agmenellum thermale	841	4968	4445	3418	1297		P	P			3967	P	2168	2045	1147
Anabaena sp.		P				2789	P		930	930		4482	P	1494	1494
Anabaena lapponica															
Anacystis dimidiata	P	P	498	166	166		P	1046	349	349			383	128	128
Anacystis marina													33162	11054	11054
Anacystis montana	43003		77656	40220	22461							9587		3196	3196
Anacystis thermalis	14535		2091	5542	4537	7147	5578	2789	5171	1274	P				
Aphanocapsa elachista	27868	9674	8628	15390	6246	22312	16734		13015	6704					
Aphanocapsa elachista v. planctonica	8168			2723	2723	14294	35327	115395	55005	30799	23562	49928	15050	29513	10499
Aphanothece clathrata			P				6694		2231	2231		3486		1162	1162
Chlorogloea microcystoides						69376	44996	17431	43934	15005	1322	3611	91705	32213	29754
Chroococcus turgidus	1291	1569	1569	1476	93	5404	7809	8018	7077	839	240	5976	P	2072	1953
Coelosphaerium kuetzingianum															
Dactylococcopsis linearis	480	523		334	168	P	1487	1046	844	441					
Desmonema wrangelii			P			111560	24543	11121	49075	31482	21158	2490	P	7883	6676
Dichothrix gypsophila	26186	4968	90991	40715	25873	14294		P	4765	4765	71648	207058	47191	108632	49717
Gloeothece linearis v. composite											3246	P	255	1167	1042
Gomphosphaeria lacustris		74257		24752	24752	13596	19709	21266	18190	2341	P	11455		3818	3818
Lyngbya birgei								P							
Microcoleus vaginatus							P	58569	19523	19523	2525	P	P	842	842
Microcystis flos-aquae	7928	31115	P	13014	9335		P	62055	20685	20685	6972			2324	2324
Nostoc commune	P		P			2789	P	1394	1394	805	2765	8840	P	3868	2611
Oncobyrsa cesatii															
Oscillatoria sp.															
Oscillatoria limosa						P									
Pseudanabaena sp.															
Schizothrix calcicola	53694	927469	209175	396779	269114	557800	240969	292845	363871	98114	93527	186141	41197	106955	42377
Scopulonema minus															
Stigonema mamillosum												8716		2905	2905
Unidentified Cyanophyte akinete															
Total Cyanophyta	183994	1068139	398041	550058	264308	821361	403848	592975	606061	120704	230932	501770	232131	321611	90680
Total Algal Density (No. cells/cm²)	245978	1157390	506624	636664	271017	922844	512003	738435	724427	118806	273114	569710	262761	368528	100635
Total Number of Taxa per Sample	91	83	87	87	2	91	95	89	92	2	86	98	71	85	8

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Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site B1-2					Site B4-5					Site B6-7				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
BACILLARIOPHYTA (Diatoms)															
Achnanthes detha	2092	3399	3661	3051	485						679	1700	261	880	427
Achnanthes flexella	697	P	P	232	232	P	P	261	87	87	P	132	P	44	44
Achnanthes lanceolata															
Achnanthes minutissima	67808	51902	114262	77991	18708	21877	11029	14773	15893	3181	14126	84454	64321	54300	20911
Achnanthes minutissima v.cryptocephala	697	261	5099	2019	1545	261	134		132	75					
Amphora sp.															
Amphora ovalis		P	P					P					P		
Anomoeoneis vitrea															
Asterionella formosa															
Caloneis ventricosa															
Caloneis ventricosa v. truncatula	P	P	P					P							
Cocconeis placentula															
Cocconeis placentula v. euglypta															
Cocconeis sp.							268		89	89					
Cyclotella sp.															
Cyclotella antiqua		523	523	349	174	261		P	87	87	407	P	P	136	136
Cyclotella comta	349			116	116						136		261	132	75
Cyclotella kutzingiana															
Cyclotella meneghiniana															
Cyclotella ocellata															
Cyclotella striata															
Cymbella amphioxys											P		P		
Cymbella cistula															
Cymbella cuspidata												P			
Cymbella cymbiformis			P									P			
Cymbella cymbiformis v. nonpunctata		P	523	174	174	175		P	58	58			P		
Cymbella gracilis												P			
Cymbella minuta	1917	784	1046	1249	342	P	939	523	487	272	1358	1046	523	976	244
Cymbella sinuata															
Cymbella turgida	P	P	103	34	34	261	P	P	87	87	P		243	81	81
Cymbella turgidula											P		P		
Cymbella sp.	1046	P		349	349						P	P	P		
Denticula tenuis	349	P	P	116	116		P				P	1046	523	523	302
Diatoma elongatum	3138	3966	17299	8134	4589	13596	10029	11222	11616	1048	7481	11157	26677	15105	5863
Diatoma vulgare															
Didymosphenia geminata	P	138	636	258	193							66		22	22
Diploneis sp.															
Diploneis elliptica	P														
Diploneis ovalis															
Epithemia sorex	136	P	413	183	122	P	P				P	P	P		
Eunotia arcus															
Eunotia exigua															
Eunotia flexuosa															
Eunotia glacialis	P	261	P	87	87										
Eunotia major															
Eunotia papilio															
Eunotia praerupta	1494	P	1307	934	470	P	312	P	104	104	P		196	65	65
Eunotia praerupta v. bidens															
Eunotia sudetica															
Eunotia sp.							939	523	487	272	P				
Fragilaria crotonensis	697	1046	1569	1104	253	P	939	1171	703	358	P	P	P		
Fragilaria pinnata	349	1927	2477	1584	638		1207	P	402	402	P	523	P	174	174
Frustulia vulgaris															
Gomphonema acuminatum v. coronata		P													
Gomphonema angustatum		523		174	174						P		P		
Gomphonema constrictum	P		523	174	174	784	134	P	306	242	P	P	P		
Gomphonema parvulum															
Navicula sp.															
Navicula amphibola						P	P	P							
Navicula bacillum															
Navicula decussis															
Navicula dolosa															
Navicula cryptocephala	349	523	P	291	154		134	784	306	242	P	784	261	348	230
Navicula cryptocephala v. intermedia	1743	5229		2324	1537						974	5186	7758	4639	1977
Navicula exigua	P		P									P			
Navicula laevissima															
Navicula pseudoscutiformis															
Navicula pupula															
Navicula radiosa	1046	413	981	813	201	1830	805	261	965	460	407	1311	605	774	274
Navicula reinhardtii															
Nedium sp.															
Nedium hitchcockii nr															
Nedium iridis v. amphigomphus						P	P								
Nitzschia sp.															
Nitzschia acicularis															
Nitzschia amphibia															
Nitzschia angustata															
Nitzschia dissipata															
Nitzschia filiformis	349			116	116	P	P	1700	567	567	P	P	344	115	115
Nitzschia fonticola															
Nitzschia palea												P	P		
Nitzschia sigmoidea							P				P		P		
Pinnularia sp.						P									
Pinnularia biceps															
Pinnularia borealis															
Pinnularia nodosa															
Pinnularia streptoraphe															
Rhizosolenia longiseta															
Rhopalodia gibba	P	P				P	P	P							
Stauroneis anceps	P	P					P								
Stauroneis phoenicenteron															
Stauroneis smithii			P												
Stauroneis sp.													P		
Stephanodiscus astraea											P		P		
Surirella sp.															
Synedra actinastroides	2848	7072	11767	7229	2576	4837	4404	4052	4431	227	7188	12485	20766	13480	3951
Synedra acus											826	513	994	778	141
Synedra sp.															
Synedra ulna	136	261	2050	816	618	692	631	546	623	42	119	P	252	124	73
Tabellaria fenestrata	P	1307	3661	1656	1071	1307	402	1177	962	283	68	229	P	99	68
Tabellaria flocculosa	611	1307	16080	5999	5044	1046	4157	5503	3569	1320	136	761	1569	822	415
Total Bacillariophyta	87851	80842	183980	117558	33273	46927	36463	42496	41962	3032	33905	121393	125554	93617	29180

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Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site B1-2					Site B4-5					Site B6-7				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
CRYPTOPHYTA (Cryptomonads)															
Cryptomonas erosa							P								
Cryptomonas ovata						588	134	312	345	132					
Cryptomonas reflexa								P							
Katablepharis ovalis															
Rhodomonas minuta		261		87	87						136			45	45
Total Cryptophyta		261		87	87	588	134	312	345	132	136			45	45
CHRYSOPHYTA (Golden-Brown Algae)															
Chrysidiastrum catenatum	349	1046		465	307			261	87	87					
Chrysococcus sp.						261		P	87	87					
Chrysosphaerella rodhei							1341		447	447					
Dinobryon crenulatum															
Dinobryon divergens	679	261	4968	1969	1504	523	134	156	271	126	P	132	523	218	157
Dinobryon sertularia	P					523	134		219	157	407	262	P	223	119
Dinobryon sertularia v.protuberans	272	P		91	91	P	268	P	89	89			P		
Dinobryon sociale			523	174	174						P		P		
Dinobryon tabellariae												P	P		
Ishtmochloron trispinatum						P	134	P	45	45					
Kephyrion boreale						784	1475	1307	1189	208		P	P		
Ochromonas spa															
Ophiocytium sp.															
Pseudokephyrion sp.							P								
Stichogloea doederleinii															
Synura sp.															
Unidentified statospore	2440	2876	P	1772	895	784	268	P	351	230	P	P	261	87	87
Total Chrysophyta	3740	4183	5491	4471	526	2875	3754	1724	2784	588	407	394	784	525	128
PYRROPHYTA (Dinoflagellates)															
Gymnodinium sp.							402	261	221	118					
Gymnodinium uberrimum		P					268	P	89	89					
Peridinium sp.	136		P	45	45	P						P	P		
Peridinium aciculiferum	697	P	1569	755	454	261	P	P	87	87	P	P	109	36	36
Peridinium cinctum							P	P							
Peridinium palatinum															
Peridinium palustre															
Peridinium willei															
Unidentified cyst						261	402		221	118					
Total Pyrrophyta	833		1569	801	453	522	1072	261	618	239			109	36	36
EUGELNOPHYTA															
Euglena sp.			P				P								
Phacus sp.								P							
Trachelomonas sp.															
Total Euglenophyta															
CHLOROPHYTA (Green Algae)															
Ankistrodesmus convolutus											136	523		220	157
Ankistrodesmus falcatus		P				261	P		87	87	136	523		220	157
Ankistrodesmus falcatus v. spiralis	P	P	2615	872	872	784	134	523	480	189	407	P	P	136	136
Ankistrodesmus gelifactus											P		P		
Arthrodesmus triangularis						P									
Bulbochaete sp.		550	P	183	183	1765	1073	1327	1388	202	747	P	1598	782	462
Chlamydomonas sp. a															
Chlamydomonas sp. b															
Closterium sp.						16	P		5	5			P		
Closterium acerosum															
Closterium actum															
Closterium dianae								156	52	52					
Closterium pseudolunula															
Coeloastrum sp.															
Coelastrum microporum			P								1630	2383		1338	703
Coeloastrum printzii															
Coeloastrum sphaericum	1394	550	826	923	248	P		P							
Cosmarium sp.															
Cosmarium sp.															
Cosmarium anceps													P		
Cosmarium biculatum								468	156	156					
Cosmarium botrytis	136		310	149	90		P				P	P			
Cosmarium contracta												P			
Cosmarium coronatum															
Cosmarium depressum		275	740	338	216		P						36	12	12
Cosmarium granulatum	272	P	746	339	218		670	P	223	223	P	P	P		
Cosmarium holmiense v. intermedium	P											P			
Cosmarium humile v. lacustre	136	2092	550	926	595		939	523	487	272	272	397	145	271	73
Cosmarium impressulum v.suborthogonum		P				P						P	97	32	32
Cosmarium laeve															
Cosmarium norimbergense	407		138	182	120						P		P		
Cosmarium phaseolus v. phaseolus						360			120	120					
Cosmarium pseudoprotuberans	P		P												
Cosmarium rectangulare		P				654			218	218		P	P		
Cosmarium reniforme						1068			356	356					
Cosmarium repandum							P	P							
Cosmarium septentrionale						588			196	196					
Cosmarium speciosum	3835	516	1800	2050	966			1717	572	572	136	132	316	195	61
Cosmarium tetraopthalmum							P	P				P	P		
Cosmarium turpinii	181	P	230	137	70	P	P	P					P		
Cosmarium turpinii v. podolicum															
Crucigenia apiculata															
Crucigenia quadrata	P	P									543			181	181
Crucigenia rectangularis		P	P								P	P			
Cylindrocystis brebissonii		P				261	134	156	184	39		P	145	48	48
Desmidium swartzii v. quadrangulatum	P		P												
Dictyosphaerium pulchellum															
Elakatothrix sp.							134	P	45	45	407	1569	291	756	408
Eustropsis richteri															
Euastrum sp.															
Euastrum bidentatum							268		89	89		P			
Euastrum dubium v. maius	P	138	P	46	46		P				P	132	145	92	46
Euastrum elegans	P		826	275	275	392	P	781	391	225	543	P	145	229	162
Euastrum gemmatum															
Euastrum obesum															
Euastrum ohioense											P				
Euastrum sinosum							P								
Euastrum verrucosum															
Gemellicystis neglecta															
Geminella interrupta															
Gloeocystis schroeteri	32422	15688	25451	24520	4853	9151	2548	1569	4423	2381	5569	3922	4183	4558	511

continued...

Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site B1-2					Site B4-5					Site B6-7				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
Gloeotila pelagica							805		268	268					
Golenkinia radiata v. brevispina		P					134		45	45		P			
Gonatozygon brebissonii								P							
Gonatozygon monotaenium						P	312		104	104					
Kirchneriella sp.			523	174	174										
Koliella longiseta								P							
Lagerheimia subsaisa															
Lagerheimia wratislawiensis						261			87	87					
Monoraphidium sp.															
Mougeotia sp. a		P				4717	3710	6439	4955	797	543	P	363	302	160
Nephrocytium limneticum	P		P			1046		P	349	349					
Oocystis elliptica	1630	1046	1101	1259	186						P	437		146	146
Oocystis lacustris	5927	5752	12550	8076	2237	2549	P	3399	1983	1021	1494	8759	5491	5248	2101
Oonephris obesa															
Quadrigula closterioides															
Phacotus sp.	349	261		203	105		3084		1028	1028					
Pandorina morum															
Pediastrum boryanum	P	P	P			P	P	P			P				
Pediastrum boryanum v. ellesmerense	P	P				P	P	P					P		
Pediastrum duplex		P	P				P	P							
Pediastrum duplex v. clathratum	P														
Pediastrum integrum v. scutum															
Pediastrum tetras	P	3138	2092	1743	922	P	P	P			1902		P	634	634
Penium sp.			P				P								
Penium margaritaecum															
Pleurotaenium trabecula															
Scenedesmus bijuga	1222	523	2092	1279	454	523			174	174	1222	P		407	407
Scenedesmus acuminatus		P	P												
Scenedesmus arcuatus															
Scenedesmus denticulatis															
Scenedesmus ecornis											P				
Scenedesmus incrassatulus	3835	3399	1569	2934	694	2092	2145	2092	2110	18	407	P	1569	659	470
Scenedesmus quadricauda	2766	1830	P	1532	812	P	P	P							
Staurastrum sp.						88	P	261	116	77		P	P		
Staurastrum sp. b			P								P				
Staurastrum sp. c							P								
Staurastrum anatinum v. biradiatum															
Staurastrum antilopaeum															
Staurastrum anatinum						P									
Staurastrum apiculatum		P													
Staurastrum borgeanum	91	P	688	260	216	1307			436	436	P	P	P		
Staurastrum brebissonii						P	737		246	246	P	P			
Staurastrum clevei													P		
Staurastrum cuspidatum							P	262	87	87					
Staurastrum dejectum	136	P	69	68	39		224	392	205	114	P	P	P		
Staurastrum furcigerum															
Staurastrum gladiosum						P		P							
Staurastrum hystrix															
Staurastrum longebranchiatum							P								
Staurastrum lunatum						261			87	87					
Staurastrum manfeldtii															
Staurastrum pachyrhynchum			P			P	67	P	22	22		P	P		
Staurastrum pilosum	P	138	183	107	55		134	523	219	157					
Staurastrum proboscidium															
Staurastrum rhabdophorum															
Staurastrum subcruciatum			P			P									
Staurastrum tetracerum						P	P				P	66	P	22	22
Staurastrum varians															
Staurodesmus triangularis															
Teilingia granulata	349	523	1046	639	209	2353	5162	2498	3338	913	679	1307	3138	1708	738
Tetraedron tumidulum							2816		939	939		P			
Tetraedron limneticum															
Tetraedron minimum	349		523	291	154	P	P	P			136	P	P	45	45
Tetraedron muticum											272	1830	1046	1049	450
Tetraedron arthrodesmiforme						261			87	87			261	87	87
Tetraedron caudatum													P		
Trochiscia granulata						131			44	44					
Xanthidium antilopaeum		P	P								P				
Zygnema sp.			413	138	138		P	P			P	838		279	279
Total Chlorophyta	55437	36419	57081	49646	6630	30889	25230	23086	26402	2327	17181	22818	18969	19556	1683
CYANOPHYTA (Cyanobacteria)															
Agmenellum quadruplicatum	P	P	P			P	P								
Agmenellum thermale	4681			1560	1560			P			1902	2092	3050	2348	355
Anabaena sp.	P		18826	6275	6275	P									
Anabaena lapponica	P	P	P				P					P	2034	678	678
Anacystis dimidiata								P			1358	1046	261	888	326
Anacystis marina															
Anacystis montana								82101	27367	27367					
Anacystis thermalis		5229		1743	1743		1877		626	626		2092		697	697
Aphanocapsa elachista							55914		18638	18638					
Aphanocapsa elachista v. planctonica	83670	67459	73734	74954	4719	10720		12550	7757	3914	P		17518	5839	5839
Aphanothece clathrata															
Chlorogloea microcystoides						P					5569	3138	3661	4123	739
Chroococcus turgidus	2789	P	2092	1627	838	4445	2816	1307	2856	906		1569	2876	1482	831
Coelosphaerium kuetzingianum															
Dactylococcopsis linearis															
Desmonema wrangelii	9915	20917	33991	21608	6959	10720	25477	24352	20183	4743	34364	86808	22879	48017	19677
Dichothrix gypsophila	19523	321083	140670	160425	87611	9936	150043	14049	58009	46032	15620	47587	32422	31876	9232
Gloeothece linearis v. composite	P	P	P				1743	2092	1278	647	136		261	132	75
Gomphosphaeria lacustris	72514	4183	30330	35676	19906	75041	9118	P	28053	23641	17250	31115	39743	29369	6552
Lyngbya birgei															
Microcoleus vaginatus	P	P	P			P	P	P			10595	36344	69289	38743	16986
Microcystis flos-aquae						P					P	P	28239	9413	9413
Nostoc commune		P					P	P			543	4706	19610	8286	5788
Oncobyrsa cesatii															
Oscillatoria sp.															
Oscillatoria limosa															
Pseudanabaena sp.	2092			697	697										
Schizothrix calcicola	68330	35298	231138	111589	60530	106156	130734	97266	111385	10009	20510	201854	252579	158314	70441
Scopulonema minus								P							
Stigonema mamillosum						3922	670	P	1531	1211					
Unidentified Cyanophyte akinete															
Total Cyanophyta	263514	454169	530781	416155	79460	220940	378392	233717	277683	50489	107847	418351	494422	340207	118237
Total Algal Density per Sample (no./cm²)	411375	575874	778902	588717	106290	302741	445045	301596	349794	47627	159476	562956	639838	454096	148970
Total Number of Taxa per Sample	81	83	84	83	1	84	99	85	89	5	84	85	91	87	2

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Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site D0-1					Site D6-7				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
BACILLARIOPHYTA (Diatoms)										
Achnanthes detha	784	523	904	737	112	522	697	4183	1801	1192
Achnanthes flexella	P					P	P	P		
Achnanthes lanceolata							P			
Achnanthes minutissima	16669	8694		8454	4813	15949	6484	53576	25336	14382
Achnanthes minutissima v.cryptocephala								697	232	232
Amphora sp.										
Amphora ovalis		P	P			P	P	349	116	116
Anomoeoneis vitrea								P		
Asterionella formosa										
Caloneis ventricosa										
Caloneis ventricosa v. truncatula										
Cocconeis placentula										
Cocconeis placentula v. euglypta										
Cocconeis sp.							P			
Cyclotella sp.						P	P			
Cyclotella antiqua	143	P	P	48	48		104	P	35	35
Cyclotella comta										
Cyclotella kutzingiana										
Cyclotella meneghiniana										
Cyclotella ocellata										
Cyclotella striata						P	P			
Cymbella amphioxys	261			87	87		P			
Cymbella cistula										
Cymbella cuspidata								P		
Cymbella cymbiformis										
Cymbella cymbiformis v. nonpunctata	P		P			P	93	P	31	31
Cymbella gracilis										
Cymbella minuta	3268	784	1023	1692	791	1046	P	1743	930	507
Cymbella sinuata							P	126	42	42
Cymbella turgida	915	P	P	305	305		P	P		
Cymbella turgidula						P	P	378	300	156
Cymbella sp.	P	P	732	244	244	523	P	1046	349	349
Denticula tenuis	P		P			P	10215	48023	51661	25045
Diatoma elongatum	2353	1307	1291	1650	351	96744				
Diatoma vulgare										
Didymosphenia geminata	424	196	P	207	123	134			45	45
Diploneis sp.										
Diploneis elliptica							139	P	46	46
Diploneis ovalis								P		
Epithemia sorex	P	P	387	129	129	P	41	63	35	18
Eunotia arcus										
Eunotia exigua										
Eunotia flexuosa							P	P		
Eunotia glacialis										
Eunotia major			P							
Eunotia papilio										
Eunotia praerupta	P	P	678	226	226	P	P	P		
Eunotia praerupta v. bidens										
Eunotia sudetica										
Eunotia sp.			P							
Fragilaria crotonensis	1046		646	564	305	P	418	6275	2231	2026
Fragilaria pinnata	1046	1961	387	1131	456	P	837	697	511	259
Frustulia vulgaris										
Gomphonema acuminatum v. coronata		131		44	44					
Gomphonema angustatum	261	P	258	173	87	P	139	P	46	46
Gomphonema constrictum	P	P	P			P	P	P		
Gomphonema parvulum										
Navicula sp.										
Navicula amphibola	141	P	P	47	47	P	P			
Navicula bacillum							P	P		
Navicula decussis										
Navicula dolosa										
Navicula cryptocephala	915	131	129	392	262	P	82	1743	608	568
Navicula cryptocephala v. intermedia	4489	1765	1711	2655	917	P	697	697	465	232
Navicula exigua						P	616	P	205	205
Navicula laevissima										
Navicula pseudoscutiformis										
Navicula pupula			P			P	P	P		
Navicula radiosa	1046	131	365	514	274	44	124	158	109	34
Navicula reinhardtii										
Nedium sp.										
Nedium hitchcockii nr							P			
Nedium iridis v. amphigomphus								P		
Nitzschia sp.								126	42	42
Nitzschia acicularis						4249			1416	1416
Nitzschia amphibia						P				
Nitzschia angustata						P				
Nitzschia dissipata										
Nitzschia filiformis	261	507	P	256	146	261	P		87	87
Nitzschia fonticola						261	P	P	87	87
Nitzschia palea										
Nitzschia sigmoidea	784	P		261	261		P			
Pinnularia sp.	P	P				P	P	P		
Pinnularia biceps										
Pinnularia borealis										
Pinnularia nodosa							P	P		
Pinnularia streptoraphe										
Rhizosolenia longiseta										
Rhopalodia gibba	P					P	P	P		
Stauroneis anceps	P					P	P	P		
Stauroneis phoenicenteron							P			
Stauroneis smithii										
Stauroneis sp.										
Stephanodiscus astraea								126	42	42
Surirella sp.		P								
Synedra actinastroides	8235	3497	5930	5887	1368	5240	2617	10197	6018	2222
Synedra acus										
Synedra sp.										
Synedra ulna	P	114	420	178	125		P			
Tabellaria fenestrata	1569	P	2496	1355	728	670	789	2101	1187	458
Tabellaria flocculosa	4882	458	2421	2587	1260	5883	2650	6160	4898	1127
Total Bacillariophyta	49492	20199	19778	29823	8835	131526	26742	138464	98911	38140

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Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site D0-1					Site D6-7				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
CRYPTOPHYTA (Cryptomonads)										
Cryptomonas erosa										
Cryptomonas ovata						261			87	87
Cryptomonas reflexa										
Katablepharis ovalis										
Rhodomonas minuta										
Total Cryptophyta						261			87	87
CHRYSOPHYTA (Golden-Brown Algae)										
Chrysidiastrum catenatum										
Chrysococcus sp.										
Chrysosphaerella rodhei										
Dinobryon crenulatum										
Dinobryon divergens		P	P							
Dinobryon sertularia		P	P			1307	558	697	854	230
Dinobryon sertularia v.protuberans			P			1569	2231	2092	1964	202
Dinobryon sociale						523		349	291	154
Dinobryon tabellariae						P				
Ishtmochloron trispinatum	P	131		44	44					
Kephyrion boreale						523	139		221	156
Ochromonas spa										
Ophiocytium sp.										
Pseudokephyrion sp.										
Stichogloea doederleinii										
Synura sp.						P				
Unidentified statospore	1569	654	646	956	306	P	802	349	384	232
Total Chrysophyta	1569	785	646	1000	287	3922	3730	3487	3713	126
PYRROPHYTA (Dinoflagellates)										
Gymnodinium sp.										
Gymnodinium uberrimum						P		P		
Peridinium sp.							82	P	27	27
Peridinium aciculiferum	261	654	P	305	190	P	418	126	181	124
Peridinium cinctum										
Peridinium palatinum										
Peridinium palustre										
Peridinium willei										
Unidentified cyst	P	P	258	86	86	490	237		242	141
Total Pyrrophyta	261	654	258	391	132	490	737	126	451	177
EUGELNOPHYTA										
Euglena sp.										
Phacus sp.										
Trachelomonas sp.	P					P				
Total Euglenophyta										
CHLOROPHYTA (Green Algae)										
Ankistrodesmus convolutus	784	131	387	434	190					
Ankistrodesmus falcatus		P						P		
Ankistrodesmus falcatus v. spiralis	2876	392	1098	1455	739	523	558	126	402	139
Ankistrodesmus gelifactus										
Arthrodesmus triangularis	P									
Bulbochaete sp.	1767	784	690	1080	344	8628	3730	5028	5795	1465
Chlamydomonas sp. a										
Chlamydomonas sp. b										
Closterium sp.								P		
Closterium acerosum										
Closterium actum										
Closterium dianae										
Closterium pseudolunula										
Coeloastrum sp.		P					P	P		
Coelastrum microporum										
Coeloastrum printzii										
Coeloastrum sphaericum	3922	P	P	1307	1307	P	1116		372	372
Cosmarium sp.										
Cosmarium sp.										
Cosmarium anceps	P									
Cosmarium biculatum			129	43	43					
Cosmarium botrytis		131	646	259	197	134			45	45
Cosmarium contracta						134		P	45	45
Cosmarium coronatum										
Cosmarium depressum		P				67		252	106	75
Cosmarium granulatum	141		P	47	47		P	126	42	42
Cosmarium holmiense v. intermedium	196		P	65	65					
Cosmarium humile v. lacustre	565	P	P	188	188					
Cosmarium impressulum v.suborthogonum		P	P			P	P	P		
Cosmarium laeve			P					126	42	42
Cosmarium norimbergense	P	P	P			P	P	P		
Cosmarium phaseolus v. phaseolus										
Cosmarium pseudoprotuberans										
Cosmarium rectangulare						134			45	45
Cosmarium reniforme										
Cosmarium repandum										
Cosmarium septentrionale										
Cosmarium speciosum	1272	P	P	424	424		P	169	56	56
Cosmarium tetraopthalmum	P						82		27	27
Cosmarium turpinii	406		P	135	135	17	82	P	33	25
Cosmarium turpinii v. podolicum										
Crucigenia apiculata		P								
Crucigenia quadrata										
Crucigenia rectangularis	P									
Cylindrocystis brebissonii						P				
Desmidium swartzii v. quadrangulatum										
Dictyosphaerium pulchellum										
Elakatothrix sp.						784		P	261	261
Euastropsis richteri										
Euastrum sp.										
Euastrum bidentatum						P				
Euastrum dubium v. maius	P		P			261	P	315	192	97
Euastrum elegans	141		P	47	47			P		
Euastrum gemmatum							P			
Euastrum obesum										
Euastrum ohioense										
Euastrum sinosum										
Euastrum verrucosum										
Gemellicystis neglecta										
Geminella interrupta										
Gloeocystis schroeteri	15849	15557	8845	13417	2288	3399	3417	10807	5874	2466

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Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site D0-1					Site D6-7				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
Gloeobia pelagica										
Golenkinia radiata v. brevispina										
Gonatozygon brebissonii										
Gonatozygon monotaenium						P		126	42	42
Kirchneriella sp.	784	523	1162	823	185			697	232	232
Koliella longiseta										
Lagerheimia subsalsa										
Lagerheimia wratislawiensis										
Monoraphidium sp.										
Mougeotia sp. a		65	P	22	22	1177	488	1229	965	239
Nephrocytium limneticum		131	P	44	44					
Oocystis elliptica	P	392		131	131	P	P			
Oocystis lacustris	8106	3922		4009	2340	1307	3207	3835	2783	760
Oonephris obesa										
Quadrigula closterioides										
Phacotus sp.										
Pandorina morum										
Pediastrum boryanum	P		P			P	P	349	116	116
Pediastrum boryanum v. ellesmerense	1046			349	349	P	P	P		
Pediastrum duplex										
Pediastrum duplex v. clathratum										
Pediastrum integrum v. scutum										
Pediastrum tetras		1569	P	523	523	P	1673		558	558
Penium sp.										
Penium margaritaecum										
Pleurotaenium trabecula		P								
Scenedesmus bijuga		1700	516	739	503	1046	558	697	767	145
Scenedesmus acuminatus	1131		P	377	377	261	418		226	122
Scenedesmus arcuatus	P									
Scenedesmus denticulatis								P		
Scenedesmus ecornis										
Scenedesmus incrassatulus	8628	3661	3615	5301	1663	P	558		186	186
Scenedesmus quadricauda	2615	2876	1033	2175	576	1046	1116	697	953	130
Staurastrum sp.	P	98	129	76	39			252	84	84
Staurastrum sp. b										
Staurastrum sp. c										
Staurastrum anatinum v. biradiatum										
Staurastrum antilopaeum										
Staurastrum anatinum										
Staurastrum apiculatum										
Staurastrum borgeanum						134			45	45
Staurastrum brebissonii										
Staurastrum clevei										
Staurastrum cuspidatum										
Staurastrum dejectum		88	P	29	29	P	P	P		
Staurastrum furcigerum	P									
Staurastrum gladiosum										
Staurastrum hystrix										
Staurastrum longebranchiatum										
Staurastrum lunatum										
Staurastrum manfeldtii						P				
Staurastrum pachyrhynchum	P		P			P				
Staurastrum pilosum			65	22	22	P		P		
Staurastrum proboscidium		P								
Staurastrum rhabdophorum										
Staurastrum subcruciatum							P			
Staurastrum tetracerum	261		129	130	75	134	P	P	45	45
Staurastrum varians										
Staurodesmus triangularis										
Teilingia granulata	5229	1046	3099	3125	1208	261		697	319	203
Tetraedron tumidulum	495		129	208	148					
Tetraedron limneticum			P							
Tetraedron minimum		131		44	44	261	139	349	250	61
Tetraedron muticum										
Tetraedron arthrodesmiforme			P							
Tetraedron caudatum	784		P	261	261					
Trochiscia granulata										
Xanthidium antilopaeum										
Zygnema sp.	212	P	1130	447	347					
Total Chlorophyta	**57210**	**33197**	**22802**	**37736**	**10189**	**19708**	**17142**	**25877**	**20909**	**2582**
CYANOPHYTA (Cyanobacteria)										
Agmenellum quadruplicatum	P	2092	P	697	697					
Agmenellum thermale										
Anabaena sp.		1961		654	654					
Anabaena lapponica		261	387	216	114					
Anacystis dimidiata		5360		1787	1787	P	82		27	27
Anacystis marina										
Anacystis montana	208390	12550	3486	74809	66842					
Anacystis thermalis	2615	2092		1569	799	523	558	P	360	180
Aphanocapsa elachista										
Aphanocapsa elachista v. planctonica		P						P		
Aphanothece clathrata										
Chlorogloea microcystoides										
Chroococcus turgidus	1046	2484		1177	720	P	P	3138	1046	1046
Coelosphaerium kuetzingianum		P	17689	5896	5896	P				
Dactylococcopsis linearis										
Desmonema wrangelii	29546	25362	25099	26669	1441	3889	418	8065	4124	2211
Dichothrix gypsophila	308272	243819	27244	193112	84995	2092	7670	8065	5942	1929
Gloeothece linearis v. composite								3138	1046	1046
Gomphosphaeria lacustris	14642		9297	7980	4278					
Lyngbya birgei										
Microcoleus vaginatus	7321	523	2195	3346	2045					
Microcystis flos-aquae						13140	46018	47064	35407	11138
Nostoc commune	236629	2484		79704	78466	6537	1647	2789	3658	1477
Oncobyrsa casatii										
Oscillatoria sp.										
Oscillatoria limosa							P			
Pseudanabaena sp.										
Schizothrix calcicola	64321	43665	59266	55751	6217	65106	16455	151652	77738	39536
Scopulonema minus										
Stigonema mamillosum			P							
Unidentified Cyanophyte akinete										
Total Cyanophyta	**872782**	**342653**	**144663**	**453366**	**217257**	**91287**	**72848**	**223911**	**129349**	**47580**
Total Algal Density per Sample (no./cm²)	981314	397488	188147	522316	237322	247194	121199	391865	253418	78197
Total Number of Taxa per Sample	80	77	81	79	1	91	88	89	89	1

continued...

Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site ML-MR					Site ML-PL				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
BACILLARIOPHYTA (Diatoms)										
Achnanthes delta	2876	4183	1046	2702	910	523	2353		959	713
Achnanthes flexella	131	P	P	44	44	P		P		
Achnanthes lanceolata										
Achnanthes minutissima	51292	143546	61417	85418	29210	13923	16626	36279	22276	7045
Achnanthes minutissima v.cryptocephala	523	523		349	174	P	261		87	87
Amphora sp.										
Amphora ovalis			P			P				
Anomoeoneis vitrea										
Asterionella formosa		P					P			
Caloneis ventricosa										
Caloneis ventricosa v. truncatula	261	P	697	319	203			P		
Cocconeis placentula						P				
Cocconeis placentula v. euglypta										
Cocconeis sp.										
Cyclotella sp.										
Cyclotella antiqua										
Cyclotella comta	261	P	536	266	155	P	261	P	87	87
Cyclotella kutzingiana										
Cyclotella meneghiniana										
Cyclotella ocellata						P	P	P		
Cyclotella striata		P								
Cymbella amphioxys			P							
Cymbella cistula	P									
Cymbella cuspidata						P				
Cymbella cymbiformis										
Cymbella cymbiformis v. nonpunctata	348	458	P	269	138	523	P	P	174	174
Cymbella gracilis										
Cymbella minuta	1307	698	697	901	203	261	523	P	261	151
Cymbella sinuata										
Cymbella turgida	131	1046	3835	1671	1114	550		P	183	183
Cymbella turgidula										
Cymbella sp.		P						P		
Denticula tenuis		261	P	87	87			P		
Diatoma elongatum	6712	11635	9500	9282	1425	43145	120210	24186	62514	29363
Diatoma vulgare						P				
Didymosphenia geminata	P	P	P			P	P	P		
Diploneis sp.										
Diploneis elliptica						P		P		
Diploneis ovalis								P		
Epithemia sorex		P	349	116	116	261		P	87	87
Eunotia arcus										
Eunotia exigua										
Eunotia flexuosa										
Eunotia glacialis	P	1961	1394	1118	583	P		P		
Eunotia major	P									
Eunotia papilio										
Eunotia praerupta	523	775	2883	1394	748	P	P	P		
Eunotia praerupta v. bidens										
Eunotia sudetica										
Eunotia sp.						P				
Fragilaria crotonensis	P	P					784	P	261	261
Fragilaria pinnata		P				523	1040	261	608	229
Frustulia vulgaris							P	P		
Gomphonema acuminatum v. coronata										
Gomphonema angustatum			697	232	232	P		131	44	44
Gomphonema constrictum		P				P	P	P		
Gomphonema parvulum										
Navicula sp.										
Navicula amphibola										
Navicula bacillum										
Navicula decussis										
Navicula dolosa										
Navicula cryptocephala		P	P			261	784	261	435	174
Navicula cryptocephala v. intermedia	1700	4881	8541	5041	1976					
Navicula exigua							P			
Navicula laevissima										
Navicula pseudoscutiformis										
Navicula pupula								P		
Navicula radiosa		P	1046	349	349	261	574	131	322	131
Navicula reinhardtii						P				
Nedium sp.										
Nedium hitchcockii nr										
Nedium iridis v. amphigomphus						P				
Nitzschia sp.										
Nitzschia acicularis										
Nitzschia amphibia										
Nitzschia angustata										
Nitzschia dissipata										
Nitzschia filiformis	523	654	349	509	88		261	261	174	87
Nitzschia fonticola								P		
Nitzschia palea	P					P				
Nitzschia sigmoidea										
Pinnularia sp.		P								
Pinnularia biceps										
Pinnularia borealis		P								
Pinnularia nodosa						P				
Pinnularia streptoraphe										
Rhizosolenia longiseta										
Rhopalodia gibba						P		P		
Stauroneis anceps						P	P	P		
Stauroneis phoenicenteron		P								
Stauroneis smithii										
Stauroneis sp.										
Stephanodiscus astraea			P					P		
Surirella sp.										
Synedra actinastroides	1045	3596	697	1779	914	1809	7059	3987	4285	1523
Synedra acus										
Synedra sp.										
Synedra ulna		P						P		
Tabellaria fenestrata	P	P	P			392	185	261	279	60
Tabellaria flocculosa	P	1830	P	610	610	2064	2307	981	1784	408
Total Bacillariophyta	67633	176047	93684	112455	32673	64496	153228	66739	94821	29211

continued...

Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site ML-MR					Site ML-PL				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
CRYPTOPHYTA (Cryptomonads)										
Cryptomonas erosa										
Cryptomonas ovata										
Cryptomonas reflexa										
Katablepharis ovalis										
Rhodomonas minuta										
Total Cryptophyta										
CHRYSOPHYTA (Golden-Brown Algae)										
Chrysidiastrum catenatum	784			261	261					
Chrysococcus sp.										
Chrysosphaerella rodhei										
Dinobryon crenulatum								131	44	44
Dinobryon divergens	P	1307	697	668	378	261	861	654	592	176
Dinobryon sertularia		523	349	291	154	2092	784	523	1133	485
Dinobryon sertularia v.protuberans	784	516	P	433	230	5131	1307	523	2320	1423
Dinobryon sociale		P				4882	2615	1307	2935	1044
Dinobryon tabellariae							P			
Ishtmochloron trispinatum	P	P				523	784	327	545	132
Kephyrion boreale							261		87	87
Ochromonas spa										
Ophiocytium sp.						P		P		
Pseudokephyrion sp.										
Stichogloea doederleinii						P	523	P	174	174
Synura sp.										
Unidentified statospore	261	1830	1046	1046	453	1569	3399	1569	2179	610
Total Chrysophyta	1829	4176	2092	2699	742	14458	10534	5034	10009	2733
PYRROPHYTA (Dinoflagellates)										
Gymnodinium sp.										
Gymnodinium uberrimum	P						P	P		
Peridinium sp.	261	719	P	327	210	261	261	131	218	43
Peridinium aciculiferum	P	P	349	116	116		261	P	87	87
Peridinium cinctum	P	P						P		
Peridinium palatinum										
Peridinium palustre										
Peridinium willei										
Unidentified cyst	458	261	697	472	126	523	P	P	174	174
Total Pyrrophyta	719	980	1046	915	100	784	522	131	479	190
EUGELNOPHYTA										
Euglena sp.										
Phacus sp.										
Trachelomonas sp.						P	P	P		
Total Euglenophyta										
CHLOROPHYTA (Green Algae)										
Ankistrodesmus convolutus										
Ankistrodesmus falcatus										
Ankistrodesmus falcatus v. spiralis										
Ankistrodesmus gelifactus										
Arthrodesmus triangularis	P		P				P	P		
Bulbochaete sp.	490		P	163	163	P	523	P	174	174
Chlamydomonas sp. a										
Chlamydomonas sp. b										
Closterium sp.	114	P	P	38	38		123	P	41	41
Closterium acerosum										
Closterium actum										
Closterium dianae										
Closterium pseudolunula										
Coeloastrum sp.										
Coelastrum microporum										
Coeloastrum printzii		P				P		P		
Coeloastrum sphaericum										
Cosmarium sp.										
Cosmarium sp.										
Cosmarium anceps	P	P	P			P				
Cosmarium biculatum										
Cosmarium botrytis		258	1475	578	455					
Cosmarium contracta		P	P							
Cosmarium coronatum							P			
Cosmarium depressum			697	232	232	261		131	131	75
Cosmarium granulatum	P	387	134	174	113	P	P	P		
Cosmarium holmiense v. intermedium	131	129	P	87	43	P				
Cosmarium humile v. lacustre	P	258		86	86			P		
Cosmarium impressulum v.suborthogonum	P					P	P			
Cosmarium laeve										
Cosmarium norimbergense	P	261	402	221	118					
Cosmarium phaseolus v. phaseolus										
Cosmarium pseudoprotuberans										
Cosmarium rectangulare	131	P	670	267	205	P	P	P		
Cosmarium reniforme										
Cosmarium repandum										
Cosmarium septentrionale										
Cosmarium speciosum	360	948	349	552	198	261	261	392	305	44
Cosmarium tetraopthalmum	114	516	P	210	156	P	P			
Cosmarium turpinii	P	P	44	15	15	103	P	98	67	34
Cosmarium turpinii v. podolicum								P		
Crucigenia apiculata										
Crucigenia quadrata										
Crucigenia rectangularis										
Cylindrocystis brebissonii		P	134	45	45	261		P	87	87
Desmidium swartzii v. quadrangulatum										
Dictyosphaerium pulchellum										
Elakatothrix sp.							261		87	87
Euastropsis richteri										
Euastrum sp.								P		
Euastrum bidentatum										
Euastrum dubium v. maius		P	P			P	P			
Euastrum elegans		129		43	43	P	P	P		
Euastrum gemmatum			P			P				
Euastrum obesum										
Euastrum ohioense			P							
Euastrum sinosum										
Euastrum verrucosum										
Gemellicystis neglecta										
Geminella interrupta										
Gloeocystis schroeteri	2092	4706	5926	4241	1131	17780	10459	5577	11272	3546

continued...

Table B2 (continued). Periphytic algal densities (No. cells/cm²) within streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site ML-MR					Site ML-PL				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
Gloeotila pelagica										
Golenkinia radiata v. brevispina		261		87	87					
Gonatozygon brebissonii										
Gonatozygon monotaenium										
Kirchneriella sp.										
Koliella longiseta										
Lagerheimia subsalsa										
Lagerheimia wratislawiensis										
Monoraphidium sp.										
Mougeotia sp. a	1569	3099	27193	10620	8298			131	44	44
Nephrocytium limneticum		P								
Oocystis elliptica	P	784	1743	842	504	261		437	233	127
Oocystis lacustris	2222	6275	7700	5399	1641	3399	5491	1046	3312	1284
Oonephris obesa			P							
Quadrigula closterioides										
Phacotus sp.	523	915	2092	1177	471		261	523	261	151
Pandorina morum								2353	784	784
Pediastrum boryanum	P						P	P		
Pediastrum boryanum v. ellesmerense										
Pediastrum duplex										
Pediastrum duplex v. clathratum										
Pediastrum integrum v. scutum										
Pediastrum tetras										
Penium sp.	P									
Penium margaritaecum										
Pleurotaenium trabecula	P	131	P	44	44	P	P	P		
Scenedesmus bijuga	523			174	174					
Scenedesmus acuminatus										
Scenedesmus arcuatus										
Scenedesmus denticulatis										
Scenedesmus ecornis										
Scenedesmus incrassatulus		P								
Scenedesmus quadricauda						P				
Staurastrum sp.	P		P				P	P		
Staurastrum sp. b										
Staurastrum sp. c										
Staurastrum anatinum v. biradiatum										
Staurastrum antilopaeum										
Staurastrum anatinum										
Staurastrum apiculatum										
Staurastrum borgeanum		129		43	43	P	P	P		
Staurastrum brebissonii										
Staurastrum clevei										
Staurastrum cuspidatum										
Staurastrum dejectum		P	P					P		
Staurastrum furcigerum							P			
Staurastrum gladiosum										
Staurastrum hystrix			P							
Staurastrum longebranchiatum										
Staurastrum lunatum										
Staurastrum manfeldtii										
Staurastrum pachyrhynchum	131	P	134	88	44	P	P	P		
Staurastrum pilosum	P					P	P	P		
Staurastrum proboscidium										
Staurastrum rhabdophorum										
Staurastrum subcruciatum						P		P		
Staurastrum tetracerum			P							
Staurastrum varians										
Staurodesmus triangularis										
Teilingia granulata	261	522		261	151	523	1046	523	697	174
Tetraedron tumidulum						P				
Tetraedron limneticum										
Tetraedron minimum		261		87	87					
Tetraedron muticum										
Tetraedron arthrodesmiforme										
Tetraedron caudatum										
Trochiscia granulata										
Xanthidium antilopaeum										
Zygnema sp.		775	536	437	229	4197	3035		2411	1251
Total Chlorophyta	8661	20744	49229	26211	12026	27046	21460	11211	19906	4637
CYANOPHYTA (Cyanobacteria)										
Agmenellum quadruplicatum	4183			1394	1394					
Agmenellum thermale	1569	1046	35560	12725	11418	P				
Anabaena sp.	261			87	87					
Anabaena lapponica						17780	2615		6798	5542
Anacystis dimidiata	P					P		P		
Anacystis marina										
Anacystis montana										
Anacystis thermalis						3303		1046	1450	975
Aphanocapsa elachista										
Aphanocapsa elachista v. planctonica	P	54908	92037	48982	26734	P				
Aphanothece clathrata										
Chlorogloea microcystoides							P			
Chroococcus turgidus	1961	7060	2440	3820	1626	1046	10307	3007	4787	2818
Coelosphaerium kuetzingianum	14119			4706	4706					
Dactylococcopsis linearis										
Desmonema wrangelii	12289	79748	5229	32422	23751	24055	44973	76480	48503	15236
Dichothrix gypsophila	37913	56739	87505	60719	14454	16734		10197	8977	4869
Gloeothece linearis v. composite	P		1046	349	349	1307		P	436	436
Gomphosphaeria lacustris			92037	30679	30679		20656	11505	10720	5976
Lyngbya birgei										
Microcoleus vaginatus	5622	P	19872	8498	5914	26408	44188	22617	31071	6649
Microcystis flos-aquae	54908	P		18303	18303	P	784	4183	1656	1284
Nostoc commune	30592	76887	P	35826	22349	P	6275	29938	12071	9115
Oncobyrsa cesatii			P							
Oscillatoria sp.										
Oscillatoria limosa										
Pseudanabaena sp.										
Schizothrix calcicola	412075	229831	165248	269051	73902	318469	200023	236629	251707	35014
Scopulonema minus							3937		1312	1312
Stigonema mamillosum						P	P	3399	1133	1133
Unidentified Cyanophyte akinete										
Total Cyanophyta	575492	506219	500974	527562	24013	409102	333758	399001	380620	23812
Total Algal Density per Sample (no./cm²)	654334	708166	647025	669842	19278	515886	519502	482116	505835	11905
Total Number of Taxa per Sample	72	81	74	76	3	86	73	89	83	5

concluded.

Table B3. Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake A6					Lake A8				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
BACILLARIOPHYTA (Diatoms)										
Achnanthes detha										
Achnanthes flexella	P	P	132	44	44	3138	530	P	1223	970
Achnanthes lanceolata										
Achnanthes minutissima	22479	23978	29523	25327	2142	9646	5326	8716	7896	1313
Achnanthes minutissima v.cryptocephala	1583	2988	2813	2461	442					
Amphora sp.										
Amphora ovalis	P	P	132	44	44	P		P		
Anomoeoneis vitrea										
Asterionella formosa										
Caloneis ventricosa										
Caloneis ventricosa v. truncatula		P				P		P		
Cocconeis placentula										
Cocconeis placentula v. euglypta										
Cocconeis sp.										
Cyclotella sp.										
Cyclotella antiqua	137	213	132	161	26	P	132	1394	509	444
Cyclotella comta										
Cyclotella kutzingiana										
Cyclotella meneghiniana										
Cyclotella ocellata	550	213	265	343	105					
Cyclotella striata										
Cymbella amphioxys	P					P	662	4532	1731	1413
Cymbella cistula										
Cymbella cuspidata										
Cymbella cymbiformis						P		3486	1162	1162
Cymbella cymbiformis v. nonpunctata	757	1547	927	1077	240	697	397	P	365	202
Cymbella graciliis		P				349		P	116	116
Cymbella minuta	791	1921	1324	1345	326	1737	1588	5927	3084	1422
Cymbella sinuata		P								
Cymbella turgida							3432	1394	1609	997
Cymbella turgidula						312	458	134	301	94
Cymbella sp.						P	P	P		
Denticula tenuis	P	1868	132	667	602	697	1506	3486	1896	828
Diatoma elongatum	1514	960	2118	1531	334	349	132	697	393	165
Diatoma vulgare										
Didymosphenia geminata										
Diploneis sp.										
Diploneis elliptica								P		
Diploneis ovalis										
Epithemia sorex	963	661	P	541	284	6641	5458	6000	6033	342
Eunotia arcus										
Eunotia exigua										
Eunotia flexuosa										
Eunotia glacialis						P	P			
Eunotia major										
Eunotia papilio										
Eunotia praerupta	413			138	138	349	P	1743	697	532
Eunotia praerupta v. bidens								P		
Eunotia sudetica										
Eunotia sp.										
Fragilaria crotonensis	963	P	P	321	321	P	P	2092	697	697
Fragilaria pinnata	1652	4433	264	2116	1226	2966	530	2789	2095	784
Frustulia vulgaris						P	P	P		
Gomphonema acuminatum v. coronata						P	1046	349	465	307
Gomphonema angustatum	P	213	P	71	71					
Gomphonema constrictum		P								
Gomphonema parvulum										
Navicula sp.										
Navicula amphibola							P	P		
Navicula bacillum										
Navicula decussis										
Navicula dolosa										
Navicula cryptocephala	P	427	976	468	282	1569	1291	1046	1302	151
Navicula cryptocephala v. intermedia	2232	2491		1574	791			1743	581	581
Navicula exigua	P	P	P			P	P	P		
Navicula laevissima										
Navicula pseudoscutiformis										
Navicula pupula	P						P	P		
Navicula radiosa	P	303	116	140	88	2614	4247	3379	3413	472
Navicula reinhardtii										
Nedium sp.										
Nedium hitchcockii nr										
Nedium iridis v. amphigomphus	P					P		P		
Nitzschia sp.										
Nitzschia acicularis										
Nitzschia amphibia										
Nitzschia angustata										
Nitzschia dissipata	3165			1055	1055					
Nitzschia filiformis	137	640	530	436	153	P	P			
Nitzschia fonticola			P			1046	1740	1046	1277	231
Nitzschia palea										
Nitzschia sigmoidea	P						P			
Pinnularia sp.	P					P	784	P	261	261
Pinnularia biceps										
Pinnularia borealis										
Pinnularia nodosa						P	P			
Pinnularia streptoraphe										
Rhizosolenia longiseta										
Rhopalodia gibba	P	P	P			P	P	P		
Stauroneis anceps	P						P			
Stauroneis phoenicenteron			P							
Stauroneis smithii										
Stauroneis sp.										
Stephanodiscus astraea										
Surirella sp.										
Synedra actinastroides	4038	4980	4971	4663	313	5229	2449	6972	4883	1317
Synedra acus						P	111	P	37	37
Synedra sp.							265		88	88
Synedra ulna	92	179	P	90	52	273		364	212	109
Tabellaria fenestrata	378	P	265	214	112	312	596	697	535	115
Tabellaria flocculosa	1799	652	474	972	412	1743	1158	5578	2826	1386
Total Bacillariophyta	43833	48667	45094	45798	1495	39667	33838	63564	45690	9094

continued...

Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake A6					Lake A8				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
CRYPTOPHYTA (Cryptomonads)										
Cryptomonas erosa			P							
Cryptomonas ovata			132	44	44					
Cryptomonas reflexa										
Katablepharis ovalis			264	88	88					
Rhodomonas minuta										
Total Cryptophyta			396	132	132					
CHRYSOPHYTA (Golden-Brown Algae)										
Chrysidiastrum catenatum		P	132	44	44					
Chrysococcus sp.			397	132	132					
Chrysosphaerella rodhei	138			46	46					
Dinobryon crenulatum										
Dinobryon divergens	138		P	46	46					
Dinobryon sertularia	688		264	317	200	P	P			
Dinobryon sertularia v.protuberans	P	213		71	71	349	523	349	407	58
Dinobryon sociale										
Dinobryon tabellariae										
Ishtmochloron trispinatum	P									
Kephyrion boreale		213		71	71					
Ochromonas spa	138			46	46					
Ophiocytium sp.										
Pseudokephyrion sp.	138			46	46					
Stichogloea doederleinii										
Synura sp.										
Unidentified statospore	688	213	530	477	140	349	132	P	160	102
Total Chrysophyta	1928	639	1323	1297	372	698	655	349	567	110
PYRROPHYTA (Dinoflagellates)										
Gymnodinium sp.										
Gymnodinium uberrimum	138	P	P	46	46	312	332	P	215	107
Peridinium sp.	P	P	P			P	P	P		
Peridinium aciculiferum	275	427	132	278	85	156	P	P	52	52
Peridinium cinctum	P	P	P							
Peridinium palatinum										
Peridinium palustre										
Peridinium willei										
Unidentified cyst		854	265	373	252					
Total Pyrrophyta	413	1281	397	697	292	468	332		267	139
EUGELNOPHYTA										
Euglena sp.			P							
Phacus sp.		P								
Trachelomonas sp.						P				
Total Euglenophyta										
CHLOROPHYTA (Green Algae)										
Ankistrodesmus convolutus	P							P		
Ankistrodesmus falcatus	P	213	265	159	81					
Ankistrodesmus falcatus v. spiralis	826	640	264	577	165	349		P	116	116
Ankistrodesmus gelifactus										
Arthrodesmus triangularis										
Bulbochaete sp.	3303	1761	794	1953	731	6322	8890	1902	5705	2041
Chlamydomonas sp. a		213		71	71					
Chlamydomonas sp. b			P							
Closterium sp.						P		P		
Closterium acerosum										
Closterium actum										
Closterium dianae										
Closterium pseudolunula						P				
Coeloastrum sp.										
Coelastrum microporum			P							
Coeloastrum printzii	P						4183		1394	1394
Coeloastrum sphaericum	2202			734	734	2498	P	2789	1762	885
Cosmarium sp.	P									
Cosmarium sp.										
Cosmarium anceps						P		P		
Cosmarium biculatum							249		83	83
Cosmarium botrytis						156		151	102	51
Cosmarium contracta						P	P	P		
Cosmarium coronatum										
Cosmarium depressum	138		P	46	46	P	P			
Cosmarium granulatum	P	110		37	37	349	415		255	129
Cosmarium holmiense v. intermedium	P					P	P	536	179	179
Cosmarium humile v. lacustre	P					P		349	116	116
Cosmarium impressulum v.suborthogonum		P				P		P		
Cosmarium laeve	P							P		
Cosmarium norimbergense	P	P	P			P		P		
Cosmarium phaseolus v. phaseolus										
Cosmarium pseudoprotuberans										
Cosmarium rectangulare		110		37	37	156	P	157	104	52
Cosmarium reniforme										
Cosmarium repandum										
Cosmarium septentrionale										
Cosmarium speciosum		110	132	81	41	156	332	760	416	179
Cosmarium tetraopthalmum						P	P			
Cosmarium turpinii		P					P			
Cosmarium turpinii v. podolicum										
Crucigenia apiculata										
Crucigenia quadrata										
Crucigenia rectangularis						P				
Cylindrocystis brebissonii	138	110	99	116	12	156	265	1291	571	362
Desmidium swartzii v. quadrangulatum										
Dictyosphaerium pulchellum										
Elakatothrix sp.	643	213	P	285	189	349	261		203	105
Eustropsis richteri							P			
Euastrum sp.										
Euastrum bidentatum	P					P	P	P		
Euastrum dubium v. maius			P			312	784	610	569	138
Euastrum elegans	138	138	132	136	2	P	P			
Euastrum gemmatum						P	83	P	28	28
Euastrum obesum								P		
Euastrum ohioense										
Euastrum sinosum										
Euastrum verrucosum								P		
Gemellicystis neglecta										
Geminella interrupta						P		P		
Gloeocystis schroeteri	826	3522	2118	2155	778	349	5428	3312	3030	1473

continued...

Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake A6					Lake A8				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
Gloeotila pelagica		P								
Golenkinia radiata v. brevispina		427	P	142	142					
Gonatozygon brebissonii										
Gonatozygon monotaenium						P	P	P		
Kirchneriella sp.										
Koliella longiseta										
Lagerheimia subsalsa										
Lagerheimia wratislawiensis										
Monoraphidium sp.										
Mougeotia sp. a	103	523	486	371	134	P	2092		697	697
Nephrocytium limneticum		P				P				
Oocystis elliptica	P		4104	1368	1368	5578	1046	5578	4067	1511
Oocystis lacustris	7018	3842	P	3620	2029	3434	662	7321	3806	1931
Oonephris obesa							P	P		
Quadrigula closterioides										
Phacotus sp.	1376	427	397	733	321		132	P	44	44
Pandorina morum	P		1589	530	530					
Pediastrum boryanum	P	P						P		
Pediastrum boryanum v. ellesmerense								P		
Pediastrum duplex										
Pediastrum duplex v. clathratum										
Pediastrum integrum v. scutum		P								
Pediastrum tetras										
Penium sp.	P									
Penium margaritaecum										
Pleurotaenium trabecula										
Scenedesmus bijuga	275			92	92					
Scenedesmus acuminatus								P		
Scenedesmus arcuatus	P						332		111	111
Scenedesmus denticulatis						P		516	172	172
Scenedesmus ecornis										
Scenedesmus incrassatulus	1101	2348	3045	2165	569	P	P	P		
Scenedesmus quadricauda			P							
Staurastrum sp.	P	110	132	81	41	312	166	583	354	122
Staurastrum sp. b										
Staurastrum sp. c										
Staurastrum anatinum v. biradiatum										
Staurastrum antilopaeum										
Staurastrum anatinum										
Staurastrum apiculatum										
Staurastrum borgeanum										
Staurastrum brebissonii						P	P	P		
Staurastrum clevei										
Staurastrum cuspidatum										
Staurastrum dejectum			132	44	44	P	P			
Staurastrum furcigerum										
Staurastrum gladiosum										
Staurastrum hystrix										
Staurastrum longebranchiatum										
Staurastrum lunatum										
Staurastrum manfeldtii										
Staurastrum pachyrhynchum								P		
Staurastrum pilosum										
Staurastrum proboscidium										
Staurastrum rhabdophorum										
Staurastrum subcruciatum										
Staurastrum tetracerum	P						P	P		
Staurastrum varians										
Staurodesmus triangularis										
Teilingia granulata	275	P	530	268	153		332		111	111
Tetraedron tumidulum	138		P	46	46					
Tetraedron limneticum										
Tetraedron minimum	P	213	132	115	62			697	232	232
Tetraedron muticum	138			46	46					
Tetraedron arthrodesmiforme										
Tetraedron caudatum								P		
Trochiscia granulata						273	784	268	442	171
Xanthidium antilopaeum										
Zygnema sp.	P		397	132	132	1743	P	P	581	581
Total Chlorophyta	**18638**	**15030**	**14748**	**16139**	**1252**	**22492**	**26436**	**26820**	**25249**	**1383**
CYANOPHYTA (Cyanobacteria)										
Agmenellum quadruplicatum										
Agmenellum thermale	1101	P	3177	1426	931	9064	3972	20659	11232	4938
Anabaena sp.	4679	1281	94	2018	1374	2654	5491		2715	1585
Anabaena lapponica						13596	19726	8984	14102	3111
Anacystis dimidiata			P			5229	P	P	1743	1743
Anacystis marina										
Anacystis montana	19404	50586	4766	24919	13511	17222			5741	5741
Anacystis thermalis							14166	60312	24826	18208
Aphanocapsa elachista	3028	11526		4851	3450					
Aphanocapsa elachista v. planctonica			3707	1238	1236	46716	51096	72165	56659	7855
Aphanothece clathrata		2988		996	996					
Chlorogloea microcystoides						3486	794	349	1543	980
Chroococcus turgidus	1376	2134	1854	1788	221		2615	6624	3080	1926
Coelosphaerium kuetzingianum										
Dactylococcopsis linearis										
Desmonema wrangelii	2064	110350	P	37471	36444	43229	19064	16734	26342	8470
Dichothrix gypsophila	1101	6830	13901	7277	3702		1589		530	530
Gloeothece linearis v. composite	1651	2347	265	1421	612	P		2789	930	930
Gomphosphaeria lacustris		P	17475	5825	5825	192441		27541	73327	60085
Lyngbya birgei										
Microcoleus vaginatus			P			P	P			
Microcystis flos-aquae	10459	P		3486	3486	117487	94791	89597	100625	8563
Nostoc commune	P	P						57048	19016	19016
Oncobyrsa cesatii										
Oscillatoria sp.										
Oscillatoria limosa	P									
Pseudanabaena sp.										
Schizothrix calcicola	172569	157308	112796	147558	17930	361524	143642	313414	272860	66085
Scopulonema minus										
Stigonema mamillosum										
Unidentified Cyanophyte akinete										
Total Cyanophyta	**217432**	**345350**	**158035**	**240272**	**55266**	**812648**	**356946**	**676216**	**615270**	**135033**
Total Algal Density per Sample (no./cm²)	282044	410967	219993	304335	56245	875973	418207	766949	687043	138053
Total Number of Taxa per Sample	91	77	78	82	5	93	89	97	93	2

continued...

Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake B2					Lake B5					Lake B7				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
BACILLARIOPHYTA (Diatoms)															
Achnanthes detha						3905	1376	2582	2621	730					
Achnanthes flexella	P	261	P	87	87	P	P	P			118	349	P	156	102
Achnanthes lanceolata															
Achnanthes minutissima	21309	47195	55376	41293	10267	68052	30550	47129	48577	10850	27368	20917	27935	25407	2251
Achnanthes minutissima v.cryptocephala	1307		P	436	436	1116		516	544	322	1830	1046	784	1220	314
Amphora sp.															
Amphora ovalis						P	P	P				P			
Anomoeoneis vitrea						P	P				P	1164		388	388
Asterionella formosa															
Caloneis ventricosa															
Caloneis ventricosa v. truncatula											P		P		
Cocconeis placentula															
Cocconeis placentula v. euglypta															
Cocconeis sp.	P					P	P	P							
Cyclotella sp.			P			P						P			
Cyclotella antiqua						558	275	P	278	161	915	1394	523	944	252
Cyclotella comta											P				
Cyclotella kutzingiana								P					P		
Cyclotella meneghiniana															
Cyclotella ocellata															
Cyclotella striata	P	P				P		P							
Cymbella amphioxys	261	P	P	87	87			P				349	P	116	116
Cymbella cistula															
Cymbella cuspidata															
Cymbella cymbiformis							550		183	183	P	P			
Cymbella cymbiformis v. nonpunctata	523	2353	726	1201	579	P		317	106	106	1700	697	1307	1235	292
Cymbella gracilis												P	P		
Cymbella minuta	3660	3269	2440	3123	360	558	275	2324	1052	641	2092	349	784	1075	524
Cymbella sinuata															
Cymbella turgida	1307	407	349	688	310	558	P	P	186	186		P			
Cymbella turgidula	P	P	P					P			P	P			
Cymbella sp.	261	P	349	203	105	P	275	P	92	92	P	349	P	116	116
Denticula tenuis	P	654	1046	567	305	P	P	P			3334	1046	2484	2288	668
Diatoma elongatum	5164	17549	9472	10728	3630	6975	5139	774	4296	1839	523	523	654	567	44
Diatoma vulgare															
Didymosphenia geminata															
Diploneis sp.															
Diploneis elliptica						P					P	P			
Diploneis ovalis															
Epithemia sorex	1925	1046	1888	1620	287	290	P	258	183	92	2301	4881	3138	3440	760
Eunotia arcus		P													
Eunotia exigua															
Eunotia flexuosa	392	P	P	131	131										
Eunotia glacialis															
Eunotia major												P			
Eunotia papilio															
Eunotia praerupta	P	P	194	65	65	P	P	516	172	172	P	P	P		
Eunotia praerupta v. bidens	P	P													
Eunotia sudetica															
Eunotia sp.						P									
Fragilaria crotonensis	523	784	P	436	230	3347	P	P	1116	1116	705	697	654	685	16
Fragilaria pinnata	P	1307	4532	1946	1347	1739	2202	1808	1916	144	P	P	3399	1133	1133
Frustulia vulgaris															
Gomphonema acuminatum v. coronata			P				P				1569			523	523
Gomphonema angustatum		261	P	87	87	P	P	P			P	P	1046	349	349
Gomphonema constrictum	P	P	P			P	P	P				1220		407	407
Gomphonema parvulum													P		
Navicula sp.															
Navicula amphibola											P		P		
Navicula bacillum															
Navicula decussis															
Navicula dolosa															
Navicula cryptocephala	1896	1961	1046	1634	295	558	P	516	358	179	1307	2207	4882	2799	1074
Navicula cryptocephala v. intermedia	784	3530	2789	2368	820		4335	1291	1875	1285	7202	12856	6691	8916	1975
Navicula exigua		P	P			P	P						P		
Navicula laevissima							P	P							
Navicula pseudoscutiformis							P								
Navicula pupula	P	P				P		P				P			
Navicula radiosa	2223	784	1394	1467	417	9203	716	634	3518	2843	2353	2776	261	1797	777
Navicula reinhardtii															
Nedium sp.													P		
Nedium hitchcockii nr															
Nedium iridis v. amphigomphus	P										P				
Nitzschia sp.															
Nitzschia acicularis															
Nitzschia amphibia		P										P	P		
Nitzschia angustata		P				P		P			P		P		
Nitzschia dissipata															
Nitzschia filiformis	915	523	697	712	113	P	P					2005	1046	1017	579
Nitzschia fonticola	1307	3661	2440	2469	680						P	3486	1046	1511	1033
Nitzschia palea											P				
Nitzschia sigmoidea								P			P	1394	P	465	465
Pinnularia sp.	P					P		P			P				
Pinnularia biceps		P				P		P							
Pinnularia borealis								P							
Pinnularia nodosa							P								
Pinnularia streptoraphe															
Rhizosolenia longiseta															
Rhopalodia gibba						P					103	P	P	34	34
Stauroneis anceps		P					P	P				P			
Stauroneis phoenicenteron						P		P							
Stauroneis smithii						P									
Stauroneis sp.															
Stephanodiscus astraea											P				
Surirella sp.															
Synedra actinastroides	14163	18131	8311	13535	2852	8646	5689	5229	6521	1071	10641	9069	6058	8589	1345
Synedra acus		P						P							
Synedra sp.															
Synedra ulna	P	P				P		P			P	234	P	78	78
Tabellaria fenestrata	P	119	349	156	102	580	P	P	193	193	118	P	850	323	266
Tabellaria flocculosa	7800	20525	7670	11998	4263	2007	P	1291	1099	587	646	2963	1830	1813	669
Total Bacillariophyta	65720	124320	101068	97036	77036	108092	51362	65185	74886	17074	64825	71971	65372	67389	2296

continued...

Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake B2					Lake B5					Lake B7				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
CRYPTOPHYTA (Cryptomonads)															
Cryptomonas erosa															
Cryptomonas ovata	145	P	P	48	48						118			39	39
Cryptomonas reflexa															
Katablepharis ovalis															
Rhodomonas minuta															
Total Cryptophyta	145			48	48						118			39	39
CHRYSOPHYTA (Golden-Brown Algae)															
Chrysidiastrum catenatum											784	349	523	552	126
Chrysococcus sp.											P				
Chrysosphaerella rodhei															
Dinobryon crenulatum															
Dinobryon divergens												349	261	203	105
Dinobryon sertularia	P											P	261	87	87
Dinobryon sertularia v.protuberans		136	P	45	45			P			235	1594	1830	1220	497
Dinobryon sociale	P												261	87	87
Dinobryon tabellariae															
Ishtmochloron trispinatum	P										P				
Kephyrion boreale															
Ochromonas spa															
Ophiocytium sp.	P	P	388	129	129										
Pseudokephyrion sp.															
Stichogloea doederleinii															
Synura sp.															
Unidentified statospore	784	523	P	436	230	P		P			1096	931	1569	1199	191
Total Chrysophyta	784	659	388	610	117						2115	3223	4705	3348	750
PYRROPHYTA (Dinoflagellates)															
Gymnodinium sp.															
Gymnodinium uberrimum	86	261	349	232	77		P				118	P	138	85	43
Peridinium sp.	P	P	P				P				P	322	P	107	107
Peridinium aciculiferum	261	261	194	239	22	290	550	P	280	159	P		138	46	46
Peridinium cinctum						P									
Peridinium palatinum															
Peridinium palustre			P												
Peridinium willei															
Unidentified cyst	261	136	P	132	75	1116	P	127	414	353					
Total Pyrrophyta	608	658	543	603	33	1406	550	127	694	376	118	322	276	239	62
EUGELNOPHYTA															
Euglena sp.											P				
Phacus sp.											P	P	P		
Trachelomonas sp.						P		516	172	172		P			
Total Euglenophyta								516	172	172					
CHLOROPHYTA (Green Algae)															
Ankistrodesmus convolutus	P										P				
Ankistrodesmus falcatus	P		349	116	116						P		P		
Ankistrodesmus falcatus v. spiralis	1046	1046	697	930	116		275	1033	436	309	2353	2092	1307	1917	314
Ankistrodesmus gelifactus															
Arthrodesmus triangularis							P								
Bulbochaete sp.	2542	272	3486	2100	954	P	1332		444	444	823	P	P	274	274
Chlamydomonas sp. a															
Chlamydomonas sp. b															
Closterium sp.	P	P	349	116	116	P	P				P				
Closterium acerosum															
Closterium actum															
Closterium dianae															
Closterium pseudolunula															
Coeloastrum sp.												P			
Coelastrum microporum															
Coeloastrum printzii		261		87	87						P	349		116	116
Coeloastrum sphaericum						P	P						P		
Cosmarium sp.															
Cosmarium sp.															
Cosmarium anceps															
Cosmarium biculatum			P										P		
Cosmarium botrytis							P								
Cosmarium contracta						P	P								
Cosmarium coronatum															
Cosmarium depressum	P	522	194	239	152	290	275		188	94	235			78	78
Cosmarium granulatum	P		349	116	116	P		P			P	P	103	34	34
Cosmarium holmiense v. intermedium	131			44	44	P									
Cosmarium humile v. lacustre	P	261	P	87	87	290			97	97	353	P		118	118
Cosmarium impressulum v.suborthogonum		P	P			P	P					P	103	34	34
Cosmarium laeve	P	P									P				
Cosmarium norimbergense	P	P	P			1159			386	386					
Cosmarium phaseolus v. phaseolus															
Cosmarium pseudoprotuberans															
Cosmarium rectangulare		437	P	146	146	362		P	121	121	358			119	119
Cosmarium reniforme															
Cosmarium repandum															
Cosmarium septentrionale															
Cosmarium speciosum	P	340	711	350	205	1159		258	472	351	P	P	P		
Cosmarium tetraopthalmum	P	136	324	153	94	P		258	86	86		P			
Cosmarium turpinii											118	P	P	39	39
Cosmarium turpinii v. podolicum															
Crucigenia apiculata															
Crucigenia quadrata												P			
Crucigenia rectangularis															
Cylindrocystis brebissonii	1394	523	1046	988	253	1116	200	710	675	265	235	697		311	205
Desmidium swartzii v. quadrangulatum															
Dictyosphaerium pulchellum	P														
Elakatothrix sp.		P	P								1046			349	349
Euastropsis richteri															
Euastrum sp.							P								
Euastrum bidentatum															
Euastrum dubium v. maius	P	P	P			P	206		69	69	P	349		116	116
Euastrum elegans	261	P		87	87	P	P				118		138	85	43
Euastrum gemmatum							34		11	11					
Euastrum obesum															
Euastrum ohioense															
Euastrum sinosum															
Euastrum verrucosum															
Gemellicystis neglecta															
Geminella interrupta	P		P												
Gloeocystis schroeteri	3922	7060	23009	11330	5909	9483	7156	4907	7182	1321	1830	17780	1046	6885	5452

continued...

Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake B2					Lake B5					Lake B7				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
Gloeobila pelagica															
Golenkinia radiata v. brevispina															
Gonatozygon brebissonii															
Gonatozygon monotaenium						P					P	P			
Kirchneriella sp.	523	523	1046	697	174		P								
Koliella longiseta															
Lagerheimia subsalsa															
Lagerheimia wratislawiensis															
Monoraphidium sp.															
Mougeotia sp. a	131	P	P	44	44	1116	P	P	372	372	725	P	784	503	252
Nephrocytium limneticum		P	P								470	P	523	331	166
Oocystis elliptica	2092	850	697	1213	442	1673	P		558	558	118	349	413	293	90
Oocystis lacustris	10721	11243	10110	10691	327	2789	3587	P	2125	1087	5491	12202	6210	7968	2127
Oonephris obesa		P				P									
Quadrigula closterioides															
Phacotus sp.						P	P				P	1046	P	349	349
Pandorina morum															
Pediastrum boryanum	P	P	P				P				P	1394	P	465	465
Pediastrum boryanum v. ellesmerense		P						P			P				
Pediastrum duplex															
Pediastrum duplex v. clathratum															
Pediastrum integrum v. scutum															
Pediastrum tetras	P	P	P								118			39	39
Penium sp.	P											161	P	54	54
Penium margaritaecum						P	133		44	44					
Pleurotaenium trabecula															
Scenedesmus bijuga	1307	2092	697	1365	404	2231	1101	1032	1455	389	523		523	349	174
Scenedesmus acuminatus	P	P				P	550		183	183					
Scenedesmus arcuatus															
Scenedesmus denticulatis	8891	P	8522	5804	2904			1033	344	344					
Scenedesmus ecornis								2582	861	861					
Scenedesmus incrassatulus	1830			610	610	2231	2752	516	1833	675	2353	349	3661	2121	963
Scenedesmus quadricauda	6537	1046	4261	3948	1593	1739	533		757	514			P		
Staurastrum sp.	P	136	P	45	45	P	P	P			118	P	P	39	39
Staurastrum sp. b															
Staurastrum sp. c															
Staurastrum anatinum v. biradiatum											P				
Staurastrum antilopaeum															
Staurastrum anatinum															
Staurastrum apiculatum		P													
Staurastrum borgeanum	145		349	165	101	P		P							
Staurastrum brebissonii												349	P	116	116
Staurastrum clevei			P												
Staurastrum cuspidatum															
Staurastrum dejectum		261	P	87	87		P				P	P	P		
Staurastrum furcigerum															
Staurastrum gladiosum															
Staurastrum hystrix	P														
Staurastrum longebranchiatum															
Staurastrum lunatum															
Staurastrum manfeldtii															
Staurastrum pachyrhynchum		P					133		44	44		P			
Staurastrum pilosum	196			65	65						P				
Staurastrum proboscidium															
Staurastrum rhabdophorum	P		697	232	232										
Staurastrum subcruciatum															
Staurastrum tetracerum	261	523		261	151			258	86	86		349		116	116
Staurastrum varians	P														
Staurodesmus triangularis		P													
Teilingia granulata	784	261	697	581	162		P	258	86	86	1307	3138	523	1656	775
Tetraedron tumidulum												P			
Tetraedron limneticum															
Tetraedron minimum	1046	261		436	314	558		P	186	186	P	349		116	116
Tetraedron muticum						P					P				
Tetraedron arthrodesmiforme															
Tetraedron caudatum	261		P	87	87										
Trochiscia granulata	P					580	P	P	193	193					
Xanthidium antilopaeum															
Zygnema sp.	690	P	P	230	230							P	P		
Total Chlorophyta	44711	28054	57590	43452	8550	26776	18267	12845	19296	4054	18692	40953	15334	24993	8039
CYANOPHYTA (Cyanobacteria)															
Agmenellum quadruplicatum	P	P	P			P		P							
Agmenellum thermale	8368	P		2789	2789	4462	P	3099	2520	1320	P	6624	11243	5956	3263
Anabaena sp.			6972	2324	2324	13387	31101	P	14829	9007					
Anabaena lapponica			P								9812	8018	5229	7686	1333
Anacystis dimidiata		P	968	323	323										
Anacystis marina															
Anacystis montana		10720		3573	3573										
Anacystis thermalis		1046	12008	4351	3840	2231	1101	6714	3349	1714	4706			1569	1569
Aphanocapsa elachista															
Aphanocapsa elachista v. planctonica		P	20569	6856	6856	5578	2202	17044	8275	4492	49679		60399	36693	18605
Aphanothece clathrata											42358	19174	11505	24346	9274
Chlorogloea microcystoides		P					10459		3486	3486					
Chroococcus turgidus		1046	697	581	307	6136	550	P	2229	1960	2353	P	523	959	713
Coelosphaerium kuetzingianum			P									160019		53340	53340
Dactylococcopsis linearis															
Desmonema wrangelii	2092	3138	11853	5694	3094	18965	19266	10330	16187	2930	P		P		
Dichothrix gypsophila	17258	15427		10895	5473	6694		1808	2834	1999	2876	P	49679	17518	16102
Gloeothece linearis v. composite		P				P	P	516	172	172	P	4532	1961	2164	1312
Gomphosphaeria lacustris	3138	35560	10846	16515	9779	P		10330	3443	3443		27541	83670	37070	24619
Lyngbya birgei															
Microcoleus vaginatus	P	P											P		
Microcystis flos-aquae	P	14642	85413	33352	26372	P	52018	76957	42992	22669	59345		83670	47672	24849
Nostoc commune	P	1902	14642	5515	4597	47413	15963	9038	24138	11808	1880	16573	17780	12078	5111
Oncobyrsa cesatii															
Oscillatoria sp.															
Oscillatoria limosa															
Pseudanabaena sp.															
Schizothrix calcicola	270620	215450	315505	267192	28934	156742	42110	34346	77733	39568	274803	344992	148514	256103	57484
Scopulonema minus															
Stigonema mamillosum		P				P									
Unidentified Cyanophyte akinete															
Total Cyanophyta	301476	298931	479473	359960	59787	261608	174770	170182	202187	29740	447812	567473	474173	503153	42841
Total Algal Density per Sample (no./cm²)	413444	452622	639062	501709	69601	397882	244969	248855	297235	50336	533680	703942	559860	599161	52933
Total Number of Taxa per Sample	94	100	87	94	4	91	77	78	82	5	96	90	84	90	3

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Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake D7					Lake G2				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
BACILLARIOPHYTA (Diatoms)										
Achnanthes detha	3138	2440	9517	5032	2252					
Achnanthes flexella	P	P	P			P	P	P		
Achnanthes lanceolata			P							
Achnanthes minutissima	36083	15979	25197	25753	5810	12992	21223	18347	17521	2412
Achnanthes minutissima v.cryptocephala		348	P	116	116	163	1307	P	490	411
Amphora sp										
Amphora ovalis	P	P	P			P	P	P		
Anomoeoneis vitrea										
Asterionella formosa										
Caloneis ventricosa			P							
Caloneis ventricosa v. truncatula		P	P			163			54	54
Cocconeis placentula										
Cocconeis placentula v. euglypta										
Cocconeis sp.										
Cyclotella sp.										
Cyclotella antiqua	P	P	244	81	81	327	261	261	283	22
Cyclotella comta	P									
Cyclotella kutzingiana										
Cyclotella meneghiniana										
Cyclotella ocellata										
Cyclotella striata	P	P	P							
Cymbella amphioxys			P					P		
Cymbella cistula	P		P							
Cymbella cuspidata										
Cymbella cymbiformis										
Cymbella cymbiformis v. nonpunctata	550	1293	488	777	259	105	P	131	79	40
Cymbella gracilis										
Cymbella minuta	5666	523	2684	2958	1491	327	261	392	327	38
Cymbella sinuata										
Cymbella turgida	P	174	P	58	58			P		
Cymbella turgidula		P	P							
Cymbella sp.	P	P	488	163	163			P		
Denticula tenuis	275	174	P	150	80	327	523	P	283	153
Diatoma elongatum	4183	1991	4759	3644	843	1552	1700	261	1171	457
Diatoma vulgare										
Didymosphenia geminata						P				
Diploneis sp.										
Diploneis elliptica		P	P				P	P		
Diploneis ovalis	P		P							
Epithemia sorex	3326	1468	2806	2533	553	490	154	175	273	109
Eunotia arcus										
Eunotia exigua										
Eunotia flexuosa										
Eunotia glacialis										
Eunotia major		P								
Eunotia papilio										
Eunotia praerupta	P	P	P			P	P	P		
Eunotia praerupta v. bidens										
Eunotia sudetica										
Eunotia sp.	P	P				163			54	54
Fragilaria crotonensis	4314	1438	1708	2487	917	490	981	P	490	283
Fragilaria pinnata	7060	3050	4271	4794	1187		1569	2092	1220	629
Frustulia vulgaris										
Gomphonema acuminatum v. coronata										
Gomphonema angustatum	261	349	164	258	53	P	261	P	87	87
Gomphonema constrictum		P				163		P	54	54
Gomphonema parvulum										
Navicula sp.										
Navicula amphibola	P	P	P				P			
Navicula bacillum										
Navicula decussis		P								
Navicula dolosa										
Navicula cryptocephala	2745	2034	488	1756	666	600	2092	332	1008	547
Navicula cryptocephala v. intermedia	2092	698	2806	1865	619	3705	4183	4052	3980	143
Navicula exigua		P				P	P	P		
Navicula laevissima										
Navicula pseudoscutiformis										
Navicula pupula	P	P	P			P	P			
Navicula radiosa	784	436	2360	1193	592	653	261	175	363	147
Navicula reinhardtii	P	P								
Nedium sp.						P				
Nedium hitchcockii nr										
Nedium iridis v. amphigomphus	P						154		51	51
Nitzschia sp.										
Nitzschia acicularis										
Nitzschia amphibia		P								
Nitzschia angustata		P	P							
Nitzschia dissipata								P		
Nitzschia filiformis	523	P		174	174	327	719	458	501	115
Nitzschia fonticola	P	P				654	P	P	218	218
Nitzschia palea										
Nitzschia sigmoidea	P	174	P	58	58					
Pinnularia sp.	P						P	P		
Pinnularia biceps										
Pinnularia borealis										
Pinnularia nodosa			P							
Pinnularia streptoraphe			P							
Rhizosolenia longiseta										
Rhopalodia gibba	P	174	P	58	58					
Stauroneis anceps	P	P	P			P	P	P		
Stauroneis phoenicenteron	P	P								
Stauroneis smithii										
Stauroneis sp.										
Stephanodiscus astraea										
Surirella sp.		P								
Synedra actinastroides	19419	7585	14733	13912	3441	2533	4707	4053	3764	644
Synedra acus										
Synedra sp.										
Synedra ulna	P					P	P	P		
Tabellaria fenestrata	783	1569		784	453	396	2222	498	1039	592
Tabellaria flocculosa	6406	610	6772	4596	1996	2723	784	2117	1875	573
Total Bacillariophyta	97608	42507	79485	73200	18214	28553	43362	33344	35186	4288

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Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake D7					Lake G2				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
CRYPTOPHYTA (Cryptomonads)										
Cryptomonas erosa										
Cryptomonas ovata		P								
Cryptomonas reflexa										
Katablepharis ovalis						163			54	54
Rhodomonas minuta	261			87	87					
Total Cryptophyta	261			87	87	163			54	54
CHRYSOPHYTA (Golden-Brown Algae)										
Chrysidiastrum catenatum										
Chrysococcus sp.							261		87	87
Chrysosphaerella rodhei										
Dinobryon crenulatum										
Dinobryon divergens	P									
Dinobryon sertularia	523			174	174	163		P	54	54
Dinobryon sertularia v.protuberans	1046	872	732	883	91	327	P	P	109	109
Dinobryon sociale			P							
Dinobryon tabellariae	261		244	168	84	P	P			
Ishtmochloron trispinatum						P		P		
Kephyrion boreale	784	349	244	459	165	163	523		229	155
Ochromonas spa								P		
Ophiocytium sp.										
Pseudokephyrion sp.										
Stichogloea doederleinii										
Synura sp.										
Unidentified statospore	523	872	976	790	137	327	2615	1569	1504	661
Total Chrysophyta	3137	2093	2196	2475	332	980	3399	1569	1983	728
PYRROPHYTA (Dinoflagellates)										
Gymnodinium sp.										
Gymnodinium uberrimum	P					P		P		
Peridinium sp.	131	P	P	44	44	P	P			
Peridinium aciculiferum	P		P			79	P	P	26	26
Peridinium cinctum										
Peridinium palatinum										
Peridinium palustre										
Peridinium willei										
Unidentified cyst		P	244	81	81	708	154	P	287	215
Total Pyrrophyta	131		244	125	71	787	154		314	241
EUGELNOPHYTA										
Euglena sp.										
Phacus sp.										
Trachelomonas sp.	P					P				
Total Euglenophyta										
CHLOROPHYTA (Green Algae)										
Ankistrodesmus convolutus										
Ankistrodesmus falcatus	523	291	244	353	86	P	P			
Ankistrodesmus falcatus v. spiralis	1569	697	1464	1243	275	238	523	523	428	95
Ankistrodesmus gelifactus										
Arthrodesmus triangularis										
Bulbochaete sp.	1569	1264	1220	1351	110	1188	P		396	396
Chlamydomonas sp. a										
Chlamydomonas sp. b										
Closterium sp.	P		P							
Closterium acerosum										
Closterium actum								261	87	87
Closterium dianae										
Closterium pseudolunula										
Coeloastrum sp.										
Coelastrum microporum										
Coeloastrum printzii						163			54	54
Coeloastrum sphaericum	3922	P	P	1307	1307			P		
Cosmarium sp.		174		58	58					
Cosmarium sp.										
Cosmarium anceps										
Cosmarium biculatum										
Cosmarium botrytis	P	P	131	44	44			166	55	55
Cosmarium contracta		P								
Cosmarium coronatum										
Cosmarium depressum						P	P			
Cosmarium granulatum	P		P			P	154		51	51
Cosmarium holmiense v. intermedium	P					P	P			
Cosmarium humile v. lacustre			P					P		
Cosmarium impressulum v.suborthogonum		P						P		
Cosmarium laeve								P		
Cosmarium norimbergense	138	P	P	46	46	P	P	P		
Cosmarium phaseolus v. phaseolus										
Cosmarium pseudoprotuberans										
Cosmarium rectangulare	P		P			82	154	P	79	44
Cosmarium reniforme										
Cosmarium repandum										
Cosmarium septentrionale										
Cosmarium speciosum	550	P	367	306	162	286	523	498	436	75
Cosmarium tetraopthalmum	P						P			
Cosmarium turpinii		P				P	P			
Cosmarium turpinii v. podolicum										
Crucigenia apiculata										
Crucigenia quadrata										
Crucigenia rectangularis						P		P		
Cylindrocystis brebissonii	523	174	P	232	154	P	784	P	261	261
Desmidium swartzii v. quadrangulatum										
Dictyosphaerium pulchellum										
Elakatothrix sp.	261	P	58	106	79	163	P	523	229	155
Euastropsis richteri										
Euastrum sp.										
Euastrum bidentatum		P	P					P		
Euastrum dubium v. maius	P	523	P	174	174	P	P	P		
Euastrum elegans	619	P		206	206	79		P	26	26
Euastrum gemmatum		174	261	145	77	P		P		
Euastrum obesum										
Euastrum ohioense										
Euastrum sinosum	P		P							
Euastrum verrucosum										
Gemellicystis neglecta										
Geminella interrupta								P		
Gloeocystis schroeteri	5752	2615	6589	4985	1210	4739	12726	4706	7390	2668

continued...

Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake D7					Lake G2				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
Gloeotila pelagica							P			
Golenkinia radiata v. brevispina							261		87	87
Gonatozygon brebissonii						P	P			
Gonatozygon monotaenium										
Kirchneriella sp.	261	174		145	77					
Koliella longiseta							P			
Lagerheimia subsalsa										
Lagerheimia wratisiawiensis										
Monoraphidium sp.										
Mougeotia sp. a	981	479	610	690	150	1783	2092	981	1619	331
Nephrocytium limneticum						327		P	109	109
Oocystis elliptica	P		P			P	P	P		
Oocystis lacustris	7844	1917	3172	4311	1803	9478	6798	9151	8476	844
Oonephris obesa			1708	569	569					
Quadrigula closterioides	P									
Phacotus sp.	261	174		145	77		523	523	349	174
Pandorina morum	P						P	P		
Pediastrum boryanum		7495	10982	6159	3240		P			
Pediastrum boryanum v. ellesmerense	2702	174	P	959	873					
Pediastrum duplex										
Pediastrum duplex v. clathratum										
Pediastrum integrum v. scutum										
Pediastrum tetras	1583	1394	P	992	499	P	P			
Penium sp.										
Penium margaritaecum										
Pleurotaenium trabecula										
Scenedesmus bijuga			976	325	325	P				
Scenedesmus acuminatus	1569	P	244	604	487					
Scenedesmus arcuatus										
Scenedesmus denticulatis										
Scenedesmus ecornis										
Scenedesmus incrassatulus	P		P			1307	4445	1328	2360	1043
Scenedesmus quadricauda	3922		2928	2283	1177		P	P		
Staurastrum sp.	P	P	174	58	58	327			109	109
Staurastrum sp. b										
Staurastrum sp. c										
Staurastrum anatinum v. biradiatum										
Staurastrum antilopaeum										
Staurastrum anatinum										
Staurastrum apiculatum						P				
Staurastrum borgeanum			P				392	P	131	131
Staurastrum brebissonii						P	P			
Staurastrum clevei										
Staurastrum cuspidatum										
Staurastrum dejectum	P	P	P			P		P		
Staurastrum furcigerum										
Staurastrum gladiosum										
Staurastrum hystrix										
Staurastrum longebranchiatum										
Staurastrum lunatum										
Staurastrum manfeldtii										
Staurastrum pachyrhynchum	138		P	46	46		P	P		
Staurastrum pilosum								P		
Staurastrum proboscidium										
Staurastrum rhabdophorum										
Staurastrum subcruciatum						P		P		
Staurastrum tetracerum	P									
Staurastrum varians										
Staurodesmus triangularis										
Teilingia granulata	2092	P	732	941	613	1634	523	261	806	421
Tetraedron tumidulum							P			
Tetraedron limneticum										
Tetraedron minimum	1046	1743	732	1174	299	1307	784		697	380
Tetraedron muticum							P			
Tetraedron arthrodesmiforme										
Tetraedron caudatum						490	784	498	591	97
Trochiscia granulata										
Xanthidium antilopaeum										
Zygnema sp.						P	261	P	87	87
Total Chlorophyta	37825	19462	32592	29960	5462	23591	31727	19419	24912	3614
CYANOPHYTA (Cyanobacteria)										
Agmenellum quadruplicatum						P	P	P		
Agmenellum thermale						P		10459	3486	3486
Anabaena sp.										
Anabaena lapponica	36736	35211	29284	33744	2273	2942	P	1046	1329	861
Anacystis dimidiata	P	P								
Anacystis marina										
Anacystis montana						52294			17431	17431
Anacystis thermalis	4445	1743	2928	3039	782	327			109	109
Aphanocapsa elachista	1569			523	523					
Aphanocapsa elachista v. planctonica		17082	10982	9355	4998		173877	23794	65890	54428
Aphanothece clathrata						16669	4183	6537	9130	3830
Chlorogloea microcystoides										
Chroococcus turgidus	P	174	P	58	58	P	P	784	261	261
Coelosphaerium kuetzingianum	P					P				
Dactylococcopsis linearis										
Desmonema wrangelii	31899	37651	6101	25217	9701	31703	10197	55431	32444	13063
Dichothrix gypsophila	3138			1046	1046	P	15534	66413	27316	20056
Gloeothece linearis v. composite						376	P	2092	823	644
Gomphosphaeria lacustris	34775	204513	P	79763	63178	23859	104587	49970	59472	23784
Lyngbya birgei										
Microcoleus vaginatus			P					P		
Microcystis flos-equae						P				
Nostoc commune	P	P	P			P	44445	78441	40962	22711
Oncobyrsa cesatii										
Oscillatoria sp.										
Oscillatoria limosa										
Pseudanabaena sp.										
Schizothrix calcicola	138840	81926	104204	108323	16558	181394	202377	83931	155901	36491
Scopulonema minus										
Stigonema mamillosum						2535	P	2092	1542	782
Unidentified Cyanophyte akinete		174		58	58					
Total Cyanophyta	251402	378474	153499	261125	85126	312099	565200	380990	416096	72339
Total Algal Density per Sample (no./cm²)	390364	442536	266016	366972	51719	566473	633842	436323	478546	80151
Total Number of Taxa per Sample	97	90	91	93	2	93	87	89	90	2

continued...

Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake ML-E					Lake ML-S					Lake ML-W				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
BACILLARIOPHYTA (Diatoms)															
Achnanthes detha	139	275	2092	835	630	32			11	11	2092		1335	1142	612
Achnanthes flexella	P	P				P	P	P				P	P		
Achnanthes lanceolata	P	P	P			P					P				
Achnanthes minutissima	15897	15322	29808	20342	4736	953	240	119	437	260	29808	210482	45507	95266	57786
Achnanthes minutissima v.cryptocephala			698	233	233						698	6275	890	2621	1828
Amphora sp.															
Amphora ovalis	P	P	P			P					P	P	P		
Anomoeoneis vitrea													P		
Asterionella formosa													P		
Caloneis ventricosa	P														
Caloneis ventricosa v. truncatula			P								P	P	223	74	74
Cocconeis placentula															
Cocconeis placentula v. euglypta												P			
Cocconeis sp.															
Cyclotella sp.						P		P							
Cyclotella antiqua			P			P	P	P			P				
Cyclotella comta	139	241	P	127	70						P	P	P		
Cyclotella kutzingiana												P	P		
Cyclotella meneghiniana		P										P			
Cyclotella ocellata												P	P		
Cyclotella striata		P										P	P		
Cymbella amphioxys			P								P	P	P		
Cymbella cistula															
Cymbella cuspidata	P	P										P	P		
Cymbella cymbiformis	P	P	P								P	P			
Cymbella cymbiformis v. nonpunctata	139	69	437	215	113	P	P				437	523	P	320	162
Cymbella gracilis															
Cymbella minuta	P	1170	1046	739	371	P	P	11	4	4	1046	1747	445	1079	376
Cymbella sinuata			P								P				
Cymbella turgida	139	P	P	46	46						P		88	29	29
Cymbella turgidula															
Cymbella sp.	P	413	P	138	138						P	P	P		
Denticula tenuis		P	P			16	P	P	5	5	P	P	P		
Diatoma elongatum	9966	15602	13249	12939	1634	544	227	257	343	101	13249	P	223	4491	4380
Diatoma vulgare															
Didymosphenia geminata															
Diploneis sp.															
Diploneis elliptica			P								P	P	P		
Diploneis ovalis													P		
Epithemia sorex	.1238	619	558	805	217	64	53	P	39	20	558	18041	2096	6898	5589
Eunotia arcus															
Eunotia exigua												P	P		
Eunotia flexuosa															
Eunotia glacialis															
Eunotia major													P		
Eunotia papilio												P			
Eunotia praerupta	P	P	P			P		P			P	P	P		
Eunotia praerupta v. bidens															
Eunotia sudetica															
Eunotia sp.	P		523	174	174						523	P		174	174
Fragilaria crotonensis		P	P			64			21	21	P				
Fragilaria pinnata	1116	688	P	601	325			23	8	8	P	P			
Frustulia vulgaris		P	P								P				
Gomphonema acuminatum v. coronata			P								P				
Gomphonema angustatum		550	P	183	183		P				P		P		
Gomphonema constrictum	P		P			P		P			P				
Gomphonema parvulum	P		P								P				
Navicula sp.	P		P								P		P		
Navicula amphibola												P	P		
Navicula bacillum															
Navicula decussis															
Navicula dolosa												P			
Navicula cryptocephala	35	P		12	12							2092		697	697
Navicula cryptocephala v. intermedia	1174	1056	523	918	200	32	P	54	29	16	523	9758	1780	4020	2892
Navicula exigua	P	P	P			P	P	P			P	523	P	174	174
Navicula laevissima															
Navicula pseudoscutiformis															
Navicula pupula	P					P							P		
Navicula radiosa	139	413	494	349	107	P	27	6	11	8	494	523	P	339	170
Navicula reinhardtii															
Nedium sp.	P														
Nedium hitchcockii nr															
Nedium iridis v. amphigomphus												P	P		
Nitzschia sp.								P							
Nitzschia acicularis															
Nitzschia amphibia	P		P								P	1046	P	349	349
Nitzschia angustata			P								P	1046	P	349	349
Nitzschia dissipata															
Nitzschia filiformis	105		P	35	35	P		11	4	4	P	P	P		
Nitzschia lonticola			1700	567	567						1700	P	P	567	567
Nitzschia palea															
Nitzschia sigmoidea	139	P		46	46							P	P		
Pinnularia sp.	P	P					P	P				P	P		
Pinnularia biceps			P								P		P		
Pinnularia borealis	P														
Pinnularia nodosa	P	P										P	P		
Pinnularia streptoraphe															
Rhizosolenia longiseta															
Rhopalodia gibba	P	P	P				P				P	P	P		
Stauroneis anceps													P		
Stauroneis phoenicenteron							P						P		
Stauroneis smithii															
Stauroneis sp.															
Stephanodiscus astraea			P								P		P		
Surirella sp.			P			P					P	P			
Synedra actinastroides	6891	3877	3007	4592	1177	444	160	108	237	104	3007	30592	2449	12016	9289
Synedra acus															
Synedra sp.															
Synedra ulna	P											345	P	115	115
Tabellaria fenestrata	418	1766	P	728	533	P	P	P			P	1046		349	349
Tabellaria flocculosa	2626	88402	558	30529	28943	572	93	57	241	166	558	13596	1335	5163	4222
Total Bacillariophyta	40300	130463	54693	75152	27966	2721	800	646	1389	667	54693	297635	56371	136233	81702

continued...

Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake ML-E					Lake ML-S					Lake ML-W				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
CRYPTOPHYTA (Cryptomonads)															
Cryptomonas erosa															
Cryptomonas ovata		P	P				P				P		P		
Cryptomonas reflexa															
Katablepharis ovalis															
Rhodomonas minuta															
Total Cryptophyta															
CHRYSOPHYTA (Golden-Brown Algae)															
Chrysidiastrum catenatum															
Chrysococcus sp.			261	87	87	32			11	11	261		223	161	81
Chrysosphaerella rodhei															
Dinobryon crenulatum	P														
Dinobryon divergens	139	P		46	46	32	P	23	18	10					
Dinobryon sertularia	139	275		138	79	596	654	190	480	146		P	P		
Dinobryon sertularia v.protuberans	279	413	261	318	48	2244	1318	528	1363	496	261	1046		436	314
Dinobryon sociale	279	550	261	363	93	1578	578	394	850	368	261	1046	P	436	314
Dinobryon tabellariae		138	P	46	46	64	27	23	38	13	P				
Ishtmochloron trispinatum						P	80	11	30	25		1046	P	349	349
Kephyrion boreale	139	138		92	46	95			32	32		P			
Ochromonas spa						P									
Ophiocytium sp.	139			46	46								P		
Pseudokephyrion sp.															
Stichogloea doederleinii															
Synura sp.															
Unidentified statospore	976	275	1307	853	304	381	53	11	148	117	1307	2092	668	1356	412
Total Chrysophyta	2090	1789	2090	1990	100	5022	2710	1180	2971	1117	2090	5230	891	2737	1294
PYRROPHYTA (Dinoflagellates)															
Gymnodinium sp.															
Gymnodinium uberrimum	P		P			87	53	34	58	16	P	1046	P	349	349
Peridinium sp.	P	P				P	P	P				P	88	29	29
Peridinium aciculiferum	P		261	87	87	32	35	34	34	1	261			87	87
Peridinium cinctum	139	P		46	46		P	P							
Peridinium palatinum															
Peridinium palustre															
Peridinium willei															
Unidentified cyst		P				381	133	23	179	106		1046	223	423	318
Total Pyrrophyta	139		261	133	75	500	221	91	271	121	261	2092	311	888	802
EUGELNOPHYTA															
Euglena sp.															
Phacus sp.															
Trachelomonas sp.															
Total Euglenophyta															
CHLOROPHYTA (Green Algae)															
Ankistrodesmus convolutus															
Ankistrodesmus falcatus							P								
Ankistrodesmus falcatus v. spiralis		P										1046	P	349	349
Ankistrodesmus gelifactus															
Arthrodesmus triangularis						P	P	P				P	P		
Bulbochaete sp.	1255	3165	P	1473	920	381	160		180	110	P	4183	P	1394	1394
Chlamydomonas sp. a															
Chlamydomonas sp. b															
Closterium sp.															
Closterium acerosum															
Closterium actum															
Closterium dianae															
Closterium pseudolunula															
Coelosrtum sp.						P									
Coelastrum microporum													P		
Coelosrtum printzii															
Coelosrtum sphaericum															
Cosmarium sp.		P													
Cosmarium sp.															
Cosmarium anceps		P										261		87	87
Cosmarium biculatum			P								P				
Cosmarium botrytis															
Cosmarium contracta													P		
Cosmarium coronatum															
Cosmarium depressum													P		
Cosmarium granulatum		P	139	46	46						139		445	195	131
Cosmarium holmiense v. intermedium												P			
Cosmarium humile v. lacustre	P	P				P						P	88	29	29
Cosmarium impressulum v.suborthogonum															
Cosmarium laeve							27	P	9	9					
Cosmarium norimbergense		P	P					11	4	4	P		264	88	88
Cosmarium phaseolus v. phaseolus															
Cosmarium pseudoprotuberans															
Cosmarium rectangulare	P		P								P		P		
Cosmarium reniforme															
Cosmarium repandum															
Cosmarium septentrionale															
Cosmarium speciosum	139	413	139	230	91	P	P				139	P	308	149	89
Cosmarium tetraopthalmum												P	88	29	29
Cosmarium turpinii	P											P			
Cosmarium turpinii v. podolicum															
Crucigenia apiculata															
Crucigenia quadrata													P		
Crucigenia rectangularis															
Cylindrocystis brebissonii	558	619	558	578	20	P					558	4183	4562	3101	1276
Desmidium swartzii v. quadrangulatum															
Dictyosphaerium pulchellum															
Elakatothrix sp.		P													
Euastropsis richteri															
Euastrum sp.															
Euastrum bidentatum															
Euastrum dubium v. maius		P	P								P				
Euastrum elegans		138		46	46										
Euastrum gemmatum													P		
Euastrum obesum															
Euastrum ohioense															
Euastrum sinosum															
Euastrum verrucosum															
Gemellicystis neglecta															
Geminella interrupta															
Gloeocystis schroeteri	1673	2752	2353	2259	315	381	80	23	161	111	2353	13596	2225	6058	3769

continued...

Table B3 (continued). Periphytic algal densities (No. cells/cm²) within lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake ML-E					Lake ML-S					Lake ML-W				
	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE	Rep 2	Rep 3	Rep 4	Mean	SE
Gloeotila pelagica															
Golenkinia radiata v. brevispina												P			
Gonatozygon brebissonii															
Gonatozygon monotaenium	P	138	P	46	46	P					P		88	29	29
Kirchneriella sp.															
Koliella longiseta															
Lagerheimia subsalsa															
Lagerheimia wratislawiensis															
Monoraphidium sp.								8	3	3					
Mougeotia sp. a	1953	P	791	915	567	143			48	48	791	1830	1446	1356	303
Nephrocytium limneticum															
Oocystis elliptica	837	550	523	637	100	509			170	170	523		P	174	174
Oocystis lacustris	873	1239	2092	1401	361		107	68	58	31	2092	20917	3060	8690	6120
Oonephris obesa															
Quadrigula closterioides															
Phacotus sp.		P	523	174	174						523	2092		872	629
Pandorina morum		P	P								P		P		
Pediastrum boryanum			P								P				
Pediastrum boryanum v. ellesmerense															
Pediastrum duplex															
Pediastrum duplex v. clathratum															
Pediastrum integrum v. scutum															
Pediastrum tetras															
Penium sp.															
Penium margaritaecum															
Pleurotaenium trabecula															
Scenedesmus bijuga															
Scenedesmus acuminatus															
Scenedesmus arcuatus															
Scenedesmus denticulatis															
Scenedesmus ecornis															
Scenedesmus incrassatulus															
Scenedesmus quadricauda			P								P	P			
Staurastrum sp.	P		P			P	27		9	9	P				
Staurastrum sp. b															
Staurastrum sp. c															
Staurastrum anatinum v. biradiatum															
Staurastrum antilopaeum															
Staurastrum anatinum															
Staurastrum apiculatum															
Staurastrum borgeanum												P			
Staurastrum brebissonii															
Staurastrum clevei															
Staurastrum cuspidatum															
Staurastrum dejectum															
Staurastrum furcigerum															
Staurastrum gladiosum															
Staurastrum hystrix															
Staurastrum longebranchiatum															
Staurastrum lunatum															
Staurastrum manfeldtii															
Staurastrum pachyrhynchum		P					P					P	P		
Staurastrum pilosum															
Staurastrum proboscidium															
Staurastrum rhabdophorum															
Staurastrum subcruciatum															
Staurastrum tetracerum															
Staurastrum varians															
Staurodesmus triangularis															
Teilingia granulata	P		261	87	87	32			11	11	261	2092	264	872	610
Tetraedron tumidulum								P							
Tetraedron limneticum															
Tetraedron minimum		138		46	46		P								
Tetraedron muticum															
Tetraedron arthrodesmiforme															
Tetraedron caudatum							P								
Trochiscia granulata															
Xanthidium antilopaeum															
Zygnema sp.						127	87	62	92	19					
Total Chlorophyta	7288	9152	7379	7940	807	1573	488	172	744	424	7379	50200	12838	23472	13456
CYANOPHYTA (Cyanobacteria)															
Agmenellum quadruplicatum						127			42	42					
Agmenellum thermale															
Anabaena sp.		18853		6284	6284							12550		4183	4183
Anabaena lapponica															
Anacystis dimidiata						P						P			
Anacystis marina															
Anacystis montana						2639	P	806	1148	781					
Anacystis thermalis	6972	1101		2691	2164							27193	445	9213	8991
Aphanocapsa elachista															
Aphanocapsa elachista v. planctonica						318			106	106			4005	1335	1335
Aphanothece clathrata												8367	1780	3382	2545
Chlorogloea microcystoides															
Chroococcus turgidus	P											P	890	297	297
Coelosphaerium kuetzingianum						381			127	127					
Dactylococcopsis linearis															
Desmonema wrangelii	5578	24358	59353	29763	15757	P	P				59353		2003	20452	19459
Dichothrix gypsophila	1952	10046	44711	18903	13114	15323	18249	1613	11728	5128	44711	P	30041	24917	13159
Gloeothece linearis v. composite		413	P	138	138						P				
Gomphosphaeria lacustris		2477	1307	1261	715						1307	228006	24478	84597	72016
Lyngbya birgei															
Microcoleus vaginatus		1239		413	413							P			
Microcystis flos-aquae		1101		367	367										
Nostoc commune	8228	P	17013	8414	4912	254		P	85	85	17013	135964	60193	71057	34765
Oncobyrsa cesatii															
Oscillatoria sp.			P								P				
Oscillatoria limosa															
Pseudanabaena sp.															
Schizothrix calcicola	43927	103074	83670	76890	17408	11508	8031	3180	7573	2415	83670	109817	29928	74472	23516
Scopulonema minus															
Stigonema mamillosum						254	P		85	85					
Unidentified Cyanophyte akinete															
Total Cyanophyta	66657	162662	206054	145124	41185	30804	26280	5599	20894	7768	206054	521897	153763	293905	114991
Total Algal Density per Sample (no./cm²)	116474	304066	270477	230339	57752	40620	30499	7688	26269	9739	270477	677054	224174	457235	210335
Total Number of Taxa per Sample	68	75	77	73	3	61	48	44	51	5	77	84	91	84	4

concluded.

Table B4. Summary of phytoplankton and zooplankton collection data from the Meliadine Study Area, 1997.

Lake	Date	UTM Coordinates (Zone 15V)		Secchi Disk Depth (m)	Phytoplankton		Zooplankton[2]		
		Easting	Northing		Haul Depth (m)	Chlorophyll *a* (mg/m³)	Haul Depth (m)	No. of Hauls	Volume Filtered (m³)
A6	23-Jul-97	541777	6985645	2.5[1]	1.5	0.00	1.5	2	0.039
	17-Aug-97	541816	6985549	2.5[1]	2.0	1.18	2.0	2	0.052
A8	22-Jul-97	540123	6987122	3.6[1]	2.5	0.96	2.5	2	0.065
	18-Aug-97	540108	6987096	3.4[1]	2.5	0.96	2.5	2	0.065
B2	21-Jul-97	537540	6986964	2.6[1]	2.0	1.49	2.0	3	0.078
	18-Aug-97	537441	6986909	2.5[1]	2.0	1.22	2.0	2	0.052
B5	19-Jul-97	537794	6988576	2.75[1]	2.0	3.03	2.0	2	0.052
	18-Aug-97	537799	6988532	2.3[1]	2.0	3.08	2.0	2	0.052
B7	18-Jul-97	537685	6989544	3.2[1]	2.5	1.08	2.5	2	0.065
	19-Aug-97	537701	6989443	3.8[1]	2.5	1.67	2.5	2	0.065
D7	17-Jul-97	536724	6988687	2.2[1]	2.0	1.68	2.0	3	0.078
	19-Aug-97	536774	6988690	2.2[1]	2.0	1.27	2.0	2	0.052
G2	24-Jul-97	538579	6990582	2.25[1]	1.5	1.01	1.5	3	0.059
	22-Aug-97	538579	6990582	2.1[1]	1.5	1.36	1.5	2	0.039
ML-E	19-Jul-97	542941	6988744	7.5	13.0	0.00	13.0	2	0.338
	17-Aug-97	543003	6988672	6.7	12.5	0.46	12.5	2	0.325
ML-S	20-Jul-97	532380	6989160	6.3[1]	5.0	0.43	5.0	2	0.130
	16-Aug-97	532283	6989160	6.2[1]	5.0	0.33	5.0	3	0.195
ML-W	20-Jul-97	524254	7000982	8.0	7.0	0.06	7.0	2	0.182
	16-Aug-97	524294	7000981	8.5[1]	7.0	0.25	7.0	2	0.182

[1] Secchi depth = bottom depth.

[2] Zooplankton net aperature size = 0.013 m².

Table B5. Phytoplankton biovolume (µm³ x 10³/mL) in lakes of the Meliadine Study Area, 1997.

Taxonomic Group	Lake / Date Sampled																			
	A6		A8		B2		B5		B7		D7		G2		ML-E		ML-S		ML-W	
	23-Jul	17-Aug	22-Jul	18-Aug	21-Jul	18-Aug	19-Jul	18-Aug	18-Jul	19-Aug	17-Jul	19-Aug	24-Jul	22-Aug	19-Jul	17-Aug	20-Jul	16-Aug	20-Jul	16-Aug
BACILLARIOPHYTA (Diatoms)																				
Achnanthes exigua				P																
Achnanthes flexella		P	P	P			P		P		P			P						
Achnanthes lanceolata											P	P			P					
Achnanthes minutissima	P	5.8	0.5	P	P	P		2.0		P	P	P	P	P	0.7	P	0.6	P		1.0
Achnanthes minutissima v. cryptocepala	P	P	P	P		P		P			P	P	P			P				P
Amphora ovalis		P									P							P		
Amphora ovalis v. pediculus												P								
Asterionella formosa		P		P				P								89.1	P	P	P	P
Cocconeis placentula	P			P																
Cocconeis sp.											P									
Cyclotella bodanica	P	15.0	777.2	P	3.5	7.0	2.0	13.9	23.3	3.6		10.0			12.9	P	20.2	3.1	P	2.9
Cyclotella glomerata	87.5	117.6	9.1	0.4		39.8			2.3	3.6	2.6	1.3	5.3	5.6	0.5	56.6	0.9			
Cyclotella meneghiniana				15.3							P		25.9	5.1						P
Cyclotella ocellata																P	P		2.1	2.5
Cymbella affinis				P							P	P								
Cymbella cuspidata												P								P
Cymbella minuta	P		P	P	P						0.6	P	0.6	P	P	P	P			
Cymbella sp.																	P			
Denticulatis tenuis	P	3.0	3.1	3.1						P	P									
Diatoma elongatum	P						P				P	P	P		P		P	P		
Diploneis sp.		P												P				P		
Epithemia sorex	P	P												P						
Eunotia praerupta		13.4																		
Eunotia sp.			P								4.7							P		
Fragilaria crotonensis			1.5	P				P			P		P	P						
Fragilaria pinnata											6.6	4.2	P			P				
Fragilaria sp.			P																	
Gomphonema angustatum	P	P		P							P						P			
Gomphonema constrictum						P														
Melosira sp.													P							
Meridion circulare				P																
Navicula sp.	P	4.3				P														
Naviculum bacillum												P								
Navicula decussis				P																
Navicula cryptocephala				P					0.8	P	P	P	P	P	P	P				
Navicula exigua												P								
Navicula pupula											P	P								
Navicula radiosa	P			P						P	P		P	P	P	P				
Navicula reinhardtii												P								
Navicula scandinavica											P									
Navicula tripunctata												P								
Navicula viridula											P	P								
Nitzschia sp.	P			P								P								
Nitzschia acicularis	3.9																P			
Nitzschia amphibia				P																
Nitzschia angustata	P																			
Nitzschia dissipata											P									
Nitzschia filiformis		P					P								P				P	
Nitzschia palea													12.1	2.5						
Nitzschia sigmoidea				P				P	P			P								
Nitzschia sp.										P										
Pinnularia sp.		P		P																
Rhizosolenia longiseta			11.2				P	6.2				1.8			4.4		P			
Stauroneis anceps		P					P				P	P	P	P						
Stauroneis sp.				P																
Stephanodiscus astraea				29.2							P						P	P		P
Surirella ovalis											P							P		
Surirella sp.	P	P																		
Synedra acus											P						P			
Synedra sp.	9.2	0.4	2.6	4.2	2.5	3.6	8.9	8.7	2.7	5.1	4.1	10.0	17.7	3.6	2.3	1.1	0.5	1.4	1.5	2.5
Synedra ulna																				P
Tabellaria fenestrata	P	P										13.4	P		20.9			P		P
Tabellaria floculosa	P	P	P	P	P		P	P	P	P	7.8	P	2.3	72.7			P		P	P
Total Bacillariophyta	**100.7**	**159.6**	**805.2**	**52.2**	**6.0**	**50.4**	**10.8**	**30.8**	**29.1**	**12.3**	**26.5**	**40.7**	**63.8**	**89.5**	**41.7**	**146.8**	**22.2**	**4.5**	**3.5**	**8.8**
CRYPTOPHYTA (Cryptomonads)																				
Cryptomonas curvata		P		9.7			8.1		P	P		6.3	7.5	P			5.1			
Cryptomonas erosa											P									
Cryptomonas ovata		P	P	8.6		2.2		13.9	P		5.6	9.9	P	2.9		11.8	5.0		P	
Cryptomonas reflexa	32.7	8.2	43.8	71.6	4.0	33.0	39.4	8.1	47.3	12.3	5.0	41.0	27.4	25.1	7.5	6.4	6.3	5.5	7.4	1.4
Katablepharis ovalis	6.0	14.3	5.3	4.9	19.1	14.8	21.1	21.5	2.5	5.9	3.8	12.3	7.2	9.0	5.9	P	5.4	6.7	6.3	10.7
Rhodomonas minuta	22.3	11.8	22.9	15.8	10.9	19.9	56.7	10.9	25.7	8.1	11.9	31.8	22.0	14.2	9.7	P	19.4	18.6	21.0	23.2
Total Cryptophyta	**61.0**	**34.3**	**72.0**	**110.7**	**33.9**	**69.9**	**125.3**	**54.4**	**75.5**	**26.3**	**26.3**	**101.3**	**64.2**	**51.2**	**23.1**	**18.2**	**41.3**	**30.8**	**34.7**	**35.3**
CHRYSOPHYTA (Golden-Brown Algae)																				
Bitrichia longispina																				
Botrycoccus protuberans																				
Chromulina sp.					0.8		0.4	0.7							0.4	P	1.5	0.8	P	0.7
Chrysidastrum catenatum												10.9								
Chrysochromulina parva	P	P		5.0	4.4	1.9	P	1.4		P			4.7	P	1.7	P	2.3	P		2.4
Chrysococcus sp.						0.7		49.3		12.2		36.5				P		48.6		10.1
Chrysoikos skujai	4.9	1.9	9.4	9.7	9.7	30.0	49.7	10.6	21.8	3.8	4.5	4.3	16.3	8.6	4.2	25.1	7.5	8.8	10.7	4.9
Chrysosphaerella rodhei		P		1.4	82.9		14.3	4.2	22.6		5.8		15.8	1.1	7.8	4.2	1.8		1.9	
Chrysostephanosphaera globulifera		1.2	P	P	P	7.5		1.8			P	3.6	0.6		1.5	2.1	2.8	6.0	0.3	0.3
Dinobryon crenulatum	396.1	258.2	413.5	162.3	1053.1	153.0	84.2	541.5	144.4	608.8	722.5	162.2	402.7	173.4	32.5	73.6	83.6	170.5	60.2	163.4
Dinobryon divergens								P				1.7	P	6.7	P	P		P	1.0	P
Dinobryon sertularia		6.3		P		37.7		41.3		2.4	P	4.5				7.4		14.5	P	6.5
Dinobryon sertularia v.protuberans	18.5	95.2	P	16.9	26.5	9.1	72.8	17.9		12.5	113.0	5.7	P	115.5	42.5	17.1	19.5	5.3	13.8	4.9
Dinobryon sociale	P	20.7	39.2	69.6	P	38.0	30.9	147.3	12.2	3.7	132.2	30.5	53.9	23.5		16.2	80.5	13.5	83.3	6.9
Dinobryon tabellariae			P					4.0	P		23.6			3.7	107.0		56.6		53.8	
Ishtmochloron trispinatum	25.1	29.8		3.2	16.8		668.3	9.3	2.2	25.8	118.7	12.0	9.8	29.4	84.5	98.6	131.3	P	103.2	
Kephyrion boreale	59.4						6.4	P			10.9	5.6	4.2		14.4		7.4	P	27.7	3.1
Mallomonas sp.							P	P		P		3.6	P		P					
Ochromonas spa	13.1	9.2	109.4	41.1	1.6	57.8	19.2	76.3	7.8	14.8	65.8	155.5	53.8	52.8	13.1	19.2	26.5	5.3	15.2	22.0
Ochromonas spb.	2.4	P	2.1	P	P	6.0	2.8	P	1.9	1.8	1.9		P		0.4	P	3.5	P	10.1	
Pseudokephyrion sp.	21.8	89.1	76.2	11.5		7.4	118.8	89.8		6.4	28.9	33.0		30.6	18.5	23.7	31.7	9.2	1.4	1.5
Stichogloea doederleinii	1.4	P					P		P							P			P	P
Synura sp.			P									6.3	2.3		3.4		1.6			
Unidentified Chrysophyta colony	11.5	7.8	19.9	P	15.6	2.9	3.1	3.0	P	5.4		25.0	3.9	1.3		2.1	2.8	2.5	7.7	2.1
Unidentified statospore							P				28.2	4.4		1.1	P	P	P	P		
Total Chrysophyta	**554.1**	**519.5**	**669.8**	**320.7**	**1211.3**	**352.1**	**1070.8**	**998.6**	**212.8**	**697.6**	**1256.0**	**505.2**	**567.9**	**447.8**	**331.8**	**289.2**	**461.0**	**285.0**	**390.3**	**228.8**

continued..

Table B5 (continued). Phytoplankton biovolume (µm³ x 10³/mL) in lakes of the Meliadine Study Area, 1997.

Taxonomic Group	Lake / Date Sampled																			
	A6		A8		B2		B5		B7		D7		G2		ML-E		ML-S		ML-W	
	23-Jul	17-Aug	22-Jul	18-Aug	21-Jul	18-Aug	19-Jul	18-Aug	18-Jul	19-Aug	17-Jul	19-Aug	24-Jul	22-Aug	19-Jul	17-Aug	20-Jul	16-Aug	20-Jul	16-Aug
PYRROPHYTA (Dinoflagellates)																				
Glenodinium sp.	17.9	6.0	15.3	5.7	5.0	7.2	37.6	3.1		4.2	10.8	5.8	2.1	14.2	9.7	9.4	1.9	7.1	6.0	7.8
Gymnodinium sp.	P					P		118.4				45.4								P
Gymnodinium helveticum							P				P	P			29.5	P	P	P	P	P
Gymnodinium uberrimum	P	44.8	P	39.6	P	P		44.6		376.8		P	30.1	P	27.9	44.7	P	P		24.2
Peridinium sp.					56.7			134.6							P				P	
Peridinium aciculiferum		46.7	6.2	75.4		90.3	194.4	240.7	P	50.7	152.0	257.1	88.7	221.0	7.1	6.4	25.6	46.3		17.2
Peridinium cinctum		P		P		P														
Unidentified cyst	13.5	P			P					11.0	P			P	P		25.1	25.2	P	P
Total Pyrrophyta	**31.4**	**97.5**	**21.5**	**120.7**	**61.7**	**97.5**	**232.0**	**541.4**		**442.8**	**162.9**	**308.4**	**120.8**	**235.2**	**74.2**	**60.6**	**52.6**	**78.5**	**6.0**	**49.2**
EUGLENOPHYTA																				
Leppocinslis sp.																	2.1			
Total Euglenophyta																	**2.1**			
CHLOROPHYTA (Green Algae)																				
Ankistrodesmus convolutus	0.4	2.5	0.7	8.8		0.1	0.1	P		0.1		P					0.0			
Ankistrodesmus falcatus	0.1	0.1	P	0.0	0.2	P	0.2	P	0.4	P		P	0.3	0.1				0.0		P
Ankistrodesmus falcatus v. spiralis			P	0.2					1.0	1.0	2.0	0.3	0.8	4.1			P			
Ankistrodesmus gelifactus	2.3	0.7	2.3	1.2	0.8	1.1	1.7	0.7	2.2	0.6	P	1.7		0.0	0.4	0.2	0.3	0.3	0.7	0.2
Arthrodesmus triangularis							P		P						6.6	2.8	3.9	P	11.5	P
Chlamydomonas sp. a	P	2.4	4.0	2.6		0.7		8.1	0.3	0.3	0.3		0.3	0.8						
Chlamydomonas sp. b		5.1		P			3.9	36.1		14.1	5.1	1.6	3.6			P	1.2	P	12.6	
Chlamydomonas sagittula					0.2							0.3								
Coelastrum microporum										P										
Cosmarium granulatum					P															
Cosmarium laeve																		P		
Cosmarium norinbergense									P	P			P							
Cosmarium speciosum	P		P	30.5		P	38.0	25.9	P	P				P	P	P	P	P		
Cosmarium subgranulata	P																			
Cosmarium turpinii												166.4								
Crucigenia quadrata	0.2				P		3.0	P	4.6	P	P	1.2	0.2	1.0	P	P	2.2	P	P	0.6
Crucigenia rectangularis		P			5.5	P	3.7	P	P		P	2.2	4.0		P	P	3.7	0.9		
Cylindrocystis sp.		21.2																		
Elakatothrix gelatinosa			P				1.1			0.5								0.1		
Euastrum dubium v. maius		P	P	P					P		P									
Euastrum elegans				16.7	P	P		P					P		P					
Gemellicystis neglecta													P							
Gloeocystis schroeteri	22.3	10.8	9.6	12.8	6.8	22.4	60.7	1.5	23.0	6.8	P		18.4	15.5	8.4	70.0	15.5	19.4	10.3	7.4
Golenkinia radiata v. brevispina	P	5.7		P	P	0.6		P		10.6		P	1.0	10.0						
Gonatozygon montae				P																
Kirchneriella sp.	0.0		0.2	0.2	9.7	P	0.1	0.0	0.1		P	P		P	0.0					
Koliella longisetta											0.6									
Lagerheimia quadrisetta					P	0.1		P									0.1			
Mougeotia sp. a			1.8				P				6.5	0.4	10.1		7.4	7.9	1.2	4.9	1.5	P
Mougeotia sp. b				P																
Nephrocytium limneticum	2.7	3.2	P	1.3	P	2.8			15.9	8.1	12.0	16.0		1.3		0.2	1.6	1.2	0.2	1.1
Oocystis elliptica		20.3	32.6	53.0	8.6	92.8	58.8		25.9	19.2	P	80.5	25.3		31.7	30.6	P			1.1
Oocystis lacustris	0.1	14.5	83.7	0.1	19.6	66.7	34.3	34.5	92.8	30.7	40.5	50.2	88.5	19.2	0.0	0.0	2.3	3.7	0.0	0.0
Oocystis pusilla																			1.7	
Quadrigula closterioides	0.5			P				0.9	2.8	2.6			P			4.0	0.3	1.2	P	0.3
Pandorina morum			P													P				
Pediastrum boryanum		16.0																		
Pediastrum integrum v. scutum												P								
Pediastrum tetras			P		2.8	1.5	1.9	2.8	P	2.0	1.6	1.3	1.8	2.4			P	P		
Scenedesmus bijuga		1.0	P		1.3	1.1	0.3	1.6		0.6	1.4	1.4	0.8	4.1				0.3		
Scenedesmus ecornis	P																			
Scenedesmus incrassatulus	1.8	P	1.2	1.4	3.5	0.6	P	P	3.4	6.4	1.3	2.0	P	P		P	P			
Scenedesmus quadricauda					P		1.7	1.0			2.0		1.4	0.9						
Staurastrum sp.					2.6		P	18.2		37.5		37.9	P	P		P	P			
Staurastrum apiculatum													19.0							
Staurastrum brebissoni								P												
Staurastrum cyrtocerum	15.2																			
Staurstrum dejectum		P					P					P					P			
Staurastrum tetracerim							P							P						
Teilingia granulata	1.1	26.8	0.4	4.3	P	19.2	6.1	5.1	2.6	32.5	P	3.8	2.4	1.2	1.3	P	6.0	4.5	1.7	6.1
Tetraedron sp.	2.8	1.1	1.2	2.3	P		2.1	1.2	P		P					P		1.0		
Tetraedron minimum	3.4	2.0	P	P	1.5	2.2	P	0.2	P	P	P	P	1.6	0.8		P	3.5	P		
Tetraedron muticum								P		1.4		0.5	P	2.8						
Tetrastrum arthrodesmiforme	0.9	1.3	2.4	2.2	0.6	0.3	4.6	0.6	2.8	P	0.4	0.2	1.0		P	P	0.2	P	0.1	
Tetrastrum caudatum						P							0.2	0.4						
Total Chlorophyta	**53.8**	**134.6**	**139.9**	**137.6**	**63.7**	**212.1**	**222.2**	**138.5**	**178.0**	**175.0**	**73.6**	**367.9**	**180.7**	**64.5**	**55.8**	**115.8**	**41.9**	**37.6**	**40.1**	**16.8**
CYANOPHYTA (Cyanobacteria)																				
Agmenellum quadriplicatum					0.6		P	P		P			P	1.1				P		
Agmenellum thermale																P				
Anabaena sp.		1.7			168.0	43.4					0.4	0.5		P	P	3.2	0.9			0.4
Anabaena azollae																			P	
Anabaena planctonica										P				1.8		P		P		
Anacystis montana	0.4																			
Aphanizomenon flos-aquae									P			P								
Aphanocapsa elachista		0.2		P						P	P	0.1					P	P		
Aphanocapsa elachista v. planctonica		2.9	0.8		2.4	1.4	4.1	0.4	3.5	0.3	1.1		10.6	1.3	0.3		0.1		7.3	1.1
Aphanothece clathrata	0.1	3.2	1.0	2.1	4.6	13.4	P	0.8	2.2	3.6			1.6	0.0	1.9	1.1	0.2	0.2	0.9	0.2
Chlorogloea microcystoides							0.1													
Chroococcus turgidus	2.3	1.3	1.8	P	5.9	P	2.1	2.8	13.9	13.5			6.8		P	P	P			1.1
Coelosphaerium kuetzingianum			4.2	P	0.4		1.4	5.6	P	1.6	2.2	0.1	4.3	P		0.6	0.9	P	P	0.3
Dactylococcopsis linearis													P	P						
Desmonema wrangelii															P					
Dichotrix gypsophila																P				
Gomphosphaeria lacustris	20.7	5.5	P	P	24.4	7.4	P	2.5	20.3	8.6	P	0.6	4.2	36.9		P	P	P		
Lyngbya contorta										0.6				P						
Lyngbya limnetica	0.8			P			1.3		0.9		P	P								P
Microcoleus vaginatus		22.2				P		0.7		P	P	4.2								
Microcystis flos-aquae	2.4	3.6								P					P					
Oscillatoria limnetica					P	P		0.6		P	P		0.7	P			0.2			
Pseudanabaena sp.			0.1	P							P		P							
Total Cyanophyta	**26.7**	**40.5**	**7.9**	**2.1**	**206.4**	**65.6**	**9.0**	**13.5**	**40.8**	**28.1**	**3.8**	**5.4**	**28.2**	**41.1**	**2.3**	**4.9**	**2.3**	**0.2**	**8.2**	**3.0**
Total Algal Biovolume (µm³ x 10³/mL)	845.5	1003.7	1734.2	761.9	1600.8	865.4	1687.9	1794.9	553.9	1399.9	1566.8	1346.7	1043.4	947.1	546.7	653.4	641.3	454.5	500.7	359.7
Total Number of Taxa per Sample	*65*	*74*	*59*	*79*	*55*	*57*	*66*	*72*	*53*	*66*	*83*	*83*	*74*	*66*	*57*	*66*	*74*	*66*	*46*	*53*

Note: P = present but not encountered in routine cell counts.

concluded.

Table B6. Phytoplankton density (No. cells/mL) in lakes of the Meliadine Study Area, 1997.

Taxonomic Group	Lake / Date Sampled																			
	A6		A8		B2		B5		B7		D7		G2		ML-E		ML-S		ML-W	
	23-Jul	17-Aug	22-Jul	18-Aug	21-Jul	18-Aug	19-Jul	18-Aug	18-Jul	19-Aug	17-Jul	19-Aug	24-Jul	22-Aug	19-Jul	17-Aug	20-Jul	16-Aug	20-Jul	16-Aug
BACILLARIOPHYTA (Diatoms)																				
Achnanthes exigua				P																
Achnanthes flexella		P	P	P			P		P		P			P						
Achnanthes lanceolata											P	P			P					
Achnanthes minutissima	P	27	2	P	P	P		13		P	P	P	P	P	2	P	3	P		5
Achnanthes minutissima v. cryptocepala	P	P	P	P		P		P			P	P	P			P				P
Amphora ovalis		P									P							P		
Amphora ovalis v. pediculus												P								
Asterionella formosa		P		P				P								262	P	P	P	P
Cocconeis placentula	P			P																
Cocconeis sp.											P									
Cyclotella bodanica	P	7	143	P	3	7	7	46	26	64		4			2	P	14	10	P	5
Cyclotella glomerata	113	150	163	7		32			40	2	7	7	14	17	9	77	17			
Cyclotella meneghiniana				60							P		27	2						P
Cyclotella ocellata																P	P		9	12
Cymbella affinis				P							P	P								
Cymbella cuspidata												P								P
Cymbella minuta	P		P	P	P						2	P	2	P	P	P	P			
Cymbella sp.																	P			
Denticulatis tenuis	P	2	2	2						P	P									
Diatoma elongatum	P						P				P	P	P		P		P	P		
Diploneis sp.		P												P				P		
Epithemia sorex	P	P												P						
Eunotia praerupta		2																		
Eunotia sp.			P								2							P		
Fragilaria crotonensis			4	P				P			P		P	P						
Fragilaria pinnata											21	18	P			P				
Fragilaria sp.			P																	
Gomphonema angustatum	P	P		P							P						P			
Gomphonema constrictum						P														
Melosira sp.													P							
Meridion circulare				P																
Navicula sp.	P	2				P														
Navicula bacillum												P								
Navicula decussis				P																
Navicula cryptocephala				P					2	P	P	P	P	P	P	P				
Navicula exigua												P								
Navicula pupula											P	P								
Navicula radiosa	P			P						P	P		P	P	P	P				
Navicula reinhardtii												P								
Navicula scandinavica											P									
Navicula tripunctata												P								
Navicula viridula											P	P								
Nitzschia sp.	P			P								P								
Nitzschia acicularis	8																P			
Nitzschia amphibia				P																
Nitzschia angustata	P																			
Nitzschia dissipata											P									
Nitzschia filiformis		P					P								P				P	
Nitzschia palea													21	4						
Nitzschia sigmoidea				P				P	P			P								
Nitzschia sp.										P										
Pinnularia sp.		P		P																
Rhizosolenia longiseta			20				P	3				2			2		P			
Stauroneis anceps		P					P				P	P	P	P						
Stauroneis sp.				P																
Stephanodiscus astraea				9							P						P	P		P
Sunrella ovalis											P							P		
Sunrella sp.	P	P																		
Synedra acus											P						P			
Synedra sp.	12	2	6	11	8	12	12	21	6		19	26	67	10	7	4	2	4	2	7
Synedra ulna																				P
Tabellaria fenestrata	P	P										4	P		7			P		P
Tabellaria floculosa	P	P	P	P	P		P	P	P	P	7	P	2	50			P		P	P
Total Bacillariophyta	**133**	**192**	**340**	**89**	**11**	**51**	**19**	**83**	**74**	**66**	**58**	**61**	**133**	**83**	**29**	**343**	**36**	**14**	**11**	**29**
CRYPTOPHYTA (Cryptomonads)																				
Cryptomonas curvata		P		5			5		P	P		2	2	P			2	P		
Cryptomonas erosa											P									
Cryptomonas ovata		P	P	7		3	P	5	P		2	8	P	2		7	2	P	P	
Cryptomonas reflexa	38	9	41	79	6	32	39	10	43	13	5	39	22	31	7	7	5	9	7	1
Katablepharis ovalis	53	116	61	46	153	109	163	151	20	38	34	118	55	86	67	P	46	41	49	82
Rhodomonas minuta	119	48	122	66	67	88	299	66	167	45	41	155	96	73	54	P	114	108	89	147
Total Cryptophyta	**210**	**173**	**224**	**203**	**226**	**232**	**506**	**232**	**230**	**96**	**82**	**322**	**175**	**192**	**128**	**14**	**169**	**158**	**145**	**230**
CHRYSOPHYTA (Golden-Brown Algae)																				
Bitrichia longispina					4		3	3							2	P	7	3	P	2
Botryococcus protuberans												197								
Chromulina sp.	P	P		13	20	7	P	13		P			21	P	5	P	20	P		10
Chrysidastrum catenatum						2		33		5		26				P		51		10
Chrysochromulina parva	159	476	340	325	202	789	1537	262	612	160	186	157	613	272	110	1036	274	298	294	145
Chrysococcus sp.		P		6	104		82	13	214		34		93	7	37	20	7		14	
Chrysoikos skujai		7	P	P	P	41		7			P	13	2		5	7	10	19	2	2
Chrysosphaerella rodhei	2042	1275	2160	883	5786	875	5104	2586	486	3914	4721	436	1739	760	126	266	414	884	295	311
Chrysostephanosphaera globulifera								P				7	P	27	P	P		P	2	P
Dinobryon crenulatum		5				34		39		2	P	4				7		13	P	7
Dinobryon divergens	11	68	P	11	16	7	45	13	P	8	86	4	P	80	48	10	12	3	7	2
Dinobryon sertularia	P	29	54	86	P	54	41	179	14	4	199	46	79	27		18	92	16	105	9
Dinobryon sertularia v.protuberans			P					2	P		14			2	54		31		24	
Dinobryon sociale	22	30		3	17		757	11	2	27	133	11	12	33	79	97	126	P	93	
Dinobryon tabellariae	150						3	P			5	2	2		7		3	P	11	1
Ishtmochloron trispinatum							P	P		P		2	P		P					
Kephyrion boreale	27	41	388	146	7	163	41	222	27	50	145	243	131	113	33	42	76	19	49	34
Mallomonas sp.	2	P	2	P	P	9	3	P	2	2	2		P		1	P	3	P	7	
Ochromonas spa	13	54	54	26		14	68	92		19	12	13		66	16	60	23	10	2	2
Ochromonas spb.	7	P					P		P							P			P	P
Pseudokephyrion sp.			P									13	5		7		3			
Stichogloea doederleinii	60	41	88	P	81	14	14	20	P	25		138	21	7		7	7	6	23	6
Synura sp.							P				55	9		2	P	P	P	P		
Unidentified Chrysophyta colony				18												20				
Unidentified statospore	14	2	14	7		P	109	22			28					P		3		
Total Chrysophyta	**2507**	**2028**	**3100**	**1524**	**6237**	**2009**	**7807**	**3517**	**1357**	**4216**	**5620**	**1321**	**2718**	**1396**	**530**	**1590**	**1108**	**1325**	**928**	**541**

continued...

Table B6 (continued). Phytoplankton density (No. cells/mL) in lakes of the Meliadine Study Area, 1997.

Taxonomic Group	Lake / Date Sampled																			
	A6		A8		B2		B5		B7		D7		G2		ML-E		ML-S		ML-W	
	23-Jul	17-Aug	22-Jul	18-Aug	21-Jul	18-Aug	19-Jul	18-Aug	18-Jul	19-Aug	17-Jul	19-Aug	24-Jul	22-Aug	19-Jul	17-Aug	20-Jul	16-Aug	20-Jul	16-Aug
PYRROPHYTA (Dinoflagellates)																				
Glenodinium sp.	23	14	27	9	7	14	54	7		6	14	7	5	33	19	11	3	19	7	10
Gymnodinium sp.	P					P		28				7								P
Gymnodinium helveticum							P				P	P			1	P	P	P	P	P
Gymnodinium uberrimum	P	2	P	2	P	P		2		6		P	2	P	2	2	P	P		1
Peridinium sp.					16			4							P				P	
Peridinium aciculiferum		11	2	18		24	31	39	P	8	30	53	27	28	2	2	8	13		4
Peridinium cinctum		P		P		P														
Unidentified cyst	4	P			P					2	P			P	P		3	2	P	P
Total Pyrrophyta	**27**	**27**	**29**	**29**	**23**	**38**	**85**	**80**	**0**	**22**	**44**	**67**	**34**	**61**	**24**	**15**	**14**	**34**	**7**	**15**
EUGLENOPHYTA																				
Leppocinslis sp.																	2			
Total Euglenophyta	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**
CHLOROPHYTA (Green Algae)																				
Ankistrodesmus convolutus	32	143	92	484		7	10	P		6		P					2			
Ankistrodesmus falcatus	3	2	P	2	4	P	7	P	10	P		P	8	2				3		P
Ankistrodesmus falcatus v. spiralis			P	7					27	26	34	4	12	49			P			
Ankistrodesmus gelifactus	249	37	88	63	56	68	43	46	116	30	P	46		2	17	9	14	18	33	5
Arthrodesmus triangularis							P		P						5	2	3	P	8	P
Chlamydomonas sp. a	P	41	41	27		27		52	14	13	14		14	13						
Chlamydomonas sp. b		2		P			3	13		19	7	2	2			P	2	P	5	
Chlamydomonas sagittula					7							7					6			
Coelastrum microporum										P										
Cosmarium granulatum					P															
Cosmarium laeve																		P		
Cosmarium nonnbergense									P	P			P							
Cosmarium speciosum	P		P	2		P	36	2	P	P				P	P	P	P	P		
Cosmarium subgranulata	P																			
Cosmarium turpinii												2								
Crucigenia quadrata	9				P		75	P	54	P	P	26	19	27	P	P	26	P	P	15
Crucigenia rectangularis		P			29	P	13	P	P		P	45	14		P	P	13	3		
Cylindrocystis sp.		8																		
Elakatothrix gelatinosa			P				27			13								3		
Euastrum dubium v. maius		P	P	P					P		P									
Euastrum elegans				2	P	P		P					P		P					
Gemellicystis neglecta													P							
Gloeocystis schroeteri	73	41	34	46	413	224	286	105	113	77	P		80	46	44	339	97	60	54	39
Golenkinia radiata v. brevispina	P	20		P	P	2		P		25		P	2	44						
Gonatozygon montae				P																
Kirchneriella sp.	7		20	20	208	P	27	7	20		P	P		P	2					
Koliella longisetta											7									
Lagerheimia quadrisetta					P	7		P									3			
Mougeotia sp. a			4				P				18	2	6		19	25	4	13	5	P
Mougeotia sp. b				P																
Nephrocytium limneticum	7	20	P	13	P	20			238	83	96	176		13		2	10	13	2	10
Oocystis elliptica	22	4	P	38	57	32	41		18	32	P	33	10		23	20	P			1
Oocystis lacustris	139	68	20	126	632	415	122	190	314	117	258	177	537	93	14	40	13	6	9	7
Oocystis pusilla																			9	
Quadrigula closterioides	7			P				20	31	38			P			53	5	26	P	5
Pandorina morum			P													P				
Pediastrum boryanum		55																		
Pediastrum integrum v. scutum												P								
Pediastrum tetras			P		36	20	26	54	P	35	23	25	28	43			P	P		
Scenedesmus bijuga		14	P		27	54	7	26		25	28	26	34	66				6		
Scenedesmus ecornis	P																			
Scenedesmus incrassatulus	39	P	22	13	40	8	P	P	24	66	25	44	P	P		P	P			
Scenedesmus quadricauda					P		13	20			23		14	9						
Staurastrum sp.					2		P	2		2		2	P	P		P	P			
Staurastrum apiculatum													2							
Staurastrum brebissoni								P												
Staurastrum cyrtocerum	2																			
Staurstrum dejectum		P					P					P					P			
Staurastrum tetracerim							P							P						
Teilingia granulata	4	41	16	14	P	68	30	15	7	115	P	13	9	3	2	P	16	10	4	14
Tetraedron sp.	4	2	2	5	P		3	2	P		P					P		2		
Tetraedron minimum	7	5	P	P	2	5	P	2	P	P	P	P	14	7		P	3	P		
Tetraedron muticum								P		7		2	P	13						
Tetrastrum arthrodesmiforme	33	48	95	80	27	20	299	26	129	P	21	7	41		P	P	7	P	2	
Tetrastrum caudatum						P							7	7						
Total Chlorophyta	**637**	**551**	**434**	**942**	**1540**	**977**	**1068**	**582**	**1115**	**729**	**554**	**639**	**853**	**437**	**126**	**490**	**224**	**163**	**131**	**96**
CYANOPHYTA (Cyanobacteria)																				
Agmenellum quadriplicatum					81		P	P		P			P	159				P		
Agmenellum thermale																P				
Anabaena sp.		70			897	184					25	27		P	P	14	23			7
Anabaena azollae																			P	
Anabaena planctonica										P				24		P		P		
Anacystis montana	33																			
Aphanizomenon flos-aquae									P			P								
Aphanocapsa elachista		306		P						P	P	144					P	P		
Aphanocapsa elachista v. planctonica		414	117		228	88	585	39	340	29	106		701	46	37		20		236	34
Aphanothece clathrata	53	3197	1660	3739	4933	8149	P	827	2313	6508			1556	53	1134	1315	195	177	717	159
Chlorogloea microcystoides							26													
Chroococcus turgidus	31	21	9	P	51	P	16	26	85	93			39		P	P	P			2
Coelosphaerium kuetzingianum			182	P	431		98	426	P	103	138	7	560	P		63	52	P	P	22
Dactylococcopsis linearis													P	P						
Desmonema wrangelii															P					
Dichotrix gypsophila																P				
Gomphosphaeria lacustris	962	313	P	P	768	482	P	188	1502	641	P	36	315	3390		P	P	P		
Lyngbya contorta										35				P						
Lyngbya limnetica	43			P			138		54		P	P								P
Microcoleus vaginatus		701				P		22		P	P	146								
Microcystis flos-aquae	53	127								P					P					
Oscillatoria limnetica					P	P		79		P	P		42	P			20			
Pseudanabaena sp.			4	P							P		P							
Total Cyanophyta	**1175**	**5149**	**1972**	**3739**	**7389**	**8903**	**863**	**1607**	**4294**	**7409**	**269**	**360**	**3213**	**3672**	**1171**	**1392**	**310**	**177**	**953**	**224**
Total Algal Density (No. cells/mL)	22506	25950	23916	24356	33242	30040	28163	23931	24885	30369	24441	20601	24944	23673	19823	21674	19679	19700	19991	18964
Total Number of Taxa per Sample	*65*	*74*	*59*	*79*	*55*	*57*	*66*	*72*	*53*	*66*	*83*	*83*	*74*	*66*	*57*	*66*	*74*	*66*	*46*	*53*

Note: P = present but not encountered in routine cell counts.

concluded.

Table B7. Zooplankton biomass (µg /m³, dry weight) in lakes of the Meliadine Study Area, 1997.

Taxonomic Group	Lake / Date Sampled																			
	A6		A8		B2		B5		B7		D7		G2		ML-E		ML-S		ML-W	
	23-Jul	17-Aug	22-Jul	18-Aug	21-Jul	18-Aug	19-Jul	18-Aug	18-Jul	19-Aug	17-Jul	19-Aug	24-Jul	22-Aug	19-Jul	17-Aug	20-Jul	16-Aug	20-Jul	16-Aug
CLADOCERA																				
Bosmina longirostris	10,925	10,324	2,845	6,530	8,679	13,818	17,525	3,719	23,136	9,760	5,760	2,093	3,000	262	3,021	3,292	2,668	3,697	1,564	3,269
Chydorus sphaericus																				
Daphnia longiremis		206			2,530	4,597	1,868	343	13,371	5,849	108	505			6,047	3,353	8,546	4,415	4,387	6,219
Eubosmina longispina	22,760	23,802	5,636	15,375	12,724	19,062	30,731	4,170	21,119	14,356	7,917	2,807			5,352	7,622	8,483		2,014	6,779
Holopedium gibberum					1,129,270				1,887,028	77,298					311,234	37,038	427,069	268,287	87,736	223,223
Total Cladocera	**33,685**	**34,331**	**8,480**	**21,905**	**1,153,203**	**37,478**	**50,124**	**8,232**	**1,944,653**	**107,263**	**13,784**	**5,405**	**3,000**	**262**	**325,654**	**51,305**	**446,767**	**276,399**	**95,701**	**239,489**
CALANOIDA																				
Diaptomus minutus	128,136	23,340	42,538	3,828	8,373	7,562	64,265	1,536	91,020						9,472		3,314	3,907	3,975	833
Diaptomus sicilis					4,321	2,304													4,360	1,958
Epischura spp.	4,021		6,621		15,811		12,577	2,390	7,576						5,637		8,207	2,236	5,915	926
Heterocope spp.	18,913		3,114										2,430		17,948					
Calanoid copepodid	1,390	620	215		1,159	424	3,452		2,782				1,451		1,686		507	77	786	80
Calanoid nauplii	3,565	2,649	367	79	6,373	725		1,325	2,939	1,499	2,193	2,924			865	345	780	595		
Total Calanoida	**156,025**	**26,609**	**52,855**	**3,908**	**36,037**	**11,014**	**80,294**	**5,250**	**104,317**	**1,499**	**2,193**	**2,924**	**3,881**	**0**	**35,607**	**345**	**12,808**	**6,815**	**15,036**	**3,797**
CYCLOPOIDA																				
Cyclops scutifer	17,330	8,986	5,616	5,725	20,738	74,050	62,958	4,164	36,125	15,052	1,378	1,814	948		6,600	3,043	18,707	3,281	52,234	4,246
Diacyclops bicuspidatus					2,105															
Cyclopoid copepodid	2,786	2,404	703	2,331	4,755	3,727	11,114	1,389	2,625	3,669	1,428	393	116	101	1,008	309	419	200	285	41
Cyclopoid nauplii	805	2,392	331	18	2,589	1,963	296	1,644	3,980	790	2,256	1,650	388		2,213	415	880	1,253	2,697	3,106
Total Cyclopoida	**20,921**	**13,782**	**6,650**	**8,074**	**30,187**	**79,741**	**74,368**	**7,198**	**42,730**	**19,511**	**5,063**	**3,857**	**1,451**	**101**	**9,821**	**3,768**	**20,007**	**4,734**	**55,216**	**7,393**
ROTIFERA																				
Asplanchna spp.	7,638	21,744	827	12,101	444		22,782	88,651	24,238		58,798	25,276	212,825	6,713	1,506		5,158	207	1,314	668
Conochilus unicornis	6,802	6,551	1,037	153	22,934	1,843	22,434	3,369	22,071	5,651	30,725	3,099	8,740		13,936	4,321	2,424	11,543	3,110	8,230
Euchlanis diliata												310								
Eudactylocota eudactylocota								778												
Filinia longiseta												118								
Gastropus spp.																	205			
Kellicottia longispina	17,266	9,728	5,212	120	4,526	7,604	7,201	12,614	2,101	1,452	6,051	4,956	3,605	1,678	3,817	984	3,482	2,944	4,872	2,789
Keratella cochlearis	18,051	39,017	579	526	10,057	1,716	29,677	20,553	18,110	11,305	89,063	30,761	117,935	33,666	13,272	1,693	11,484	4,797	5,954	2,188
Keratella quadrata		744	103		955	204	369													
Monostyla lunaris				5						87	216							34		
Polyarthra delichoptera	1,727	5,131	355	145	1,029	702	1,588	4,811	407	1,614		9,558	45,758	6,713	419	668	126	1,600	1,827	362
Pompholyx sulcata	2,835	13,239	667	78					572	4,201							236	676	1,286	291
Rotaria spp.		3,459										1,527								
Syncheata pectinata		3,685		21			261	10,003			993		6,829	3,616	1,146	1,142	207	5,122	875	254
Trichotria tetracis																			70	
Eosphora spp.					1,117															
Notholca aquminata					181															
Total Rotifera	**54,318**	**103,299**	**8,781**	**13,150**	**41,243**	**12,069**	**84,312**	**140,780**	**67,498**	**24,309**	**185,846**	**75,605**	**395,693**	**43,995**	**34,096**	**8,808**	**23,322**	**26,924**	**19,308**	**14,783**
Total Zooplankton Biomass (µg/m³)	264,949	178,020	76,767	47,037	1,260,670	140,301	289,097	161,459	2,159,198	152,583	206,887	87,791	404,025	48,553	405,179	64,226	502,903	314,872	185,262	265,461

Table B8. Zooplankton density (No. organisms/m³) in lakes of the Meliadine Study Area, 1997.

Taxonomic Group	Lake / Date Sampled																			
	A6		A8		B2		B5		B7		D7		G2		ML-E		ML-S		ML-W	
	23-Jul	17-Aug	22-Jul	18-Aug	21-Jul	18-Aug	19-Jul	18-Aug	18-Jul	19-Aug	17-Jul	19-Aug	24-Jul	22-Aug	19-Jul	17-Aug	20-Jul	16-Aug	20-Jul	16-Aug
CLADOCERA																				
Bosmina longirostris	5,350	5,055	1,393	3,198	4,250	6,767	8,582	1,821	11,329	4,779	2,821	1,025	1,469	128	1,479	1,612	1,307	1,810	766	1,601
Chydorus sphaericus								27				50					107			
Daphnia longiremis		82			1,003	1,822	740	136	5,298	2,318	43	200			2,396	1,329	3,387	1,749	1,738	2,464
Eubosmina longispina	6,082	6,360	1,506	4,108	3,400	5,094	8,212	1,114	5,643	3,836	2,115	750			1,430	2,037	2,267		538	1,811
Holopedium gibberum					2,397				4,006	164					661	79	907	570	186	474
Total Cladocera	**11,432**	**11,497**	**2,899**	**7,306**	**11,050**	**13,682**	**17,534**	**3,098**	**26,277**	**11,097**	**4,979**	**2,025**	**1,469**	**128**	**5,966**	**5,056**	**7,973**	**4,129**	**3,229**	**6,350**
CALANOIDA																				
Diaptomus minutus	11,340	2,066	3,765	339	741	669	5,688	136	8,055						838		293	346	352	74
Diaptomus sicilis					349	186													352	158
Epischura spp.	183		301		719		572	109	345						256		373	102	269	42
Heterocope spp.	229		38										29		217					
Calanoid copepodid	366	163	56		305	112	909		732				382		444		133	20	207	21
Calanoid nauplii	11,404	8,473	1,174	254	20,383	2,318		4,237	9,400	4,796	7,014	9,352			2,767	1,103	2,494	1,903		
Total Calanoida	**23,522**	**10,702**	**5,334**	**593**	**22,498**	**3,285**	**7,168**	**4,481**	**18,533**	**4,796**	**7,014**	**9,352**	**411**	**0**	**4,522**	**1,103**	**3,294**	**2,370**	**1,180**	**295**
CYCLOPOIDA																				
Cyclops scutifer	2,149	1,114	696	593	2,572	9,183	7,808	516	4,480	1,867	171	225	118		819	377	2,320	407	6,478	527
Diacyclops bicuspidatus					218															
Cyclopoid copepodid	1,418	1,223	358	1,186	2,419	1,896	5,654	707	1,335	1,867	727	200	59	51	513	157	213	102	145	21
Cyclopoid nauplii	11,404	33,892	4,695	254	36,690	27,817	4,197	23,301	56,402	11,191	31,974	23,381	5,495		31,359	5,883	12,470	17,756	38,217	44,011
Total Cyclopoida	**14,971**	**36,230**	**5,749**	**2,033**	**41,899**	**38,897**	**17,658**	**24,524**	**62,217**	**14,924**	**32,871**	**23,806**	**5,671**	**51**	**32,690**	**6,418**	**15,003**	**18,265**	**44,840**	**44,559**
ROTIFERA																				
Asplanchna spp.	869	2,473	94	1,376	1,359		2,591	10,084	2,757		6,688	2,875	24,208	133,012	4,612		15,795	634	4,023	2,047
Conochilus unicornis	76,977	74,140	11,736	1,737	259,549	20,863	253,893	38,129	249,781	63,948	347,717	35,071	98,913		157,718	48,904	27,434	130,635	35,200	93,140
Euchlanis diliata												2,338								
Eudactylocota eudactylocota								4,237												
Filinia longiseta												2,338								
Gastropus spp.																	2,494			
Kellicottia longispina	342,121	192,763	103,280	2,372	89,687	150,677	142,684	249,956	41,630	28,777	119,902	98,200	71,437	33,253	75,631	19,488	69,000	58,342	96,548	55,270
Keratella cochlearis	219,528	474,493	7,042	6,395	122,300	20,863	360,906	249,956	220,237	137,488	1,083,118	374,095	1,434,243	409,427	161,407	20,591	139,662	58,342	72,411	26,611
Keratella quadrata		8,473	1,174		10,871	2,318	4,197													
Monostyla lunaris				85						1,599	3,997							634		
Polyarthra delichoptera	34,212	101,677	7,042	2,880	20,383	13,909	31,474	95,322	8,057	31,974		189,386	906,705	133,012	8,301	13,237	2,494	31,708	36,206	7,165
Pompholyx sulcata	39,914	186,408	9,389	1,101					8,057	59,152							3,325	9,512	18,103	4,094
Rotaria spp.		10,591										4,676								
Syncheata pectinata		29,656		169			2,098	80,494			7,994		54,952	29,096	9,223	9,193	1,663	41,220	7,040	2,047
Trichotria tetracis																			1,006	
Eosphora spp.					13,589															
Notholca aquminata					1,359															
Total Rotifera	**713,622**	**1,080,675**	**139,756**	**16,115**	**519,097**	**208,630**	**797,844**	**728,178**	**530,519**	**322,937**	**1,569,415**	**708,980**	**2,590,459**	**571,534**	**416,891**	**111,413**	**261,867**	**331,027**	**270,537**	**190,373**
Total Zooplankton Density (No./m³)	763,545	1,139,104	153,737	26,047	594,544	264,494	840,204	760,282	637,546	353,755	1,614,279	744,163	2,598,011	654,846	460,071	123,990	288,137	355,791	319,785	241,577

Table B9. Summary of benthic macroinvertebrate data (Surbers) collected within the Meliadine Study Area, July 1997.

Stream	UTM Coordinates (Zone 15V...)		Date	Replicate No.	Water Depth (cm)	Water Velocity (cm/s)	Substrate Composition[1] (%)
	Easting	Northing					
A0-1	544368	6985802	21-Jul-97	1	7	13	Bo=5
				2	5	26	Co=30
				3	6	6	Pb=40
				4	6	8	Gr=20
				5	6	12	Si/Sa=5
A5-6	542426	6985968	23-Jul-97	1	7	8	Bo=30
				2	9	3	Co=40
				3	9	3	Pb=10
				4	5	11	Gr=10
				5	9	6	Si/Sa=10
A7-8	541768	6986477	22-Jul-97	1	10	11	Bo=50
				2	10	2	Co=20
				3	7	1	Pb=10
				4	5	4	Gr=10
				5	6	12	Si/Sa=10
B1-2	537425	6985795	21-Jul-97	1	13	42	Bo=0
				2	13	63	Co=40
				3	12	40	Pb=40
				4	12	43	Gr=15
				5	13	47	Si/Sa=5
B4-5	538416	6987531	24-Jul-97	1	21	5	Bo=10
				2	17	5	Co=40
				3	16	6	Pb=30
				4	14	8	Gr=10
				5	22	4	Si/Sa=10
B6-7	537809	6989294	17-Jul-97	1	5.5	21	Bo=50
				2	8	18	Co=30
				3	16	3	Pb=10
				4	11	12	Gr=10
				5	8	34	Si/Sa=<1
D0-1	532769	6989482	24-Jul-97	1	6	23	Bo=40
				2	5	41	Co=30
				3	12	17	Pb=20
				4	13	21	Gr=5
				5	11	18	Si/Sa=5
D6-7	536036	6988812	17-Jul-97	1	10	12	Bo=20
				2	7	13	Co=40
				3	7	21	Pb=20
				4	5	65	Gr=10
				5	4	28	Si/Sa=10
ML-MR	530582	6989248	23-Jul-97	1	12	34	Bo=30
				2	16	42	Co=30
				3	10	43	Pb=25
				4	12	32	Gr=10
				5	10	26	Si/Sa=5
ML-PL	523751	7000635	22-Jul-97	1	16	44	Bo=45
				2	16	59	Co=10
				3	18	41	Pb=30
				4	20	37	Gr=10
				5	13	51	Si/Sa=5

[1] Modified Wentworth substrate classification (Cummins 1962): Bo = boulder (>256 mm), Co = cobble (64-256 mm), Pb = pebble (16-64 mm), Gr = gravel (4-16 mm), and Si/Sa = silt/sand (<2 mm). Data are averages for all five replicates.

Table B10. Benthic macroinvertebrate densities (No./sample) in streams of the Meliadine Study Area, July 1997.

Taxonomic Group		Site A0-1					Site A5-6					Site A7-8				
		Rep 1	Rep 2	Rep 5	**Mean**	*SE*	Rep 1	Rep 4	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 4	**Mean**	*SE*
Coelenterata	Hydridae															
	Hydra	92	168	483	**247.7**	*119.7*						8			**2.7**	*2.7*
Turbellaria			8		**2.7**	*2.7*										
Nematoda		42	77	120	**79.7**	*22.6*	120	118	376	**204.7**	*85.7*	372	72	21	**155.0**	*109.5*
Oligochaeta	Enchytraeidae	19	96	80	**65.0**	*23.5*	46	18	230	**98.0**	*66.5*	54	1	4	**19.7**	*17.2*
	Lumbriculidae						8	2		**3.3**	*2.4*					
	Naididae	430	330	38	**266.0**	*117.6*	188	350	240	**259.3**	*47.8*	228	109	219	**185.3**	*38.3*
	Tubificidae	4		2	**2.0**	*1.2*			10	**3.3**	*3.3*	10	32		**14.0**	*9.5*
Hirudinea	Piscicolidae															
	Piscicola															
Gastropoda	Ancylidae															
	Ferrissia													1	**0.3**	*0.3*
	Hydrobiidae											26	2		**9.3**	*8.4*
	Physidae															
	Physa	8	23	2	**11.0**	*6.2*	2		2	**1.3**	*0.7*		1	4	**1.7**	*1.2*
	Valvatidae															
	Valvata sincera h.	1	3	37	**13.7**	*11.7*										
Pelecypoda	Sphaeriidae															
	Sphaerium															
	Pisidium						10		8	**6.0**	*3.1*					
Tardigrada																
Hydracarina		556	440	87	**361.0**	*141.0*	56	114	70	**80.0**	*17.5*	80	57	65	**67.3**	*6.7*
Conchostraca		8	8	8	**8.0**		96	64	208	**122.7**	*43.7*		176	28	**68.0**	*54.6*
Cladocera	Bosminidae															
	Bosmina			8	**2.7**	*2.7*	8		8	**5.3**	*2.7*					
	Chydoridae		48	56	**34.7**	*17.5*	1884	574	696	**1051.3**	*417.8*	660	42	4	**235.3**	*212.6*
	Daphnidae															
	Daphnia															
	Holopedidae															
	Holopedium															
	Sididae															
	Diaphanosoma											16			**5.3**	*5.3*
Copepoda	Calanoida															
	Cyclopoida	25	16	21	**20.7**	*2.6*	42	50	34	**42.0**	*4.6*	290	89	93	**157.3**	*66.3*
	Harpacticoida	8		32	**13.3**	*9.6*	82	18	96	**65.3**	*24.0*	40	24	20	**28.0**	*6.1*
Ostracoda	Species A	71	88	219	**126.0**	*46.8*	168	106	208	**160.7**	*29.7*	120	585	256	**320.3**	*138.0*
	Species B	8	72	16	**32.0**	*20.1*			16	**5.3**	*5.3*	96	8	20	**41.3**	*27.6*
Amphipoda	Gammaridae															
	Gammarus															
Collembola																
Ephemeroptera	Baetidae															
	Baetis (a)	4	4		**2.7**	*1.3*										
	Baetis	29	7		**12.0**	*8.7*										
	Centroptilum															
	Ephemerellidae															
	Ephemerella															
	Leptophlebiidae															
Plecoptera	Perlodidae															
	Cultus															
	Isoperla															
	Skwala															
	Nemouridae															
	Nemoura	6	5	5	**5.3**	*0.3*										
Hemiptera	Corixidae		1		**0.3**	*0.3*								4	**1.3**	*1.3*
Trichoptera	Limnephilidae															
	Grensia	3			**1.0**	*1.0*	10	6	8	**8.0**	*1.2*	34	28	12	**24.7**	*6.6*
Coleoptera	Curculionidae															
	Dytiscidae (a)						2			**0.7**	*0.7*					
	Dytiscidae															
	Oreodytes (a)															
	Haliplidae															
	Brychius (a)															
	Brychius															
	Hydrophilidae															
Diptera	Ceratopogonidae (p)															
	Bezzia	1		1	**0.7**	*0.3*		2		**0.7**	*0.7*					
	Culicoides															
	Dasyhelea															
	Chironomidae (a)			1	**0.3**	*0.3*							2		**0.7**	*0.7*
	Chironomidae (p)	19	12	3	**11.3**	*4.6*	24	8	2	**11.3**	*6.6*	40	17	21	**26.0**	*7.1*
	Chironomidae (l)	512	675	242	**476.3**	*126.3*	1280	1616	1460	**1452.0**	*97.1*	1666	1591	722	**1326.3**	*302.9*
	Empididae															
	Wiedemannia							2		**0.7**	*0.7*					
	Simuliidae (a)	2		1	**1.0**	*0.6*										
	Simuliidae (p)	1	1		**0.7**	*0.3*										
	Simulium (p)	2			**0.7**	*0.7*						2	1	1	**1.3**	*0.3*
	Simulium	1088	1763		**950.3**	*513.6*	104	58	24	**62.0**	*23.2*			1	**0.3**	*0.3*
	Stratiomyidae															
	Nemotelus												1		**0.3**	*0.3*
	Tipulidae															
	Dicranota						2		2	**1.3**	*0.7*					
	Tipula	22	17	19	**19.3**	*1.5*	16	20	38	**24.7**	*6.8*	88	28	19	**45.0**	*21.7*
Fish																
Terrestrial		2	1		**1.0**	*0.6*	2	4	8	**4.7**	*1.8*		1		**0.3**	*0.3*
Total Number per sample		2959	3862	1479	**2766.7**	*694.6*	4148	3126	3736	**3670.0**	*296.9*	3830	2864	1515	**2736.3**	*671.3*
Total Number of Taxa per Sample*		*27*	*28*	*25*	***26.7***	*0.9*	*24*	*21*	*24*	***23.0***	*1.0*	*21*	*20*	*20*	***20.3***	*0.3*

NOTE: a = adult; p = pupa; l = larvae, Chironomidae are identified to genus in Table B11.
*Total number of taxa includes chironomids from Table B11.

continued...

Table B10 (continued). Benthic macroinvertebrate densities (No. /sample) in streams of the Meliadine Study Area, July 1997.

Taxonomic Group		Site B1-2					Site B4-5					Site B6-7				
		Rep 2	Rep 4	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 5	**Mean**	*SE*
Coelenterata	Hydridae															
	Hydra	572	782	2191	**1181.7**	*508.3*	608	574	87	**423.0**	*168.3*	291	1018	792	**700.3**	*214.8*
Turbellaria																
Nematoda		100	81	53	**78.0**	*13.7*	180	72	25	**92.3**	*45.9*	161	147	784	**364.0**	*210.0*
Oligochaeta	Enchytraeidae	28	24	32	**28.0**	*2.3*	72	85	12	**56.3**	*22.5*	50	122	228	**133.3**	*51.7*
	Lumbriculidae															
	Naididae	188	49	89	**108.7**	*41.3*	132	58	5	**65.0**	*36.8*	713	238	1386	**779.0**	*333.0*
	Tubificidae	4	1	7	**4.0**	*1.7*	36	39	26	**33.7**	*3.9*	2	14	10	**8.7**	*3.5*
Hirudinea	Piscicolidae															
	Piscicola			4	**1.3**	*1.3*										
Gastropoda	Ancylidae															
	Ferrissia															
	Hydrobiidae															
	Physidae															
	Physa		5	10	**5.0**	*2.9*							29		**9.7**	*9.7*
	Valvatidae															
	Valvata sincera h.						4			**1.3**	*1.3*	25	26	12	**21.0**	*4.5*
Pelecypoda	Sphaeriidae															
	Sphaerium															
	Pisidium															
Tardigrada				4	**1.3**	*1.3*	8			**2.7**	*2.7*					
Hydracarina		320	198	275	**264.3**	*35.6*	92	21	8	**40.3**	*26.1*	319	276	706	**433.7**	*136.7*
Conchostraca		16	24	48	**29.3**	*9.6*	3312	1224	91	**1542.3**	*943.3*	16	152	104	**90.7**	*39.8*
Cladocera	Bosminidae															
	Bosmina						68	24	1	**31.0**	*19.7*	2289	2264	4092	**2881.7**	*605.2*
	Chydoridae						176	136	8	**106.7**	*50.7*					
	Daphnidae															
	Daphnia		8	4	**4.0**	*2.3*						176	112	424	**237.3**	*95.1*
	Holopedidae															
	Holopedium	8	32	28	**22.7**	*7.4*						224	144	312	**226.7**	*48.5*
	Sididae															
	Diaphanosoma															
Copepoda	Calanoida			4	**1.3**	*1.3*						24	48	32	**34.7**	*7.1*
	Cyclopoida	20	32	40	**30.7**	*5.8*	52	24	8	**28.0**	*12.9*	8	64	40	**37.3**	*16.2*
	Harpacticoida	8	24	8	**13.3**	*5.3*	104	56	14	**58.0**	*26.0*	53	48	282	**127.7**	*77.2*
Ostracoda	Species A	40	88	124	**84.0**	*24.3*	228	209	29	**155.3**	*63.4*	177	368	1320	**621.7**	*353.5*
	Species B	40	64	56	**53.3**	*7.1*	36	40	2	**26.0**	*12.1*	64	128	128	**106.7**	*21.3*
Amphipoda	Gammaridae															
	Gammarus								2	**0.7**	*0.7*					
Collembola														8	**2.7**	*2.7*
Ephemeroptera	Baetidae															
	Baetis (a)															
	Baetis	52	65	73	**63.3**	*6.1*			1	**0.3**	*0.3*		4		**1.3**	*1.3*
	Centroptilum			1	**0.3**	*0.3*										
	Ephemerellidae															
	Ephemerella															
	Leptophlebiidae															
Plecoptera	Perlodidae	4	8	12	**8.0**	*2.3*		1		**0.3**	*0.3*					
	Cultus		4		**1.3**	*1.3*										
	Isoperla			3	**1.0**	*1.0*										
	Skwala	4	4	6	**4.7**	*0.7*		1		**0.3**	*0.3*		1		**0.3**	*0.3*
	Nemouridae															
	Nemoura		1	17	**6.0**	*5.5*		2		**0.7**	*0.7*	2	1		**1.0**	*0.6*
Hemiptera	Corixidae															
Trichoptera	Limnephilidae															
	Grensia		1	1	**0.7**	*0.3*	24	4	16	**14.7**	*5.8*		3	2	**1.7**	*0.9*
Coleoptera	Curculionidae															
	Dytiscidae (a)															
	Dytiscidae			1	**0.3**	*0.3*	8			**2.7**	*2.7*					
	Oreodytes (a)															
	Haliplidae								1	**0.3**	*0.3*					
	Brychius (a)							1		**0.3**	*0.3*					
	Brychius						20	12	10	**14.0**	*3.1*	2		2	**1.3**	*0.7*
	Hydrophilidae							1	1	**0.7**	*0.3*					
Diptera	Ceratopogonidae (p)															
	Bezzia			4	**1.3**	*1.3*	4	6		**3.3**	*1.8*					
	Culicoides			2	**0.7**	*0.7*										
	Dasyhelea						4			**1.3**	*1.3*					
	Chironomidae (a)	8	1	6	**5.0**	*2.1*	4		1	**1.7**	*1.2*	3	3	48	**18.0**	*15.0*
	Chironomidae (p)	64	43	35	**47.3**	*8.6*	64	21	4	**29.7**	*17.9*	38	37	50	**41.7**	*4.2*
	Chironomidae (l)	348	332	455	**378.3**	*38.6*	1056	562	86	**568.0**	*280.0*	573	1038	2160	**1257.0**	*471.0*
	Empididae															
	Wiedemannia												1	32	**11.0**	*10.5*
	Simuliidae (a)	8	1		**3.0**	*2.5*						4	3	6	**4.3**	*0.9*
	Simuliidae (p)															
	Simulium (p)	8	2	5	**5.0**	*1.7*	4		1	**1.7**	*1.2*	25	21	12	**19.3**	*3.8*
	Simulium	104	14	52	**56.7**	*26.1*	16			**5.3**	*5.3*	23	9	22	**18.0**	*4.5*
	Stratiomyidae															
	Nemotelus													2	**0.7**	*0.7*
	Tipulidae															
	Dicranota															
	Tipula	4	4	21	**9.7**	*5.7*	4			**1.3**	*1.3*	5	9	14	**9.3**	*2.6*
Fish																
Terrestrial				5	**1.7**	*1.7*			1	**0.3**	*0.3*	13	4	20	**12.3**	*4.6*
Total Number per sample		1932	1890	3665	**2495.7**	*584.8*	6312	3173	438	**3307.7**	*1697.0*	5260	6322	12956	**8179.3**	*2407.9*
Total Number of Taxa per Sample*		20	30	36	**28.7**	*4.7*	27	25	26	**26.0**	*0.6*	26	29	28	**27.7**	*0.9*

NOTE: a = adult; p = pupa; l = larvae, Chironomidae are identified to genus in Table B11.
*Total number of taxa includes chironomids from Table B11.

continued...

Table B10 (continued). Benthic macroinvertebrate densities (No. /sample) in streams of the Meliadine Study Area, July 1997.

Taxonomic Group		Site D0-1					Site D6-7					Site ML-MR				
		Rep 1	Rep 2	Rep 4	Mean	SE	Rep 1	Rep 4	Rep 5	Mean	SE	Rep 1	Rep 2	Rep 3	Mean	SE
Coelenterata	Hydridae															
	Hydra	279	259	126	**221.3**	*48.0*	56	40	116	**70.7**	*23.1*	220	283	372	**291.7**	*44.1*
Turbellaria							4		4	**2.7**	*1.3*					
Nematoda		95	75	129	**99.7**	*15.8*	66	85	51	**67.3**	*9.8*	266	75	256	**199.0**	*62.1*
Oligochaeta	Enchytraeidae	57	36	96	**63.0**	*17.6*	9	80	4	**31.0**	*24.5*	42	64	66	**57.3**	*7.7*
	Lumbriculidae						4			**1.3**	*1.3*					
	Naididae	16	149	60	**75.0**	*39.1*	41	54	143	**79.3**	*32.1*	916	459	1170	**848.3**	*208.0*
	Tubificidae	6	3	3	**4.0**	*1.0*	7	4	1	**4.0**	*1.7*		6	2	**2.7**	*1.8*
Hirudinea	Piscicolidae															
	Piscicola															
Gastropoda	Ancylidae															
	Ferrissia															
	Hydrobiidae	1			**0.3**	*0.3*										
	Physidae															
	Physa	47	23	4	**24.7**	*12.4*										
	Valvatidae															
	Valvata sincera h.	96	59	50	**68.3**	*14.1*	27	1	8	**12.0**	*7.8*					
Pelecypoda	Sphaeriidae															
	Sphaerium															
	Pisidium															
Tardigrada																
Hydracarina		5	71	80	**52.0**	*23.6*	33	35	20	**29.3**	*4.7*		1	16	**5.7**	*5.2*
Conchostraca		8	12		**6.7**	*3.5*	16	4	16	**12.0**	*4.0*			8	**2.7**	*2.7*
Cladocera	Bosminidae															
	Bosmina	16	4		**6.7**	*4.8*						40	40	16	**32.0**	*8.0*
	Chydoridae		8	8	**5.3**	*2.7*										
	Daphnidae															
	Daphnia						1			**0.3**	*0.3*	16	12		**9.3**	*4.8*
	Holopedidae															
	Holopedium	16			**5.3**	*5.3*						32	36		**22.7**	*11.4*
	Sididae															
	Diaphanosoma															
Copepoda	Calanoida	24	8		**10.7**	*7.1*						24	28		**17.3**	*8.7*
	Cyclopoida		16	26	**14.0**	*7.6*	8			**2.7**	*2.7*	40	28		**22.7**	*11.9*
	Harpacticoida	104	8	72	**61.3**	*28.2*	32	5	24	**20.3**	*8.0*	236	169	202	**202.3**	*19.3*
Ostracoda	Species A	431	144	303	**292.7**	*83.0*	204	80	112	**132.0**	*37.2*	48	98	136	**94.0**	*25.5*
	Species B	104	200	183	**162.3**	*29.6*	28		64	**30.7**	*18.5*					
Amphipoda	Gammaridae															
	Gammarus	3	3	2	**2.7**	*0.3*										
Collembola								28	4	**10.7**	*8.7*					
Ephemeroptera	Baetidae															
	Baetis (a)															
	Baetis						6	26	12	**14.7**	*5.9*	2	4		**2.0**	*1.2*
	Centroptilum															
	Ephemerellidae															
	Ephemerella											8			**2.7**	*2.7*
	Leptophlebiidae															
Plecoptera	Perlodidae						2		4	**2.0**	*1.2*					
	Cultus						2			**0.7**	*0.7*					
	Isoperla															
	Skwala							4	2	**2.0**	*1.2*					
	Nemouridae															
	Nemoura	71	95	49	**71.7**	*13.3*	1	5		**2.0**	*1.5*					
Hemiptera	Corixidae															
Trichoptera	Limnephilidae															
	Grensia	1			**0.3**	*0.3*	5			**1.7**	*1.7*					
Coleoptera	Curculionidae															
	Dytiscidae (a)															
	Dytiscidae								1	**0.3**	*0.3*					
	Oreodytes (a)	1			**0.3**	*0.3*										
	Haliplidae															
	Brychius (a)															
	Brychius	1			**0.3**	*0.3*										
	Hydrophilidae															
Diptera	Ceratopogonidae (p)							1		**0.3**	*0.3*					
	Bezzia															
	Culicoides	1			**0.3**	*0.3*										
	Dasyhelea															
	Chironomidae (a)			1	**0.3**	*0.3*	2	10	4	**5.3**	*2.4*	14	2	6	**7.3**	*3.5*
	Chironomidae (p)	18	4	1	**7.7**	*5.2*	8	31	44	**27.7**	*10.5*	214	70	174	**152.7**	*42.9*
	Chironomidae (l)	533	422	455	**470.0**	*32.9*	175	187	458	**273.3**	*92.4*	1270	640	1154	**1021.3**	*193.6*
	Empididae															
	Wiedemannia															
	Simuliidae (a)						2	4		**2.0**	*1.2*					
	Simuliidae (p)															
	Simulium (p)						2	10		**4.0**	*3.1*					
	Simulium		40	16	**18.7**	*11.6*		17	4	**7.0**	*5.1*	6		4	**3.3**	*1.8*
	Stratiomyidae															
	Nemotelus															
	Tipulidae															
	Dicranota															
	Tipula	12	6	11	**9.7**	*1.9*	25	7	5	**12.3**	*6.4*	2	1	4	**2.3**	*0.9*
Fish								4		**1.3**	*1.3*					
Terrestrial			1	17	**6.0**	*5.5*	1	9	8	**6.0**	*2.5*	2			**0.7**	*0.7*
Total Number per sample		1946	1645	1674	**1755.0**	*95.9*	762	704	1097	**854.3**	*122.5*	3382	2014	3580	**2992.0**	*492.3*
Total Number of Taxa per Sample*		*29*	*27*	*20*	***25.3***	*2.7*	*27*	*23*	*26*	***25.3***	*1.2*	*22*	*22*	*20*	***21.3***	*0.7*

NOTE: a = adult; p = pupa; l = larvae, Chironomidae are identified to genus in Table B11.
*Total number of taxa includes chironomids from Table B11.

continued...

Table B10 (continued). Benthic macroinvertebrate densities (No. /sample) in streams of the Meliadine Study Area, July 1997.

Taxonomic Group		Site ML-PL				
		Rep 3	Rep 4	Rep 5	**Mean**	*SE*
Coelenterata	Hydridae					
	Hydra	271	368	408	**349.0**	*40.7*
Turbellaria				18	**6.0**	*6.0*
Nematoda		31	72	94	**65.7**	*18.5*
Oligochaeta	Enchytraeidae	28	80	72	**60.0**	*16.2*
	Lumbriculidae					
	Naididae		16	8	**8.0**	*4.6*
	Tubificidae	10	12	12	**11.3**	*0.7*
Hirudinea	Piscicolidae					
	Piscicola					
Gastropoda	Ancylidae					
	Ferrissia	4			**1.3**	*1.3*
	Hydrobiidae					
	Physidae					
	Physa					
	Valvatidae					
	Valvata sincera h.					
Pelecypoda	Sphaeriidae					
	Sphaerium					
	Pisidium					
Tardigrada						
Hydracarina		1	8	10	**6.3**	*2.7*
Conchostraca						
Cladocera	Bosminidae					
	Bosmina	176	396	204	**258.7**	*69.1*
	Chydoridae					
	Daphnidae					
	Daphnia	380	784	312	**492.0**	*147.3*
	Holopedidae					
	Holopedium	100	440	48	**196.0**	*122.9*
	Sididae					
	Diaphanosoma		20		**6.7**	*6.7*
Copepoda	Calanoida	28	276	20	**108.0**	*84.0*
	Cyclopoida	1124	792	476	**797.3**	*187.1*
	Harpacticoida	73	264	44	**127.0**	*69.0*
Ostracoda	Species A	24	32	124	**60.0**	*32.1*
	Species B					
Amphipoda	Gammaridae					
	Gammarus					
Collembola		4			**1.3**	*1.3*
Ephemeroptera	Baetidae					
	Baetis (a)					
	Baetis	17	36	26	**26.3**	*5.5*
	Centroptilum					
	Ephemerellidae					
	Ephemerella	4			**1.3**	*1.3*
	Leptophlebiidae		8		**2.7**	*2.7*
Plecoptera	Perlodidae					
	Cultus					
	Isoperla					
	Skwala					
	Nemouridae					
	Nemoura	39	180		**73.0**	*54.7*
Hemiptera	Corixidae	1	4		**1.7**	*1.2*
Trichoptera	Limnephilidae					
	Grensia			46	**15.3**	*15.3*
Coleoptera	Curculionidae	8		4	**4.0**	*2.3*
	Dytiscidae (a)					
	Dytiscidae					
	Oreodytes (a)					
	Haliplidae					
	Brychius (a)					
	Brychius					
	Hydrophilidae					
Diptera	Ceratopogonidae (p)					
	Bezzia					
	Culicoides					
	Dasyhelea					
	Chironomidae (a)					
	Chironomidae (p)	6	28	14	**16.0**	*6.4*
	Chironomidae (l)	168	576	232	**325.3**	*126.7*
	Empididae					
	Wiedemannia					
	Simuliidae (a)	1			**0.3**	*0.3*
	Simuliidae (p)					
	Simulium (p)	1		2	**1.0**	*0.6*
	Simulium	39	160	28	**75.7**	*42.3*
	Stratiomyidae					
	Nemotelus					
	Tipulidae					
	Dicranota					
	Tipula			8	**2.7**	*2.7*
Fish						
Terrestrial			8		**2.7**	*2.7*
Total Number per sample		2537	4552	2210	**3099.7**	*732.3*
Total Number of Taxa per Sample*		*28*	*25*	*27*	***26.7***	*0.9*

NOTE: a = adult; p = pupa; l = larvae, Chironomidae are identified to genus in Table B11.
*Total number of taxa includes chironomids from Table B11. concluded.

Table B11. Chironomid larvae (No. /sample) in streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site A0-1					Site A5-6					Site A7-8				
	Rep 1	Rep 2	Rep 5	**Mean**	*SE*	Rep 1	Rep 4	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 4	**Mean**	*SE*
Chironomidae															
Chironomini	0	8	0	**2.7**	*2.7*						8	0	0	**2.7**	*2.7*
Ablabesmyia	2	3	7	**4.0**	*1.5*	0	2	0	**0.7**	*0.7*	2	6	7	**5.0**	*1.5*
Chironomus															
Cladopelma															
Cryptochironomus															
Dicrotendipes															
Glyptotendipes															
Pagastiella															
Paratendipes															
Phaenopsectra	0	1	0	**0.3**	*0.3*										
Diamesinae															
Potthastia (Longimanus)	7	6	2	**5.0**	*1.5*										
Protanypus															
Pseudokiefferiella															
Prodiamesinae															
Monodiamesa															
Orthocladiinae	153	124	88	**121.7**	*18.8*	702	1234	1080	**1005.3**	*158.0*	14	697	476	**395.7**	*201.2*
Cricotopus/Orthocladius															
Cricotopus	36	18	0	**18.0**	*10.4*	198	10	20	**76.0**	*61.1*	952	704	12	**556.0**	*281.3*
Corynoneura	277	495	115	**295.7**	*110.1*	266	362	350	**326.0**	*30.2*	154	154	217	**175.0**	*21.0*
Eukiefferiella	4	8	0	**4.0**	*2.3*	96	2	0	**32.7**	*31.7*					
Heterotrissocladius															
Orthocladius	32	2	2	**12.0**	*10.0*	2	2	2	**2.0**	*0.0*	520	24	10	**184.7**	*167.7*
Paracricotopus															
Psectrocladius															
Pseudosmittia															
Tanypodinae	0	9	1	**3.3**	*2.8*	6	4	2	**4.0**	*1.2*					
Procladius															
Tanytarsini	0	1	27	**9.3**	*8.8*	10	0	4	**4.7**	*2.9*	16	0	0	**5.3**	*5.3*
Cladotanytarsus						0	0	2	**0.7**	*0.7*	0	6	0	**2.0**	*2.0*
Cladotanytarsus/Paratanytarsus															
Corynocera															
Micropsectra															
Paratanytarsus	1	0	0	**0.3**	*0.3*										
Tanytarsus															
Stempellinella															
Total No. chironomids per sample	512	675	242	**476.3**	*126.3*	1280	1616	1460	**1452.0**	*97.1*	1666	1591	722	**1326.3**	*302.9*
No. chironomid taxa per Sample	7	9	7	**7.7**	*0.7*	6	6	6	**6.0**	*0.0*	5	5	4	**4.7**	*0.3*

continued...

Table B11 (continued). Chironomid larvae (No. /sample) in streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site B1-2					Site B4-5					Site B6-7				
	Rep 2	Rep 4	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 5	**Mean**	*SE*
Chironomidae (I)															
Chironomini						0	1	0	**0.3**	*0.3*	0	128	18	**48.7**	*40.0*
Ablabesmyia	0	1	33	**11.3**	*10.8*	12	14	17	**14.3**	*1.5*	2	6	12	**6.7**	*2.9*
Chironomus															
Cladopelma															
Cryptochironomus															
Dicrotendipes						0	0	1	**0.3**	*0.3*					
Glyptotendipes	0	2	0	**0.7**	*0.7*										
Pagastiella															
Paratendipes															
Phaenopsectra															
Diamesinae	0	0	1	**0.3**	*0.3*										
Potthastia (Longimanus)	0	3	4	**2.3**	*1.2*										
Protanypus															
Pseudokiefferiella	0	0	9	**3.0**	*3.0*										
Prodiamesinae															
Monodiamesa															
Orthocladiinae	0	0	44	**14.7**	*14.7*	624	258	27	**303.0**	*173.8*	184	8	1162	**451.3**	*358.9*
Cricotopus/Orthocladius															
Cricotopus	140	85	1	**75.3**	*40.4*	12	0	0	**4.0**	*4.0*	1	4	68	**24.3**	*21.9*
Corynoneura	140	80	84	**101.3**	*19.4*	268	247	27	**180.7**	*77.1*	322	841	822	**661.7**	*169.9*
Eukiefferiella	64	108	220	**130.7**	*46.4*										
Heterotrissocladius															
Orthocladius	0	24	0	**8.0**	*8.0*	0	0	2	**0.7**	*0.7*	1	0	0	**0.3**	*0.3*
Paracricotopus	0	0	36	**12.0**	*12.0*										
Psectrocladius															
Pseudosmittia															
Tanypodinae	0	16	0	**5.3**	*5.3*	76	9	2	**29.0**	*23.6*	40	24	72	**45.3**	*14.1*
Procladius															
Tanytarsini	4	8	4	**5.3**	*1.3*	40	26	1	**22.3**	*11.4*	16	24	0	**13.3**	*7.1*
Cladotanytarsus						24	5	0	**9.7**	*7.3*	0	3	6	**3.0**	*1.7*
Cladotanytarsus/Paratanytarsus															
Corynocera															
Micropsectra						0	2	0	**0.7**	*0.7*					
Paratanytarsus	0	5	19	**8.0**	*5.7*										
Tanytarsus						0	0	9	**3.0**	*3.0*	7	0	0	**2.3**	*2.3*
Stempellinella															
Total No. chironomids per sample	348	332	455	**378.3**	*38.6*	1056	562	86	**568.0**	*280.0*	573	1038	2160	**1257.0**	*471.0*
No. chironomid taxa per Sample	*4*	*9*	*8*	***7.0***	*1.5*	*5*	*5*	*6*	***5.3***	*0.3*	*6*	*5*	*5*	***5.3***	*0.3*

continued...

Table B11 (continued). Chironomid larvae (No. /sample) in streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site D0-1					Site D6-7					Site ML-MR				
	Rep 1	Rep 2	Rep 4	Mean	SE	Rep 1	Rep 4	Rep 5	Mean	SE	Rep 1	Rep 2	Rep 3	Mean	SE
Chironomidae (I)															
Chironomini	0	0	1	**0.3**	*0.3*										
Ablabesmyia	2	1	9	**4.0**	*2.5*	5	12	32	**16.3**	*8.1*	0	1	0	**0.3**	*0.3*
Chironomus															
Cladopelma															
Cryptochironomus						1	0	0	**0.3**	*0.3*					
Dicrotendipes						0	0	2	**0.7**	*0.7*	28	3	136	**55.7**	*40.8*
Glyptotendipes	0	12	0	**4.0**	*4.0*										
Pagastiella															
Paratendipes															
Phaenopsectra	0	1	0	**0.3**	*0.3*						0	0	16	**5.3**	*5.3*
Diamesinae															
Potthastia (Longimanus)	3	1	2	**2.0**	*0.6*	0	0	1	**0.3**	*0.3*					
Protanypus															
Pseudokiefferiella											2	8	0	**3.3**	*2.4*
Prodiamesinae															
Monodiamesa															
Orthocladiinae	297	208	261	**255.3**	*25.8*	0	20	16	**12.0**	*6.1*	0	22	16	**12.7**	*6.6*
Cricotopus/Orthocladius															
Cricotopus	5	117	24	**48.7**	*34.6*	12	14	32	**19.3**	*6.4*	1020	539	778	**779.0**	*138.9*
Corynoneura	207	81	122	**136.7**	*37.1*	148	124	312	**194.7**	*59.1*	200	44	12	**85.3**	*58.1*
Eukiefferiella						0	4	12	**5.3**	*3.5*	0	0	24	**8.0**	*8.0*
Heterotrissocladius															
Orthocladius															
Paracricotopus	2	0	16	**6.0**	*5.0*										
Psectrocladius	0	0	6	**2.0**	*2.0*						2	0	104	**35.3**	*34.3*
Pseudosmittia											0	7	40	**15.7**	*12.3*
Tanypodinae															
Procladius															
Tanytarsini	8	0	9	**5.7**	*2.8*						8	0	0	**2.7**	*2.7*
Cladotanytarsus	9	0	5	**4.7**	*2.6*	4	0	16	**6.7**	*4.8*	10	0	0	**3.3**	*3.3*
Cladotanytarsus/Paratanytarsus															
Corynocera															
Micropsectra						5	10	24	**13.0**	*5.7*					
Paratanytarsus	0	1	0	**0.3**	*0.3*	0	0	11	**3.7**	*3.7*	0	16	28	**14.7**	*8.1*
Tanytarsus						0	3	0	**1.0**	*1.0*					
Stempellinella															
Total No. chironomids per sample	533	422	455	**470.0**	*32.9*	175	187	458	**273.3**	*92.4*	1270	640	1154	**1021.3**	*193.6*
No. chironomid taxa per Sample	*6*	*7*	*7*	***6.7***	*0.3*	*6*	*6*	*9*	***7.0***	*1.0*	*7*	*7*	*8*	***7.3***	*0.3*

continued...

Table B11 (continued). Chironomid larvae (No. /sample) in streams of the Meliadine Study Area, July 1997.

Taxonomic Group	Site ML-PL				
	Rep 3	Rep 4	Rep 5	**Mean**	*SE*
Chironomidae (I)					
Chironomini					
Ablabesmyia	0	0	4	**1.3**	*1.3*
Chironomus					
Cladopelma					
Cryptochironomus					
Dicrotendipes	1	0	0	**0.3**	*0.3*
Glyptotendipes					
Pagastiella					
Paratendipes					
Phaenopsectra					
Diamesinae					
Potthastia (Longimanus)					
Protanypus	55	316	8	**126.3**	*95.8*
Pseudokiefferiella					
Prodiamesinae					
Monodiamesa					
Orthocladiinae	25	48	12	**28.3**	*10.5*
Cricotopus/Orthocladius	8	8	0	**5.3**	*2.7*
Cricotopus	20	140	54	**71.3**	*35.7*
Corynoneura	8	8	40	**18.7**	*10.7*
Eukiefferiella	40	48	56	**48.0**	*4.6*
Heterotrissocladius					
Orthocladius	3	0	32	**11.7**	*10.2*
Paracricotopus	0	8	0	**2.7**	*2.7*
Psectrocladius	0	0	24	**8.0**	*8.0*
Pseudosmittia					
Tanypodinae					
Procladius					
Tanytarsini					
Cladotanytarsus	8	0	0	**2.7**	*2.7*
Cladotanytarsus/Paratanytarsus					
Corynocera					
Micropsectra					
Paratanytarsus	0	0	2	**0.7**	*0.7*
Tanytarsus					
Stempellinella					
Total No. chironomids per sample	168	576	232	**325.3**	*126.7*
No. chironomid taxa per Sample	*8*	*6*	*8*	***7.3***	*0.7*

concluded.

Table B12. Summary of benthic macroinvertebrate collection data (Ekman grabs) in the Meliadine Study Area, 1997.

Lake	Date	Sample Depth (m)	No. of Replicates [1]	Substrate Composition
A6	23-Jul-97	2.5	5	brown silt
A8	22-Jul-97	3.6	5	black silt
B2	21-Jul-97	2.6	5	brown silt
B5	19-Jul-97	2.75	5	brown silt
B7	18-Jul-97	3.2	5	brown silt
D7	17-Jul-97	2.2	5	brown silt
G1	24-Jul-97	2.25	5	brown silt
ML-E	19-Jul-97	14.7	5	brown silt
ML-S	20-Jul-97	6.3	1	silt/sand/gravel
ML-W	20-Jul-97	8.0	5	brown silt

[1] Two of the five replicates collected were archived (see Methods [Section 2.2.4] for details).

Table B13. Benthic macroinvertebrate densities (No./sample) in lakes of the Meliadine Study Area, July 1997.

Taxonomic Group		Lake A6					Lake A8					Lake B2				
		Rep 3	Rep 4	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 4	**Mean**	*SE*	Rep 1	Rep 2	Rep 3	**Mean**	*SE*
Coelenterata	Hydridae															
	Hydra			6	**2.0**	*2.0*										
Turbellaria																
Nematoda		61	26	74	**53.7**	*14.3*	77	171	137	**128.3**	*27.5*	19	27	152	**66.0**	*43.1*
Oligochaeta	Enchytraeidae															
	Lumbriculidae															
	Naididae	40	31	60	**43.7**	*8.6*	9	3	7	**6.3**	*1.8*	2	7	4	**4.3**	*1.5*
	Tubificidae															
Hirudinea	Piscicolidae															
	Piscicola															
Gastropoda	Ancylidae															
	Ferrissia															
	Hydrobiidae															
	Physidae															
	Physa													2	**0.7**	*0.7*
	Valvatidae															
	Valvata sincera h.	15	5	18	**12.7**	*3.9*	1	4	6	**3.7**	*1.5*			6	**2.0**	*2.0*
Pelecypoda	Sphaeriidae															
	Sphaerium	35	1	4	**13.3**	*10.9*	5	1	18	**8.0**	*5.1*	4	9	45	**19.3**	*12.9*
	Pisidium	12	5	9	**8.7**	*2.0*		4	1	**1.7**	*1.2*			11	**3.7**	*3.7*
Tardigrada																
Hydracarina			1		**0.3**	*0.3*							1	6	**2.3**	*1.9*
Conchostraca																
Cladocera	Bosminidae															
	Bosmina															
	Chydoridae															
	Daphnidae															
	Daphnia											1	4	8	**4.3**	*2.0*
	Holopedidae															
	Holopedium											2	2	4	**2.7**	*0.7*
	Sididae															
	Diaphanosoma															
Copepoda	Calanoida	6	2		**2.7**	*1.8*	7	3	1	**3.7**	*1.8*	2	1		**1.0**	*0.6*
	Cyclopoida	8	6	6	**6.7**	*0.7*	4	3		**2.3**	*1.2*		4	14	**6.0**	*4.2*
	Harpacticoida	70	41	64	**58.3**	*8.8*	28	6	7	**13.7**	*7.2*	132	155	338	**208.3**	*65.2*
Ostracoda	Species A													10	**3.3**	*3.3*
	Species B	6	3		**3.0**	*1.7*	5			**1.7**	*1.7*	2	7	208	**72.3**	*67.8*
Amphipoda	Gammaridae															
	Gammarus		1		**0.3**	*0.3*								2	**0.7**	*0.7*
Collembola			1		**0.3**	*0.3*										
Ephemeroptera	Baetidae															
	Baetis (a)															
	Baetis															
	Centroptilum															
	Ephemerellidae															
	Ephemerella															
	Leptophlebiidae															
Plecoptera	Perlodidae							1		**0.3**	*0.3*					
	Cultus															
	Isoperla															
	Skwala							1		**0.3**	*0.3*					
	Nemouridae															
	Nemoura															
Hemiptera	Corixidae															
Trichoptera	Limnephilidae															
	Grensia															
Coleoptera	Curculionidae															
	Dytiscidae (a)															
	Dytiscidae															
	Oreodytes (a)															
	Haliplidae															
	Brychius (a)															
	Brychius	1			**0.3**	*0.3*		2		**0.7**	*0.7*					
	Hydrophilidae															
Diptera	Ceratopogonidae (p)															
	Bezzia															
	Culicoides															
	Dasyhelea															
	Chironomidae (a)													1	**0.3**	*0.3*
	Chironomidae (p)	1		2	**1.0**	*0.6*										
	Chironomidae (l)	130	24	84	**79.3**	*30.7*	48	89	93	**76.7**	*14.4*	13	10	147	**56.7**	*45.2*
	Empididae															
	Wiedemannia															
	Simuliidae (a)															
	Simuliidae (p)															
	Simulium (p)															
	Simulium															
	Stratiomyidae															
	Nemotelus															
	Tipulidae															
	Dicranota															
	Tipula															
Fish																
Terrestrial			1		**0.3**	*0.3*								2	**0.7**	*0.7*
Total Number per sample		385	147	327	**286.3**	*71.7*	184	288	270	**247.3**	*32.1*	177	227	957	**453.7**	*252.1*
Total Number of Taxa per Sample*		*17*	*17*	*16*	***16.7***	*0.3*	*14*	*17*	*15*	***15.3***	*0.9*	*12*	*12*	*19*	***14.3***	*2.3*

NOTE: a = adult; p = pupa; l = larvae, Chironomidae are identified to genus in Table B14.
*Total number of taxa includes chironomids from Table B14.

continued...

Table B13 (continued). Benthic macroinvertebrate densities (No. /sample) in lakes of the Meliadine Study Area, July 1997.

Taxonomic Group		Lake B5					Lake B7					Lake D7				
		Rep 1	Rep 2	Rep 4	**Mean**	*SE*	Rep 1	Rep 2	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 3	**Mean**	*SE*
Coelenterata	Hydridae															
	Hydra													4	**1.3**	*1.3*
Turbellaria																
Nematoda		45	52	54	**50.3**	*2.7*	105	72	34	**70.3**	*20.5*					
Oligochaeta	Enchytraeidae			2	**0.7**	*0.7*								1	**0.3**	*0.3*
	Lumbriculidae															
	Naididae	15	17	21	**17.7**	*1.8*		2		**0.7**	*0.7*	32	51	210	**97.7**	*56.4*
	Tubificidae						5	1	1	**2.3**	*1.3*	5	3	1	**3.0**	*1.2*
Hirudinea	Piscicolidae															
	Piscicola															
Gastropoda	Ancylidae															
	Ferrissia															
	Hydrobiidae															
	Physidae															
	Physa															
	Valvatidae															
	Valvata sincera h.						1	2	5	**2.7**	*1.2*		1		**0.3**	*0.3*
Pelecypoda	Sphaeriidae															
	Sphaerium	24	57	17	**32.7**	*12.3*	40	14	44	**32.7**	*9.4*	23	39	58	**40.0**	*10.1*
	Pisidium	12	21	7	**13.3**	*4.1*	10	5	12	**9.0**	*2.1*					
Tardigrada																
Hydracarina			4	4	**2.7**	*1.3*			2	**0.7**	*0.7*			12	**4.0**	*4.0*
Conchostraca		4		2	**2.0**	*1.2*								4	**1.3**	*1.3*
Cladocera	Bosminidae															
	Bosmina						4	12		**5.3**	*3.5*					
	Chydoridae			*4*	**1.3**	*1.3*	2	2	4	**2.7**	*0.7*		4	4	**2.7**	*1.3*
	Daphnidae															
	Daphnia							6	4	**3.3**	*1.8*					
	Holopedidae															
	Holopedium						2	8		**3.3**	*2.4*					
	Sididae															
	Diaphanosoma															
Copepoda	Calanoida	4		2	**2.0**	*1.2*	14	30	12	**18.7**	*5.7*			12	**4.0**	*4.0*
	Cyclopoida	25	24	8	**19.0**	*5.5*	48	38	20	**35.3**	*8.2*	12	40	40	**30.7**	*9.3*
	Harpacticoida	324	360	134	**272.7**	*70.1*	92	114	48	**84.7**	*19.4*	388	592	748	**576.0**	*104.2*
Ostracoda	Species A	21	12	14	**15.7**	*2.7*	8	8	16	**10.7**	*2.7*	148	125	221	**164.7**	*28.9*
	Species B	1223	764	210	**732.3**	*292.9*	278	122	480	**293.3**	*103.6*	670	645	1283	**866.0**	*208.6*
Amphipoda	Gammaridae															
	Gammarus						2			**0.7**	*0.7*					
Collembola																
Ephemeroptera	Baetidae															
	Baetis (a)															
	Baetis															
	Centroptilum															
	Ephemerellidae															
	Ephemerella															
	Leptophlebiidae															
Plecoptera	Perlodidae															
	Cultus															
	Isoperla															
	Skwala															
	Nemouridae															
	Nemoura															
Hemiptera	Corixidae															
Trichoptera	Limnephilidae															
	Grensia		1	1	**0.7**	*0.3*								1	**0.3**	*0.3*
Coleoptera	Curculionidae															
	Dytiscidae (a)															
	Dytiscidae															
	Oreodytes (a)															
	Haliplidae															
	Brychius (a)															
	Brychius															
	Hydrophilidae															
Diptera	Ceratopogonidae (p)															
	Bezzia															
	Culicoides															
	Dasyhelea															
	Chironomidae (a)															
	Chironomidae (p)															
	Chironomidae (l)	694	552	270	**505.3**	*124.6*	252	138	253	**214.3**	*38.2*	24	51	32	**35.7**	*8.0*
	Empididae															
	Wiedemannia															
	Simuliidae (a)															
	Simuliidae (p)															
	Simulium (p)															
	Simulium															
	Stratiomyidae															
	Nemotelus															
	Tipulidae															
	Dicranota															
	Tipula															
Fish																
Terrestrial			1	2	**1.0**	*0.6*			2	**0.7**	*0.7*		1		**0.3**	*0.3*
Total Number per sample		2391	1864	750	**1668.3**	*483.7*	863	574	935	**790.7**	*110.3*	1302	1551	2631	**1828.0**	*407.9*
Total Number of Taxa per Sample*		*19*	*20*	*22*	***20.3***	*0.9*	*21*	*22*	*18*	***20.3***	*1.2*	*10*	*15*	*17*	***14.0***	*2.1*

NOTE: a = adult; p = pupa; l = larvae, Chironomidae are identified to genus in Table B14.
*Total number of taxa includes chironomids from Table B14.

continued...

Table B13 (continued). Benthic macroinvertebrate densities (No. /sample) in lakes of the Meliadine Study Area, July 1997.

Taxonomic Group		Lake G2					Lake ML-E					ML-S	Lake ML-W				
		Rep 1	Rep 2	Rep 3	Mean	SE	Rep 1	Rep 2	Rep 5	Mean	SE	Rep 1	Rep 2	Rep 4	Rep 5	Mean	SE
Coelenterata	Hydridae																
	Hydra		1		0.3	0.3	1			0.3	0.3						
Turbellaria																	
Nematoda		165	84	747	332.0	208.8	16	12	7	11.7	2.6	154	14	20	19	17.7	1.9
Oligochaeta	Enchytraeidae						11		1	4.0	3.5	8			2	0.7	0.7
	Lumbriculidae																
	Naididae	8	2	11	7.0	2.6	2			0.7	0.7	17		1	1	0.7	0.3
	Tubificidae						4			1.3	1.3	2					
Hirudinea	Piscicolidae																
	Piscicola																
Gastropoda	Ancylidae																
	Ferrissia																
	Hydrobiidae																
	Physidae																
	Physa																
	Valvatidae																
	Valvata sincera h.						2	2		1.3	0.7	2					
Pelecypoda	Sphaeriidae	67	13		26.7	20.5											
	Sphaerium			75	25.0	25.0	7	4	18	9.7	4.3	6	7	1	1	3.0	2.0
	Pisidium	6			2.0	2.0	1			0.3	0.3	4					
Tardigrada																	
Hydracarina							6		1	2.3	1.9	10			1	0.3	0.3
Conchostraca												4					
Cladocera	Bosminidae																
	Bosmina						3			1.0	1.0						
	Chydoridae																
	Daphnidae																
	Daphnia						3	4		2.3	1.2	2					
	Holopedidae																
	Holopedium							3	1	1.3	0.9						
	Sididae																
	Diaphanosoma																
Copepoda	Calanoida						1	1	3	1.7	0.7						
	Cyclopoida	12		30	14.0	8.7	16	8	5	9.7	3.3	18	3			1.0	1.0
	Harpacticoida	82	75	236	131.0	52.5	5		1	2.0	1.5	18	9	1	3	4.3	2.4
Ostracoda	Species A	16	5	18	13.0	4.0	2	1		1.0	0.6	4	3		1	1.3	0.9
	Species B	50	5	51	35.3	15.2	1		1	0.7	0.3	16	2			0.7	0.7
Amphipoda	Gammaridae																
	Gammarus							1		0.3	0.3	6					
Collembola																	
Ephemeroptera	Baetidae																
	Baetis (a)																
	Baetis																
	Centroptilum																
	Ephemerellidae																
	Ephemerella																
	Leptophlebiidae																
Plecoptera	Perlodidae																
	Cultus																
	Isoperla																
	Skwala																
	Nemouridae																
	Nemoura																
Hemiptera	Corixidae																
Trichoptera	Limnephilidae																
	Grensia											1					
Coleoptera	Curculionidae																
	Dytiscidae (a)																
	Dytiscidae																
	Oreodytes (a)																
	Haliplidae											2					
	Brychius (a)																
	Brychius																
	Hydrophilidae																
Diptera	Ceratopogonidae (p)																
	Bezzia																
	Culicoides																
	Dasyhelea																
	Chironomidae (a)	1			0.3	0.3											
	Chironomidae (p)								1	0.3	0.3	17	2			0.7	0.7
	Chironomidae (l)	24	13	35	24.0	6.4	53	15	36	34.7	11.0	354	17	4	4	8.3	4.3
	Empididae																
	Wiedemannia																
	Simuliidae (a)																
	Simuliidae (p)																
	Simulium (p)																
	Simulium																
	Stratiomyidae																
	Nemotelus																
	Tipulidae																
	Dicranota																
	Tipula																
Fish																	
Terrestrial				1	0.3	0.3						1					
Total Number per sample		430	198	1203	610.3	303.8	134	51	75	86.7	24.7	645	57	27	32	38.7	9.3
Total Number of Taxa per Sample*		12	12	13	12.3	0.3	25	12	16	17.7	3.8	24	12	6	8	8.7	1.8

NOTE: a = adult; p = pupa; l = larvae, Chironomidae are identified to genus in Table B14.
*Total number of taxa includes chironomids from Table B14.

concluded.

Table B14. Chironomid larvae (No. /sample) in lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake A6					Lake A8					Lake B2				
	Rep 3	Rep 4	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 4	**Mean**	*SE*	Rep 1	Rep 2	Rep 3	**Mean**	*SE*
Chironomidae (I)															
Chironomini	2	0	0	**0.7**	*0.7*						1	0	0	**0.3**	*0.3*
Ablabesmyia	1	1	0	**0.7**	*0.3*						0	0	1	**0.3**	*0.3*
Chironomus	2	0	0	**0.7**	*0.7*	0	0	1	**0.3**	*0.3*					
Cladopelma	0	0	1	**0.3**	*0.3*	1	2	0	**1.0**	*0.6*					
Cryptochironomus						0	0	1	**0.3**	*0.3*					
Dicrotendipes	2	0	1	**1.0**	*0.6*										
Glyptotendipes															
Pagastiella						0	1	1	**0.7**	*0.3*					
Paratendipes															
Phaenopsectra	0	0	2	**0.7**	*0.7*										
Diamesinae															
Potthastia (Longimanus)															
Protanypus															
Pseudokiefferiella						0	2	0	**0.7**	*0.7*					
Prodiamesinae															
Monodiamesa															
Orthocladiinae	4	1	4	**3.0**	*1.0*	8	11	7	**8.7**	*1.2*	4	3	17	**8.0**	*4.5*
Cricotopus/Orthocladius															
Cricotopus											0	0	2	**0.7**	*0.7*
Corynoneura						1	0	0	**0.3**	*0.3*					
Eukiefferiella															
Heterotrissocladius															
Orthocladius															
Paracricotopus															
Psectrocladius	3	1	2	**2.0**	*0.6*	0	0	1	**0.3**	*0.3*	0	0	7	**2.3**	*2.3*
Pseudosmittia						1	0	0	**0.3**	*0.3*					
Tanypodinae	4	3	4	**3.7**	*0.3*	0	2	1	**1.0**	*0.6*	0	0	2	**0.7**	*0.7*
Procladius	3	1	1	**1.7**	*0.7*	0	1	1	**0.7**	*0.3*	2	0	4	**2.0**	*1.2*
Tanytarsini	84	11	46	**47.0**	*21.1*	28	63	69	**53.3**	*12.8*	3	6	114	**41.0**	*36.5*
Cladotanytarsus	0	0	1	**0.3**	*0.3*	3	4	0	**2.3**	*1.2*					
Cladotanytarsus/Paratanytarsus															
Corynocera	1	2	1	**1.3**	*0.3*	5	3	7	**5.0**	*1.2*					
Micropsectra						0	0	2	**0.7**	*0.7*					
Paratanytarsus															
Tanytarsus	24	4	21	**16.3**	*6.2*	1	0	2	**1.0**	*0.6*	3	1	0	**1.3**	*0.9*
Stempellinella															
Total No. chironomids per sample	130	24	84	**79.3**	*30.7*	48	89	93	**76.7**	*14.4*	13	10	147	**56.7**	*45.2*
No. chironomid taxa per Sample	*7*	*5*	*8*	**6.7**	*0.9*	*6*	*7*	*8*	**7.0**	*0.6*	*4*	*2*	*5*	**3.7**	*0.9*

continued...

Table B14 (continued). Chironomid larvae (No. /sample) in lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake B5					Lake B7					Lake D7				
	Rep 1	Rep 2	Rep 4	**Mean**	*SE*	Rep 1	Rep 2	Rep 5	**Mean**	*SE*	Rep 1	Rep 2	Rep 3	**Mean**	*SE*
Chironomidae (I)															
Chironomini	0	44	12	**18.7**	*13.1*						12	0	0	**4.0**	*4.0*
Ablabesmyia															
Chironomus	2	0	0	**0.7**	*0.7*						1	0	0	**0.3**	*0.3*
Cladopelma	6	1	1	**2.7**	*1.7*	1	0	3	**1.3**	*0.9*	11	39	29	**26.3**	*8.2*
Cryptochironomus	6	8	3	**5.7**	*1.5*	0	1	0	**0.3**	*0.3*	0	2	2	**1.3**	*0.7*
Dicrotendipes															
Glyptotendipes															
Pagastiella	0	47	8	**18.3**	*14.5*										
Paratendipes															
Phaenopsectra						7	4	2	**4.3**	*1.5*					
Diamesinae															
Potthastia (Longimanus)											0	1	0	**0.3**	*0.3*
Protanypus															
Pseudokiefferiella															
Prodiamesinae															
Monodiamesa															
Orthocladiinae						14	4	0	**6.0**	*4.2*					
Cricotopus/Orthocladius															
Cricotopus	1	0	0	**0.3**	*0.3*										
Corynoneura	0	0	6	**2.0**	*2.0*						0	4	0	**1.3**	*1.3*
Eukiefferiella															
Heterotrissocladius															
Orthocladius															
Paracricotopus											0	1	1	**0.7**	*0.3*
Psectrocladius	2	0	0	**0.7**	*0.7*	1	0	0	**0.3**	*0.3*					
Pseudosmittia															
Tanypodinae															
Procladius	4	4	0	**2.7**	*1.3*	3	3	14	**6.7**	*3.7*					
Tanytarsini	0	170	116	**95.3**	*50.2*	160	118	152	**143.3**	*12.9*	0	4	0	**1.3**	*1.3*
Cladotanytarsus	0	2	0	**0.7**	*0.7*										
Cladotanytarsus/Paratanytarsus	0	2	5	**2.3**	*1.5*	0	2	0	**0.7**	*0.7*					
Corynocera	566	221	87	**291.3**	*142.7*	12	4	11	**9.0**	*2.5*					
Micropsectra	56	18	8	**27.3**	*14.6*										
Paratanytarsus	0	3	0	**1.0**	*1.0*	11	2	0	**4.3**	*3.4*					
Tanytarsus	51	32	24	**35.7**	*8.0*	43	0	71	**38.0**	*20.6*					
Stempellinella															
Total No. chironomids per sample	694	552	270	**505.3**	*124.6*	252	138	253	**214.3**	*38.2*	24	51	32	**35.7**	*8.0*
No. chironomid taxa per Sample	*9*	*10*	*8*	***9.0***	*0.6*	*7*	*7*	*5*	***6.3***	*0.7*	*2*	*6*	*3*	***3.7***	*1.2*

continued...

Table B14 (continued). Chironomid larvae (No. /sample) in lakes of the Meliadine Study Area, July 1997.

Taxonomic Group	Lake G2					Lake ML-E					ML-S	Lake ML-W				
	Rep 1	Rep 2	Rep 3	Mean	SE	Rep 1	Rep 2	Rep 5	Mean	SE	Rep 1	Rep 2	Rep 4	Rep 5	Mean	SE
Chironomidae (I)																
Chironomini	0	3	0	**1.0**	*1.0*						66					
Ablabesmyia	0	0	2	**0.7**	*0.7*						25					
Chironomus	5	1	1	**2.3**	*1.3*	3	5	0	**2.7**	*1.5*						
Cladopelma	1	0	6	**2.3**	*1.9*	2	0	0	**0.7**	*0.7*						
Cryptochironomus																
Dicrotendipes																
Glyptotendipes																
Pagastiella	0	2	6	**2.7**	*1.8*							0	1	3	**1.3**	*0.9*
Paratendipes						0	0	1	**0.3**	*0.3*						
Phaenopsectra						0	0	4	**1.3**	*1.3*	4	1	0	0	**0.3**	*0.3*
Diamesinae											0					
Potthastia (Longimanus)																
Protanypus																
Pseudokiefferiella																
Prodiamesinae																
Monodiamesa						1	0	0	**0.3**	*0.3*						
Orthocladiinae	2	0	2	**1.3**	*0.7*	1	1	0	**0.7**	*0.3*	7	2	0	0	**0.7**	*0.7*
Cricotopus/Orthocladius																
Cricotopus						1	0	0	**0.3**	*0.3*						
Corynoneura											0					
Eukiefferiella						0	1	0	**0.3**	*0.3*	1					
Heterotrissocladius						8	0	12	**6.7**	*3.5*						
Orthocladius																
Paracricotopus																
Psectrocladius	0	1	1	**0.7**	*0.3*	10	0	2	**4.0**	*3.1*	69					
Pseudosmittia																
Tanypodinae						0	6	8	**4.7**	*2.4*	0					
Procladius	2	1	2	**1.7**	*0.3*	24	2	6	**10.7**	*6.8*	3	2	0	1	**1.0**	*0.6*
Tanytarsini	12	0	0	**4.0**	*4.0*	0	0	3	**1.0**	*1.0*	0	3	0	0	**1.0**	*1.0*
Cladotanytarsus						2	0	0	**0.7**	*0.7*		1	0	0	**0.3**	*0.3*
Cladotanytarsus/Paratanytarsus																
Corynocera																
Micropsectra	2	0	0	**0.7**	*0.7*							1	0	0	**0.3**	*0.3*
Paratanytarsus						1	0	0	**0.3**	*0.3*	6	0	3	0	**1.0**	*1.0*
Tanytarsus	0	5	15	**6.7**	*4.4*						173	6	0	0	**2.0**	*2.0*
Stempellinella																
Total No. chironomids per sample	24	13	35	**24.0**	*6.4*	53	15	36	**34.7**	*11.0*	354	16	4	4	**8.0**	*4.0*
No. chironomid taxa per Sample	*5*	*5*	*7*	***5.7***	*0.7*	*9*	*3*	*6*	***6.0***	*1.7*	*7*	*6*	*2*	*2*	***3.3***	*1.3*

NOTE: Due to sampling difficulties, only one sample was collected from Site ML-S (see Section 2.2.4 for details).

concluded.

APPENDIX C

Fisheries Data

Table C1. Backpack electrofishing sampling locations, effort, and catch data for the Meliadine Study Area, June 1997.

Basin	Stream	Date	Location UTM (15V...)		Sampling Effort (m)	Sampling Effort (s)	Temp (°C)	Cond. (µS/cm)	pH (units)	Discharge (m³/s)	Number of Fish Captured ARCH	LKTR	ARGR	CISC	BURB	SLSC	NNST	THST	Total
A	A0-1	15-Jun	544368	6985802	120	532	4.0	102	7.6	0.155		2	5			3	47	29	86
	A1-2	19-Jun	543738	6985813	85	324	14.0	80	8.2	0.106	1	1	8				33	2	45
	A2-3	19-Jun	543128	6985937	110	320	14.0	70	8.0	0.083		1	12				5		18
	A3-4	19-Jun	543035	6985984	35	135	16.0	80	7.9	0.089			1				2		3
	A4-5	19-Jun	542934	6986057	115	411	16.0	70	8.0	0.085			14				4		18
	A5-6	15-Jun	542510	6985853	300	800	6.0	91	7.8	0.112			13				80		93
	A6-7	19-Jun	541228	6986104	110	829	18.0	60	8.0	-			17			6	5		28
	A7-8	16-Jun	540768	6986477	80	345	5.5	60	8.0	0.042			4			2	10		16
	Basin A Subtotal				**955**	**3696**					**1**	**4**	**74**			**11**	**186**	**31**	**307**
B	B0-1	22-Jun	537361	6985660	180	974	10.7	50	7.9	-		3	25	3		9	7	14	61
	B1-2	16-Jun	537425	6985795	220	717	2.5	101	6.8	0.417			9			1	2		12
	B3-4	16-Jun	538070	6986898	250	1025	5.5	107	7.2	0.331			10		2	1	10		23
	B4-5	16-Jun	538500	6987307	220	310	7.5	86	7.3	0.068							19		19
	B5-6	17-Jun	537870	6988655	85	276	14.0	60	8.0	0.015						1	34		35
	B6-7	17-Jun	537809	6989294	130	543	10.0	82	7.6	0.043			8			1	4		13
	B4-36	20-Jun	539027	6986857	180	332	10.9	180	7.8	0.002							6		6
	B4-45	20-Jun	538938	6986224	50	172	6.7	50	8.0	0.063							6		6
	B45-46	17-Jun	539906	6985212	110	362	9.0	60	8.0	0.035			2				24		26
	B51-52	17-Jun	540659	6984168	100	470	12.0	40	8.0	0.038			3				6		9
	B52-53	22-Jun	541448	6983275	90	247	12.2	40	8.0	0.012							23		23
	B68-69	22-Jun	542537	6983573	150	526	11.5	40	8.1	0.020			1			1	6		8
	Basin B Subtotal				**1765**	**5954**						**3**	**58**	**3**	**2**	**14**	**147**	**14**	**241**
D	D0-1	18-Jun	532618	6989779	90	610	7.0	79	7.6	0.099		2	2			29	26		59
	D1-2	18-Jun	533480	6989310	32	164	15.0	60	8.0	0.088			6				76		82
	D3-4	18-Jun	534455	6989208	180	297	14.0	70	8.0	-							45		45
	D4-5	22-Jun	535093	6989230	30	132	13.1	80	8.1	-							3		3
	D5-6	18-Jun	535698	6988950	250	415	13.2	95	7.3	-							28		28
	D6-7	18-Jun	536036	6988812	40	125	7.2	95	7.3	0.019							61		61
	Basin D Subtotal				**622**	**1743**						**2**	**8**			**29**	**239**		**278**
F	F0-1	21-Jun	533612	6991061	200	347	15.2	60	7.5	0.020		4	4			1	14	9	32
	F5-6	21-Jun	534928	6990600	80	137	19.0	70	8.4	0.002							22		22
	Basin F Subtotal				**280**	**484**						**4**	**4**			**1**	**36**	**9**	**54**
G	G0-1	18-Jun	537613	6991534	250	350	21.5	70	7.9	0.005		4					30	2	36
	G1-2	17-Jun	538175	6990721	200	399	18.5	72	8.1	0.004							15		15
	Basin G Subtotal				**450**	**749**						**4**					**45**	**2**	**51**
ML-S	ML-MR	21-Jun	530648	6989348	120	522	8.2	30	8.0	-			2			1	1	5	9
Total					**4192**	**13148**					**1**	**17**	**146**	**3**	**2**	**56**	**654**	**61**	**940**

Table C2. Backpack electrofishing sampling locations, effort, and catch data for the Meliadine Study Area, July 1997.

Basin	Stream	Date	Location UTM (15V...)		Sampling Effort (m)	Sampling Effort (s)	Temp (°C)	Cond. (µS/cm)	pH (units)	Discharge (m³/s)	Number of Fish Captured ARCH	LKTR	ARGR	CISC	BURB	SLSC	NNST	THST	Total
A	A0-1	21-Jul	544368	6985802	80	222	22.2	80	-	0.004						2	17	5	24
	A5-6	13-Jul	542426	6985968	170	461	18.5	70	-	trace		8				9	29		46
	A6-7	14-Jul	541224	6986127	60	313	10.5	80	-	0.004						4	2		6
	A7-8	22-Jul	540768	6986477	100	203	19.7	95	8.6	0.002							8		8
	Basin A Subtotal				410	1199						8				15	56	5	84
B	B0-1	19-Jul	537361	6985660	120	500	17.1	80	-	-	1	2	12		3	11	1	23	53
	B1-2	19-Jul	537425	6985795	90	419	17.2	80	-	0.018		10	21			1	1	1	34
	B3-4	20-Jul	538070	6986898	100	605	18.0	90	-	0.018	1	2	3		4	15	2		27
	B4-5	15-Jul	538416	6987531	125	471	12.0	60	-	0.009			5			5	32		42
	B5-6	15-Jul	537870	6988655	90	248	11.0	60	-	0.003			19				21		40
	B6-7	18-Jul	537809	6989294	80	162	16.1	84	7.4	0.003			26				4		30
	Basin B Subtotal				605	2405					2	14	86		7	32	61	24	226
D	D0-1	24-Jul	532618	6989779	100	568	13.4	126	7.5	0.007		4	5		1	14	2	3	29
	D1-2	26-Jul	533480	6989310	30	166	16.3	100	-	0.004						10	17	2	29
	D5-6	17-Jul	535698	6988950	100	296	16.1	100	8.0	0.006							343		343
	D6-7	17-Jul	536036	6988812	30	110	16.1	133	8.0	0.001							79		79
	Basin D Subtotal				260	1140						4	5		1	24	441	5	480
ML-S	ML-MR	20-Jul	530648	6989348	100	558	15.0	40	-	-	3	1	2			6	1		13
Total					1375	5302					5	27	93		8	77	559	34	803

Table C3. Backpack electrofishing sampling locations, effort, and catch data for the Meliadine Study Area, August 1997.

Basin	Stream	Date	Location UTM (15V...)		Sampling Effort (m)	Sampling Effort (s)	Temp (°C)	Cond. (µS/cm)	pH (units)	Discharge (m³/s)	Number of Fish Captured ARCH	LKTR	ARGR	CISC	BURB	SLSC	NNST	THST	Total
B	B1-2	24-Aug	537425	6985795	120	358	10.2	115	7.1	trace	17		2			2	3		24
	B3-4	24-Aug	538070	6986898	30	141	12.1	138	7.4	trace			2						2
	B4-5	24-Aug	538416	6987531	80	164	12.8	97	7.1	trace			1			1	12		14
	B6-7	24-Aug	537809	6989294	35	115	12.3	103	7.3	trace			1				3		4
	Basin B Subtotal				265	778					17		6			3	18		44
D	D0-1	25-Aug	532618	6989779	80	187	12.7	138	7.5	trace	1					3	10		14
	D1-2	25-Aug	533480	6989310	35	94	12.6	136	7.4	trace							11		11
	D6-7	25-Aug	536036	6988812	30	79	8.9	157	7.1	trace							8		8
	Basin D Subtotal				145	360					1					3	29		33
ML-S	ML-MR	24-Aug	530648	6989348	100	525	11.6	62	7.5	-		5	3			1	2		11
Total					510	1663					18	5	9			7	49		88

Table C4. Summary of backpack electrofisher seasonal catches, species composition, and catch-per-unit-effort (CPUE) in the Meliadine Study Area, 1997.

Species	Number of Fish Captured																				
	Basin A			Basin B				Basin D				Bas. F	Bas. G	Meliadine River (ML-MR)				All Areas Combined			
	Jun	Jul	Total	Jun	Jul	Aug	Total	Jun	Jul	Aug	Total	Jun	Jun	Jun	Jul	Aug	Total	Jun	Jul	Aug	Total
Arctic charr	1		1		2	17	19			1	1				3		3	1	5	18	24
Lake trout	4	8	12	3	14		17	2	4		6	4	4		1	5	6	17	27	5	49
Arctic grayling	74		74	58	86	6	150	8	5		13	4		2	2	3	7	146	93	9	248
Cisco				3			3											3			3
Burbot				2	7		9		1		1							2	8		10
Slimy sculpin	11	15	26	14	32	3	49	29	24	3	56	1		1	6	1	8	56	77	7	140
Ninespine stickleback	186	56	242	147	61	18	226	239	441	29	709	36	45	1	1	2	4	654	559	49	1262
Threespine stickleback	31	5	36	14	24		38		5		5	9	2	5			5	61	34		95
Total	307	84	391	241	226	44	511	278	480	33	791	54	51	9	13	11	33	940	803	88	1831

Species	Species Composition (%)																				
	Basin A			Basin B				Basin D				Bas. F	Bas. G	Meliadine River (ML-MR)				All Areas Combined			
	Jun	Jul	Total	Jun	Jul	Aug	Total	Jun	Jul	Aug	Total	Jun	Jun	Jun	Jul	Aug	Total	Jun	Jul	Aug	Total
Arctic charr	0.3		0.3		0.9	38.6	3.7			3.0	0.1				23.1		9.1	0.1	0.6	20.5	1.3
Lake trout	1.3	9.5	3.1	1.2	6.2		3.3	0.7	0.8		0.8	7.4	7.8		7.7	45.5	18.2	1.8	3.4	5.7	2.7
Arctic grayling	24.1		18.9	24.1	38.1	13.6	29.4	2.9	1.0		1.6	7.4		22.2	15.4	27.3	21.2	15.5	11.6	10.2	13.5
Cisco				1.2			0.6											0.3			0.2
Burbot				0.8	3.1		1.8		0.2		0.1							0.2	1.0		0.5
Slimy sculpin	3.6	17.9	6.6	5.8	14.2	6.8	9.6	10.4	5.0	9.1	7.1	1.9		11.1	46.2	9.1	24.2	6.0	9.6	8.0	7.6
Ninespine stickleback	60.6	66.7	61.9	61.0	27.0	40.9	44.2	86.0	91.9	87.9	89.6	66.7	88.2	11.1	7.7	18.2	12.1	69.6	69.6	55.7	68.9
Threespine stickleback	10.1	6.0	9.2	5.8	10.6		7.4		1.0		0.6	16.7	3.9	55.6			15.2	6.5	4.2		5.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Species	CPUE (fish / min)																				
	Basin A			Basin B				Basin D				Bas. F	Bas. G	Meliadine River (ML-MR)				All Areas Combined			
	Jun	Jul	Total	Jun	Jul	Aug	Total	Jun	Jul	Aug	Total	Jun	Jun	Jun	Jul	Aug	Total	Jun	Jul	Aug	Total
Arctic charr	0.02		0.01		0.05	1.31	0.12			0.17	0.02				0.32		0.11	0.00	0.06	0.65	0.07
Lake trout	0.06	0.40	0.18	0.03	0.35		0.11	0.07	0.21		0.11	0.50	0.32		0.11	0.57	0.22	0.08	0.31	0.18	0.15
Arctic grayling	1.20		1.08	0.58	2.15	0.46	0.99	0.28	0.26		0.24	0.50		0.23	0.22	0.34	0.26	0.67	1.05	0.32	0.74
Cisco				0.03			0.02											0.01			0.01
Burbot				0.02	0.17		0.06		0.05		0.02							0.01	0.09		0.03
Slimy sculpin	0.18	0.75	0.38	0.14	0.80	0.23	0.32	1.00	1.26	0.50	1.04	0.12		0.11	0.65	0.11	0.30	0.26	0.87	0.25	0.42
Ninespine stickleback	3.02	2.80	3.54	1.48	1.52	1.39	1.48	8.23	23.21	4.83	13.12	4.46	3.60	0.11	0.11	0.23	0.15	2.98	6.33	1.77	3.76
Threespine stickleback	0.50	0.25	0.53	0.14	0.60		0.25		0.26		0.09	1.12	0.16	0.57			0.19	0.28	0.38		0.28
Total	4.98	4.20	5.71	2.43	5.64	3.39	3.36	9.57	25.26	5.50	14.63	6.69	4.09	1.03	1.40	1.26	1.23	4.29	9.09	3.17	5.46
Effort (min)	*61.6*	*20.0*	*68.4*	*99.2*	*40.1*	*13.0*	*152.3*	*29.1*	*19.0*	*6.0*	*54.1*	*8.1*	*12.5*	*8.7*	*9.3*	*8.8*	*26.8*	*219.1*	*88.4*	*27.7*	*335.2*

Table C5 . Gill net locations, effort, and catch data for the Meliadine Study Area, July 1997.

Lake	Set No.	Date	Time Set	Time Lift	Effort (h)	UTM (15V...) Easting	UTM (15V...) Northing	Temp (°C)	Wind (km/h dir)	Cloud (%)	Depth (m)	Substrate	Number of Fish Captured ARCH	LKTR	ARGR	RNWH	CISC	Total	CPUE (fish/h)
A1	1	24-Jul	13:40	14:40	1.0	544450	6985650	18.0	60 S	0	1.0-2.0	Si/Bo/Co						0	0.0
	2	24-Jul	14:50	15:30	0.7	544000	6985800	18.0	60 S	0	1.0-1.5	Co/Bo/Si				1		1	1.5
A6	1	14-Jul	10:15	11:55	1.7	542150	6985300	13.5	70 SE	100	1.0-2.5	Bo/Si/Co			8		1	9	5.4
A8	1	12-Jul	15:45	18:00	2.3	539899	6987270	18.0	20 SE	60	1.0-2.5	Bo/Si			5			5	2.2
	2	12-Jul	16:15	17:45	1.5	540240	6986966	18.0	20 SE	60	2.0-2.8	Bo/Si			2			2	1.3
	3	13-Jul	11:35	12:15	0.7	540700	6986880	16.5	60 SE	100	1.5-2.8	Bo/Si/Co			7			7	10.5
Basin A Subtotal					**7.8**										**22**	**1**	**1**	**24**	**3.1**
B2	1	20-Jul	09:00	11:00	2.0	537500	6986100	15.8	20 S	0	1.0-1.5	Si/Bo/Co					5	5	2.5
	2	20-Jul	11:40	13:20	1.7	537600	6986850	15.8	20 SE	0	1.3-2.8	Si/Bo/Co		1			1	2	1.2
B4	1	26-Jul	17:00	18:40	1.7	538294	6986884	18.0	10 W	0	1.0-2.0	Bo/Si/Co						0	0.0
	2	27-Jul	13:40	17:40	4.0	538376	6986597	18.2	40 N	0	1.5-2.2	Co/Bo/Si						0	0.0
	3	27-Jul	17:00	17:55	0.9	538174	6987018	18.0	20 N	50	1.0-1.5	Bo/Co/Si						0	0.0
B5	1	15-Jul	11:30	12:45	1.3	538629	6987710	13.0	80 E	100	1.5-2.5	Si/Co/Bo			9			9	7.2
B7	1	18-Jul	10:20	12:30	2.2	537820	6989375	14.5	2 NW	0	3.0-3.5	Sa/Bo/Co			3		1	4	1.8
Basin B Subtotal					**13.7**									**1**	**12**		**7**	**20**	**1.5**
D1	1	26-Jul	14:00	15:50	1.8	533060	6989550	18.0	10 W	0	1.5-2.0	Si/Bo/Co	6				3	9	4.9
D4	1	25-Jul	12:20	14:45	2.4	534748	6989084	16.0	30 E	0	1.3-1.5	Co/Si/Bo						0	0.0
	2*	25-Jul	13:10	09:40	20.5	534856	6989092	16.0	30 E	0	1.2-1.5	Si/Co/Bo						0	0.0
D5	1*	25-Jul	15:20	09:20	18.0	535459	6989117	16.0	20 E	0	1.2-2.0	Si/Co/Bo						0	0.0
D7	1	17-Jul	10:40	12:30	1.8	536470	6988726	16.1	2 SE	0	2.0-3.2	Bo/Si/Co			1			1	0.5
	2	17-Jul	12:35	17:35	5.0	536917	6988696	16.1	5 SE	0	1.2-2.2	Si/Bo/Co			3			3	0.6
	3	19-Jul	10:40	11:40	1.0	536350	6988650	16.3	5 W	0	1.0-1.5	Bo/Co/Si			2			2	2.0
Basin D Subtotal					**50.6**								**6**		**6**		**3**	**15**	**0.3**
G2	1	16-Jul	10:45	12:30	1.8	538670	6990495	12.9	30 E	70	1.3-2.5	Si/Co/Bo						0	0.0
	2	16-Jul	13:00	15:00	2.0	538397	6990533	12.9	30 E	70	1.5-2.0	Si/Co/Bo						0	0.0
	3	16-Jul	15:20	17:20	2.0	538816	6990349	12.9	30 E	70	1.0-1.5	Si/Bo/Co						0	0.0
	4*	16-Jul	21:00	09:00	12.0	538750	6990450	12.5	15 E	30	1.0-1.5	Si/Co/Bo						0	0.0
Basin G Subtotal					**17.8**													**0**	**0.0**
ML-E	1	12-Jul	17:15	19:00	1.8	541765	6989697	16.0	15 ESE	10	2.0-7.0	Bo		1				1	0.6
	2	14-Jul	14:50	16:45	1.9	543141	6987595	13.5	35 ESE	60	1.3-3.7	Bo/Sa		1				1	0.5
	3	15-Jul	16:10	17:00	0.8	542890	6991150	13.0	80 E	100	1.5-12.5	Bo/Co/Si		1		1		2	2.4
	4	18-Jul	15:50	16:40	0.8	539070	6990795	15.0	calm	0	2.0-12.0	Bo/Co/Si		2				2	2.4
	5	19-Jul	11:15	12:20	1.1	544680	6985831	15.5	calm	0	2.5-5.0	Bo/Co/Si		4				4	3.7
	6	22-Jul	15:05	17:05	2.0	543530	6988968	17.0	calm	0	2.0-4.5	Bo/Sa		2			21	23	11.5
	7	23-Jul	11:10	12:10	1.0	542535	6990267	17.0	calm	0	2.0-5.0	Bo/Sa		7		1		8	8.0
Meliadine Lake (East) Subtotal					**9.4**									**18**		**2**	**21**	**41**	**4.4**
TOTAL					**99.2**								**6**	**19**	**40**	**3**	**32**	**100**	**1.0**

* overnight sets

Table C6. Gill net locations, effort, and catch data for the Meliadine Study Area, Aug-Sep 1997.

Lake	Set No.	Date	Time Set	Time Lift	Effort (h)	UTM (15V...) Easting	UTM (15V...) Northing	Temp (°C)	Wind (km/h dir)	Cloud (%)	Depth (m)	Substrate	Number of Fish Captured ARCH	LKTR	ARGR	RNWH	CISC	Total	CPUE (fish/h)
A1	1	23-Aug	08:55	12:10	3.3	544360	6985425	14.6	35 S	100	1.0-1.8	Si/Bo/Co	1	1				2	0.6
	2	23-Aug	12:20	15:10	2.8	544259	6985638	14.5	25 S	100	1.0-1.2	Si/Bo/Co	2	3			1	6	2.1
	3	23-Aug	15:30	17:10	1.7	544451	6985602	14.6	25 S	100	1.0-1.7	Si/Co/Bo	1					1	0.6
A6	1	17-Aug	17:00	18:50	1.8	541816	6985549	15.5	10 SW	20	2.0-2.5	Si/Bo/Co			1		2	3	1.6
A8	1	18-Aug	08:10	10:30	2.3	540614	6986986	14.3	10 SW	100	1.5-2.5	Si/Bo/Co			4			4	1.7
Basin A Subtotal					**11.9**								**4**	**4**	**5**		**3**	**16**	**1.3**
B2	1	18-Aug	13:10	15:40	2.5	537660	6986874	15.3	10 SW	100	1.5-2.5	Bo/Si/Co			1		5	6	2.4
	2	26-Aug	16:00	18:45	2.8	537432	6986480	12.6	10 NE	0	1.3-2.2	Si/Co/Bo			1		5	6	2.2
	3	26-Aug	18:55	20:10	1.2	537486	6986074	12.5	5 SW	0	1.0-2.0	Bo/Co/Si			4			4	3.2
B5	1	18-Aug	16:40	19:10	2.5	537924	6988497	15.1	25 SW	100	1.5-2.0	Bo/Si/Co			4			4	1.6
B7	1	19-Aug	09:10	11:40	2.5	537683	6989368	15.1	15 SW	40	3.0-3.5	Si/Bo/Sa					4	4	1.6
Basin B Subtotal					**11.5**										**10**		**14**	**24**	**2.1**
D1	1	19-Aug	16:05	17:45	1.7	533066	6989437	16.5	calm	20	1.5-2.2	Bo/Co/Si	7				4	11	6.6
	2	20-Aug	11:40	13:00	1.3	532990	6989517	16.3	5 NW	100	1.5-2.2	Bo/Co/Si	6				1	7	5.3
	3	20-Aug	13:40	14:20	0.7	532906	6989500	16.3	15 NW	50	1.0-1.8	Si/Bo/Co						0	0.0
	4	20-Aug	14:30	16:20	1.8	533008	6989520	16.3	15 NW	50	1.5-2.2	Bo/Co/Si	3	1				4	2.2
	5	21-Aug	08:20	12:10	3.8	532975	6989469	15.5	10 NW	50	1.5-2.0	Bo/Co/Si	3				5	8	2.1
	6	21-Aug	13:00	14:15	1.2	532975	6989469	15.8	20 W	50	1.5-2.0	Bo/Co/Si	1				3	4	3.2
	7	21-Aug	14:20	16:05	1.7	532750	6989650	16.2	20 W	50	1.5-2.0	Co/Bo/Si	1				1	2	1.1
	8	21-Aug	16:40	17:15	0.6	532700	6989850	16.2	20 W	50	1.0-1.5	Co/Bo/Si	3					3	5.1
	9	27-Aug	10:50	11:55	1.1	533097	6989440	11.7	35 SE	100	2.0-2.1	Bo/Co/Si						0	0.0
	10	27-Aug	12:10	16:30	4.3	532750	6989650	11.7	35 SE	100	1.0-1.3	Co/Bo/Si	13				1	14	3.2
D3	1	28-Aug	09:10	12:35	3.4	534089	6988980	11.8	25 S	0	1.3-2.1	Bo/Co/Si	1		3			4	1.2
	2	28-Aug	13:20	16:05	2.8	534296	6989078	13.0	25 SW	0	1.4-2.3	Bo/Co/Si	1		4			5	1.8
D7	1	19-Aug	12:40	15:15	2.6	536726	6988734	15.8	15 SW	50	1.5-2.0	Si/Bo/Co						0	0.0
Basin D Subtotal					**27.1**								**39**	**1**	**7**		**15**	**62**	**2.3**
G2	1	22-Aug	16:05	18:10	2.1	538611	6990476	15.9	25 SE	50	1.3-2.0	Si/Co/Bo						0	0.0
Basin G Subtotal					**2.1**													**0**	**0.0**
ML-S	1	22-Aug	09:20	10:40	1.3	532416	6989388	14.0	35 S	40	2.5-3.5	Si/Co/Bo		1				1	0.8
	2	22-Aug	10:55	15:00	4.1	532516	6989419	14.0	35 S	40	1.5-2.5	Bo/Co/Si		1				1	0.2
Meliadine Lake (South) Subtotal					**5.4**									**2**				**2**	**0.4**
LML	1	27-Sep	16:35	17:30	0.9	537500	6977900	6.0	25 E	100	2.0-6.0	Co/Bo/Gr		1		3		4	4.4
	2	28-Sep	09:45	12:05	2.3	536450	6979300	6.0	15 NE	80	1.5-3.0	Bo/Co/Si	1					1	0.4
	3	28-Sep	12:15	17:40	5.4	536250	6979600	5.0	15 NE	60	1.5-3.0	Bo/Co/Si	4	3		6		13	2.4
Little Meliadine Lake Subtotal					**8.7**								**5**	**4**		**9**		**18**	**2.1**
TOTAL					**66.7**								**48**	**11**	**22**	**9**	**32**	**122**	**1.8**

Table C7. Summary of gill net catches, species composition, and catch-per-unit-effort in the Meliadine Study Area, 1997.

Lake	Month	Effort (h)	Number of Fish Caught						Species Composition (%)						CPUE (fish / h)					
			ARCH	LKTR	ARGR	RNWH	CISC	Total	ARCH	LKTR	ARGR	RNWH	CISC	Total	ARCH	LKTR	ARGR	RNWH	CISC	Total
Lake A1	Jul	1.7				1		1				100.0		100.0				0.59		0.59
	Aug	7.8	4	4			1	9	44.4	44.4			11.1	100.0	0.51	0.51			0.13	1.15
	Total	**9.5**	**4**	**4**		**1**	**1**	**10**	**40.0**	**40.0**		**10.0**	**10.0**	**100.0**	**0.42**	**0.42**		**0.11**	**0.11**	**1.05**
Lake A6	Jul	1.7			8		1	9			88.9		11.1	100.0			4.71		0.59	5.29
	Aug	1.8			1		2	3			33.3		66.7	100.0			0.56		1.11	1.67
	Total	**3.5**			**9**		**3**	**12**			**75.0**		**25.0**	**100.0**			**2.57**		**0.86**	**3.43**
Lake A8	Jul	4.5			14			14			100.0			100.0			3.11			3.11
	Aug	2.3			4			4			100.0			100.0			1.74			1.74
	Total	**6.8**			**18**			**18**			**100.0**			**100.0**			**2.65**			**2.65**
Basin A Combined	Jul	7.9			22	1	1	24			91.7	4.2	4.2	100.0			2.78	0.13	0.13	3.04
	Aug	11.9	4	4	5		3	16	25.0	25.0	31.3		18.8	100.0	0.34	0.34	0.42		0.25	1.34
	Total	**19.8**	**4**	**4**	**27**	**1**	**4**	**40**	**10.0**	**10.0**	**67.5**	**2.5**	**10.0**	**100.0**	**0.20**	**0.20**	**1.36**	**0.05**	**0.20**	**2.02**
Lake B2	Jul	3.7		1			6	7		14.3			85.7	100.0		0.27			1.62	1.89
	Aug	6.5			6		10	16			37.5		62.5	100.0			0.92		1.54	2.46
	Total	**10.2**		**1**	**6**		**16**	**23**		**4.3**	**26.1**		**69.6**	**100.0**		**0.10**	**0.59**		**1.57**	**2.25**
Lake B4	Jul	6.6						0												0.00
Lake B5	Jul	1.3			9			9			100.0			100.0			6.92			6.92
	Aug	2.5			4			4			100.0			100.0			1.60			1.60
	Total	**3.8**			**13**			**13**			**100.0**			**100.0**			**3.42**			**3.42**
Lake B7	Jul	2.2			3		1	4			75.0		25.0	100.0			1.36		0.45	1.82
	Aug	2.5					4	4					100.0	100.0					1.60	1.60
	Total	**4.7**			**3**		**5**	**8**			**37.5**		**62.5**	**100.0**			**0.64**		**1.06**	**1.70**
Basin B Combined	Jul	13.8		1	12		7	20		5.0	60.0		35.0	100.0		0.07	0.87		0.51	1.45
	Aug	11.5			10		14	24			41.7		58.3	100.0			0.87		1.22	2.09
	Total	**25.3**		**1**	**22**		**21**	**44**		**2.3**	**50.0**		**47.7**	**100.0**		**0.04**	**0.87**		**0.83**	**1.74**
Lake D1	Jul	1.8	6				3	9	66.7				33.3	100.0	3.33				1.67	5.00
	Aug	18.2	37	1			15	53	69.8	1.9			28.3	100.0	2.03	0.05			0.82	2.91
	Total	**20.0**	**43**	**1**			**18**	**62**	**69.4**	**1.6**			**29.0**	**100.0**	**2.15**	**0.05**			**0.90**	**3.10**
Lake D3	Aug	6.2	2		7			9	22.2		77.8			100.0	0.32		1.13			1.45
Lake D4	Jul	22.9						0												0.00
Lake D5	Jul	18.0						0												0.00
Lake D7	Jul	7.8			6			6			100.0			100.0			0.77			0.77
	Aug	2.6						0												0.00
	Total	**10.4**			**6**			**6**			**100.0**			**100.0**			**0.58**			**0.58**
Basin D Combined	Jul	50.5	6		6		3	15	40.0		40.0		20.0	100.0	0.12		0.12		0.06	0.30
	Aug	27.0	39	1	7		15	62	62.9	1.6	11.3		24.2	100.0	1.44	0.04	0.26		0.56	2.30
	Total	**77.5**	**45**	**1**	**13**		**18**	**77**	**58.4**	**1.3**	**16.9**		**23.4**	**100.0**	**0.58**	**0.01**	**0.17**		**0.23**	**0.99**
Lake G2	Jul	17.8						0												0.00
	Aug	2.1						0												0.00
LML *	Sep	8.6	5	4		9		18	27.8	22.2		50.0		100.0	0.58	0.47		1.05		2.09
ML-E *	Jul	9.4		18		2	21	41		43.9		4.9	51.2	100.0		1.91		0.21	2.23	4.36
ML-S *	Aug	5.4		2				2		100.0				100.0		0.37				0.37
All Areas Combined	Jul	99.4	6	19	40	3	32	100	6.0	19.0	40.0	3.0	32.0	100.0	0.06	0.19	0.40	0.03	0.32	1.01
	Aug	57.9	43	7	22		32	104	41.3	6.7	21.2		30.8	100.0	0.74	0.12	0.38		0.55	1.80
	Sep	8.6	5	4		9		18	27.8	22.2		50.0		100.0	0.58	0.47		1.05		2.09
	Total	**165.9**	**54**	**30**	**62**	**12**	**64**	**222**	**24.3**	**13.5**	**27.9**	**5.4**	**28.8**	**100.0**	**0.33**	**0.18**	**0.37**	**0.07**	**0.39**	**1.34**

* LML = Little Meliadine Lake; ML-E = Meliadine Lake (East Basin); ML-S = Meliadine Lake (South Basin)

Table C8. Catch and effort data for eastbound (E-b) and westbound (W-b) fish captured in the fyke net set in Meliadine Lake, July 1997.

Fyke Set No.	Trap Checked Date	Trap Checked Time	Set Duration (h)	Water Temp (°C)	Number of Fish Captured																	
					ARCH		LKTR		ARGR		RNWH		CISC		BURB		SLSC		THST		All Species	
					E-b	W-b	E-b	W-b	E-b	W-b	E-b	W-b	E-b	W-b	E-b	W-b	E-b	W-b	E-b	W-b	E-b	W-b
1	12-Jul	19:40	9.2	16.5	5	32	1	1	1			1						1	21	15	28	50
2	13-Jul	09:40	14.0	15.5	4	30	5	6	4	1		4	1	65					24	62	38	168
3	13-Jul	18:40	9.0	14.5	1	55		2	1	1		1		1					16	13	18	73
4	14-Jul	10:00	15.3	11.5	1	2	1	5		1	2								11	10	15	18
5	14-Jul	18:20	8.3	13.0		3	1	2				1							12	19	13	25
6	15-Jul	09:30	15.2	12.8	1	3	1	4	1	1	1	3		2	1				14	10	19	23
7	15-Jul	19:30	10.0	12.0				1	1			2					1		8	19	10	22
8	16-Jul	09:30	14.0	13.0			5		3		7		3						20	5	38	5
9	16-Jul	18:50	9.3	14.0			1						10						31		42	
10	17-Jul	08:45	13.9	15.5	6	1	6	4	17	7	6	2	35	2			1		16	6	87	22
11	17-Jul	20:20	11.6	15.0		43	1				1			1					52	40	54	84
12	18-Jul	08:50	12.5	16.0	2	1	5	1	1			4	163	9					28	25	199	40
13	18-Jul	19:20	10.5	15.0	5	31	5					1	7	11					56	12	73	55
14	19-Jul	08:40	13.3	15.0		4	2	13	2	1	2	1		1					30	14	36	34
15	19-Jul	19:20	10.7	15.0	2	2	1		1		1		331	5					55	18	391	25
16	20-Jul	08:40	13.3	14.5		10	5	12		1			3	2					38	18	46	43
17	21-Jul	09:10	24.5	15.0	5	16	7	10	1	5	1	1	1	1					32	35	47	68
18	22-Jul	09:10	24.0	16.5	3	2	4	2						2					20	54	27	60
19	23-Jul	08:40	23.5	17.0	11	4		1	5			2		2					55	33	71	42
20	24-Jul	08:45	24.1	14.0		2	6	8	1	6		2	575	149					59	54	641	221
21	25-Jul	09:20	24.6	15.0	5		4	1	1		3		2	7	1				45	29	61	37
22	26-Jul	09:00	23.7	16.5	1	2	4	5		3	6	6	5	23					144	138	160	177
23	27-Jul	09:00	24.0	-	1	1	6	5					167	225					53	30	227	261
Total			**358.5**		**53**	**244**	**71**	**83**	**40**	**27**	**30**	**31**	**1303**	**508**	**2**		**2**	**1**	**840**	**659**	**2341**	**1553**
Total (E-b and W-b Combined)					*297*		*154*		*67*		*61*		*1811*		*2*		*3*		*1499*		*3894*	

Table C9. Catch and effort data for fish captured in the upstream trap installed in the Meliadine River, Aug-Sep 1997.

Check No.	Date	Time	Duration (h)	Temp. (°C)	Number of Fish Captured					CPUE (fish/h)	
					ARCH	LKTR	ARGR	RNWH	Total	ARCH	Total
1	16-Aug	09:20	11.3	13.0	6	1	1		8	0.53	0.71
2	16-Aug	21:20	12.0	18.0			1	1	2		0.17
3	17-Aug	09:00	11.7	14.0	11				11	0.94	0.94
4	17-Aug	21:30	12.5	18.5	24			1	25	1.92	2.00
5	18-Aug	10:20	12.8	13.5	36				36	2.81	2.81
6	18-Aug	21:45	11.4	17.5	27				27	2.36	2.36
7	19-Aug	10:00	12.3	14.0	47		1	2	50	3.84	4.08
8	19-Aug	21:00	11.0	18.0	16	1			17	1.45	1.55
9	20-Aug	09:00	12.0	13.0	57				57	4.75	4.75
10	20-Aug	21:00	12.0	18.0	43			1	44	3.58	3.67
11	21-Aug	09:30	12.5	13.5	18			1	19	1.44	1.52
12	21-Aug	21:45	12.3	17.0	3		2	1	6	0.24	0.49
13	22-Aug	09:30	11.8	12.0	42				42	3.57	3.57
14	22-Aug	21:20	11.8	16.0	38				38	3.21	3.21
15	23-Aug	09:15	11.9	12.0	57				57	4.78	4.78
16	23-Aug	21:25	12.2	15.0	40		1	2	43	3.29	3.53
17	24-Aug	09:25	12.0	11.0	45			1	46	3.75	3.83
18	24-Aug	20:00	10.6	14.5	21				21	1.98	1.98
19	25-Aug	09:30	13.5	10.0	59			1	60	4.37	4.44
20	25-Aug	21:30	12.0	11.0	60		1	8	69	5.00	5.75
21	26-Aug	09:00	11.5	10.0	42				42	3.65	3.65
22	26-Aug	21:30	12.5	14.0	33			3	36	2.64	2.88
23	27-Aug	10:00	12.5	10.0	29				29	2.32	2.32
24	27-Aug	22:00	12.0	13.0	46			1	47	3.83	3.92
25	28-Aug	10:00	12.0	10.0	40				40	3.33	3.33
26	28-Aug	21:40	11.7	15.0	30			1	31	2.57	2.66
27	29-Aug	10:00	12.3	11.0	24				24	1.95	1.95
28	29-Aug	20:40	10.7	15.0	24				24	2.25	2.25
29	30-Aug	10:00	13.3	10.0	13		1		14	0.98	1.05
30	30-Aug	21:30	11.5	13.0	17				17	1.48	1.48
31	31-Aug	11:00	13.5	8.0	12		1		13	0.89	0.96
32	31-Aug	20:05	9.1	10.0	11		1		12	1.21	1.32
33	01-Sep	09:40	13.6	4.5	5			1	6	0.37	0.44
34	01-Sep	21:30	11.8	7.0	16			1	17	1.35	1.44
35	02-Sep	10:30	13.0	8.0	14		2	2	18	1.08	1.38
36	02-Sep	23:25	12.9	10.0	6				6	0.46	0.46
37	03-Sep	07:30	8.1	11.0	10		1	1	12	1.24	1.48
Total			**441.5**		**1022**	**2**	**13**	**29**	**1066**	**2.32**	**2.41**

Table C10. Angling locations, effort, and catch data for the Meliadine Study Area, 1997.

Basin	Lake	UTM (15V...) Easting	UTM (15V...) Northing	Date	Effort (rod-h)	Number of Fish Captured LKTR	Number of Fish Captured ARGR	Number of Fish Captured Total	CPUE (fish/rod-h) LKTR	CPUE (fish/rod-h) ARGR	CPUE (fish/rod-h) Total
A	A1	543750	6985850	19-Jun	0.5			0			0.00
	A2	543150	6985900	19-Jun	0.5			0			0.00
	A5	542900	6986000	19-Jun	0.5			0			0.00
Basin A	**Subtotal**				**1.5**	**0**	**0**	**0**	**0.00**	**0.00**	**0.00**
B	B2	537700	6986850	16-Jun	1.5		4	4		2.67	2.67
	B4	538250	6987450	16-Jun	0.5			0			0.00
	B5	538450	6987600	16-Jun	0.5			0			0.00
	B5	537850	6988600	17-Jun	0.5			0			0.00
	B5	537250	6988850	17-Jul	0.5		1	1		2.00	2.00
	B6	537900	6989050	18-Jul	1.0		2	2		2.00	2.00
	B7	538000	6989150	17-Jun	1.0		3	3		3.00	3.00
	B7	538000	6989150	18-Jul	0.8		2	2		2.67	2.67
	B45	539700	6985300	17-Jun	0.5			0			0.00
	B46	539900	6985400	17-Jun	0.5			0			0.00
	B51	540650	6984200	17-Jun	0.5			0			0.00
	B52	541450	6983300	17-Jun	0.5			0			0.00
Basin B	**Subtotal**				**8.3**	**0**	**12**	**12**	**0.00**	**1.45**	**1.45**
D	D1	532700	6989600	18-Jun	0.8			0			0.00
	D1	533400	6989400	18-Jun	1.0	1		1	1.00		1.00
	D1	532700	6989600	27-Aug	2.0			0			0.00
	D2	533500	6989350	18-Jun	0.4			0			0.00
	D4	534500	6989200	18-Jun	0.4			0			0.00
	D7	536100	6988750	18-Jun	0.6			0			0.00
	D7	536100	6988750	19-Jul	2.0		3	3		1.50	1.50
Basin D	**Subtotal**				**3.8**	**1**	**3**	**4**	**0.26**	**0.79**	**1.05**
G	G2	538300	6990600	17-Jun	0.8			0			0.00
Basin G	**Subtotal**				**0.8**	**0**	**0**	**0**	**0.00**	**0.00**	**0.00**
Mel. Lake	ML-C	537550	6991600	18-Jun	0.5	1		1	2.00		2.00
	ML-S	532600	6989500	18-Jun	0.5			0			0.00
	ML-S	533600	6991100	21-Jun	0.6			0			0.00
	ML-S	537200	6985600	22-Jun	2.0			0			0.00
	ML-E	540700	6989700	23-Jun	1.8	1		1	0.56		0.56
	ML-E	543100	6987600	14-Jul	1.0			0			0.00
	ML-E	545000	6986000	21-Jul	4.0	5		5	1.25		1.25
	ML-E	544000	6988000	21-Jul	5.0	4		4	0.80		0.80
	ML-E	543500	6989000	22-Jul	2.0	2		2	1.00		1.00
	ML-E	547000	6984000	22-Jul	4.0	5		5	1.25		1.25
	ML-E	545500	6986300	22-Jul	2.0	2		2	1.00		1.00
	ML-E	542500	6990500	23-Jul	2.0	1		1	0.50		0.50
	ML-E	544000	6987000	25-Jul	4.0	2		2	0.50		0.50
Meliadine Lake	**Subtotal**				**23.4**	**23**	**0**	**23**	**0.98**	**0.00**	**0.98**
Mel. River	MR-U	530600	6989300	14-Jun	4.0	3		3	0.75		0.75
	MR-U	530600	6989300	21-Jun	2.0	2		2	1.00		1.00
	MR-U	530600	6989300	20-Jul	2.0	4		4	2.00		2.00
	MR-L	540100	6976050	15-Jun	7.0	1	2	3	0.14	0.29	0.43
Meliadine River	**Subtotal**				**15.0**	**10**	**2**	**12**	**0.67**	**0.13**	**0.80**
Total					52.8	34	17	51	0.64	0.32	0.97

Table C11. Location and number of fish observed during snorkel surveys of the Meliadine River, Jul-Aug 1997.

Parameter		Site #1	Site #2	Site #3	Total
Date		28-Jul	28-Jul	30-Aug	
Time		14:00	15:30	15:00	
Start Location	Easting	544280	544720	544650	
(UTM Zone 15V)	Northing	6971660	6971570	6971540	
End Location	Easting	544720	544910	544910	
(UTM Zone 15V)	Northing	6971570	6971400	6971400	
River Length Sampled (m)		450	250	320	1020
Habitat Distribution (%)					
	R1	10	10	10	
	R2	15	10	10	
	R3	65	30	20	
	RA		10	10	
	RF	10	15	25	
	P1		20	20	
	P2		5	5	
Number of Fish Observed					
Arctic charr	Juvenile			5	5
	Adult			20	20
	Total	0	0	25	25
Arctic grayling	Juvenile	2	16	5	23
	Adult	3	33	10	46
	Total	5	49	15	69
Round whitefish	Juvenile				0
	Adult		20		20
	Total	0	20	0	20
All Species	Juvenile	2	16	10	28
	Adult	3	53	30	86
	Total	5	69	40	114

Table C12. Arctic grayling egg sampling locations, effort, and catch data for the Meliadine Study Area, June 1997.

Basin	Stream	Date	Location UTM (Zone 15V)		Water Temp (°C)	Cond. (µS/cm)	pH (units)	Discharge (m³/s)	Egg Sampling: No. Squares [1] Sampled	No. Squares with Eggs	Total No. Eggs Collected	Max. No. Eggs per Square	*Mean CPUE (eggs/square)*
A	0-1	15-Jun-97	544368	6985802	4.0	102	7.6	0.155	11	5	80	32	*7.3*
	1-2	19-Jun-97	543738	6985813	14.0	80	8.2	0.106	4	4	44	23	*11.0*
	2-3	19-Jun-97	543128	6985937	14.0	70	8.0	0.083	4	4	41	23	*10.3*
	3-4	19-Jun-97	543035	6985984	16.0	80	7.9	0.089	6	4	8	4	*1.3*
	4-5	19-Jun-97	542934	6986057	16.0	70	8.0	0.085	5	3	6	4	*1.2*
	5-6	15-Jun-97	542510	6985853	6.0	91	7.8	0.112	17	10	83	25	*4.9*
	6-7	19-Jun-97	541228	6986104	18.0	60	8.0	-	6	3	6	3	*1.0*
	7-8	16-Jun-97	540768	6986477	5.5	60	8.0	0.042	14	9	22	6	*1.6*
	Basin A Subtotal								**67**	**42**	**290**	**32**	*4.3*
B	0-1	22-Jun-97	537361	6985660	10.7	50	7.9	-	13	0	0	0	*0.0*
	1-2	16-Jun-97	537425	6985795	2.5	101	6.8	0.417	11	4	10	5	*0.9*
	3-4	16-Jun-97	538070	6986898	5.5	107	7.2	0.331	8	3	8	5	*1.0*
	4-5	16-Jun-97	538500	6987307	7.5	86	7.3	0.068	5	0	0	0	*0.0*
	5-6	17-Jun-97	537870	6988655	14.0	60	8.0	0.015	8	5	10	3	*1.3*
	6-7	17-Jun-97	537809	6989294	10.0	82	7.6	0.043	7	4	28	13	*4.0*
	4-36	20-Jun-97	539027	6986857	10.9	180	7.8	0.002	3	0	0	0	*0.0*
	4-45	20-Jun-97	538938	6986224	6.7	50	8.0	0.063	6	0	0	0	*0.0*
	45-46	17-Jun-97	539906	6985212	9.0	60	8.0	0.035	6	5	95	41	*15.8*
	51-52	17-Jun-97	540659	6984168	12.0	40	8.0	0.038	5	1	1	1	*0.2*
	52-53	22-Jun-97	541448	6983275	12.2	40	8.0	0.012	5	0	0	0	*0.0*
	68-69	22-Jun-97	542537	6983573	11.5	40	8.1	0.020	5	0	0	0	*0.0*
	Basin B Subtotal								**82**	**22**	**152**	**41**	*1.9*
D	0-1	18-Jun-97	532618	6989779	7.0	79	7.6	0.099	7	4	23	8	*3.3*
	1-2	18-Jun-97	533480	6989310	15.0	60	8.0	0.088	5	5	26	13	*5.2*
	3-4	18-Jun-97	534455	6989208	14.0	70	8.0	-	3	0	0	0	*0.0*
	4-5	22-Jun-97	535093	6989230	13.1	80	8.1	-	4	0	0	0	*0.0*
	5-6	18-Jun-97	535698	6988950	13.2	95	7.3	-	7	0	0	0	*0.0*
	6-7	18-Jun-97	536036	6988812	7.2	95	7.3	0.019	4	0	0	0	*0.0*
	Basin D Subtota								**30**	**9**	**49**	**13**	*1.6*
F	0-1	21-Jun-97	533612	6991061	15.2	60	7.5	0.020	4	0	0	0	*0.0*
	5-6	21-Jun-97	534928	6990600	19.0	70	8.4	0.002	3	0	0	0	*0.0*
	Basin F Subtotal								**7**	**0**	**0**	**0**	*0.0*
G	0-1	18-Jun-97	537613	6991534	21.5	70	7.9	0.005	8	0	0	0	*0.0*
	1-2	17-Jun-97	538175	6990721	18.5	72	8.1	0.004	5	0	0	0	*0.0*
	Basin G Subtotal								**13**	**0**	**0**	**0**	
ML-S	ML-MR	21-Jun-97	530648	6989348	8.2	30	8.0	-	10	3	7	3	*0.7*
Total									**209**	**76**	**498**	**41**	*2.4*

[1] each sampled square was approximately 0.1 m² in area

Table C13. Length-frequency (%) distribution of fish captured in the Meliadine Study Area, 1997.

Fork Length Interval	Species / Capture Method[1]																									
	Arctic charr					Lake trout					Arctic grayling					Round whitefish				Cisco			BURB	SLSC	NNST	THST
(mm)	EF	FN	GN	TU	Total[2]	EF	FN	GN	Oth	Total	EF	FN	GN	Oth	Total	FN	GN	TU	Total	FN	GN	Total[3]	EF&FN	EF&FN	EF	EF&FN
0 - 9																										
10 - 19																									0.1	
20 - 29											14.2				8.7										4.2	8.1
30 - 39											5.3				3.2										16.0	7.7
40 - 49						4.3				0.7	1.2				0.7									11.4	23.9	15.8
50 - 59						4.3				0.7	1.2				0.7									34.1	35.9	33.3
60 - 69						12.8				2.2	2.4				1.5									27.3	15.6	27.9
70 - 79	12.5	0.7			0.4	27.7	2.0			5.9	2.4				1.5					0.1		0.2	8.3	12.9	3.4	7.2
80 - 89	16.7	3.9			1.1	19.1	16.3			12.5	6.1	1.5			4.0	8.3			5.0	2.1		1.9	8.3	9.1	0.8	
90 - 99	25.0	2.5			0.9	4.3	16.3			9.9	9.8	1.5			6.2	30.0			17.8	25.3		23.5	8.3	2.3		
100 - 109	12.5	0.4			0.3	4.3	2.0			1.8	7.7	1.5			5.0	16.7			9.9	45.1	14.1	42.8	8.3	1.5		
110 - 119	8.3		2.1		0.2	8.5	3.9			3.7	11.4	1.5			7.2	1.7			1.0	17.4	28.1	18.2	8.3	0.8		
120 - 129		0.7			0.1	2.1	11.1			6.6	5.3				3.2					1.7	6.3	2.1	8.3	0.8		
130 - 139	4.2	0.4			0.1	6.4	5.2			4.0	4.9	4.6			3.7	1.7			1.0	0.2	6.3	0.8				
140 - 149		2.9			0.6	2.1	3.3			2.2	4.1	1.5			2.7	5.0			3.0	1.7		1.6				
150 - 159		1.4			0.3	2.1	4.6			2.9	2.0		1.6		1.5	8.3			5.0	1.3		1.2				
160 - 169		5.4			1.1		1.3			0.7	3.3	1.5	1.6		2.5	3.3			2.0	0.3		0.3				
170 - 179	4.2	9.0	4.2		2.0		2.0			1.1	1.6	3.1	1.6	3.4	2.0	1.7			1.0	0.5	1.6	0.5				
180 - 189	4.2	12.2			2.5		1.3			0.7	2.8	1.5	3.3		2.5					0.5		0.4				
190 - 199	4.2	10.4			2.2		0.7			0.4	3.3				2.0					0.6	1.6	0.6				
200 - 209	8.3	10.8			2.3						2.0	1.5			1.5	1.7			1.0				8.3			
210 - 219		7.9			1.6		0.7			0.4	3.7				2.2		8.3		1.0	0.2	1.6	0.3				
220 - 229		6.8			1.4		0.7			0.4	1.6	4.6		3.4	2.0								8.3			
230 - 239		8.6			1.7		1.3			0.7	0.4	1.5	1.6		0.7											
240 - 249		4.7	4.2		1.1						0.4	1.5			0.5					0.1	1.6	0.2				
250 - 259		4.3	2.1		0.9			3.3		0.4	0.4	1.5	1.6	17.2	2.0						1.6	0.1				
260 - 269		2.2	2.1		0.5						0.4	3.1	1.6	6.9	1.5	3.3		3.4	3.0				16.7			
270 - 279		2.2	2.1	0.2	0.7			6.7		0.7	0.4	4.6	6.6		2.0						1.6	0.1	8.3			
280 - 289		1.1	4.2		0.4		0.7	6.7		1.1		1.5	1.6	3.4	0.7			3.4	1.0		1.6	0.1				
290 - 299		1.1	2.1	0.7	0.8							1.5	4.9	10.3	1.7		8.3		1.0		4.7	0.3				
300 - 309		0.4	2.1	0.4	0.4		1.3	3.3	2.4	1.5	0.4	3.1	4.9	17.2	2.7					0.5		0.4				
310 - 319			6.3	0.4	0.5		0.7	6.7	2.4	1.5		7.7	13.1	13.8	4.2		8.3	3.4	2.0	0.5		0.4	8.3			
320 - 329			4.2	1.6	1.3	2.1				0.4	0.8	9.2	8.2		3.2					1.3	4.7	1.5				
330 - 339			2.1	1.0	0.8		0.7	3.3	2.4	1.1			3.3	13.8	1.5	1.7		3.4	2.0	0.6	3.1	0.8				
340 - 349			6.3	2.8	2.3		0.7	6.7		1.1		10.8	8.2	3.4	3.2	1.7	8.3	13.8	5.9		3.1	0.2				
350 - 359				3.0	2.3		1.3			0.7	0.4	7.7	3.3		2.0		8.3	3.4	2.0		6.3	0.4				
360 - 369			4.2	4.8	3.7			10.0	2.4	1.5		9.2	8.2	3.4	3.0	3.3			2.0		4.7	0.3				
370 - 379			2.1	5.5	4.1			3.3	2.4	0.7		3.1	6.6		1.5						6.3	0.4				
380 - 389			2.1	4.3	3.3		0.7	6.7		1.1		3.1	11.5	3.4	2.5		16.7		2.0							
390 - 399			2.1	6.7	5.0		1.3		2.4	1.1		4.6	3.3		1.2		16.7		2.0							
400 - 409			6.3	4.2	3.3		1.3			0.7		1.5			0.2		8.3	10.3	4.0							
410 - 419				4.1	3.1		1.3	3.3		1.1			1.6		0.2		8.3	3.4	2.0		1.6	0.1				
420 - 429			2.1	4.7	3.6		1.3	10.0	4.8	2.6						1.7		24.1	7.9							
430 - 439			6.3	4.3	3.4		2.6	10.0	2.4	2.9			1.6		0.2	3.3		20.7	7.9							
440 - 449			4.2	3.5	2.8		0.7	6.7		1.1						3.3	8.3	3.4	4.0							
450 - 459				4.0	3.0		0.7	3.3	2.4	1.1								6.9	2.0							
460 - 469				4.4	3.3		0.7			0.4						1.7			1.0							
470 - 479			2.1	3.4	2.6		1.3	3.3	2.4	1.5						1.7			1.0							
480 - 489		0.4	2.1	3.6	2.8				2.4	0.4																
490 - 499			4.2	4.6	3.6			3.3	7.1	1.5																
500 - 509			2.1	3.1	2.4				2.4	0.4																
510 - 519				3.6	2.7				2.4	0.4																
520 - 529				2.3	1.7																					
530 - 539			4.2	3.2	2.5		1.3		7.1	1.8																
540 - 549			2.1	3.0	2.3				4.8	0.7																
550 - 559			2	1.9	1.5		1	3.3	2.4	1.5																
560 - 569				1.9	1.4		0.7			0.4																
570 - 579			6.3	1.4	1.2		1.3		2.4	1.1																
580 - 589				1.2	0.9		0.7		4.8	1.1																
590 - 599				1.4	1.0				7.1	1.1																
600 - 609			2.1	1.7	1.3		0.7			0.4																
610 - 619				1.3	0.9		0.7		2.4	0.7																
620 - 629				0.5	0.4				2.4	0.4																
630 - 639				0.6	0.4																					
640 - 649				0.4	0.3		0.7		2.4	0.7																
650 - 659				0.2	0.1		0.7		2.4	0.7																
660 - 669				0.2	0.1																					
670 - 679				0.1	0.1		0.7			0.4																
680 - 689							0.7		2.4	0.7																
690 - 699									4.8	0.7																
700 - 709					0.1		0.7		2.4	0.7																
710 - 719																										
720 - 729																										
730 - 739																										
740 - 749																										
750 - 759																										
760 - 769									2.4	0.4																
770 - 779									4.8	0.7																
780 - 789									2.4	0.4																
790 - 799																										
840 - 849							0.7			0.4																
960 - 969									2.4	0.4																
Sample Size	*24*	*279*	*48*	*1022*	*1374*	*47*	*153*	*30*	*42*	*272*	*246*	*65*	*61*	*29*	*401*	*60*	*12*	*29*	*101*	*858*	*64*	*925*	*12*	*132*	*732*	*222*

[1] see Table 2.3 for species codes; EF = backpack electrofishing; FN = fyke net; GN = gill net; TU = upstream trap (fish fence); Oth = includes angling, creel sampling, and/or fish fence

[2] includes one fish sampled from fisherman's creel

[3] includes three fish captured by backpack electrofishing

Table C14. Length-weight relationships of fish captured in the Meliadine Study Area, 1997.

Species	Basin	*n*	log Weight = a + b log Fork Length			Condition Factor [1]	
			a	b	r^2	Mean	Std Dev
Arctic charr	A	*5*	-6.124	3.444	0.975	0.94	0.14
	B	*19*	-5.409	3.180	0.966	0.93	0.18
	D	*38*	-5.006	3.028	0.988	1.17	0.13
	ML	*295*	-4.998	2.969	0.989	0.86	0.07
	MR	*303*	-5.238	3.121	0.990	1.23	0.10
	Combined	*660*	-5.681	3.280	0.995	1.05	0.20
Lake trout	A	*14*	-5.256	3.143	0.989	1.14	0.21
	B	*11*	-4.835	2.917	0.996	0.99	0.11
	D	*7*	-5.856	3.385	0.991	1.00	0.41
	ML	*196*	-5.310	3.130	0.997	1.00	0.16
	MR	*13*	-5.557	3.225	0.960	1.12	0.11
	Combined	*247*	-5.260	3.113	0.996	1.01	0.17
Arctic grayling	A	*95*	-5.517	3.230	0.995	1.00	0.17
	B	*114*	-5.190	3.085	0.993	1.01	0.14
	D	*25*	-5.869	3.392	0.992	1.17	0.21
	F	*4*	-2.194	1.649	0.439	0.93	0.18
	ML	*67*	-5.175	3.097	0.997	1.16	0.09
	MR	*11*	-5.595	3.262	0.996	1.02	0.14
	Combined	*316*	-5.415	3.189	0.994	1.05	0.16
Round whitefish	ML	*62*	-5.428	3.161	0.996	0.85	0.13
	MR	*18*	-4.918	2.965	0.962	0.98	0.07
	Combined	*81*	-5.430	3.162	0.997	0.88	0.13
Cisco	A	*4*	-5.659	3.284	0.994	1.15	0.10
	B	*20*	-6.343	3.570	0.974	1.23	0.31
	D	*18*	-6.519	3.671	0.975	0.85	0.25
	ML	*256*	-5.585	3.247	0.993	0.86	0.12
	Combined	*298*	-5.702	3.303	0.993	0.89	0.18
Burbot	B	*8*	-3.257	2.173	0.971	0.69	0.25
	Combined	*10*	-4.746	2.795	0.940	0.65	0.24
Slimy sculpin	A	*3*	-6.406	3.736	0.925	1.18	0.29
	B	*9*	-5.048	2.996	0.869	0.90	0.18
	D	*14*	-4.829	2.924	0.797	1.09	0.24
	Combined	*29*	-5.597	3.309	0.825	1.01	0.25

[1] calculated according to Carlander (1969)

Table C15. Age-length and age-weight statistics for Arctic charr captured in the Meliadine Study Area, 1997.

Location	Parameter		Age (years) 1	2	3	4	5	6	7	8	9	Not Aged	Total
Basin A (Pump/Peg)	Fork Length (mm)	*n*				3	2						5
		Mean				**266**	**348**						**299**
		SD				54	32						61
		Min				204	325						204
		Max				304	370						370
	Weight (g)	*n*				3	2						5
		Mean				**209**	**391**						**282**
		SD				129	106						145
		Min				62	316						62
		Max				302	466						466
Basin B (Bud)	Fork Length (mm)	*n*	2									17	19
		Mean	**94**									**120**	**118**
		SD	13									42	40
		Min	84									85	84
		Max	103									200	200
	Weight (g)	*n*	2									17	19
		Mean	**8**									**24**	**22**
		SD	0									28	26
		Min	8									4	4
		Max	8									80	80
Basin D (Wolf)	Fork Length (mm)	*n*	1		3	5	11	8	8	2		8	46
		Mean	**92**		**197**	**266**	**343**	**414**	**487**	**512**		**353**	**366**
		SD	-		38	17	36	36	54	25		126	111
		Min	92		173	245	283	345	407	494		110	92
		Max	92		240	288	405	446	577	530		482	577
	Weight (g)	*n*	1		2	5	11	8	3	1		7	38
		Mean	**8**		**92**	**239**	**491**	**852**	**980**	**1294**		**557**	**572**
		SD	-		76	60	172	194	253	-		406	358
		Min	8		38	180	254	460	722	1294		20	8
		Max	8		146	338	836	1020	1228	1294		1128	1294
Meliadine Lake	Fork Length (mm)	*n*	1	12	18	14	7	1				245	298
		Mean	**85**	**147**	**183**	**238**	**287**	**480**				**200**	**201**
		SD	-	11	14	17	17	-				54	56
		Min	85	124	161	203	250	480				77	77
		Max	85	162	212	270	302	480				703	703
	Weight (g)	*n*	1	12	18	13	7	1				243	295
		Mean	**6**	**29**	**58**	**118**	**197**	**1008**				**74**	**79**
		SD	-	6	16	28	41	-				39	70
		Min	6	18	32	62	122	1008				4	4
		Max	6	40	88	164	252	1008				190	1008
Meliadine River	Fork Length (mm)	*n*	3			1	3	10	5	10	3	997	1032
		Mean	**76**			**292**	**456**	**479**	**538**	**573**	**624**	**451**	**452**
		SD	4			-	122	73	13	33	59	78	82
		Min	72			292	322	375	518	533	557	274	72
		Max	79			292	561	600	554	636	668	673	673
	Weight (g)	*n*	3			1	3	10	5	10	3	268	303
		Mean	**4**			**290**	**1360**	**1408**	**1838**	**2275**	**3015**	**1745**	**1740**
		SD	0			-	902	662	151	372	860	708	734
		Min	4			290	410	660	1675	1790	2040	225	4
		Max	4			290	2205	2630	2005	2880	3665	3840	3840
All Areas Combined	Fork Length (mm)	*n*	7	12	21	23	23	19	13	12	3	1267	1400
		Mean	**85**	**147**	**185**	**250**	**341**	**452**	**507**	**563**	**624**	**397**	**391**
		SD	10	11	18	28	69	65	49	39	59	128	132
		Min	72	124	161	203	250	345	407	494	557	77	72
		Max	103	162	240	304	561	600	577	636	668	703	703
	Weight (g)	*n*	7	12	20	22	23	19	8	11	3	535	660
		Mean	**6**	**29**	**61**	**166**	**506**	**1153**	**1516**	**2185**	**3015**	**916**	**870**
		SD	2	6	25	80	469	558	478	460	860	973	955
		Min	4	18	32	62	122	460	722	1294	2040	4	4
		Max	8	40	146	338	2205	2630	2005	2880	3665	3840	3840

Table C16. Age-length and age-weight statistics for lake trout captured in the Meliadine Study Area, 1997.

Location	Parameter		Age (years) 1	2	3	4	5	6	7	8	9	10	11	12	15	16	18	20	22	23	26	28	29	30	Not Aged	Total
Basin A	Fork	*n*	*6*	*5*			*1*	*1*	*2*																*1*	*16*
(Pump/Peg)	Length	**Mean**	**84**	**120**			**254**	**280**	**307**																**72**	**145**
	(mm)	SD	20	7			-	-	49																-	89
		Min	64	108			254	280	272																72	64
		Max	110	128			254	280	342																72	342
	Weight	*n*	*4*	*5*			*1*	*1*	*2*																*1*	*14*
	(g)	**Mean**	**9**	**20**			**222**	**254**	**385**																**4**	**99**
		SD	5	5			-	-	231																-	159
		Min	4	12			222	254	222																4	4
		Max	16	26			222	254	548																4	548
Basin B	Fork	*n*	*5*	*2*	*1*				*1*	*1*															*8*	*18*
(Bud)	Length	**Mean**	**75**	**123**	**155**				**320**	**360**															**86**	**119**
	(mm)	SD	12	11	-				-	-															6	84
		Min	61	115	155				320	360															79	61
		Max	94	130	155				320	360															97	360
	Weight	*n*	*3*	*2*	*1*				*1*	*1*															*3*	*11*
	(g)	**Mean**	**4**	**20**	**28**				**278**	**466**															**6**	**77**
		SD	0	6	-				-	-															0	152
		Min	4	16	28				278	466															6	4
		Max	4	24	28				278	466															6	466
Basin D	Fork	*n*	*2*	*2*				*1*																	*3*	*8*
(Wolf)	Length	**Mean**	**70**	**128**				**285**																	**236**	**174**
	(mm)	SD	6	14				-																	263	164
		Min	66	118				285																	81	66
		Max	74	138				285																	540	540
	Weight	*n*	*1*	*2*				*1*																	*3*	*7*
	(g)	**Mean**	**4**	**14**				**294**																	**947**	**452**
		SD	-	3				-																	1631	1054
		Min	4	12				294																	4	4
		Max	4	16				294																	2830	2830
Meliadine	Fork	*n*	*15*	*10*	*11*	*5*	*4*	*2*	*4*	*7*	*5*	*3*	*2*	*2*	*1*	*1*	*1*	*1*	*1*	*2*	*1*	*1*	*1*	*1*	*124*	*205*
Lake	Length	**Mean**	**87**	**127**	**150**	**176**	**216**	**273**	**305**	**319**	**347**	**443**	**455**	**441**	**583**	**585**	**650**	**647**	**694**	**739**	**684**	**763**	**965**	**780**	**298**	**291**
	(mm)	SD	6	7	7	7	17	59	16	29	17	26	109	74	-	-	-	-	-	55	-	-	-	-	219	215
		Min	75	118	139	164	193	231	282	274	332	423	378	388	583	585	650	647	694	700	684	763	965	780	75	75
		Max	100	139	166	182	231	314	315	355	369	473	532	493	583	585	650	647	694	778	684	763	965	780	845	965
	Weight	*n*	*15*	*10*	*11*	*5*	*4*	*2*	*4*	*7*	*5*	*3*	*2*	*2*	*1*	*1*	*1*	*1*	*1*	*1*		*1*			*119*	*196*
	(g)	**Mean**	**6**	**19**	**31**	**52**	**92**	**223**	**300**	**350**	**414**	**930**	**1238**	**997**	**1816**	**2250**	**2724**	**3100**	**3500**	**5200**		**4086**			**855**	**709**
		SD	1	3	7	5	18	137	49	95	55	203	1063	505	-	-	-	-	-	-		-			1345	1229
		Min	4	16	20	44	74	126	232	214	350	810	486	640	1816	2250	2724	3100	3500	5200		4086			4	4
		Max	8	24	44	56	114	320	348	506	466	1165	1990	1354	1816	2250	2724	3100	3500	5200		4086			7800	7800
All Areas	Fork	*n*	*29*	*21*	*12*	*5*	*5*	*4*	*7*	*8*	*5*	*3*	*2*	*2*	*1*	*1*	*1*	*1*	*1*	*2*	*1*	*1*	*1*	*1*	*161*	*275*
Combined*	Length	**Mean**	**83**	**126**	**151**	**176**	**223**	**278**	**308**	**325**	**347**	**443**	**455**	**441**	**583**	**585**	**650**	**647**	**694**	**739**	**684**	**763**	**965**	**780**	**284**	**266**
	(mm)	SD	12	9	7	7	23	34	24	31	17	26	109	74	-	-	-	-	-	55	-	-	-	-	218	208
		Min	61	108	139	164	193	231	272	274	332	423	378	388	583	585	650	647	694	700	684	763	965	780	43	43
		Max	110	146	166	182	254	314	342	360	369	473	532	493	583	585	650	647	694	778	684	763	965	780	845	965
	Weight	*n*	*23*	*21*	*12*	*5*	*5*	*4*	*7*	*8*	*5*	*3*	*2*	*2*	*1*	*1*	*1*	*1*	*1*	*1*		*1*			*143*	*247*
	(g)	**Mean**	**6**	**20**	**31**	**52**	**118**	**249**	**321**	**364**	**414**	**930**	**1238**	**997**	**1816**	**2250**	**2724**	**3100**	**3500**	**5200**		**4086**			**859**	**659**
		SD	3	6	7	5	60	86	110	97	55	203	1063	505	-	-	-	-	-	-		-			1283	1150
		Min	4	12	20	44	74	126	222	214	350	810	486	640	1816	2250	2724	3100	3500	5200		4086			4	4
		Max	16	38	44	56	222	320	548	506	466	1165	1990	1354	1816	2250	2724	3100	3500	5200		4086			7800	7800

* includes fish from Basin F (n=4), Basin G (n=4), and the Meliadine River (n=20)

Table C17. Age-length and age-weight statistics for Arctic grayling captured in the Meliadine Study Area, 1997.

Location	Parameter		Age (years) 0	1	2	3	4	5	6	7	8	9	10	Not Aged	Total
Basin A (Pump/Peg)	Fork Length (mm)	*n*		22	24	20	11	1	3	3	3	2	6		101
		Mean		**77**	**121**	**154**	**200**	**297**	**308**	**317**	**348**	**391**	**376**		**180**
		SD		10	11	12	16	-	9	7	20	33	16		102
		Min		55	107	129	181	297	299	311	321	367	354		55
		Max		93	146	173	234	297	316	324	379	414	394		414
	Weight (g)	*n*		16	24	20	11	1	3	3	3	2	6		95
		Mean		**5**	**17**	**37**	**82**	**278**	**361**	**363**	**511**	**675**	**631**		**150**
		SD		2	6	11	22	-	8	54	75	151	106		221
		Min		2	12	22	60	278	352	308	424	568	456		2
		Max		8	30	66	128	278	366	416	626	782	758		782
Basin B (Bud)	Fork Length (mm)	*n*	48	26	33	9	23	2	8	11	8	2	1	13	184
		Mean	**29**	**91**	**124**	**155**	**209**	**279**	**320**	**335**	**378**	**388**	**339**	**122**	**144**
		SD	5	13	26	22	24	28	15	29	20	66	-	65	110
		Min	23	57	92	120	170	259	300	297	331	341	339	90	23
		Max	53	115	210	197	277	298	340	383	394	435	339	335	435
	Weight (g)	*n*		21	32	9	22	2	7	10	7	2	1	1	114
		Mean		**9**	**21**	**36**	**92**	**248**	**356**	**418**	**569**	**570**	**386**	**410**	**143**
		SD		3	17	17	33	99	38	109	103	257	-	-	192
		Min		4	8	14	48	178	310	302	350	388	386	410	4
		Max		16	92	70	188	318	434	582	658	752	386	410	752
Basin D (Wolf)	Fork Length (mm)	*n*	4	3	2	7	10		2	1					29
		Mean	**39**	**84**	**177**	**252**	**296**		**298**	**353**					**222**
		SD	6	14	4	22	26		33	-					103
		Min	32	73	174	227	244		274	353					32
		Max	46	100	180	278	328		321	353					353
	Weight (g)	*n*		3	2	7	10		2	1					25
		Mean		**4**	**63**	**204**	**344**		**281**	**470**					**242**
		SD		2	7	59	95		92	-					146
		Min		3	58	130	158		216	470					3
		Max		6	68	266	432		346	470					470
Basin F	Fork Length (mm)	*n*			3	1									4
		Mean			**123**	**138**									**127**
		SD			9	-									10
		Min			115	138									115
		Max			132	138									138
	Weight (g)	*n*			3	1									4
		Mean			**19**	**20**									**19**
		SD			4	-									3
		Min			14	20									14
		Max			22	20									22
Meliadine Lake	Fork Length (mm)	*n*		4	4	5	7	1	13	8	16	4	3	2	67
		Mean		**97**	**139**	**183**	**234**	**275**	**308**	**333**	**355**	**372**	**387**	**369**	**291**
		SD		13	4	22	21	-	30	15	24	23	21	11	87
		Min		81	135	167	200	275	266	317	314	342	362	361	81
		Max		112	144	220	260	275	353	360	394	398	400	377	400
	Weight (g)	*n*		4	4	5	7	1	13	8	16	4	3	2	67
		Mean		**10**	**28**	**71**	**156**	**292**	**355**	**457**	**517**	**599**	**669**	**566**	**358**
		SD		3	2	30	41	-	105	65	82	92	119	17	215
		Min		6	26	52	90	292	218	390	376	510	532	554	6
		Max		14	30	122	204	292	554	578	656	728	744	578	744
Meliadine River	Fork Length (mm)	*n*		5		1	4	4	3	1				4	22
		Mean		**111**		**192**	**247**	**302**	**328**	**308**				**259**	**239**
		SD		27		-	28	9	42	-				6	81
		Min		67		192	206	290	281	308				254	67
		Max		135		192	267	311	363	308				267	363
	Weight (g)	*n*		4		1	2	2	1	1					11
		Mean		**16**		**80**	**153**	**323**	**220**	**315**					**148**
		SD		5		-	81	60	-	-					134
		Min		10		80	96	280	220	315					10
		Max		20		80	210	365	220	315					365
All Areas Combined	Fork Length (mm)	*n*	52	60	66	43	55	8	29	24	33	8	10	19	407
		Mean	**29**	**88**	**125**	**174**	**229**	**292**	**313**	**332**	**359**	**381**	**376**	**177**	**188**
		SD	6	16	22	40	41	17	26	23	24	33	21	103	115
		Min	23	55	92	120	170	259	266	297	314	341	339	90	23
		Max	53	135	210	278	328	311	363	383	394	435	400	377	435
	Weight (g)	*n*		48	65	43	52	6	26	23	32	8	10	3	316
		Mean		**8**	**21**	**68**	**149**	**285**	**345**	**422**	**527**	**611**	**618**	**514**	**197**
		SD		4	15	67	111	62	84	90	85	135	128	91	218
		Min		2	8	14	48	178	216	302	350	388	386	410	2
		Max		20	92	266	432	365	554	582	658	782	758	578	782

Table C18. Age-length and age-weight statistics for round whitefish captured in the Meliadine Study Area, 1997.

Location	Parameter		Age (years) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Not Aged	Total
Basin A (Pump/Peg)	Fork Length (mm)	*n*			*1*																	*1*
		Mean			**213**																	**213**
		SD			-																	-
		Min			213																	213
		Max			213																	213
	Weight (g)	*n*			*1*																	*1*
		Mean			**92**																	**92**
		SD			-																	-
		Min			92																	92
		Max			92																	92
Meliadine Lake	Fork Length (mm)	*n*	*34*	*11*	*2*	*2*	*2*	*1*		*3*		*1*	*1*		*2*	*1*	*1*			*1*	*1*	*63*
		Mean	**96**	**151**	**188**	**263**	**318**	**333**		**378**		**435**	**439**		**443**	**445**	**443**			**478**	**142**	**178**
		SD	7	10	17	2	34	-		18		-	-		32	-	-			-	-	124
		Min	81	135	176	261	294	333		368		435	439		420	445	443			478	142	81
		Max	113	165	200	264	342	333		399		435	439		465	445	443			478	142	478
	Weight (g)	*n*	*33*	*11*	*2*	*2*	*2*	*1*		*3*		*1*	*1*		*2*	*1*	*1*			*1*	*1*	*62*
		Mean	**7**	**27**	**54**	**174**	**356**	**404**		**587**		**628**	**920**		**938**	**940**	**622**			**1114**	**24**	**161**
		SD	2	6	16	17	139	-		98		-	-		187	-	-			-	-	300
		Min	4	18	42	162	258	404		530		628	920		806	940	622			1114	24	4
		Max	10	38	65	186	454	404		700		628	920		1070	940	622			1114	24	1114
Meliadine River	Fork Length (mm)	*n*				*1*	*6*	*1*		*1*	*1*	*3*	*6*	*7*	*3*	*1*	*1*				*7*	*38*
		Mean				**283**	**332**	**347**		**357**	**385**	**402**	**420**	**427**	**429**	**444**	**459**				**381**	**393**
		SD				-	15	-		-	-	17	15	16	17	-	-				64	50
		Min				283	311	347		357	385	389	402	407	418	444	459				263	263
		Max				283	347	347		357	385	422	437	451	448	444	459				435	459
	Weight (g)	*n*					*4*	*1*		*1*	*1*	*3*	*3*	*3*	*1*	*1*						*18*
		Mean					**338**	**445**		**445**	**555**	**637**	**720**	**733**	**720**	**965**						**597**
		SD					47	-		-	-	61	92	55	-	-						190
		Min					290	445		445	555	570	640	670	720	965						290
		Max					395	445		445	555	690	820	770	720	965						965
All Areas Combined	Fork Length (mm)	*n*	*34*	*11*	*3*	*3*	*8*	*2*		*4*	*1*	*4*	*7*	*7*	*5*	*2*	*2*			*1*	*8*	*102*
		Mean	**96**	**151**	**196**	**269**	**329**	**340**		**373**	**385**	**411**	**423**	**427**	**434**	**445**	**451**			**478**	**351**	**258**
		SD	7	10	19	12	19	10		18	-	22	16	16	21	1	11			-	103	146
		Min	81	135	176	261	294	333		357	385	389	402	407	418	444	443			478	142	81
		Max	113	165	213	283	347	347		399	385	435	439	451	465	445	459			478	435	478
	Weight (g)	*n*	*33*	*11*	*3*	*2*	*6*	*2*		*4*	*1*	*4*	*4*	*3*	*3*	*2*	*1*			*1*	*1*	*81*
		Mean	**7**	**27**	**66**	**174**	**344**	**425**		**552**	**555**	**635**	**770**	**733**	**865**	**953**	**622**			**1114**	**24**	**257**
		SD	2	6	25	17	73	29		107	-	50	125	55	182	18	-			-	-	332
		Min	4	18	42	162	258	404		445	555	570	640	670	720	940	622			1114	24	4
		Max	10	38	92	186	454	445		700	555	690	920	770	1070	965	622			1114	24	1114

Table C19. Age-length and age-weight statistics for cisco captured in the Meliadine Study Area, 1997.

Location	Parameter		Age (years) 1	2	3	4	5	6	7	8	9	Not Aged	Total
Basin A (Pump/Peg)	Fork Length (mm)	*n*				*1*		*2*	*1*				*4*
		Mean				**240**		**362**	**417**				**345**
		SD				-		8	-				75
		Min				240		356	417				240
		Max				240		367	417				417
	Weight (g)	*n*				*1*		*2*	*1*				*4*
		Mean				**144**		**546**	**900**				**534**
		SD				-		17	-				309
		Min				144		534	900				144
		Max				144		558	900				900
Basin B (Bud)	Fork Length (mm)	*n*	*1*	*3*		*3*	*1*	*5*	*4*	*4*	*3*		*24*
		Mean	**77**	**140**		**290**	**352**	**360**	**323**	**356**	**352**		**304**
		SD	-	30		6	-	22	21	23	17		88
		Min	77	110		285	352	327	295	325	333		77
		Max	77	170		296	352	376	342	378	367		378
	Weight (g)	*n*		*2*		*2*	*1*	*4*	*4*	*4*	*3*		*20*
		Mean		**14**		**302**	**494**	**716**	**346**	**637**	**529**		**475**
		SD		6		17	-	210	79	80	97		239
		Min		10		290	494	440	228	524	422		10
		Max		18		314	494	924	386	706	612		924
Basin D (Wolf)	Fork Length (mm)	*n*	*14*		*1*	*3*							*18*
		Mean	**120**		**215**	**237**							**145**
		SD	7		-	41							50
		Min	109		215	191							109
		Max	132		215	270							270
	Weight (g)	*n*	*14*		*1*	*3*							*18*
		Mean	**13**		**92**	**188**							**47**
		SD	4		-	120							79
		Min	8		92	72							8
		Max	24		92	312							312
Meliadine Lake	Fork Length (mm)	*n*	*70*	*30*	*14*	*1*	*1*	*1*	*10*	*13*		*739*	*879*
		Mean	**106**	**149**	**189**	**194**	**242**	**322**	**318**	**322**		**104**	**113**
		SD	11	8	13	-	-	-	7	11		7	38
		Min	82	134	177	194	242	322	304	304		79	79
		Max	132	166	214	194	242	322	325	332		151	332
	Weight (g)	*n*	*70*	*30*	*14*	*1*	*1*	*1*	*10*	*13*		*116*	*256*
		Mean	**10**	**29**	**68**	**64**	**138**	**386**	**354**	**365**		**9**	**49**
		SD	3	4	16	-	-	-	26	42		3	103
		Min	4	22	54	64	138	386	302	286		4	4
		Max	20	40	106	64	138	386	384	432		32	432
All Areas Combined	Fork Length (mm)	*n*	*85*	*33*	*15*	*8*	*2*	*8*	*15*	*17*	*3*	*739*	*925*
		Mean	**108**	**148**	**191**	**252**	**297**	**356**	**326**	**330**	**352**	**104**	**120**
		SD	12	11	14	41	78	22	28	20	17	7	53
		Min	77	110	177	191	242	322	295	304	333	79	77
		Max	132	170	215	296	352	376	417	378	367	151	417
	Weight (g)	*n*	*84*	*32*	*15*	*7*	*2*	*7*	*15*	*17*	*3*	*116*	*298*
		Mean	**11**	**28**	**70**	**197**	**316**	**620**	**388**	**429**	**529**	**9**	**84**
		SD	4	6	16	110	252	198	148	129	97	3	168
		Min	4	10	54	64	138	386	228	286	422	4	4
		Max	24	40	106	314	494	924	900	706	612	32	924

Table C20. Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
359	ARCH	703		10	FR						CR		16 6 97	ML-E	at Camp	1	
570	ARCH	204	62		FR, Sc	4				L Pel	EF		19 6 97	A	1 - 2	0	skinny; recaptured in FN in ML
1002	ARCH	226	94		FR, Sc	4				RPel	FN		12 7 97	ML-E	1 WB	0	
1003	ARCH	236	114		FR, Sc	4				RPel	FN		12 7 97	ML-E	1 WB	0	
1004	ARCH	190	64		FR, Sc	3				RPel	FN		12 7 97	ML-E	1 WB	0	
1005	ARCH	186	62		FR, Sc	3				RPel	FN		12 7 97	ML-E	1 WB	0	
1006	ARCH	187	66		FR, Sc	3				RPel	FN		12 7 97	ML-E	1 WB	0	
1007	ARCH	181	64		FR, Sc	3				RPel	FN		12 7 97	ML-E	1 WB	0	
1008	ARCH	175	46		FR, Sc	3				RPel	FN		12 7 97	ML-E	1 WB	0	
1009	ARCH	197	74		FR, Sc	3				RPel	FN		12 7 97	ML-E	1 WB	0	
1010	ARCH	187	62		FR, Sc					RPel	FN		12 7 97	ML-E	1 WB	0	
1011	ARCH	295	212		FR, Sc	5	6377			RPel	FN		12 7 97	ML-E	1 WB	0	
1012	ARCH	166	46		FR, Sc					RPel	FN		12 7 97	ML-E	1 WB	0	
1013	ARCH	228	102		FR, Sc	4				RPel	FN		12 7 97	ML-E	1 WB	0	
1014	ARCH	218	84		FR, Sc					RPel	FN		12 7 97	ML-E	1 WB	0	
1015	ARCH	241	110		FR, Sc	4				RPel	FN		12 7 97	ML-E	1 WB	0	
1016	ARCH	251	132		FR, Sc	4	6378			RPel	FN		12 7 97	ML-E	1 WB	0	
1017	ARCH	215	78		FR, Sc					RPel	FN		12 7 97	ML-E	1 WB	0	
1018	ARCH	236	122		FR, Sc	4				RPel	FN		12 7 97	ML-E	1 WB	0	
1019	ARCH	212	88		FR, Sc	3				RPel	FN		12 7 97	ML-E	1 WB	0	
1020	ARCH	161	32		FR, Sc	3				RPel	FN		12 7 97	ML-E	1 WB	0	
1021	ARCH	196	58		FR, Sc					RPel	FN		12 7 97	ML-E	1 WB	0	
1022	ARCH	174	44		FR, Sc					RPel	FN		12 7 97	ML-E	1 WB	0	
1023	ARCH	195	72		FR, Sc					RPel	FN		12 7 97	ML-E	1 WB	0	
1024	ARCH	191	60		FR, Sc	3				RPel	FN		12 7 97	ML-E	1 WB	0	
1025	ARCH	183	52		FR, Sc					RPel	FN		12 7 97	ML-E	1 WB	0	
1026	ARCH	181	56		FR, Sc					RPel	FN		12 7 97	ML-E	1 WB	0	
1027	ARCH	200	62		FR, Sc					RPel	FN		12 7 97	ML-E	1 WB	0	
1028	ARCH	201	86		FR, Sc	3				RPel	FN		12 7 97	ML-E	1 WB	0	
1029	ARCH	173	44	11	Ot, Sc	3					FN		12 7 97	ML-E	1 WB	1	St=0 preserved
1030	ARCH	179	46		Ot, Sc	3					FN		12 7 97	ML-E	1 WB	1	preserved
1031	ARCH	175	52		Ot, Sc	3					FN		12 7 97	ML-E	1 WB	1	preserved
1032	ARCH	203	62		Ot, Sc	4					FN		12 7 97	ML-E	1 WB	1	preserved
1033	ARCH	174	44		Ot, Sc	3					FN		12 7 97	ML-E	1 WB	1	preserved
1052	ARCH	212	72		FR, Sc					RPel	FN		12 7 97	ML-E	1 EB	0	
1053	ARCH	198	64		FR, Sc					RPel	FN		12 7 97	ML-E	1 EB	0	
1054	ARCH	221	98		FR, Sc	4				RPel	FN		12 7 97	ML-E	1 EB	0	
1055	ARCH	195	66		FR, Sc					RPel	FN		12 7 97	ML-E	1 EB	0	
1056	ARCH	160	40		FR, Sc					RPel	FN		12 7 97	ML-E	1 EB	0	
1082	ARCH	480	1008		FR, Sc	6	6380			RPel	FN		13 7 97	ML-E	2 WB	0	
1084	ARCH	250	122		FR, Sc	5				RPel	FN		13 7 97	ML-E	2 WB	0	
1085	ARCH	195	64		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1086	ARCH	175	44		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1087	ARCH	177			FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1088	ARCH	193	64		FR, Sc	3				RPel	FN		13 7 97	ML-E	2 WB	0	
1089	ARCH	233			FR, Sc	4				RPel	FN		13 7 97	ML-E	2 WB	0	
1090	ARCH	237	114		FR, Sc	4				RPel	FN		13 7 97	ML-E	2 WB	0	
1091	ARCH	258	150		FR, Sc	4	6381			RPel	FN		13 7 97	ML-E	2 WB	0	
1092	ARCH	285	190		FR, Sc	5	6382			RPel	FN		13 7 97	ML-E	2 WB	0	
1093	ARCH	181	40		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1094	ARCH	180	56		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1095	ARCH	171	46		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1096	ARCH	162	34		FR, Sc	2				RPel	FN		13 7 97	ML-E	2 WB	0	
1097	ARCH	201	56		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1098	ARCH	176	48		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1099	ARCH	180	42		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1100	ARCH	205	76		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1101	ARCH	202	62		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1102	ARCH	178	54		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1103	ARCH	145	26		FR, Sc	2				RPel	FN		13 7 97	ML-E	2 WB	0	
1104	ARCH	183	60		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1105	ARCH	270	188		FR, Sc		6391			RPel	FN		13 7 97	ML-E	2 WB	0	
1106	ARCH	173	44		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1107	ARCH	148	28		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1108	ARCH	168	46		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1111	ARCH	191	58		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1112	ARCH	191	60		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1113	ARCH	204	60		Sc					LPel	FN		13 7 97	ML-E	2 WB	2	recap (clipped 19 Jun in A1-2)
1115	ARCH	208	76		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1249	ARCH	215	92		FR, Sc					RPel	FN		13 7 97	ML-E	2 EB	0	
1258	ARCH	219	86							RPel	FN		13 7 97	ML-E	2 EB	2	recap from 12 Jul 97
1259	ARCH	185	48							RPel	FN		13 7 97	ML-E	2 EB	2	recap from 12 Jul 97
1260	ARCH	262	144		FR, Sc		6390			RPel	FN		13 7 97	ML-E	2 EB	0	
1290	ARCH	302	252		FR, Sc	5	6395			RPel	FN		13 7 97	ML-E	3 WB	0	
1293	ARCH	239	110		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1294	ARCH	285	172		FR, Sc	5	6396			RPel	FN		13 7 97	ML-E	3 WB	0	skinny
1295	ARCH	228	108		Sc					RPel	FN		13 7 97	ML-E	3 WB	2	recap
1296	ARCH	220	90		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	cut ant to dorsal
1297	ARCH	238	106		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1298	ARCH	186	58		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1299	ARCH	180	52		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1300	ARCH	228	92		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1301	ARCH	186	52		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1302	ARCH	215	82		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1303	ARCH	244	110		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1304	ARCH	180	48		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1305	ARCH	213	82		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1306	ARCH	185	54		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1307	ARCH	226	92		FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
1308	ARCH	251	132		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1309	ARCH	270	164		FR, Sc	4	6397			RPel	FN		13	7	97	ML-E	3	WB	0	
1310	ARCH	190	60		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1311	ARCH	209	80		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1312	ARCH	196	64		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1313	ARCH	186	52		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1314	ARCH	197	58		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1315	ARCH	209	66		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1316	ARCH	208	70		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1317	ARCH	188	56		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1318	ARCH	184	44		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1319	ARCH	238	120		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1320	ARCH	212	76		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1321	ARCH	202	68		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1322	ARCH	197	68		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1323	ARCH	232	102		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1324	ARCH	213	80		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1325	ARCH	257	146		FR, Sc		6398			RPel	FN		13	7	97	ML-E	3	WB	0	
1326	ARCH	214	82		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1327	ARCH	219	80		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1328	ARCH	186	54		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1329	ARCH	175	44		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1330	ARCH	175	46		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1331	ARCH	208	70		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1332	ARCH	192	70							RPel	FN		13	7	97	ML-E	3	WB	2	recap
1333	ARCH	187	54		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1334	ARCH	188	54		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1335	ARCH	179	54		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1336	ARCH	167	38		FR, Sc	3				RPel	FN		13	7	97	ML-E	3	WB	0	
1337	ARCH	179	40		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1338	ARCH	167	46		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1339	ARCH	195	62		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1340	ARCH	170	40		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1341	ARCH	193	60		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1342	ARCH	217	92		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1343	ARCH	231	108		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1344	ARCH	184	52		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1345	ARCH	190	62							RPel	FN		13	7	97	ML-E	3	WB	2	recap
1346	ARCH	205	66		FR, Sc					RPel	FN		13	7	97	ML-E	3	WB	0	
1361	ARCH	256	148		FR, Sc		6400			RPel	FN		13	7	97	ML-E	3	EB	0	
1383	ARCH	249	136		FR, Sc					RPel	FN		14	7	97	ML-E	4	WB	0	
1384	ARCH	238	106		FR, Sc					RPel	FN		14	7	97	ML-E	4	WB	0	
1396	ARCH	277	162		FR, Sc		6806			RPel	FN		14	7	97	ML-E	4	EB	0	
1414	ARCH	160	40		FR, Sc	2				RPel	FN		14	7	97	ML-E	5	WB	0	
1415	ARCH	184	56							RPel	FN		14	7	97	ML-E	5	WB	2	recap
1416	ARCH	184	50							RPel	FN		14	7	97	ML-E	5	WB	2	recap
1450	ARCH	204	74		FR, Sc					RPel	FN		15	7	97	ML-E	6	WB	0	
1451	ARCH	216	82		FR, Sc					RPel	FN		15	7	97	ML-E	6	WB	0	
1452	ARCH	148	30		FR, Sc	2				RPel	FN		15	7	97	ML-E	6	WB	0	
1476	ARCH	96	8		FR, Sc					RPel	FN		15	7	97	ML-E	6	EB	0	
1621	ARCH	190	64		FR, Sc	3				RPel	FN		17	7	97	ML-E	10	WB	0	
1635	ARCH	177	56		FR, Sc					RPel	FN		17	7	97	ML-E	10	EB	0	
1644	ARCH	268	160		FR, Sc		6837			RPel	FN		17	7	97	ML-E	10	EB	0	
1657	ARCH	215	94		FR, Sc					RPel	FN		17	7	97	ML-E	10	EB	0	
1658	ARCH	253	160		FR, Sc		6838			RPel	FN		17	7	97	ML-E	10	EB	0	
1665	ARCH	272	176		FR, Sc		6840			RPel	FN		17	7	97	ML-E	10	EB	0	
1674	ARCH	182	52		FR, Sc					RPel	FN		17	7	97	ML-E	10	EB	0	
1773	ARCH	246	124		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1774	ARCH	263	160		FR, Sc		6134			RPel	FN		17	7	97	ML-E	11	WB	0	
1775	ARCH	246	124		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1776	ARCH	222	94		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1777	ARCH	231	100		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1778	ARCH	238	114		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1779	ARCH	185	54		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1780	ARCH	173	52		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1781	ARCH	182	56		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1782	ARCH	260	156		FR, Sc	4				RPel	FN		17	7	97	ML-E	11	WB	0	
1783	ARCH	189	52		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1784	ARCH	191	66		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1785	ARCH	257	144		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1786	ARCH	229	108		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1787	ARCH	294	210		FR, Sc	5	6135			RPel	FN		17	7	97	ML-E	11	WB	0	
1788	ARCH	194	64		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1789	ARCH	246	130		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1790	ARCH	228	98		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1791	ARCH	220	104		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1792	ARCH	230	102		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1793	ARCH	270	144		FR, Sc		6136			RPel	FN		17	7	97	ML-E	11	WB	0	
1794	ARCH	238	126		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1795	ARCH	260	160		FR, Sc		6137			RPel	FN		17	7	97	ML-E	11	WB	0	
1796	ARCH	214	88		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1797	ARCH	241	124		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1798	ARCH	201	76		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1799	ARCH	193	52		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1800	ARCH	182	52		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1801	ARCH	230	96		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1802	ARCH	232	114		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1803	ARCH	240	128		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	
1804	ARCH	222	94		FR, Sc					RPel	FN		17	7	97	ML-E	11	WB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
1805	ARCH	207	76		FR, Sc					RPel	FN		17 7 97	ML-E	11 WB	0	
1806	ARCH	188	60		FR, Sc					RPel	FN		17 7 97	ML-E	11 WB	0	
1807	ARCH	198	60		FR, Sc					RPel	FN		17 7 97	ML-E	11 WB	0	
1808	ARCH	244	124		FR, Sc					RPel	FN		17 7 97	ML-E	11 WB	0	
1809	ARCH	207	76		FR, Sc					RPel	FN		17 7 97	ML-E	11 WB	0	
1810	ARCH	212	90		FR, Sc					RPel	FN		17 7 97	ML-E	11 WB	0	
1811	ARCH	284	190		FR, Sc		6138			RPel	FN		17 7 97	ML-E	11 WB	0	
1812	ARCH	259	154		FR, Sc		6139			RPel	FN		17 7 97	ML-E	11 WB	0	
1813	ARCH	192	64		FR, Sc					RPel	FN		17 7 97	ML-E	11 WB	0	
1814	ARCH	233	118		FR, Sc	4				RPel	FN		17 7 97	ML-E	11 WB	0	
1815	ARCH	172	54		FR, Sc					RPel	FN		17 7 97	ML-E	11 WB	0	
1857	ARCH	248	126							RPel	FN		18 7 97	ML-E	12 EB	2	recap
1858	ARCH	232	102							RPel	FN		18 7 97	ML-E	12 EB	2	recap
2116	ARCH	200	80		Sc					LPel	EF		19 7 97	B	0 - 1	0	
2163	ARCH	175	50		FR, Sc					RPel	EF		20 7 97	B	3 - 4	0	
2166	ARCH	79	4		Sc	1					EF		20 7 97	MR-U	ML - MR	0	
2167	ARCH	78	4		Sc	1					EF		20 7 97	MR-U	ML - MR	1	preserved
2169	ARCH	72	4		Sc	1					EF		20 7 97	MR-U	ML - MR	0	
2270	ARCH	316	378		FR, Sc	5	7076			RPel	GN	2.5	26 7 97	D1	1	0	
2271	ARCH	383	694		FR, Sc	6	7078			RPel	GN	2.5	26 7 97	D1	1	0	
2272	ARCH	437	1010		FR, Sc	6	7077			RPel	GN	2.5	26 7 97	D1	1	0	
2273	ARCH	283	254	11	Ot, Sc	5					GN	2.5	26 7 97	D1	1	1	St=10 (7 NNST, 3 snails)
2274	ARCH	345	460		FR, Sc	6	7079			RPel	GN	2.5	26 7 97	D1	1	0	
2278	ARCH	173			FR, Sc	3				RPel	GN	1.5	26 7 97	D1	1	0	
3062	ARCH	257	178		FR, Sc		6142			RPel	FN		18 7 97	ML-E	12 WB	0	
3111	ARCH	228	118		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3112	ARCH	215	84		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3113	ARCH	201	70		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3114	ARCH	269	178		FR, Sc		6145			RPel	FN		18 7 97	ML-E	13 WB	0	
3115	ARCH	220	88		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3116	ARCH	176	52		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3117	ARCH	177	54		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3118	ARCH	198	66		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3119	ARCH	219	90		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3120	ARCH	168	44		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3121	ARCH	206	68		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3122	ARCH	210	82		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3123	ARCH	228	96		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3124	ARCH	235	120		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3125	ARCH	193	60		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3126	ARCH	208	86		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3127	ARCH	225	90		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3128	ARCH	237	106		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3129	ARCH	206	82		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3130	ARCH	178	52		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3131	ARCH	206	68		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3132	ARCH	183	50		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3133	ARCH	202	72		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3134	ARCH	199	70		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3135	ARCH	256	132		FR, Sc		6146			RPel	FN		18 7 97	ML-E	13 WB	0	
3136	ARCH	207	76		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3137	ARCH	195	64		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3138	ARCH	198	60		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3139	ARCH	200	70		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3140	ARCH	177	52		FR, Sc					RPel	FN		18 7 97	ML-E	13 WB	0	
3141	ARCH	163	42		FR, Sc	3				RPel	FN		18 7 97	ML-E	13 WB	0	
3144	ARCH	224	102							RPel	FN		18 7 97	ML-E	13 EB	2	recap
3145	ARCH	230	106							RPel	FN		18 7 97	ML-E	13 EB	2	recap
3146	ARCH	248	134		FR, Sc					RPel	FN		18 7 97	ML-E	13 EB	0	
3147	ARCH	230	96							RPel	FN		18 7 97	ML-E	13 EB	2	recap
3148	ARCH	192	52							RPel	FN		18 7 97	ML-E	13 EB	2	recap
3232	ARCH	234	112		FR, Sc					RPel	FN		19 7 97	ML-E	14 WB	0	
3233	ARCH	200	60		FR, Sc					RPel	FN		19 7 97	ML-E	14 WB	0	
3234	ARCH	145	28		FR, Sc	2				RPel	FN		19 7 97	ML-E	14 WB	0	
3246	ARCH	89	6		Sc						FN		19 7 97	ML-E	14 WB	1	preserved
3310	ARCH	156	38		FR, Sc	2				RPel	FN		19 7 97	ML-E	15 EB	0	
3312	ARCH	89	6		FR, Sc					RPel	FN		19 7 97	ML-E	15 EB	0	
3695	ARCH	230	105		FR, Sc					RPel	FN		19 7 97	ML-E	15 WB	0	
3696	ARCH	92	6		FR, Sc					RPel	FN		19 7 97	ML-E	15 WB	0	
3721	ARCH	203	76		FR, Sc					RPel	FN		20 7 97	ML-E	16 WB	0	
3722	ARCH	160	36		FR, Sc					RPel	FN		20 7 97	ML-E	16 WB	0	
3723	ARCH	150	28		FR, Sc					RPel	FN		20 7 97	ML-E	16 WB	0	
3724	ARCH	182	52		FR, Sc					RPel	FN		20 7 97	ML-E	16 WB	0	
3725	ARCH	208	74							RPel	FN		20 7 97	ML-E	16 WB	2	recap
3726	ARCH	176	40		FR, Sc					RPel	FN		20 7 97	ML-E	16 WB	0	
3727	ARCH	201	66		FR, Sc					RPel	FN		20 7 97	ML-E	16 WB	0	
3728	ARCH	234	102		FR, Sc					RPel	FN		20 7 97	ML-E	16 WB	0	
3729	ARCH	190	58		FR, Sc					RPel	FN		20 7 97	ML-E	16 WB	0	
3737	ARCH	87	6		Sc						FN		20 7 97	ML-E	16 WB	0	
3761	ARCH	183	50		FR, Sc					RPel	FN		21 7 97	ML-E	17 WB	0	
3762	ARCH	225	100		FR, Sc					RPel	FN		21 7 97	ML-E	17 WB	0	
3763	ARCH	157	36		FR, Sc					RPel	FN		21 7 97	ML-E	17 WB	0	
3767	ARCH	202	70		FR, Sc					RPel	FN		21 7 97	ML-E	17 WB	0	
3768	ARCH	219	92		FR, Sc					RPel	FN		21 7 97	ML-E	17 WB	0	
3769	ARCH	210	76		FR, Sc					RPel	FN		21 7 97	ML-E	17 WB	0	
3770	ARCH	241	102		FR, Sc					RPel	FN		21 7 97	ML-E	17 WB	0	
3771	ARCH	246	114		FR, Sc					RPel	FN		21 7 97	ML-E	17 WB	0	
3772	ARCH	217	86		FR, Sc					RPel	FN		21 7 97	ML-E	17 WB	0	
3773	ARCH	236	98		FR, Sc					RPel	FN		21 7 97	ML-E	17 WB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
3774	ARCH	157	34		FR, Sc	2				RPel	FN		21	7	97	ML-E	17	WB	0	
3775	ARCH	187	60		FR, Sc					RPel	FN		21	7	97	ML-E	17	WB	0	
3776	ARCH	199	62							RPel	FN		21	7	97	ML-E	17	WB	2	recap
3779	ARCH	144	28		FR, Sc	2				RPel	FN		21	7	97	ML-E	17	WB	0	
3780	ARCH	161	34		FR, Sc					RPel	FN		21	7	97	ML-E	17	WB	0	
3793	ARCH	100	8		FR, Sc					RPel	FN		21	7	97	ML-E	17	WB	0	
4000	ARCH	93	6		FR, Sc					RPel	FN		21	7	97	ML-E	17	EB	0	
4001	ARCH	187	56		FR, Sc					RPel	FN		21	7	97	ML-E	17	EB	0	
4003	ARCH	124	18		FR, Sc	2				RPel	FN		21	7	97	ML-E	17	EB	0	
4005	ARCH	78	4		Sc						FN		21	7	97	ML-E	17	EB	0	
4007	ARCH	83	4		Sc						FN		21	7	97	ML-E	17	EB	0	
4020	ARCH	95	8		Sc						FN		22	7	97	ML-E	18	EB	0	
4021	ARCH	84	5		Sc						FN		22	7	97	ML-E	18	EB	0	
4023	ARCH	125	15							RPel	FN		22	7	97	ML-E	18	EB	2	recap
4025	ARCH	148	25		FR, Sc	2				RPel	FN		22	7	97	ML-E	18	WB	0	
4028	ARCH	140	25		Ot	2					FN		22	7	97	ML-E	18	WB	1	gilled in lead
4062	ARCH	270	152		FR, Sc		8551			RPel	FN		23	7	97	ML-E	19	WB	0	
4063	ARCH	221	90		FR, Sc					RPel	FN		23	7	97	ML-E	19	WB	0	
4064	ARCH	162	36		FR, Sc					RPel	FN		23	7	97	ML-E	19	WB	0	
4068	ARCH	87	6		Sc						FN		23	7	97	ML-E	19	WB	0	
4070	ARCH	229	92		FR, Sc					RPel	FN		23	7	97	ML-E	19	EB	0	
4075	ARCH	233	102							RPel	FN		23	7	97	ML-E	19	EB	2	recap
4076	ARCH	204	75		FR, Sc					RPel	FN		23	7	97	ML-E	19	EB	0	
4077	ARCH	145	28		FR, Sc					RPel	FN		23	7	97	ML-E	19	EB	0	
4078	ARCH	85	5		Sc						FN		23	7	97	ML-E	19	EB	0	
4079	ARCH	77	4		Sc						FN		23	7	97	ML-E	19	EB	0	
4080	ARCH	87	6		Sc						FN		23	7	97	ML-E	19	EB	0	
4081	ARCH	88	6		Sc						FN		23	7	97	ML-E	19	EB	0	
4082	ARCH	94	8		Sc						FN		23	7	97	ML-E	19	EB	0	
4083	ARCH	91	6		Sc						FN		23	7	97	ML-E	19	EB	0	
4084	ARCH	93	6		Sc						FN		23	7	97	ML-E	19	EB	0	
4112	ARCH	132	24	11	Ot, Sc	2					FN		24	7	97	ML-E	20	WB	1	St=15 (unid)
4114	ARCH	85	6	1	Ot, Sc	1					FN		24	7	97	ML-E	20	WB	1	St=0
4288	ARCH	297	220		FR, Sc	5	8566			RPel	FN		25	7	97	ML-E	21	EB	0	
4290	ARCH	251	106		FR, Sc					RPel	FN		25	7	97	ML-E	21	EB	0	
4291	ARCH	184	49		FR, Sc					RPel	FN		25	7	97	ML-E	21	EB	0	
4292	ARCH	246	116		FR, Sc					RPel	FN		25	7	97	ML-E	21	EB	0	
4294	ARCH	228	106		FR, Sc					RPel	FN		25	7	97	ML-E	21	EB	0	
4347	ARCH	89	6		FR, Sc					RPel	FN		26	7	97	ML-E	22	WB	0	
4348	ARCH	128	20		FR, Sc					RPel	FN		26	7	97	ML-E	22	WB	0	
4363	ARCH	165	40		FR, Sc					RPel	FN		26	7	97	ML-E	22	EB	0	
4367	ARCH	237	115		FR, Sc					RPel	FN		27	7	97	ML-E	23	EB	0	
4375	ARCH	169	45		FR, Sc					RPel	FN		27	7	97	ML-E	23	WB	0	
4422	ARCH	498		14	Ot, Sc	7				RPel	GN	3.5	19	8	97	D1	1		1	St=5 (shrimp); full of eggs
4423	ARCH	446	1020		Sc	6	7049			RPel	GN	3.5	19	8	97	D1	1		0	
4424	ARCH	365	566		Sc	5	8075			RPel	GN	2.5	19	8	97	D1	1		0	
4425	ARCH	333	426		Sc	5				RPel	GN	2.5	19	8	97	D1	1		0	no tag; very weak
4426	ARCH	482			Sc		7048			RPel	GN	2.5	19	8	97	D1	1		0	recap'd 20/08/97 in D1; died
4427	ARCH	177	38		Sc	3				RPel	GN	1.5	19	8	97	D1	1		0	
4428	ARCH	277	244		Sc	4	7050			RPel	GN	2.5	19	8	97	D1	1		0	
4434	ARCH	340	458		Sc	5	7046			RPel	GN	2.5	20	8	97	D1	2		0	
4435	ARCH	258	210		Sc	4	7047			RPel	GN	2.5	20	8	97	D1	2		0	
4436	ARCH	263	224		Sc	4	7045			RPel	GN	3.5	20	8	97	D1	2		0	
4437	ARCH	407	722		Sc	7	7044			RPel	GN	3.5	20	8	97	D1	2		0	
4438	ARCH	445	920				7077				GN	4.5	20	8	97	D1	2		2	recap
4439	ARCH	320	430		Sc	5	7041			RPel	GN	3.5	20	8	97	D1	2		0	
4441	ARCH	530		10	Sc	7	7040	21	72	RPel	GN	4.5	20	8	97	D1	4		0	wt >2200g kype present
4442	ARCH	444	982	4	Ot, Sc	6					GN	3.5	20	8	97	D1	4		1	St=0
4443	ARCH	478		14	Ot, Sc	7	7048			RPel	GN	3.5	20	8	97	D1	4		3	St=5 (shrimp) Recap
4444	ARCH	405	836		Sc	5	7039	21	82	RPel	GN	2.5	21	8	97	D1	5		0	
4445	ARCH	314	358		Sc	5	7038			RPel	GN	2.5	21	8	97	D1	5		0	
4446	ARCH	362	512		Sc	5	7037			RPel	GN	2.5	21	8	97	D1	5		0	
4455	ARCH	240	146		Sc	3				RPel	GN	1.5	21	8	97	D1	6		0	
4456	ARCH	494	1294		Sc	8	7036	21	93	RPel	GN	2.5	21	8	97	D1	7		0	
4458	ARCH	470	1228		Sc	7	7062	20	67	RPel	GN	3.5	21	8	97	D1	8		0	
4459	ARCH	400	820		Sc	6	7034	21	83	RPel	GN	2.5	21	8	97	D1	8		0	
4460	ARCH	245	180		Sc	4				RPel	GN	2.5	21	8	97	D1	8		0	wt recorded as 280 g
4463	ARCH	370	466		Sc	5	7032			RPel	GN	2.5	23	8	97	A1	1		0	
4465	ARCH	325	316		Sc	5	7026			RPel	GN	2.5	23	8	97	A1	2		0	
4466	ARCH	304	302		Sc	4	7027			RPel	GN	2.5	23	8	97	A1	2		0	
4471	ARCH	290	262		Sc	4	7029			RPel	GN	2.5	23	8	97	A1	3		0	
4482	ARCH	439	966		Sc	6	7063			RPel	GN	3.5	27	8	97	D1	10		0	
4483	ARCH	394	760		Sc	5	7057			RPel	GN	3.5	27	8	97	D1	10		0	
4484	ARCH	288	338		Sc	4	7064			RPel	GN	2.5	27	8	97	D1	10		0	
4485	ARCH	430	990		Sc	7	7059			RPel	GN	2.5	27	8	97	D1	10		0	
4486	ARCH	420	866		Sc	6	7058			RPel	GN	3.5	27	8	97	D1	10		0	
4487	ARCH	504		17	Sc	7	7061	20	53	RPel	GN	3.5	27	8	97	D1	10		0	collapsed eggs came out
4488	ARCH	577			Sc	7	7066	20	52	RPel	GN	4.5	27	8	97	D1	10		0	wt >2200g
4489	ARCH	343	428		Sc	5	7065			RPel	GN	3.5	27	8	97	D1	10		0	
4490	ARCH	530			Sc	8	7060	20	65	RPel	GN	2.5	27	8	97	D1	10		0	
4492	ARCH	470	1128				7062	20	67		GN	2.5	27	8	97	D1	10		2	recap
4493	ARCH	400	820				7034	21	83		GN	3.5	27	8	97	D1	10		2	recap
4494	ARCH	340	458				7046				GN	3.5	27	8	97	D1	10		2	recap
4495	ARCH	258	210				7047				GN	2.5	27	8	97	D1	10		2	recap
4497	ARCH	318	346		Sc		7069			RPel	GN	3.5	28	8	97	D3	1		0	
4504	ARCH	110	20		Sc						GN	0.75	28	8	97	D3	2		0	
4505	ARCH	92	8		Ot, Sc	1					EF		25	8	97	D	0	- 1	1	captured downstream of pond
4506	ARCH	197	70		Sc					RPel	EF		25	8	97	B	1	- 2	0	
4507	ARCH	187	80		Sc					RPel	EF		25	8	97	B	1	- 2	0	fat

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
4508	ARCH	135	22								EF		25 8 97	B	1 - 2	0	
4509	ARCH	110	14								EF		25 8 97	B	1 - 2	0	
4510	ARCH	90	6		Sc					RPel	EF		25 8 97	B	1 - 2	0	
4511	ARCH	92	6		Sc					RPel	EF		25 8 97	B	1 - 2	0	
4512	ARCH	105	10		Sc					RPel	EF		25 8 97	B	1 - 2	0	
4513	ARCH	103	12		Sc					RPel	EF		25 8 97	B	1 - 2	0	
4514	ARCH	115	14		Sc					RPel	EF		25 8 97	B	1 - 2	0	
4515	ARCH	94	8		Sc					RPel	EF		25 8 97	B	1 - 2	0	
4516	ARCH	103	8		Sc	1				RPel	EF		25 8 97	B	1 - 2	0	
4517	ARCH	92	8		Sc					RPel	EF		25 8 97	B	1 - 2	0	
4518	ARCH	85	6		Sc						EF		25 8 97	B	1 - 2	0	
4519	ARCH	85	4		Sc						EF		25 8 97	B	1 - 2	0	
4520	ARCH	95	6		Sc					RPel	EF		25 8 97	B	1 - 2	0	
4521	ARCH	84	8		Sc	1					EF		25 8 97	B	1 - 2	0	
4522	ARCH	88	5		Sc						EF		25 8 97	B	1 - 2	0	skinny
5001	ARCH	465									TU		16 8 97	MR-L	1 A	0	
5002	ARCH	445									TU		16 8 97	MR-L	1 A	0	
5003	ARCH	472									TU		16 8 97	MR-L	1 A	0	
5004	ARCH	352									TU		16 8 97	MR-L	1 A	0	
5005	ARCH	560									TU		16 8 97	MR-L	1 A	0	
5006	ARCH	596									TU		16 8 97	MR-L	1 A	0	
5011	ARCH	502	1785		FR, Sc						TU		17 8 97	MR-L	3 A	1	tags recovered 30 Aug
5012	ARCH	561	2205	15	Ot, FR	5					TU		17 8 97	MR-L	3 A	1	St=0
5013	ARCH	431	955		FR, Sc		6306				TU		17 8 97	MR-L	3 A	0	
5014	ARCH	518	1675		Ot, FR	7					TU		17 8 97	MR-L	3 A	1	St=0; found dead u/s of fence
5015	ARCH	501	1675		FR, Sc		6308	21	87		TU		17 8 97	MR-L	3 A	0	
5016	ARCH	508	1735		FR, Sc		6310	21	74		TU		17 8 97	MR-L	3 A	0	
5017	ARCH	460	1230		FR, Sc		6309				TU		17 8 97	MR-L	3 A	0	
5018	ARCH	582	2420	5	Ot, FR	8					TU		17 8 97	MR-L	3 A	1	St=0
5019	ARCH	516	1620		FR, Sc		6312				TU		17 8 97	MR-L	3 A	0	
5020	ARCH	544	2070		FR, Sc		6313				TU		17 8 97	MR-L	3 A	0	
5021	ARCH	550	2225		FR, Sc		6314				TU		17 8 97	MR-L	3 A	0	
5022	ARCH	595	2790		FR, Sc		6315				TU		17 8 97	MR-L	4 P	0	
5023	ARCH	414	830		FR, Sc		6316				TU		17 8 97	MR-L	4 P	0	
5024	ARCH	417	655		FR, Sc		6317				TU		17 8 97	MR-L	4 P	0	
5025	ARCH	446	1080		FR, Sc		6318				TU		17 8 97	MR-L	4 P	0	
5026	ARCH	523	1745		FR, Sc		6319				TU		17 8 97	MR-L	4 P	0	
5027	ARCH	490	1380		FR, Sc		6320				TU		17 8 97	MR-L	4 P	0	
5028	ARCH	538	1795		FR, Sc		6321				TU		17 8 97	MR-L	4 P	0	
5029	ARCH	428	920		FR, Sc		6322				TU		17 8 97	MR-L	4 P	0	
5030	ARCH	465	1300		FR, Sc		6323				TU		17 8 97	MR-L	4 P	0	
5031	ARCH	478	1260		FR, Sc		6324				TU		17 8 97	MR-L	4 P	0	
5032	ARCH	527	1775		FR, Sc		6325				TU		17 8 97	MR-L	4 P	0	
5033	ARCH	536	1860		FR, Sc		6303				TU		17 8 97	MR-L	4 P	0	
5034	ARCH	498	1655		FR, Sc		6305				TU		17 8 97	MR-L	4 P	0	
5035	ARCH	604	3015		FR, Sc		6302				TU		17 8 97	MR-L	4 P	0	
5037	ARCH	524	1910		FR, Sc		7126				TU		17 8 97	MR-L	4 P	0	
5038	ARCH	508	1675		FR, Sc		7127				TU		17 8 97	MR-L	4 P	0	
5039	ARCH	501	1505		FR, Sc		7128				TU		17 8 97	MR-L	4 P	0	
5040	ARCH	511	1745		FR, Sc		7129				TU		17 8 97	MR-L	4 P	0	
5041	ARCH	501	1460		FR, Sc		7130				TU		17 8 97	MR-L	4 P	0	
5042	ARCH	545	1855		FR, Sc		7131				TU		17 8 97	MR-L	4 P	0	
5043	ARCH	455	1100	5	Ot, FR	6					TU		17 8 97	MR-L	4 P	1	St=0
5044	ARCH	552	1970		FR, Sc		7133				TU		17 8 97	MR-L	4 P	0	slight red colour to fins
5045	ARCH	484	1415		FR, Sc		7134				TU		17 8 97	MR-L	4 P	0	
5046	ARCH	550	2055		FR, Sc		7135				TU		17 8 97	MR-L	4 P	0	
5047	ARCH	532	2125		FR, Sc		7136				TU		18 8 97	MR-L	5 A	0	
5049	ARCH	586	2560	15	Ot, FR	8					TU		18 8 97	MR-L	5 A	1	St=0
5050	ARCH	541	2060		FR, Sc		7138				TU		18 8 97	MR-L	5 A	0	
5051	ARCH	618			FR, Sc		7139				TU		18 8 97	MR-L	5 A	0	
5052	ARCH	536	1900		FR, Sc		7140				TU		18 8 97	MR-L	5 A	0	
5053	ARCH	539	2000		FR, Sc		7141				TU		18 8 97	MR-L	5 A	0	
5054	ARCH	468	1300		FR, Sc		7142				TU		18 8 97	MR-L	5 A	0	
5055	ARCH	555	2250		FR, Sc		7143				TU		18 8 97	MR-L	5 A	0	
5056	ARCH	506	1700		FR, Sc		7144				TU		18 8 97	MR-L	5 A	0	
5057	ARCH	511	1800		FR, Sc		7145				TU		18 8 97	MR-L	5 A	0	
5058	ARCH	524	1850		FR, Sc		7146				TU		18 8 97	MR-L	5 A	0	
5059	ARCH	509	1700		FR, Sc		7147				TU		18 8 97	MR-L	5 A	0	
5060	ARCH	485	1500		FR, Sc		7148				TU		18 8 97	MR-L	5 A	0	
5061	ARCH	537	2100		FR, Sc		7149				TU		18 8 97	MR-L	5 A	0	
5062	ARCH	468	1500		FR, Sc		7150				TU		18 8 97	MR-L	5 A	0	
5063	ARCH	592	3000		FR, Sc		6307	21	92		TU		18 8 97	MR-L	5 A	0	
5064	ARCH	600	2850		FR, Sc						TU		18 8 97	MR-L	5 A	1	radio tag found u/s of fence
5065	ARCH	503					7676				TU		18 8 97	MR-L	5 A	0	
5066	ARCH	606					7677				TU		18 8 97	MR-L	5 A	0	
5067	ARCH	621					7678				TU		18 8 97	MR-L	5 A	0	
5068	ARCH	610					7679				TU		18 8 97	MR-L	5 A	0	
5069	ARCH	581					7680				TU		18 8 97	MR-L	5 A	0	recap'd 02/11/97 in LML
5070	ARCH	426					7681				TU		18 8 97	MR-L	5 A	0	
5071	ARCH	492					7682				TU		18 8 97	MR-L	5 A	0	
5072	ARCH	494					7683				TU		18 8 97	MR-L	5 A	0	
5073	ARCH	516					7684				TU		18 8 97	MR-L	5 A	0	
5074	ARCH	425					7685				TU		18 8 97	MR-L	5 A	0	
5075	ARCH	564					7686				TU		18 8 97	MR-L	5 A	0	
5076	ARCH	495					7687				TU		18 8 97	MR-L	5 A	0	
5077	ARCH	540					7688				TU		18 8 97	MR-L	5 A	0	gill net scars
5078	ARCH	636					7689				TU		18 8 97	MR-L	5 A	0	
5079	ARCH	460					7690				TU		18 8 97	MR-L	5 A	0	
5080	ARCH	512					7691				TU		18 8 97	MR-L	5 A	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
5081	ARCH	499					7692				TU		18	8	97	MR-L	5	A	0	
5082	ARCH	458					7693				TU		18	8	97	MR-L	5	A	0	
5083	ARCH	426					7694				TU		18	8	97	MR-L	5	A	0	
5084	ARCH	484	1315		FR, Sc		7695				TU		18	8	97	MR-L	6	P	0	
5085	ARCH	506	1605		FR, Sc		7696				TU		18	8	97	MR-L	6	P	0	
5086	ARCH	572	2425		FR, Sc		7697				TU		18	8	97	MR-L	6	P	0	
5087	ARCH	602	2850		FR, Sc		7698				TU		18	8	97	MR-L	6	P	0	
5088	ARCH	357	580		FR, Sc		7699				TU		18	8	97	MR-L	6	P	0	
5089	ARCH	636	3340		FR, Sc		7700				TU		18	8	97	MR-L	6	P	0	
5090	ARCH	469	1230		FR, Sc		7701				TU		18	8	97	MR-L	6	P	0	
5091	ARCH	511	1475		FR, Sc		7702				TU		18	8	97	MR-L	6	P	0	
5092	ARCH	530	1875		FR, Sc		7703				TU		18	8	97	MR-L	6	P	0	
5093	ARCH	485	1530		FR, Sc		7704				TU		18	8	97	MR-L	6	P	0	
5094	ARCH	564	2290		FR, Sc		7705				TU		18	8	97	MR-L	6	P	0	
5095	ARCH	379	700		FR, Sc		7706				TU		18	8	97	MR-L	6	P	0	
5096	ARCH	499					7708				TU		18	8	97	MR-L	6	P	0	
5097	ARCH	517					7709				TU		18	8	97	MR-L	6	P	0	
5098	ARCH	497					7710				TU		18	8	97	MR-L	6	P	0	
5099	ARCH	494					7711				TU		18	8	97	MR-L	6	P	0	
5100	ARCH	506					7712				TU		18	8	97	MR-L	6	P	0	
5101	ARCH	518					7713				TU		18	8	97	MR-L	6	P	0	
5102	ARCH	619					7714				TU		18	8	97	MR-L	6	P	0	recap'd 14/10/97 in ML-S
5103	ARCH	423					7715				TU		18	8	97	MR-L	6	P	0	
5104	ARCH	587					7716				TU		18	8	97	MR-L	6	P	0	
5105	ARCH	499					7717				TU		18	8	97	MR-L	6	P	0	
5106	ARCH	562					7718				TU		18	8	97	MR-L	6	P	0	
5107	ARCH	601					7719				TU		18	8	97	MR-L	6	P	0	
5108	ARCH	553					7720				TU		18	8	97	MR-L	6	P	0	
5109	ARCH	490					7721				TU		18	8	97	MR-L	6	P	0	
5110	ARCH	425					7722				TU		18	8	97	MR-L	6	P	0	
5111	ARCH	528	1705		FR, Sc		7723				TU		19	8	97	MR-L	7	A	0	
5112	ARCH	561	2100		FR, Sc		7724				TU		19	8	97	MR-L	7	A	0	
5113	ARCH	438	980		FR, Sc		7725				TU		19	8	97	MR-L	7	A	0	
5114	ARCH	481	1350		FR, Sc		7651				TU		19	8	97	MR-L	7	A	0	
5115	ARCH	449	1175		FR, Sc		7652				TU		19	8	97	MR-L	7	A	0	
5116	ARCH	537	2220		FR, Sc		7653				TU		19	8	97	MR-L	7	A	0	
5117	ARCH	603	2890		FR, Sc		7654				TU		19	8	97	MR-L	7	A	0	
5118	ARCH	460	1305		FR, Sc		7655				TU		19	8	97	MR-L	7	A	0	
5119	ARCH	471	1370		FR, Sc		7656				TU		19	8	97	MR-L	7	A	0	
5120	ARCH	431	1100		Sc		7657				TU		19	8	97	MR-L	7	A	0	
5121	ARCH	622	3155		FR, Sc		7658				TU		19	8	97	MR-L	7	A	0	recap'd 02/11/97 in LML
5122	ARCH	518	1745		FR, Sc		7659				TU		19	8	97	MR-L	7	A	0	
5123	ARCH	623	3220		FR, Sc		7660				TU		19	8	97	MR-L	7	A	0	
5124	ARCH	522	1900		FR, Sc		7661				TU		19	8	97	MR-L	7	A	0	
5125	ARCH	513	1700		FR, Sc		7662				TU		19	8	97	MR-L	7	A	0	
5126	ARCH	637	3375		FR, Sc		7663				TU		19	8	97	MR-L	7	A	0	
5127	ARCH	487	1515		FR, Sc		7664				TU		19	8	97	MR-L	7	A	0	
5128	ARCH	471	1310		FR, Sc		7665				TU		19	8	97	MR-L	7	A	0	
5129	ARCH	652	3665		FR, Sc		7666				TU		19	8	97	MR-L	7	A	0	recap'd 26/9/97 in LML
5130	ARCH	612	3040		FR, Sc		7667				TU		19	8	97	MR-L	7	A	0	
5131	ARCH	478	1340		FR, Sc		7668				TU		19	8	97	MR-L	7	A	0	
5132	ARCH	505	1725		FR, Sc		7669				TU		19	8	97	MR-L	7	A	0	
5133	ARCH	576	2455		FR, Sc		7670				TU		19	8	97	MR-L	7	A	0	
5134	ARCH	458	1200		FR, Sc		7671				TU		19	8	97	MR-L	7	A	0	
5135	ARCH	498	1515		FR, Sc		7672				TU		19	8	97	MR-L	7	A	0	
5136	ARCH	666	3695		FR, Sc		7673				TU		19	8	97	MR-L	7	A	0	
5137	ARCH	584	2385		FR, Sc		7674				TU		19	8	97	MR-L	7	A	0	
5138	ARCH	518	1795		FR, Sc		7675				TU		19	8	97	MR-L	7	A	0	
5139	ARCH	544	2005		FR, Sc		7726				TU		19	8	97	MR-L	7	A	0	
5140	ARCH	601	2275		FR, Sc		7727				TU		19	8	97	MR-L	7	A	0	
5141	ARCH	589	2410		FR, Sc		7728				TU		19	8	97	MR-L	7	A	0	
5142	ARCH	603	2700		FR, Sc		7729				TU		19	8	97	MR-L	7	A	0	
5143	ARCH	597	2520		FR, Sc		7730				TU		19	8	97	MR-L	7	A	0	
5144	ARCH	615	2965		FR, Sc		7731				TU		19	8	97	MR-L	7	A	0	
5145	ARCH	580	2515		FR, Sc		7732				TU		19	8	97	MR-L	7	A	0	
5146	ARCH	534	1700		FR, Sc		7733				TU		19	8	97	MR-L	7	A	0	
5147	ARCH	599	2710		FR, Sc		7734				TU		19	8	97	MR-L	7	A	0	
5148	ARCH	624	2855		FR, Sc		7735				TU		19	8	97	MR-L	7	A	0	recap'd 25/8/97 in LML
5149	ARCH	540	1910		FR, Sc		7736				TU		19	8	97	MR-L	7	A	0	
5150	ARCH	644	2805		FR, Sc						TU		19	8	97	MR-L	7	A	0	large scar above left pelvic
5151	ARCH	473	1340		FR, Sc		7737				TU		19	8	97	MR-L	7	A	0	
5152	ARCH	494	1590		FR, Sc		7738				TU		19	8	97	MR-L	7	A	0	
5153	ARCH	462	1090		FR, Sc		7739				TU		19	8	97	MR-L	7	A	0	
5154	ARCH	509	1630		FR, Sc		7740				TU		19	8	97	MR-L	7	A	0	
5155	ARCH	507	1785		FR, Sc		7741				TU		19	8	97	MR-L	7	A	0	
5156	ARCH	568	2055		FR, Sc		7742				TU		19	8	97	MR-L	7	A	0	
5157	ARCH	566	2485	15	Ot, FR	8					TU		19	8	97	MR-L	7	A	1	St=0; died in trap
5161	ARCH	574	2125		FR, Sc		7747				TU		19	8	97	MR-L	8	P	0	
5162	ARCH	461	1175		FR, Sc		7748				TU		19	8	97	MR-L	8	P	0	
5163	ARCH	552	1985		FR, Sc		7749				TU		19	8	97	MR-L	8	P	0	
5164	ARCH	499	1500		FR, Sc		7750				TU		19	8	97	MR-L	8	P	0	
5165	ARCH	470	1375		FR, Sc		7743				TU		19	8	97	MR-L	8	P	0	
5166	ARCH	474	1245		FR, Sc		7176				TU		19	8	97	MR-L	8	P	0	
5167	ARCH	516	1675		FR, Sc		7177				TU		19	8	97	MR-L	8	P	0	
5168	ARCH	473	1095		FR, Sc		7178				TU		19	8	97	MR-L	8	P	0	
5169	ARCH	475	1180		FR, Sc		7179				TU		19	8	97	MR-L	8	P	0	
5170	ARCH	521	1610		FR, Sc		7180				TU		19	8	97	MR-L	8	P	0	
5171	ARCH	544	1930		FR, Sc		7181				TU		19	8	97	MR-L	8	P	0	
5172	ARCH	493	1410		FR, Sc		7182				TU		19	8	97	MR-L	8	P	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
5173	ARCH	572	2440		FR, Sc		7183				TU		19	8	97	MR-L	8	P	0	
5174	ARCH	550	2235		FR, Sc		7184				TU		19	8	97	MR-L	8	P	0	
5175	ARCH	537	1985		FR, Sc		7185				TU		19	8	97	MR-L	8	P	0	
5176	ARCH	565	1990		FR, Sc		7186				TU		19	8	97	MR-L	8	P	0	
5178	ARCH	582	2565		FR, Sc		7188				TU		20	8	97	MR-L	9	A	0	
5179	ARCH	583	2285		FR, Sc		7189				TU		20	8	97	MR-L	9	A	0	recap'd 26/9/97 in LML
5180	ARCH	559	1875		FR, Sc		7190				TU		20	8	97	MR-L	9	A	0	recap'd 05/9/97 in LML
5181	ARCH	555	2265		FR, Sc		7191				TU		20	8	97	MR-L	9	A	0	
5182	ARCH	433	995		FR, Sc		7192				TU		20	8	97	MR-L	9	A	0	
5183	ARCH	520	1800		FR, Sc		7193				TU		20	8	97	MR-L	9	A	0	
5184	ARCH	566	2305		FR, Sc		7194				TU		20	8	97	MR-L	9	A	0	
5185	ARCH	540	1815		FR, Sc		7195				TU		20	8	97	MR-L	9	A	0	
5186	ARCH	595	2765		FR, Sc		7196				TU		20	8	97	MR-L	9	A	0	
5187	ARCH	527	1725		FR, Sc		7197				TU		20	8	97	MR-L	9	A	0	
5188	ARCH	474	1260		FR, Sc		7198				TU		20	8	97	MR-L	9	A	0	
5189	ARCH	474	1225		FR, Sc		7199				TU		20	8	97	MR-L	9	A	0	
5190	ARCH	454	1115		FR, Sc		7200				TU		20	8	97	MR-L	9	A	0	
5191	ARCH	516	1720		FR, Sc		7151				TU		20	8	97	MR-L	9	A	0	
5192	ARCH	591	2480		FR, Sc		7152				TU		20	8	97	MR-L	9	A	0	
5193	ARCH	420	925		FR, Sc		7153				TU		20	8	97	MR-L	9	A	0	
5194	ARCH	540	1910		FR, Sc		7154				TU		20	8	97	MR-L	9	A	0	
5195	ARCH	499	1650		FR, Sc		7155				TU		20	8	97	MR-L	9	A	0	
5196	ARCH	592	2615		FR, Sc		7156				TU		20	8	97	MR-L	9	A	0	recap'd 23/9/97 in LML
5197	ARCH	522	1770		FR, Sc		7157				TU		20	8	97	MR-L	9	A	0	
5198	ARCH	614	2830		FR, Sc		7158				TU		20	8	97	MR-L	9	A	0	
5199	ARCH	563	2305		FR, Sc		7159				TU		20	8	97	MR-L	9	A	0	
5200	ARCH	533	1970		FR, Sc		7160				TU		20	8	97	MR-L	9	A	0	
5201	ARCH	530	1870		FR, Sc		7161				TU		20	8	97	MR-L	9	A	0	recap'd 16/9/97 in ML-S
5202	ARCH	487	1490		FR, Sc		7162				TU		20	8	97	MR-L	9	A	0	
5203	ARCH	545	2085		FR, Sc		7163				TU		20	8	97	MR-L	9	A	0	
5204	ARCH	607	2495		FR, Sc		7164				TU		20	8	97	MR-L	9	A	0	
5205	ARCH	488	1380		FR, Sc		7165				TU		20	8	97	MR-L	9	A	0	
5206	ARCH	545	1825		FR, Sc		7166				TU		20	8	97	MR-L	9	A	0	
5207	ARCH	537	2065		FR, Sc		7167				TU		20	8	97	MR-L	9	A	0	
5208	ARCH	520	1820		FR, Sc		7168				TU		20	8	97	MR-L	9	A	0	
5209	ARCH	607	2755		FR, Sc		7169				TU		20	8	97	MR-L	9	A	0	
5210	ARCH	607	3010		FR, Sc		7170				TU		20	8	97	MR-L	9	A	0	
5211	ARCH	501	1570		FR, Sc		7171				TU		20	8	97	MR-L	9	A	0	
5212	ARCH	636	3060		FR, Sc		7172				TU		20	8	97	MR-L	9	A	0	
5213	ARCH	486	1400		FR, Sc		7173				TU		20	8	97	MR-L	9	A	0	
5214	ARCH	653	3840		FR, Sc		7174				TU		20	8	97	MR-L	9	A	0	
5215	ARCH	545	2010		FR, Sc		7175				TU		20	8	97	MR-L	9	A	0	
5216	ARCH	421	840		FR, Sc		8176				TU		20	8	97	MR-L	9	A	0	
5217	ARCH	613	3030		FR, Sc		8177				TU		20	8	97	MR-L	9	A	0	
5218	ARCH	448	1315		FR, Sc		8178				TU		20	8	97	MR-L	9	A	0	
5219	ARCH	625	2975		FR, Sc		8179				TU		20	8	97	MR-L	9	A	0	recap'd 25/8/97 in LML
5220	ARCH	492	1435		FR, Sc		8180				TU		20	8	97	MR-L	9	A	0	
5221	ARCH	405	810		FR, Sc		8181				TU		20	8	97	MR-L	9	A	0	
5222	ARCH	495	1585		FR, Sc		8182				TU		20	8	97	MR-L	9	A	0	
5223	ARCH	504	1620		FR, Sc		8183				TU		20	8	97	MR-L	9	A	0	
5224	ARCH	469	1245		FR, Sc		8184				TU		20	8	97	MR-L	9	A	0	
5225	ARCH	423	1030		FR, Sc		8185				TU		20	8	97	MR-L	9	A	0	
5226	ARCH	514	1485		FR, Sc		8186				TU		20	8	97	MR-L	9	A	0	
5227	ARCH	586	2820		FR, Sc		8187				TU		20	8	97	MR-L	9	A	0	
5228	ARCH	536	1875		FR, Sc		8188				TU		20	8	97	MR-L	9	A	0	
5229	ARCH	475	1160		FR, Sc		8189				TU		20	8	97	MR-L	9	A	0	
5230	ARCH	444	1055		FR, Sc		8190				TU		20	8	97	MR-L	9	A	0	
5231	ARCH	528	1580		FR, Sc		8191				TU		20	8	97	MR-L	9	A	0	deformed near dorsal fin
5232	ARCH	465	1125		FR, Sc		8192				TU		20	8	97	MR-L	9	A	0	
5233	ARCH	560	2260		FR, Sc		8193				TU		20	8	97	MR-L	9	A	0	
5234	ARCH	646	3530		FR, Sc		8194				TU		20	8	97	MR-L	9	A	0	
5235	ARCH	634	3380		FR, Sc		8195				TU		20	8	97	MR-L	10	P	0	
5236	ARCH	457	980		FR, Sc		8196				TU		20	8	97	MR-L	10	P	0	
5237	ARCH	495	1605		FR, Sc		8197				TU		20	8	97	MR-L	10	P	0	
5238	ARCH	591	2595		FR, Sc		8198				TU		20	8	97	MR-L	10	P	0	
5239	ARCH	497	1415		FR, Sc		8199				TU		20	8	97	MR-L	10	P	0	
5240	ARCH	533	2025		FR, Sc		8200				TU		20	8	97	MR-L	10	P	0	
5241	ARCH	516	1645		FR, Sc		7201				TU		20	8	97	MR-L	10	P	0	
5242	ARCH	495	1435		FR, Sc		7202				TU		20	8	97	MR-L	10	P	0	
5243	ARCH	504	1535		FR, Sc		7203				TU		20	8	97	MR-L	10	P	0	
5244	ARCH	537	1945		FR, Sc		7204				TU		20	8	97	MR-L	10	P	0	
5245	ARCH	495	1650		FR, Sc		7205				TU		20	8	97	MR-L	10	P	0	
5246	ARCH	544	1915		FR, Sc		7206				TU		20	8	97	MR-L	10	P	0	
5247	ARCH	498	1620		FR, Sc		7207				TU		20	8	97	MR-L	10	P	0	
5248	ARCH	573	2535		FR, Sc		7208				TU		20	8	97	MR-L	10	P	0	
5249	ARCH	520	1810		FR, Sc		7209				TU		20	8	97	MR-L	10	P	0	
5250	ARCH	517	1755		FR, Sc		7210				TU		20	8	97	MR-L	10	P	0	
5251	ARCH	579	2265		FR, Sc		7211				TU		20	8	97	MR-L	10	P	0	
5252	ARCH	576	2360		FR, Sc		7212				TU		20	8	97	MR-L	10	P	0	
5253	ARCH	508	1715		FR, Sc		7213				TU		20	8	97	MR-L	10	P	0	
5254	ARCH	443	1080		FR, Sc		7214				TU		20	8	97	MR-L	10	P	0	
5255	ARCH	482	1390		FR, Sc		7215				TU		20	8	97	MR-L	10	P	0	
5256	ARCH	480	1380		FR, Sc		7216				TU		20	8	97	MR-L	10	P	0	
5257	ARCH	460	1205		FR, Sc		7217				TU		20	8	97	MR-L	10	P	0	
5258	ARCH	496	1440		FR, Sc		7218				TU		20	8	97	MR-L	10	P	0	
5259	ARCH	490	1315		FR, Sc		7219				TU		20	8	97	MR-L	10	P	0	
5260	ARCH	569	2345		FR, Sc		7220				TU		20	8	97	MR-L	10	P	0	recap'd 10/10/97 in ML-S
5261	ARCH	462	1390		FR, Sc		7221				TU		20	8	97	MR-L	10	P	0	
5262	ARCH	465	1150		FR, Sc		7222				TU		20	8	97	MR-L	10	P	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
5263	ARCH	549	2065		FR, Sc		7223				TU		20	8	97	MR-L	10	P	0	
5264	ARCH	461	1195		FR, Sc		7224				TU		20	8	97	MR-L	10	P	0	
5265	ARCH	543	2010		FR, Sc		7225				TU		20	8	97	MR-L	10	P	0	
5266	ARCH	387	735		FR, Sc		7226				TU		20	8	97	MR-L	10	P	0	
5267	ARCH	434	975		FR, Sc		7227				TU		20	8	97	MR-L	10	P	0	
5268	ARCH	419	1015		FR, Sc		7228				TU		20	8	97	MR-L	10	P	0	
5269	ARCH	490	1520		FR, Sc		7229				TU		20	8	97	MR-L	10	P	0	
5270	ARCH	606	3180		FR, Sc		7230				TU		20	8	97	MR-L	10	P	0	
5271	ARCH	455	1195		FR, Sc		7231				TU		20	8	97	MR-L	10	P	0	
5272	ARCH	465	1310		FR, Sc		7232				TU		20	8	97	MR-L	10	P	0	
5273	ARCH	517	1590		FR, Sc		7233				TU		20	8	97	MR-L	10	P	0	
5274	ARCH	392	795		FR, Sc		7234				TU		20	8	97	MR-L	10	P	0	
5275	ARCH	429	965		FR, Sc		7235				TU		20	8	97	MR-L	10	P	0	
5276	ARCH	413	785		FR, Sc		7236				TU		20	8	97	MR-L	10	P	0	
5277	ARCH	372	680		FR, Sc		7237				TU		20	8	97	MR-L	10	P	0	
5279	ARCH	451	1145		FR, Sc		7239				TU		21	8	97	MR-L	11	A	0	
5280	ARCH	484	1345		FR, Sc		7240				TU		21	8	97	MR-L	11	A	0	
5281	ARCH	618	3055		FR, Sc		7241				TU		21	8	97	MR-L	11	A	0	
5282	ARCH	586	2555		FR, Sc		7242				TU		21	8	97	MR-L	11	A	0	
5283	ARCH	522	1815		FR, Sc		7243				TU		21	8	97	MR-L	11	A	0	
5284	ARCH	473	1060		FR, Sc		7244				TU		21	8	97	MR-L	11	A	0	
5285	ARCH	640	3190		FR, Sc		7245				TU		21	8	97	MR-L	11	A	0	
5286	ARCH	491	1575		FR, Sc		7246				TU		21	8	97	MR-L	11	A	0	
5287	ARCH	461	1145		FR, Sc		7247				TU		21	8	97	MR-L	11	A	0	
5288	ARCH	508	1855		FR, Sc		7248				TU		21	8	97	MR-L	11	A	0	
5289	ARCH	461	1330		FR, Sc		7249				TU		21	8	97	MR-L	11	A	0	
5290	ARCH	425	945		FR, Sc		7250				TU		21	8	97	MR-L	11	A	0	
5291	ARCH	428	960		FR, Sc		7251				TU		21	8	97	MR-L	11	A	0	
5292	ARCH	467	1365		FR, Sc		7252				TU		21	8	97	MR-L	11	A	0	
5293	ARCH	542	1635		FR, Sc		7253				TU		21	8	97	MR-L	11	A	0	
5294	ARCH	469	1315		FR, Sc		7254				TU		21	8	97	MR-L	11	A	0	
5295	ARCH	551	1960		FR, Sc		7255				TU		21	8	97	MR-L	11	A	0	
5296	ARCH	378	660		FR, Sc		7256				TU		21	8	97	MR-L	11	A	0	
5298	ARCH	445					7258				TU		21	8	97	MR-L	12	P	0	
5299	ARCH	481					7259				TU		21	8	97	MR-L	12	P	0	
5300	ARCH	533	1970	5	Ot, FR	8					TU		21	8	97	MR-L	12	P	1	St=0; tissues
5305	ARCH	433					7260				TU		22	8	97	MR-L	13	A	0	
5306	ARCH	359					7261				TU		22	8	97	MR-L	13	A	0	
5307	ARCH	454					7262				TU		22	8	97	MR-L	13	A	0	
5308	ARCH	462					7263				TU		22	8	97	MR-L	13	A	0	
5309	ARCH	425					7264				TU		22	8	97	MR-L	13	A	0	
5310	ARCH	450					7265				TU		22	8	97	MR-L	13	A	0	
5311	ARCH	392					7266				TU		22	8	97	MR-L	13	A	0	
5312	ARCH	476					7267				TU		22	8	97	MR-L	13	A	0	
5313	ARCH	419					7268				TU		22	8	97	MR-L	13	A	0	
5314	ARCH	477					7269				TU		22	8	97	MR-L	13	A	0	
5315	ARCH	415					7270				TU		22	8	97	MR-L	13	A	0	
5316	ARCH	393					7271				TU		22	8	97	MR-L	13	A	0	
5317	ARCH	452					7272				TU		22	8	97	MR-L	13	A	0	
5318	ARCH	460					7273				TU		22	8	97	MR-L	13	A	0	
5319	ARCH	455					7274				TU		22	8	97	MR-L	13	A	0	
5320	ARCH	473					7275				TU		22	8	97	MR-L	13	A	0	
5321	ARCH	468					7276				TU		22	8	97	MR-L	13	A	0	
5322	ARCH	390					7277				TU		22	8	97	MR-L	13	A	0	
5323	ARCH	447					7278				TU		22	8	97	MR-L	13	A	0	
5324	ARCH	405					7279				TU		22	8	97	MR-L	13	A	0	
5325	ARCH	391					7280				TU		22	8	97	MR-L	13	A	0	
5326	ARCH	368					7281				TU		22	8	97	MR-L	13	A	0	
5327	ARCH	403					7282				TU		22	8	97	MR-L	13	A	0	
5328	ARCH	422					7283				TU		22	8	97	MR-L	13	A	0	
5329	ARCH	457					7284				TU		22	8	97	MR-L	13	A	0	
5330	ARCH	461					7285				TU		22	8	97	MR-L	13	A	0	
5331	ARCH	487					7286				TU		22	8	97	MR-L	13	A	0	
5332	ARCH	508					7287				TU		22	8	97	MR-L	13	A	0	
5333	ARCH	470					7288				TU		22	8	97	MR-L	13	A	0	
5334	ARCH	506					7289				TU		22	8	97	MR-L	13	A	0	
5335	ARCH	515					7290				TU		22	8	97	MR-L	13	A	0	
5336	ARCH	523					7291				TU		22	8	97	MR-L	13	A	0	
5337	ARCH	535	1785	15	Ot, FR	7					TU		22	8	97	MR-L	13	A	1	St=0; tissues
5338	ARCH	636	2880	15	Ot, FR	8					TU		22	8	97	MR-L	13	A	1	St=0; tissues
5339	ARCH	535	1785	15	Ot, FR	6					TU		22	8	97	MR-L	13	A	1	St=0; tissues
5340	ARCH	540	1950	5	Ot, FR	8					TU		22	8	97	MR-L	13	A	1	St=0; tissues
5341	ARCH	557	2040	5	Ot, FR	9					TU		22	8	97	MR-L	13	A	1	St=0; tissues
5342	ARCH	548	2195	15	Ot, FR	6					TU		22	8	97	MR-L	13	A	1	St=0; tissues
5343	ARCH	540	2005	15	Ot, FR	7					TU		22	8	97	MR-L	13	A	1	St=0; tissues
5344	ARCH	414	945	1	Ot, FR	6					TU		22	8	97	MR-L	13	A	1	St=0
5345	ARCH	375	660	1	Ot, FR	6					TU		22	8	97	MR-L	13	A	1	St=0; tapeworms
5346	ARCH	322	410	1	Ot, FR	5					TU		22	8	97	MR-L	13	A	1	St=0
5347	ARCH	457					7292				TU		22	8	97	MR-L	14	P	0	
5348	ARCH	446					7293				TU		22	8	97	MR-L	14	P	0	
5349	ARCH	427					7294				TU		22	8	97	MR-L	14	P	0	
5350	ARCH	535					7295				TU		22	8	97	MR-L	14	P	0	
5351	ARCH	388					7296				TU		22	8	97	MR-L	14	P	0	
5352	ARCH	429					7297				TU		22	8	97	MR-L	14	P	0	
5353	ARCH	420					7298				TU		22	8	97	MR-L	14	P	0	
5354	ARCH	401					7299				TU		22	8	97	MR-L	14	P	0	
5355	ARCH	438					7300				TU		22	8	97	MR-L	14	P	0	
5356	ARCH	368					7301				TU		22	8	97	MR-L	14	P	0	
5357	ARCH	491					7302				TU		22	8	97	MR-L	14	P	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
5358	ARCH	528					7303				TU		22	8	97	MR-L	14	P	0	
5359	ARCH	438					7304				TU		22	8	97	MR-L	14	P	0	
5360	ARCH	541					7305				TU		22	8	97	MR-L	14	P	0	
5361	ARCH	551					7306				TU		22	8	97	MR-L	14	P	0	
5362	ARCH	386					7307				TU		22	8	97	MR-L	14	P	0	
5363	ARCH	373					7308				TU		22	8	97	MR-L	14	P	0	
5364	ARCH	517					7309				TU		22	8	97	MR-L	14	P	0	
5365	ARCH	398					7310				TU		22	8	97	MR-L	14	P	0	
5366	ARCH	430					7311				TU		22	8	97	MR-L	14	P	0	
5367	ARCH	458					7312				TU		22	8	97	MR-L	14	P	0	
5368	ARCH	412					7313				TU		22	8	97	MR-L	14	P	0	
5369	ARCH	420					7314				TU		22	8	97	MR-L	14	P	0	
5370	ARCH	407					7315				TU		22	8	97	MR-L	14	P	0	
5371	ARCH	450					7316				TU		22	8	97	MR-L	14	P	0	
5372	ARCH	492					7318				TU		22	8	97	MR-L	14	P	0	
5373	ARCH	434					7319				TU		22	8	97	MR-L	14	P	0	
5374	ARCH	470					7320				TU		22	8	97	MR-L	14	P	0	
5375	ARCH	544					7321				TU		22	8	97	MR-L	14	P	0	
5376	ARCH	515					7323				TU		22	8	97	MR-L	14	P	0	
5377	ARCH	508					7324				TU		22	8	97	MR-L	14	P	0	
5378	ARCH	458					7325				TU		22	8	97	MR-L	14	P	0	
5379	ARCH	481					7317				TU		22	8	97	MR-L	14	P	0	
5380	ARCH	495					7322				TU		22	8	97	MR-L	14	P	0	
5381	ARCH	455					7326				TU		22	8	97	MR-L	14	P	0	
5382	ARCH	428					7327				TU		22	8	97	MR-L	14	P	0	
5383	ARCH	425					7328				TU		22	8	97	MR-L	14	P	0	
5384	ARCH	414	855	1	Ot, FR	6					TU		22	8	97	MR-L	14	P	1	St=0; died in trap
5385	ARCH	398					7329				TU		23	8	97	MR-L	15	A	0	
5386	ARCH	445					7330				TU		23	8	97	MR-L	15	A	0	
5387	ARCH	375					7331				TU		23	8	97	MR-L	15	A	0	
5388	ARCH	535					7332				TU		23	8	97	MR-L	15	A	0	
5389	ARCH	396					7333				TU		23	8	97	MR-L	15	A	0	
5390	ARCH	455					7334				TU		23	8	97	MR-L	15	A	0	
5391	ARCH	488					7335				TU		23	8	97	MR-L	15	A	0	
5392	ARCH	495					7336				TU		23	8	97	MR-L	15	A	0	
5393	ARCH	421					7337				TU		23	8	97	MR-L	15	A	0	
5394	ARCH	455					7338				TU		23	8	97	MR-L	15	A	0	
5395	ARCH	369					7340				TU		23	8	97	MR-L	15	A	0	
5396	ARCH	420					7341				TU		23	8	97	MR-L	15	A	0	
5397	ARCH	451					7342				TU		23	8	97	MR-L	15	A	0	
5398	ARCH	423					7343				TU		23	8	97	MR-L	15	A	0	
5399	ARCH	530					7344				TU		23	8	97	MR-L	15	A	0	
5400	ARCH	370					7345				TU		23	8	97	MR-L	15	A	0	
5401	ARCH	409					7346				TU		23	8	97	MR-L	15	A	0	
5402	ARCH	488					7347				TU		23	8	97	MR-L	15	A	0	
5403	ARCH	450					7348				TU		23	8	97	MR-L	15	A	0	
5404	ARCH	382					7349				TU		23	8	97	MR-L	15	A	0	
5405	ARCH	485					7350				TU		23	8	97	MR-L	15	A	0	
5406	ARCH	324					7339				TU		23	8	97	MR-L	15	A	0	
5407	ARCH	502					7351				TU		23	8	97	MR-L	15	A	0	
5408	ARCH	432					7352				TU		23	8	97	MR-L	15	A	0	
5409	ARCH	441					7353				TU		23	8	97	MR-L	15	A	0	
5410	ARCH	459					7355				TU		23	8	97	MR-L	15	A	0	
5411	ARCH	455					7356				TU		23	8	97	MR-L	15	A	0	
5412	ARCH	436					7357				TU		23	8	97	MR-L	15	A	0	
5413	ARCH	391					7358				TU		23	8	97	MR-L	15	A	0	
5414	ARCH	500					7359				TU		23	8	97	MR-L	15	A	0	
5415	ARCH	402					7360				TU		23	8	97	MR-L	15	A	0	
5416	ARCH	532					7361				TU		23	8	97	MR-L	15	A	0	
5417	ARCH	404					7362				TU		23	8	97	MR-L	15	A	0	
5418	ARCH	492					7363				TU		23	8	97	MR-L	15	A	0	
5419	ARCH	435					7364				TU		23	8	97	MR-L	15	A	0	
5420	ARCH	418					7365				TU		23	8	97	MR-L	15	A	0	
5421	ARCH	344					7366				TU		23	8	97	MR-L	15	A	0	
5422	ARCH	444					7367				TU		23	8	97	MR-L	15	A	0	
5423	ARCH	483					7368				TU		23	8	97	MR-L	15	A	0	
5424	ARCH	564					7369				TU		23	8	97	MR-L	15	A	0	recap'd 10/10/97 in ML-S
5425	ARCH	411					7370				TU		23	8	97	MR-L	15	A	0	
5426	ARCH	493					7373				TU		23	8	97	MR-L	15	A	0	
5427	ARCH	392					7374				TU		23	8	97	MR-L	15	A	0	
5428	ARCH	435					7375				TU		23	8	97	MR-L	15	A	0	
5429	ARCH	541					7371				TU		23	8	97	MR-L	15	A	0	
5430	ARCH	541					7372				TU		23	8	97	MR-L	15	A	0	recap'd 12/9/97 in LML
5431	ARCH	437					7354				TU		23	8	97	MR-L	15	A	0	
5432	ARCH	391					7826				TU		23	8	97	MR-L	15	A	0	
5433	ARCH	393					7827				TU		23	8	97	MR-L	15	A	0	
5434	ARCH	435					7828				TU		23	8	97	MR-L	15	A	0	
5435	ARCH	368					7829				TU		23	8	97	MR-L	15	A	0	
5436	ARCH	401					7830				TU		23	8	97	MR-L	15	A	0	
5437	ARCH	421					7831				TU		23	8	97	MR-L	15	A	0	
5438	ARCH	364					7832				TU		23	8	97	MR-L	15	A	0	
5439	ARCH	325					7833				TU		23	8	97	MR-L	15	A	0	
5440	ARCH	354					7834				TU		23	8	97	MR-L	15	A	0	
5441	ARCH	458	895	15	Ot, FR	6					TU		23	8	97	MR-L	15	A	1	St=0; broken jaw
5442	ARCH	441					7835				TU		23	8	97	MR-L	16	P	0	
5443	ARCH	452					7836				TU		23	8	97	MR-L	16	P	0	
5444	ARCH	453					7837				TU		23	8	97	MR-L	16	P	0	
5445	ARCH	511					7838				TU		23	8	97	MR-L	16	P	0	
5446	ARCH	373					7839				TU		23	8	97	MR-L	16	P	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
5447	ARCH	524					7840				TU		23	8	97	MR-L	16	P	0	
5448	ARCH	395					7841				TU		23	8	97	MR-L	16	P	0	
5449	ARCH	380					7842				TU		23	8	97	MR-L	16	P	0	
5450	ARCH	502					7843				TU		23	8	97	MR-L	16	P	0	
5451	ARCH	364					7844				TU		23	8	97	MR-L	16	P	0	
5452	ARCH	371					7845				TU		23	8	97	MR-L	16	P	0	
5453	ARCH	436					7846				TU		23	8	97	MR-L	16	P	0	
5454	ARCH	342					7847				TU		23	8	97	MR-L	16	P	0	parr marks
5455	ARCH	476					7848				TU		23	8	97	MR-L	16	P	0	
5456	ARCH	378					7849				TU		23	8	97	MR-L	16	P	0	
5457	ARCH	431					7850				TU		23	8	97	MR-L	16	P	0	
5458	ARCH	348					7951				TU		23	8	97	MR-L	16	P	0	
5459	ARCH	480					7952				TU		23	8	97	MR-L	16	P	0	
5460	ARCH	432					7953				TU		23	8	97	MR-L	16	P	0	
5461	ARCH	436					7954				TU		23	8	97	MR-L	16	P	0	
5462	ARCH	376					7955				TU		23	8	97	MR-L	16	P	0	
5463	ARCH	416					7956				TU		23	8	97	MR-L	16	P	0	
5464	ARCH	458					7958				TU		23	8	97	MR-L	16	P	0	
5465	ARCH	467					7959				TU		23	8	97	MR-L	16	P	0	
5466	ARCH	492					7960				TU		23	8	97	MR-L	16	P	0	
5467	ARCH	525					7961				TU		23	8	97	MR-L	16	P	0	
5468	ARCH	464					7962				TU		23	8	97	MR-L	16	P	0	
5469	ARCH	385					7963				TU		23	8	97	MR-L	16	P	0	
5470	ARCH	370					7964				TU		23	8	97	MR-L	16	P	0	
5471	ARCH	356					7965				TU		23	8	97	MR-L	16	P	0	
5472	ARCH	555					7966				TU		23	8	97	MR-L	16	P	0	
5473	ARCH	493					7967				TU		23	8	97	MR-L	16	P	0	
5474	ARCH	452					7968				TU		23	8	97	MR-L	16	P	0	
5475	ARCH	389					7970				TU		23	8	97	MR-L	16	P	0	
5476	ARCH	425					7971				TU		23	8	97	MR-L	16	P	0	
5477	ARCH	391					7972				TU		23	8	97	MR-L	16	P	0	
5478	ARCH	388					7973				TU		23	8	97	MR-L	16	P	0	
5479	ARCH	432					7974				TU		23	8	97	MR-L	16	P	0	
5480	ARCH	441					7975				TU		23	8	97	MR-L	16	P	0	
5481	ARCH	381					7957				TU		23	8	97	MR-L	16	P	0	
5485	ARCH	448					7877				TU		24	8	97	MR-L	17	A	0	
5486	ARCH	514					7878				TU		24	8	97	MR-L	17	A	0	
5487	ARCH	451					7879				TU		24	8	97	MR-L	17	A	0	
5488	ARCH	432					7880				TU		24	8	97	MR-L	17	A	0	
5489	ARCH	471					7881				TU		24	8	97	MR-L	17	A	0	
5490	ARCH	511					7882				TU		24	8	97	MR-L	17	A	0	
5491	ARCH	492					7883				TU		24	8	97	MR-L	17	A	0	
5492	ARCH	410					7884				TU		24	8	97	MR-L	17	A	0	
5493	ARCH	429					7885				TU		24	8	97	MR-L	17	A	0	
5494	ARCH	374					7886				TU		24	8	97	MR-L	17	A	0	
5495	ARCH	490					7887				TU		24	8	97	MR-L	17	A	0	
5496	ARCH	465					7888				TU		24	8	97	MR-L	17	A	0	
5497	ARCH	360					7889				TU		24	8	97	MR-L	17	A	0	
5498	ARCH	385					7890				TU		24	8	97	MR-L	17	A	0	
5499	ARCH	436					7891				TU		24	8	97	MR-L	17	A	0	
5500	ARCH	433					7892				TU		24	8	97	MR-L	17	A	0	
5501	ARCH	412					7893				TU		24	8	97	MR-L	17	A	0	
5502	ARCH	395					7894				TU		24	8	97	MR-L	17	A	0	
5503	ARCH	597					7895				TU		24	8	97	MR-L	17	A	0	recap'd 16/9/97 in ML-S
5504	ARCH	436					7896				TU		24	8	97	MR-L	17	A	0	
5505	ARCH	394					7897				TU		24	8	97	MR-L	17	A	0	
5506	ARCH	453					7898				TU		24	8	97	MR-L	17	A	0	
5507	ARCH	442					7899				TU		24	8	97	MR-L	17	A	0	
5508	ARCH	446					7900				TU		24	8	97	MR-L	17	A	0	
5509	ARCH	520					8601				TU		24	8	97	MR-L	17	A	0	
5510	ARCH	402					8602				TU		24	8	97	MR-L	17	A	0	
5511	ARCH	419					8603				TU		24	8	97	MR-L	17	A	0	
5512	ARCH	432					8604				TU		24	8	97	MR-L	17	A	0	
5513	ARCH	343					8605				TU		24	8	97	MR-L	17	A	0	
5514	ARCH	484					8606				TU		24	8	97	MR-L	17	A	0	
5515	ARCH	502					8607				TU		24	8	97	MR-L	17	A	0	
5516	ARCH	388					8608				TU		24	8	97	MR-L	17	A	0	
5517	ARCH	392					8610				TU		24	8	97	MR-L	17	A	0	
5518	ARCH	562					8619				TU		24	8	97	MR-L	17	A	0	
5519	ARCH	558					8612				TU		24	8	97	MR-L	17	A	0	
5520	ARCH	486					8613				TU		24	8	97	MR-L	17	A	0	
5521	ARCH	449					8615				TU		24	8	97	MR-L	17	A	0	
5522	ARCH	545					8617				TU		24	8	97	MR-L	17	A	0	
5523	ARCH	543					8618				TU		24	8	97	MR-L	17	A	0	
5524	ARCH	367					8620				TU		24	8	97	MR-L	17	A	0	
5525	ARCH	377					8621				TU		24	8	97	MR-L	17	A	0	
5526	ARCH	356					8622				TU		24	8	97	MR-L	17	A	0	
5527	ARCH	366					8623				TU		24	8	97	MR-L	17	A	0	
5528	ARCH	396					8624				TU		24	8	97	MR-L	17	A	0	
5529	ARCH	378					8625				TU		24	8	97	MR-L	17	A	0	
5531	ARCH	423					8626				TU		24	8	97	MR-L	18	P	0	
5532	ARCH	518					8627				TU		24	8	97	MR-L	18	P	0	
5533	ARCH	519					8628				TU		24	8	97	MR-L	18	P	0	
5534	ARCH	379					8629				TU		24	8	97	MR-L	18	P	0	
5535	ARCH	469					8630				TU		24	8	97	MR-L	18	P	0	
5536	ARCH	506					8631				TU		24	8	97	MR-L	18	P	0	
5537	ARCH	554					8632				TU		24	8	97	MR-L	18	P	0	
5538	ARCH	470					8633				TU		24	8	97	MR-L	18	P	0	
5539	ARCH	522					8634				TU		24	8	97	MR-L	18	P	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location	Cap. Code	Comments
5540	ARCH	376					8635				TU		24	8	97	MR-L	18	P	0
5541	ARCH	542					8636				TU		24	8	97	MR-L	18	P	0
5542	ARCH	455					8637				TU		24	8	97	MR-L	18	P	0
5543	ARCH	385					8638				TU		24	8	97	MR-L	18	P	0
5544	ARCH	370					8640				TU		24	8	97	MR-L	18	P	0
5545	ARCH	469					8641				TU		24	8	97	MR-L	18	P	0
5546	ARCH	388					8642				TU		24	8	97	MR-L	18	P	0
5547	ARCH	480					8643				TU		24	8	97	MR-L	18	P	0
5548	ARCH	399					8644				TU		24	8	97	MR-L	18	P	0
5549	ARCH	358					8645				TU		24	8	97	MR-L	18	P	0
5550	ARCH	411					8646				TU		24	8	97	MR-L	18	P	0
5551	ARCH	668	3340		Ot, FR	9					TU		24	8	97	MR-L	18	P	1	St=0; died in trap
5552	ARCH	597					8647				TU		25	8	97	MR-L	19	A	0
5553	ARCH	382					8648				TU		25	8	97	MR-L	19	A	0
5554	ARCH	499					8649				TU		25	8	97	MR-L	19	A	0
5555	ARCH	382					8650				TU		25	8	97	MR-L	19	A	0
5556	ARCH	377					8614				TU		25	8	97	MR-L	19	A	0
5557	ARCH	370					8639				TU		25	8	97	MR-L	19	A	0
5558	ARCH	385					8616				TU		25	8	97	MR-L	19	A	0
5559	ARCH	572					7776				TU		25	8	97	MR-L	19	A	0
5560	ARCH	470					7777				TU		25	8	97	MR-L	19	A	0
5561	ARCH	401					7778				TU		25	8	97	MR-L	19	A	0
5562	ARCH	373					7779				TU		25	8	97	MR-L	19	A	0
5563	ARCH	400					7780				TU		25	8	97	MR-L	19	A	0
5564	ARCH	340					7781				TU		25	8	97	MR-L	19	A	0
5565	ARCH	510					7782				TU		25	8	97	MR-L	19	A	0
5566	ARCH	345					7783				TU		25	8	97	MR-L	19	A	0
5567	ARCH	350					7784				TU		25	8	97	MR-L	19	A	0
5568	ARCH	460					7785				TU		25	8	97	MR-L	19	A	0
5569	ARCH	411					7786				TU		25	8	97	MR-L	19	A	0
5570	ARCH	309					7787				TU		25	8	97	MR-L	19	A	0
5571	ARCH	471					7788				TU		25	8	97	MR-L	19	A	0
5572	ARCH	383					7789				TU		25	8	97	MR-L	19	A	0
5573	ARCH	485					7790				TU		25	8	97	MR-L	19	A	0
5574	ARCH	515					7791				TU		25	8	97	MR-L	19	A	0
5575	ARCH	396					7792				TU		25	8	97	MR-L	19	A	0
5576	ARCH	468					7793				TU		25	8	97	MR-L	19	A	0
5577	ARCH	543					7794				TU		25	8	97	MR-L	19	A	0
5578	ARCH	394					7795				TU		25	8	97	MR-L	19	A	0
5579	ARCH	404					7796				TU		25	8	97	MR-L	19	A	0
5580	ARCH	422					7797				TU		25	8	97	MR-L	19	A	0
5581	ARCH	561					7798				TU		25	8	97	MR-L	19	A	0
5582	ARCH	414					7799				TU		25	8	97	MR-L	19	A	0
5583	ARCH	403					7800				TU		25	8	97	MR-L	19	A	0
5584	ARCH	376					7851				TU		25	8	97	MR-L	19	A	0
5585	ARCH	506					7852				TU		25	8	97	MR-L	19	A	0
5586	ARCH	481					7853				TU		25	8	97	MR-L	19	A	0
5587	ARCH	499					7854				TU		25	8	97	MR-L	19	A	0
5588	ARCH	422					7855				TU		25	8	97	MR-L	19	A	0
5589	ARCH	424					7856				TU		25	8	97	MR-L	19	A	0
5590	ARCH	484					7857				TU		25	8	97	MR-L	19	A	0
5591	ARCH	474					7858				TU		25	8	97	MR-L	19	A	0
5592	ARCH	412					7859				TU		25	8	97	MR-L	19	A	0
5593	ARCH	347					7860				TU		25	8	97	MR-L	19	A	0
5594	ARCH	418					7861				TU		25	8	97	MR-L	19	A	0	recap'd 7/9/97 in ML-S
5595	ARCH	576					7862				TU		25	8	97	MR-L	19	A	0
5596	ARCH	593					7863				TU		25	8	97	MR-L	19	A	0
5597	ARCH	440					7864				TU		25	8	97	MR-L	19	A	0
5598	ARCH	596					7865				TU		25	8	97	MR-L	19	A	0
5599	ARCH	516					7866				TU		25	8	97	MR-L	19	A	0
5600	ARCH	510					7867				TU		25	8	97	MR-L	19	A	0
5601	ARCH	530					7868				TU		25	8	97	MR-L	19	A	0
5602	ARCH	493					7869				TU		25	8	97	MR-L	19	A	0
5603	ARCH	384					7870				TU		25	8	97	MR-L	19	A	0
5604	ARCH	361					7872				TU		25	8	97	MR-L	19	A	0
5605	ARCH	368					7873				TU		25	8	97	MR-L	19	A	0
5606	ARCH	503					7874				TU		25	8	97	MR-L	19	A	0
5607	ARCH	363					7875				TU		25	8	97	MR-L	19	A	0
5608	ARCH	571					7871				TU		25	8	97	MR-L	19	A	0
5609	ARCH	443					7576				TU		25	8	97	MR-L	19	A	0
5610	ARCH	345					7577				TU		25	8	97	MR-L	19	A	0
5612	ARCH	402					7579				TU		25	8	97	MR-L	20	P	0
5613	ARCH	396					7580				TU		25	8	97	MR-L	20	P	0
5614	ARCH	467					7581				TU		25	8	97	MR-L	20	P	0
5615	ARCH	478					7582				TU		25	8	97	MR-L	20	P	0
5616	ARCH	409					7583				TU		25	8	97	MR-L	20	P	0
5617	ARCH	501					7584				TU		25	8	97	MR-L	20	P	0
5618	ARCH	393					7585				TU		25	8	97	MR-L	20	P	0
5619	ARCH	327					7586				TU		25	8	97	MR-L	20	P	0
5620	ARCH	361					7587				TU		25	8	97	MR-L	20	P	0
5621	ARCH	555					7588				TU		25	8	97	MR-L	20	P	0
5622	ARCH	488					7589				TU		25	8	97	MR-L	20	P	0
5623	ARCH	412					7590				TU		25	8	97	MR-L	20	P	0
5624	ARCH	561					7591				TU		25	8	97	MR-L	20	P	0
5625	ARCH	444					7592				TU		25	8	97	MR-L	20	P	0
5626	ARCH	363					7593				TU		25	8	97	MR-L	20	P	0
5627	ARCH	440					7594				TU		25	8	97	MR-L	20	P	0
5628	ARCH	412					7595				TU		25	8	97	MR-L	20	P	0
5629	ARCH	377					7596				TU		25	8	97	MR-L	20	P	0

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area. 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
5630	ARCH	514					7597				TU		25	8	97	MR-L	20	P	0	
5631	ARCH	458					7598				TU		25	8	97	MR-L	20	P	0	
5632	ARCH	519					7599				TU		25	8	97	MR-L	20	P	0	
5633	ARCH	487					7600				TU		25	8	97	MR-L	20	P	0	
5634	ARCH	366					7501				TU		25	8	97	MR-L	20	P	0	
5635	ARCH	464					7502				TU		25	8	97	MR-L	20	P	0	
5636	ARCH	438					7503				TU		25	8	97	MR-L	20	P	0	
5637	ARCH	430					7504				TU		25	8	97	MR-L	20	P	0	
5638	ARCH	560					7505				TU		25	8	97	MR-L	20	P	0	
5639	ARCH	532					7506				TU		25	8	97	MR-L	20	P	0	
5640	ARCH	556					7507				TU		25	8	97	MR-L	20	P	0	
5641	ARCH	409					7508				TU		25	8	97	MR-L	20	P	0	
5642	ARCH	416					7509				TU		25	8	97	MR-L	20	P	0	
5643	ARCH	383					7510				TU		25	8	97	MR-L	20	P	0	
5644	ARCH	553					7511				TU		25	8	97	MR-L	20	P	0	
5645	ARCH	369					7512				TU		25	8	97	MR-L	20	P	0	
5646	ARCH	364					7513				TU		25	8	97	MR-L	20	P	0	
5647	ARCH	392					7514				TU		25	8	97	MR-L	20	P	0	
5648	ARCH	408					7515				TU		25	8	97	MR-L	20	P	0	
5649	ARCH	339					7516				TU		25	8	97	MR-L	20	P	0	
5650	ARCH	438					7517				TU		25	8	97	MR-L	20	P	0	
5651	ARCH	486					7518				TU		25	8	97	MR-L	20	P	0	
5652	ARCH	405					7519				TU		25	8	97	MR-L	20	P	0	
5653	ARCH	514					7520				TU		25	8	97	MR-L	20	P	0	
5654	ARCH	407					7521				TU		25	8	97	MR-L	20	P	0	
5655	ARCH	535					7522				TU		25	8	97	MR-L	20	P	0	
5656	ARCH	529					7523				TU		25	8	97	MR-L	20	P	0	
5657	ARCH	384					7524				TU		25	8	97	MR-L	20	P	0	
5658	ARCH	413					7525				TU		25	8	97	MR-L	20	P	0	
5659	ARCH	384					7551				TU		25	8	97	MR-L	20	P	0	
5660	ARCH	377					7552				TU		25	8	97	MR-L	20	P	0	
5661	ARCH	531					7553				TU		25	8	97	MR-L	20	P	0	
5662	ARCH	538					7554				TU		25	8	97	MR-L	20	P	0	
5663	ARCH	340					7555				TU		25	8	97	MR-L	20	P	0	
5664	ARCH	394					7556				TU		25	8	97	MR-L	20	P	0	
5665	ARCH	398					7557				TU		25	8	97	MR-L	20	P	0	
5666	ARCH	538					7558				TU		25	8	97	MR-L	20	P	0	
5667	ARCH	390					7559				TU		25	8	97	MR-L	20	P	0	
5668	ARCH	370					7560				TU		25	8	97	MR-L	20	P	0	
5669	ARCH	378					7561				TU		25	8	97	MR-L	20	P	0	recap'd 26/9/97 in LML
5670	ARCH	363					7562				TU		25	8	97	MR-L	20	P	0	
5671	ARCH	421					7563				TU		25	8	97	MR-L	20	P	0	
5681	ARCH	412					7573				TU		26	8	97	MR-L	21	A	0	
5682	ARCH	389					7574				TU		26	8	97	MR-L	21	A	0	
5683	ARCH	339					7575				TU		26	8	97	MR-L	21	A	0	
5684	ARCH	487					7526				TU		26	8	97	MR-L	21	A	0	
5685	ARCH	531					7527				TU		26	8	97	MR-L	21	A	0	
5686	ARCH	444					7528				TU		26	8	97	MR-L	21	A	0	
5687	ARCH	490					7529				TU		26	8	97	MR-L	21	A	0	
5688	ARCH	425					7530				TU		26	8	97	MR-L	21	A	0	
5689	ARCH	509					7531				TU		26	8	97	MR-L	21	A	0	
5690	ARCH	570					7532				TU		26	8	97	MR-L	21	A	0	
5691	ARCH	475					7533				TU		26	8	97	MR-L	21	A	0	
5692	ARCH	372					7534				TU		26	8	97	MR-L	21	A	0	
5693	ARCH	423					7535				TU		26	8	97	MR-L	21	A	0	
5694	ARCH	336					7536				TU		26	8	97	MR-L	21	A	0	
5695	ARCH	418					7537				TU		26	8	97	MR-L	21	A	0	
5696	ARCH	375					7538				TU		26	8	97	MR-L	21	A	0	
5697	ARCH	578					7539				TU		26	8	97	MR-L	21	A	0	recap'd 14/10/97 in ML-S
5698	ARCH	378					7540				TU		26	8	97	MR-L	21	A	0	
5699	ARCH	372					7541				TU		26	8	97	MR-L	21	A	0	
5700	ARCH	492					7542				TU		26	8	97	MR-L	21	A	0	
5701	ARCH	337					7543				TU		26	8	97	MR-L	21	A	0	
5702	ARCH	351					7544				TU		26	8	97	MR-L	21	A	0	
5703	ARCH	345					7545				TU		26	8	97	MR-L	21	A	0	
5704	ARCH	440					7546				TU		26	8	97	MR-L	21	A	0	
5705	ARCH	392					7547				TU		26	8	97	MR-L	21	A	0	
5706	ARCH	428					7548				TU		26	8	97	MR-L	21	A	0	
5707	ARCH	382					7549				TU		26	8	97	MR-L	21	A	0	
5708	ARCH	406					7550				TU		26	8	97	MR-L	21	A	0	
5709	ARCH	372					4475				TU		26	8	97	MR-L	21	A	0	
5710	ARCH	495					4476				TU		26	8	97	MR-L	21	A	0	
5711	ARCH	379					4477				TU		26	8	97	MR-L	21	A	0	
5712	ARCH	373					4478				TU		26	8	97	MR-L	21	A	0	
5713	ARCH	424					4479				TU		26	8	97	MR-L	21	A	0	
5714	ARCH	511					4480				TU		26	8	97	MR-L	21	A	0	
5715	ARCH	455					4481				TU		26	8	97	MR-L	21	A	0	
5716	ARCH	316					4482				TU		26	8	97	MR-L	21	A	0	
5717	ARCH	547					4483				TU		26	8	97	MR-L	21	A	0	recap'd 29/8/97 in LML
5718	ARCH	353					4484				TU		26	8	97	MR-L	21	A	0	
5719	ARCH	480					4485				TU		26	8	97	MR-L	21	A	0	
5720	ARCH	398					4486				TU		26	8	97	MR-L	21	A	0	
5721	ARCH	357					4487				TU		26	8	97	MR-L	21	A	0	
5722	ARCH	430					4488				TU		26	8	97	MR-L	21	A	0	
5723	ARCH	364					4489				TU		26	8	97	MR-L	22	P	0	
5724	ARCH	613					4490				TU		26	8	97	MR-L	22	P	0	
5725	ARCH	395					4491				TU		26	8	97	MR-L	22	P	0	
5726	ARCH	612					4492				TU		26	8	97	MR-L	22	P	0	
5727	ARCH	436					4493				TU		26	8	97	MR-L	22	P	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
5728	ARCH	393					4494				TU		26	8	97	MR-L	22	P	0	
5729	ARCH	614					4495				TU		26	8	97	MR-L	22	P	0	
5730	ARCH	375					4496				TU		26	8	97	MR-L	22	P	0	
5731	ARCH	602					4497				TU		26	8	97	MR-L	22	P	0	
5732	ARCH	402					4498				TU		26	8	97	MR-L	22	P	0	
5733	ARCH	363					4499				TU		26	8	97	MR-L	22	P	0	
5734	ARCH	413					4500				TU		26	8	97	MR-L	22	P	0	
5735	ARCH	616					7801				TU		26	8	97	MR-L	22	P	0	
5736	ARCH	467					7802				TU		26	8	97	MR-L	22	P	0	
5737	ARCH	359					7803				TU		26	8	97	MR-L	22	P	0	
5738	ARCH	396					7804				TU		26	8	97	MR-L	22	P	0	
5739	ARCH	417					7805				TU		26	8	97	MR-L	22	P	0	
5740	ARCH	398					7806				TU		26	8	97	MR-L	22	P	0	
5741	ARCH	421					7807				TU		26	8	97	MR-L	22	P	0	
5742	ARCH	556					7808				TU		26	8	97	MR-L	22	P	0	
5743	ARCH	423					7809				TU		26	8	97	MR-L	22	P	0	
5744	ARCH	607					7810				TU		26	8	97	MR-L	22	P	0	
5745	ARCH	618					7811				TU		26	8	97	MR-L	22	P	0	
5746	ARCH	399					7812				TU		26	8	97	MR-L	22	P	0	
5747	ARCH	362					7813				TU		26	8	97	MR-L	22	P	0	
5748	ARCH	472					7814				TU		26	8	97	MR-L	22	P	0	
5749	ARCH	399					7815				TU		26	8	97	MR-L	22	P	0	
5750	ARCH	365					7816				TU		26	8	97	MR-L	22	P	0	
5751	ARCH	349					7817				TU		26	8	97	MR-L	22	P	0	
5752	ARCH	440					7818				TU		26	8	97	MR-L	22	P	0	
5753	ARCH	392					7819				TU		26	8	97	MR-L	22	P	0	
5754	ARCH	390					7820				TU		26	8	97	MR-L	22	P	0	
5755	ARCH	368					7821				TU		26	8	97	MR-L	22	P	0	
5759	ARCH	365					7824				TU		27	8	97	MR-L	23	A	0	
5760	ARCH	393					7825				TU		27	8	97	MR-L	23	A	0	
5761	ARCH	388					7901				TU		27	8	97	MR-L	23	A	0	
5762	ARCH	394					7902				TU		27	8	97	MR-L	23	A	0	
5763	ARCH	403					7903				TU		27	8	97	MR-L	23	A	0	
5764	ARCH	358					7904				TU		27	8	97	MR-L	23	A	0	
5765	ARCH	374					7905				TU		27	8	97	MR-L	23	A	0	
5766	ARCH	368					7906				TU		27	8	97	MR-L	23	A	0	
5767	ARCH	534					7907				TU		27	8	97	MR-L	23	A	0	
5768	ARCH	409					7908				TU		27	8	97	MR-L	23	A	0	
5769	ARCH	419					7909				TU		27	8	97	MR-L	23	A	0	
5770	ARCH	335					7910				TU		27	8	97	MR-L	23	A	0	
5771	ARCH	478					7911				TU		27	8	97	MR-L	23	A	0	
5772	ARCH	394					7912				TU		27	8	97	MR-L	23	A	0	
5773	ARCH	340					7913				TU		27	8	97	MR-L	23	A	0	
5774	ARCH	450					7914				TU		27	8	97	MR-L	23	A	0	
5775	ARCH	436					7915				TU		27	8	97	MR-L	23	A	0	
5776	ARCH	397					7916				TU		27	8	97	MR-L	23	A	0	
5777	ARCH	435					7917				TU		27	8	97	MR-L	23	A	0	
5778	ARCH	395					7918				TU		27	8	97	MR-L	23	A	0	
5779	ARCH	363					7919				TU		27	8	97	MR-L	23	A	0	
5780	ARCH	395					7920				TU		27	8	97	MR-L	23	A	0	
5781	ARCH	526					7921				TU		27	8	97	MR-L	23	A	0	
5782	ARCH	444					7922				TU		27	8	97	MR-L	23	A	0	
5783	ARCH	382					7923				TU		27	8	97	MR-L	23	A	0	
5784	ARCH	360					7924				TU		27	8	97	MR-L	23	A	0	
5785	ARCH	364					7925				TU		27	8	97	MR-L	23	A	0	
5786	ARCH	342					7976				TU		27	8	97	MR-L	23	A	0	
5787	ARCH	292	290	11	Ot, FR	4					TU		27	8	97	MR-L	23	A	1	St=0
5788	ARCH	438					7977				TU		27	8	97	MR-L	24	P	0	
5789	ARCH	402					7979				TU		27	8	97	MR-L	24	P	0	
5790	ARCH	381					7980				TU		27	8	97	MR-L	24	P	0	
5791	ARCH	388					7981				TU		27	8	97	MR-L	24	P	0	
5792	ARCH	478					7982				TU		27	8	97	MR-L	24	P	0	
5793	ARCH	389					7983				TU		27	8	97	MR-L	24	P	0	
5794	ARCH	454					7984				TU		27	8	97	MR-L	24	P	0	
5795	ARCH	400					7985				TU		27	8	97	MR-L	24	P	0	
5796	ARCH	348					7986				TU		27	8	97	MR-L	24	P	0	
5797	ARCH	487					7987				TU		27	8	97	MR-L	24	P	0	
5798	ARCH	461					7988				TU		27	8	97	MR-L	24	P	0	
5799	ARCH	489					7989				TU		27	8	97	MR-L	24	P	0	
5800	ARCH	318					7991				TU		27	8	97	MR-L	24	P	0	
5801	ARCH	439					7992				TU		27	8	97	MR-L	24	P	0	
5802	ARCH	349					7993				TU		27	8	97	MR-L	24	P	0	
5803	ARCH	400					7994				TU		27	8	97	MR-L	24	P	0	
5804	ARCH	485					7996				TU		27	8	97	MR-L	24	P	0	
5805	ARCH	394					7998				TU		27	8	97	MR-L	24	P	0	
5806	ARCH	439					7999				TU		27	8	97	MR-L	24	P	0	
5807	ARCH	428					8000				TU		27	8	97	MR-L	24	P	0	
5808	ARCH	433					7997				TU		27	8	97	MR-L	24	P	0	
5809	ARCH	374					7995				TU		27	8	97	MR-L	24	P	0	
5810	ARCH	470					7376				TU		27	8	97	MR-L	24	P	0	
5811	ARCH	589					7378				TU		27	8	97	MR-L	24	P	0	
5812	ARCH	578					7379				TU		27	8	97	MR-L	24	P	0	
5813	ARCH	344					7380				TU		27	8	97	MR-L	24	P	0	
5814	ARCH	378					7381				TU		27	8	97	MR-L	24	P	0	
5815	ARCH	390					7382				TU		27	8	97	MR-L	24	P	0	
5816	ARCH	467					7383				TU		27	8	97	MR-L	24	P	0	
5817	ARCH	398					7384				TU		27	8	97	MR-L	24	P	0	
5818	ARCH	362					7385				TU		27	8	97	MR-L	24	P	0	
5819	ARCH	365					7386				TU		27	8	97	MR-L	24	P	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
5820	ARCH	382					7387				TU		27	8	97	MR-L	24	P	0	
5821	ARCH	438					7388				TU		27	8	97	MR-L	24	P	0	
5822	ARCH	361					7389				TU		27	8	97	MR-L	24	P	0	
5823	ARCH	369					7390				TU		27	8	97	MR-L	24	P	0	
5824	ARCH	500					7391				TU		27	8	97	MR-L	24	P	0	
5825	ARCH	392					7392				TU		27	8	97	MR-L	24	P	0	
5826	ARCH	321					7393				TU		27	8	97	MR-L	24	P	0	
5827	ARCH	515					7394				TU		27	8	97	MR-L	24	P	0	
5828	ARCH	413					7395				TU		27	8	97	MR-L	24	P	0	
5829	ARCH	376					7396				TU		27	8	97	MR-L	24	P	0	
5830	ARCH	353					7397				TU		27	8	97	MR-L	24	P	0	
5831	ARCH	316					7399				TU		27	8	97	MR-L	24	P	0	
5832	ARCH	296									TU		27	8	97	MR-L	24	P	0	scar by dorsal fin
5833	ARCH	364					7400				TU		27	8	97	MR-L	24	P	0	
5835	ARCH	398					7990				TU		28	8	97	MR-L	25	A	0	
5836	ARCH	418					7377				TU		28	8	97	MR-L	25	A	0	
5837	ARCH	419					7426				TU		28	8	97	MR-L	25	A	0	
5838	ARCH	376					7427				TU		28	8	97	MR-L	25	A	0	
5839	ARCH	353					7428				TU		28	8	97	MR-L	25	A	0	
5840	ARCH	372					7429				TU		28	8	97	MR-L	25	A	0	
5841	ARCH	591					7430				TU		28	8	97	MR-L	25	A	0	
5842	ARCH	428					7431				TU		28	8	97	MR-L	25	A	0	
5843	ARCH	395					7432				TU		28	8	97	MR-L	25	A	0	
5844	ARCH	440					7433				TU		28	8	97	MR-L	25	A	0	
5845	ARCH	343					7434				TU		28	8	97	MR-L	25	A	0	
5846	ARCH	391					7435				TU		28	8	97	MR-L	25	A	0	
5847	ARCH	390					7436				TU		28	8	97	MR-L	25	A	0	
5848	ARCH	368					7437				TU		28	8	97	MR-L	25	A	0	
5849	ARCH	416					7438				TU		28	8	97	MR-L	25	A	0	
5850	ARCH	386					7439				TU		28	8	97	MR-L	25	A	0	
5851	ARCH	341					7440				TU		28	8	97	MR-L	25	A	0	
5852	ARCH	401					7441				TU		28	8	97	MR-L	25	A	0	
5853	ARCH	355					7442				TU		28	8	97	MR-L	25	A	0	
5854	ARCH	325					7443				TU		28	8	97	MR-L	25	A	0	
5855	ARCH	484					7444				TU		28	8	97	MR-L	25	A	0	
5856	ARCH	440					7445				TU		28	8	97	MR-L	25	A	0	
5857	ARCH	469					7446				TU		28	8	97	MR-L	25	A	0	
5858	ARCH	394					7447				TU		28	8	97	MR-L	25	A	0	
5859	ARCH	435					7448				TU		28	8	97	MR-L	25	A	0	
5860	ARCH	329					7449				TU		28	8	97	MR-L	25	A	0	
5861	ARCH	462					7450				TU		28	8	97	MR-L	25	A	0	
5862	ARCH	274									TU		28	8	97	MR-L	25	A	0	
5863	ARCH	385					7451				TU		28	8	97	MR-L	25	A	0	
5864	ARCH	439					7452				TU		28	8	97	MR-L	25	A	0	
5865	ARCH	404					7453				TU		28	8	97	MR-L	25	A	0	
5866	ARCH	418					7454				TU		28	8	97	MR-L	25	A	0	
5867	ARCH	478					7455				TU		28	8	97	MR-L	25	A	0	
5868	ARCH	460					7456				TU		28	8	97	MR-L	25	A	0	
5869	ARCH	414					7457				TU		28	8	97	MR-L	25	A	0	
5870	ARCH	330					7458				TU		28	8	97	MR-L	25	A	0	
5871	ARCH	418					7459				TU		28	8	97	MR-L	25	A	0	
5872	ARCH	450					7460				TU		28	8	97	MR-L	25	A	0	
5873	ARCH	391					7461				TU		28	8	97	MR-L	25	A	0	
5874	ARCH	373					7462				TU		28	8	97	MR-L	25	A	0	
5875	ARCH	342					7463				TU		28	8	97	MR-L	26	P	0	
5876	ARCH	462					7464				TU		28	8	97	MR-L	26	P	0	
5877	ARCH	425					7465				TU		28	8	97	MR-L	26	P	0	
5878	ARCH	394					7466				TU		28	8	97	MR-L	26	P	0	
5879	ARCH	515					7467				TU		28	8	97	MR-L	26	P	0	
5880	ARCH	406					7468				TU		28	8	97	MR-L	26	P	0	
5881	ARCH	446					7469				TU		28	8	97	MR-L	26	P	0	
5882	ARCH	415					7470				TU		28	8	97	MR-L	26	P	0	
5883	ARCH	444					7471				TU		28	8	97	MR-L	26	P	0	
5884	ARCH	404					7472				TU		28	8	97	MR-L	26	P	0	
5885	ARCH	420					7473				TU		28	8	97	MR-L	26	P	0	
5886	ARCH	403					7474				TU		28	8	97	MR-L	26	P	0	
5887	ARCH	448					7475				TU		28	8	97	MR-L	26	P	0	
5888	ARCH	427					7401				TU		28	8	97	MR-L	26	P	0	
5889	ARCH	395					7402				TU		28	8	97	MR-L	26	P	0	
5890	ARCH	397					7403				TU		28	8	97	MR-L	26	P	0	
5891	ARCH	385					7404				TU		28	8	97	MR-L	26	P	0	
5892	ARCH	367					7405				TU		28	8	97	MR-L	26	P	0	
5893	ARCH	378					7406				TU		28	8	97	MR-L	26	P	0	
5894	ARCH	490					7407				TU		28	8	97	MR-L	26	P	0	
5895	ARCH	298									TU		28	8	97	MR-L	26	P	0	
5896	ARCH	378					7408				TU		28	8	97	MR-L	26	P	0	
5897	ARCH	314					7409				TU		28	8	97	MR-L	26	P	0	
5898	ARCH	352					7410				TU		28	8	97	MR-L	26	P	0	
5899	ARCH	390					7411				TU		28	8	97	MR-L	26	P	0	
5900	ARCH	423					7412				TU		28	8	97	MR-L	26	P	0	
5901	ARCH	386					7413				TU		28	8	97	MR-L	26	P	0	
5902	ARCH	411					7414				TU		28	8	97	MR-L	26	P	0	
5903	ARCH	405					7415				TU		28	8	97	MR-L	26	P	0	
5904	ARCH	325					7416				TU		28	8	97	MR-L	26	P	0	
5906	ARCH	510					7418				TU		29	8	97	MR-L	27	A	0	
5907	ARCH	374					7419				TU		29	8	97	MR-L	27	A	0	
5908	ARCH	354					7420				TU		29	8	97	MR-L	27	A	0	
5909	ARCH	375					7421				TU		29	8	97	MR-L	27	A	0	
5910	ARCH	484					7422				TU		29	8	97	MR-L	27	A	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location	Cap. Code	Comments
5911	ARCH	350					7423				TU		29	8	97	MR-L	27	A	0
5912	ARCH	403					7424				TU		29	8	97	MR-L	27	A	0
5913	ARCH	364					7425				TU		29	8	97	MR-L	27	A	0
5914	ARCH	399					7476				TU		29	8	97	MR-L	27	A	0
5915	ARCH	433					7477				TU		29	8	97	MR-L	27	A	0
5916	ARCH	309					7478				TU		29	8	97	MR-L	27	A	0
5917	ARCH	365					7479				TU		29	8	97	MR-L	27	A	0
5918	ARCH	353					7480				TU		29	8	97	MR-L	27	A	0
5919	ARCH	375					7481				TU		29	8	97	MR-L	27	A	0
5920	ARCH	352					7482				TU		29	8	97	MR-L	27	A	0
5921	ARCH	495					7483				TU		29	8	97	MR-L	27	A	0
5922	ARCH	372					7484				TU		29	8	97	MR-L	27	A	0
5923	ARCH	408					7485				TU		29	8	97	MR-L	27	A	0
5924	ARCH	351					7486				TU		29	8	97	MR-L	27	A	0
5925	ARCH	372					7487				TU		29	8	97	MR-L	27	A	0
5926	ARCH	359					7488				TU		29	8	97	MR-L	27	A	0
5927	ARCH	473					7489				TU		29	8	97	MR-L	27	A	0
5928	ARCH	345					7490				TU		29	8	97	MR-L	27	A	0
5929	ARCH	673	3210				7491	21	75		TU		29	8	97	MR-L	27	A	0 recap'd 23/9/97 in LML
5930	ARCH	560	2055				7492	21	76		TU		29	8	97	MR-L	28	P	0
5931	ARCH	420					7494				TU		29	8	97	MR-L	28	P	0
5932	ARCH	428					7495				TU		29	8	97	MR-L	28	P	0
5933	ARCH	332					7496				TU		29	8	97	MR-L	28	P	0
5935	ARCH	297									TU		29	8	97	MR-L	28	P	0
5936	ARCH	337					7498				TU		29	8	97	MR-L	28	P	0
5937	ARCH	324					7499				TU		29	8	97	MR-L	28	P	0
5938	ARCH	445					7500				TU		29	8	97	MR-L	28	P	0
5939	ARCH	447					7493				TU		29	8	97	MR-L	28	P	0
5940	ARCH	344					7001				TU		29	8	97	MR-L	28	P	0
5941	ARCH	365					7002				TU		29	8	97	MR-L	28	P	0
5942	ARCH	322					7003				TU		29	8	97	MR-L	28	P	0
5943	ARCH	409					7005				TU		29	8	97	MR-L	28	P	0
5944	ARCH	360					7006				TU		29	8	97	MR-L	28	P	0
5945	ARCH	384					7007				TU		29	8	97	MR-L	28	P	0
5946	ARCH	413					7008				TU		29	8	97	MR-L	28	P	0
5947	ARCH	305					7009				TU		29	8	97	MR-L	28	P	0
5948	ARCH	364					7010				TU		29	8	97	MR-L	28	P	0
5949	ARCH	343					7011				TU		29	8	97	MR-L	28	P	0
5950	ARCH	378					7013				TU		29	8	97	MR-L	28	P	0
5951	ARCH	328					7014				TU		29	8	97	MR-L	28	P	0
5952	ARCH	297									TU		29	8	97	MR-L	28	P	0
5953	ARCH	460					7012				TU		29	8	97	MR-L	28	P	0
5954	ARCH	476	1290				7015	20	64		TU		30	8	97	MR-L	29	A	0
5955	ARCH	463	1315				7016	20	62		TU		30	8	97	MR-L	29	A	0 recap'd 12/9/97 in LML
5956	ARCH	438	1015				7017	20	58		TU		30	8	97	MR-L	29	A	0
5957	ARCH	444					7018				TU		30	8	97	MR-L	29	A	0
5958	ARCH	366					7019				TU		30	8	97	MR-L	29	A	0
5959	ARCH	396					7020				TU		30	8	97	MR-L	29	A	0
5960	ARCH	406					7021				TU		30	8	97	MR-L	29	A	0
5961	ARCH	381					7022				TU		30	8	97	MR-L	29	A	0
5962	ARCH	350					7023				TU		30	8	97	MR-L	29	A	0
5963	ARCH	325					7024				TU		30	8	97	MR-L	29	A	0
5964	ARCH	350					7025				TU		30	8	97	MR-L	29	A	0
5965	ARCH	449					6851				TU		30	8	97	MR-L	29	A	0
5966	ARCH	395					6852				TU		30	8	97	MR-L	29	A	0
5968	ARCH	375					6855				TU		30	8	97	MR-L	30	P	0
5969	ARCH	367					6857				TU		30	8	97	MR-L	30	P	0
5970	ARCH	328					6859				TU		30	8	97	MR-L	30	P	0
5971	ARCH	398					6860				TU		30	8	97	MR-L	30	P	0
5972	ARCH	382					6854				TU		30	8	97	MR-L	30	P	0
5973	ARCH	371					6856				TU		30	8	97	MR-L	30	P	0
5974	ARCH	344					6858				TU		30	8	97	MR-L	30	P	0
5975	ARCH	354					6861				TU		30	8	97	MR-L	30	P	0
5976	ARCH	352					6862				TU		30	8	97	MR-L	30	P	0
5977	ARCH	494	1375				6863	20	57		TU		30	8	97	MR-L	30	P	0
5978	ARCH	460	1175				6864	21	91		TU		30	8	97	MR-L	30	P	0
5979	ARCH	290									TU		30	8	97	MR-L	30	P	0
5980	ARCH	404					6866				TU		30	8	97	MR-L	30	P	0
5981	ARCH	394					6867				TU		30	8	97	MR-L	30	P	0
5982	ARCH	295									TU		30	8	97	MR-L	30	P	0
5983	ARCH	447	1170	1	Ot, FR	6					TU		30	8	97	MR-L	30	P	1 St=0; died in trap
5984	ARCH	322					6868				TU		30	8	97	MR-L	30	P	0
5985	ARCH	413					6870				TU		31	8	97	MR-L	31	A	0
5986	ARCH	348					6871				TU		31	8	97	MR-L	31	A	0
5987	ARCH	420					6872				TU		31	8	97	MR-L	31	A	0
5988	ARCH	331					6873				TU		31	8	97	MR-L	31	A	0
5989	ARCH	320					6874				TU		31	8	97	MR-L	31	A	0
5990	ARCH	523	1740				6875	20	56		TU		31	8	97	MR-L	31	A	0
5991	ARCH	497	1480				7004	20	60		TU		31	8	97	MR-L	31	A	0
5992	ARCH	378					6865				TU		31	8	97	MR-L	31	A	0
5993	ARCH	379					6869				TU		31	8	97	MR-L	31	A	0
5994	ARCH	364					7101				TU		31	8	97	MR-L	31	A	0
5995	ARCH	380					7102				TU		31	8	97	MR-L	31	A	0
5996	ARCH	457	1100				7103	20	71		TU		31	8	97	MR-L	31	A	0
5998	ARCH	355					7104				TU		31	8	97	MR-L	32	P	0
5999	ARCH	380					7105				TU		31	8	97	MR-L	32	P	0
6000	ARCH	426					7106				TU		31	8	97	MR-L	32	P	0
6001	ARCH	360					7107				TU		31	8	97	MR-L	32	P	0
6003	ARCH	453					7109				TU		31	8	97	MR-L	32	P	0

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap Code	Comments
6004	ARCH	375					7110				TU		31	8	97	MR-L	32	P	0	
6005	ARCH	387					7111				TU		31	8	97	MR-L	32	P	0	
6006	ARCH	415					7112				TU		31	8	97	MR-L	32	P	0	
6007	ARCH	390					7113				TU		31	8	97	MR-L	32	P	0	
6008	ARCH	400					7114				TU		31	8	97	MR-L	32	P	0	
6009	ARCH	571	2355				7115	20	51		TU		31	8	97	MR-L	32	P	0	
6010	ARCH	456					7116				TU		1	9	97	MR-L	33	A	0	
6011	ARCH	366					7117				TU		1	9	97	MR-L	33	A	0	
6012	ARCH	400					7118				TU		1	9	97	MR-L	33	A	0	
6013	ARCH	356					7119				TU		1	9	97	MR-L	33	A	0	
6014	ARCH	537	1805				7120	21	80		TU		1	9	97	MR-L	33	A	0	gill net marks
6016	ARCH	465					7122				TU		1	9	97	MR-L	34	P	0	
6017	ARCH	360					7123				TU		1	9	97	MR-L	34	P	0	
6018	ARCH	427					7124				TU		1	9	97	MR-L	34	P	0	
6019	ARCH	450					7125				TU		1	9	97	MR-L	34	P	0	
6020	ARCH	382					7626				TU		1	9	97	MR-L	34	P	0	
6021	ARCH	367					7627				TU		1	9	97	MR-L	34	P	0	
6022	ARCH	383					7628				TU		1	9	97	MR-L	34	P	0	
6023	ARCH	345	455				7629				TU		1	9	97	MR-L	34	P	0	
6025	ARCH	542	1970				7633	21	88		TU		1	9	97	MR-L	34	P	0	
6026	ARCH	602	2505				7634	21	73		TU		1	9	97	MR-L	34	P	0	
6027	ARCH	392					7638				TU		1	9	97	MR-L	34	P	0	
6028	ARCH	430					7637				TU		1	9	97	MR-L	34	P	0	
6029	ARCH	345	455				7630				TU		1	9	97	MR-L	34	P	0	
6030	ARCH	366	590				7635				TU		1	9	97	MR-L	34	P	0	
6031	ARCH	388					7639				TU		1	9	97	MR-L	34	P	0	
6032	ARCH	355	570				7636				TU		1	9	97	MR-L	34	P	0	
6033	ARCH	403					7641				TU		2	9	97	MR-L	35	A	0	
6034	ARCH	388					7642				TU		2	9	97	MR-L	35	A	0	
6035	ARCH	309	355				7643				TU		2	9	97	MR-L	35	A	0	
6036	ARCH	398					7644				TU		2	9	97	MR-L	35	A	0	
6040	ARCH	438					7648				TU		2	9	97	MR-L	35	A	0	
6041	ARCH	378					7649				TU		2	9	97	MR-L	35	A	0	
6042	ARCH	337					7650				TU		2	9	97	MR-L	35	A	0	
6044	ARCH	543	1990				7601	21	90		TU		2	9	97	MR-L	35	A	0	
6045	ARCH	390					7602				TU		2	9	97	MR-L	35	A	0	
6046	ARCH	360					7603				TU		2	9	97	MR-L	35	A	0	
6047	ARCH	403					7604				TU		2	9	97	MR-L	35	A	0	
6048	ARCH	408					7606				TU		2	9	97	MR-L	35	A	0	
6049	ARCH	450					7607				TU		2	9	97	MR-L	35	A	0	
6050	ARCH	474					7608				TU		2	9	97	MR-L	35	A	0	
6051	ARCH	648	3665	5	Ot, FR	9					TU		2	9	97	MR-L	36	P	1	St=0; tissues
6052	ARCH	600	2630	5	Ot, FR	6					TU		2	9	97	MR-L	36	P	1	St=0; tissues
6053	ARCH	605	2645	5	Ot, FR	8					TU		2	9	97	MR-L	36	P	1	St=0; tissues
6054	ARCH	485	1465	15	Ot, FR	5					TU		2	9	97	MR-L	36	P	1	St=0; tissues
6055	ARCH	534	1790	15	Ot, FR	8	7497				TU		2	9	97	MR-L	36	P	1	St=0; tissues
6056	ARCH	379					7609				TU		2	9	97	MR-L	36	P	0	
6057	ARCH	418					7610				TU		2	9	97	MR-L	36	P	0	
6058	ARCH	347	515				7613				TU		3	9	97	MR-L	37	A	0	
6059	ARCH	352	535				7611				TU		3	9	97	MR-L	37	A	0	
6060	ARCH	278	225								TU		3	9	97	MR-L	37	A	0	
6061	ARCH	390	675				7615				TU		3	9	97	MR-L	37	A	0	
6062	ARCH	395	710				7618				TU		3	9	97	MR-L	37	A	0	
6065	ARCH	321	400				7619				TU		3	9	97	MR-L	37	A	0	
6066	ARCH	340	475				7620				TU		3	9	97	MR-L	37	A	0	
6067	ARCH	386	790				7621				TU		3	9	97	MR-L	37	A	0	
6068	ARCH	347	445				7622				TU		3	9	97	MR-L	37	A	0	
6069	ARCH	545	1735	5	Ot, FR	7					TU		3	9	97	MR-L	37	A	1	St=0; tissues
6074	ARCH	578	2150	17	Ot, FR	8					GN	1.5	28	9	97	LML	2		1	St=0; tissues; gonad=305 g
6078	ARCH	600	2170	17			7625	20	62		GN	2.5	28	9	97	LML	3		0	
6085	ARCH	547	1845	17	Ot, Sc	6					GN	2.5	28	9	97	LML	3		1	St=0; tissues; gonad=150 g
6086	ARCH	570	1895	17	Ot, Sc	8					GN	1.5	28	9	97	LML	3		1	St=0; tissues; gonad=255 g
6087	ARCH	554	1990	17	Ot, Sc	7					GN	2.5	28	9	97	LML	3		1	St=0; tissues; gonad=290 g
6201	ARCH						7666				TR		26	9	97	LML			3	tag returned by dom. fisherman
6202	ARCH						8179				TR		25	8	97	LML			3	tag returned by dom. fisherman
6203	ARCH						7735				TR		25	8	97	LML			3	tag returned by dom. fisherman
6204	ARCH						4483				TR		29	8	97	LML			3	tag returned by dom. fisherman
6205	ARCH						7190				TR		5	9	97	LML			3	tag returned by dom. fisherman
6206	ARCH						7861				TR		7	9	97	ML-S			3	tag returned by dom. fisherman
6207	ARCH						7372				TR		12	9	97	LML			3	tag returned by dom. fisherman
6208	ARCH						7016	20	62		TR		15	9	97	LML			3	tag returned by dom. fisherman
6209	ARCH						7895				TR		16	9	97	ML-S			3	tag returned by dom. fisherman
6210	ARCH						7161				TR		16	9	97	ML-S			3	tag returned by dom. fisherman
6211	ARCH						7561				TR		26	9	97	LML			3	tag returned by dom. fisherman
6212	ARCH						7189				TR		26	9	97	LML			3	tag returned by dom. fisherman
6213	ARCH						7680				TR		2	11	97	LML			3	tag returned by dom. fisherman
6214	ARCH						7658				TR		2	11	97	LML			3	tag returned by dom. fisherman
6215	ARCH						7491	21	75		TR		23	9	97	LML			3	tag returned by dom. fisherman
6216	ARCH						7156				TR		23	9	97	LML			3	tag returned by dom. fisherman
6217	ARCH						7369				TR		10	10	97	ML-S			3	tag returned by dom. fisherman
6218	ARCH						7220				TR		10	10	97	ML-S			3	tag returned by dom. fisherman
6219	ARCH						7714				TR		14	10	97	ML-S			3	tag returned by dom. fisherman
6220	ARCH						7539				TR		14	10	97	ML-S			3	tag returned by dom. fisherman
9	ARGR	85	5		Sc	1					EF		15	6	97	A	0	- 1	0	
12	ARGR	75			Sc	1					EF		15	6	97	A	0	- 1	0	
21	ARGR	86			Sc	1					EF		15	6	97	A	0	- 1	0	
22	ARGR	60			Sc	1					EF		15	6	97	A	0	- 1	0	
24	ARGR	55			Sc	1					EF		15	6	97	A	0	- 1	0	
93	ARGR	217	106		Sc	4				L Pel	EF		15	6	97	A	5	- 6	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
94	ARGR	234	128		Sc	4				L Pel	EF		15 6 97	A	5 - 6	0	
95	ARGR	205	92		Sc	4				L Pel	EF		15 6 97	A	5 - 6	0	
96	ARGR	181	60		Sc	4				L Pel	EF		15 6 97	A	5 - 6	0	
97	ARGR	171	50		Sc	3				L Pel	EF		15 6 97	A	5 - 6	0	
98	ARGR	151	34		Sc	3				L Pel	EF		15 6 97	A	5 - 6	0	
99	ARGR	155	28		Sc	3				L Pel	EF		15 6 97	A	5 - 6	0	
100	ARGR	112	14		Sc	2				L Pel	EF		15 6 97	A	5 - 6	0	
101	ARGR	127	18		Sc	2				L Pel	EF		15 6 97	A	5 - 6	0	
142	ARGR	188	62		Sc	4				L Pel	EF		15 6 97	A	5 - 6	0	
143	ARGR	189	68		Sc	4				L Pel	EF		15 6 97	A	5 - 6	0	
144	ARGR	214	94		Sc	4				L Pel	EF		15 6 97	A	5 - 6	0	
145	ARGR	206	84		Sc	4				L Pel	EF		15 6 97	A	5 - 6	0	
186	ARGR	281	220		Sc	6	6329				AL		15 6 97	MR-L	d/s LML	0	rel'd 15V 540000 6976200
187	ARGR	308	315		Sc	7	6330				AL		15 6 97	MR-L	d/s LML	0	rel'd 15V 540000 6976200
189	ARGR	188	66		Sc	4				L Pel	EF		16 6 97	A	7 - 8	0	
190	ARGR	141	24		Sc	3				L Pel	EF		16 6 97	A	7 - 8	0	
191	ARGR	140	26		Sc	3				L Pel	EF		16 6 97	A	7 - 8	0	
192	ARGR	137	24		Sc	3				L Pel	EF		16 6 97	A	7 - 8	0	
205	ARGR	194	78		Sc	4				R Pel	EF		16 6 97	B	1 - 2	0	
206	ARGR	187	54		Sc	4				R Pel	EF		16 6 97	B	1 - 2	0	
207	ARGR	162	46		Sc	3				R Pel	EF		16 6 97	B	1 - 2	0	
208	ARGR	167	44		Sc	3				R Pel	EF		16 6 97	B	1 - 2	0	
209	ARGR	217	98		Sc	4				R Pel	EF		16 6 97	B	1 - 2	0	
210	ARGR	160	38		Sc	3				R Pel	EF		16 6 97	B	1 - 2	0	
211	ARGR	164	42		Sc	3				R Pel	EF		16 6 97	B	1 - 2	0	
212	ARGR	142	26		Sc	3				R Pel	EF		16 6 97	B	1 - 2	0	
213	ARGR	120	14		Sc	2				R Pel	EF		16 6 97	B	1 - 2	0	
217	ARGR	223	122		Sc	4				R Pel	EF		16 6 97	B	3 - 4	0	
218	ARGR	227	120		Sc	4				R Pel	EF		16 6 97	B	3 - 4	0	
219	ARGR	212	114		Sc	4				R Pel	EF		16 6 97	B	3 - 4	0	
220	ARGR	219	110		Sc	4				R Pel	EF		16 6 97	B	3 - 4	0	
221	ARGR	206	88		Sc	4				R Pel	EF		16 6 97	B	3 - 4	0	
222	ARGR	215	98		Sc	4				R Pel	EF		16 6 97	B	3 - 4	0	
223	ARGR	222	104		Sc	4				R Pel	EF		16 6 97	B	3 - 4	0	
231	ARGR	206	86		Sc	4				R Pel	EF		16 6 97	B	3 - 4	0	
232	ARGR	259	178		Sc	5	6332				EF		16 6 97	B	3 - 4	0	
239	ARGR	300	310		Sc	6	6333				EF		16 6 97	B	3 - 4	0	
240	ARGR	382	548	9	Sc	8	6334	23	47		AL		16 6 97	B2	B2 inlet	0	
241	ARGR	308	346	20	Sc	6	6335	22	29		AL		16 6 97	B2	B2 inlet	0	
242	ARGR	318	340	20	Sc	6	6336				AL		16 6 97	B2	B2 inlet	0	
243	ARGR	310	340	20	Sc	6	6337				AL		16 6 97	B2	B2 inlet	0	
263	ARGR	145	26		Sc	2				R Pel	EF		17 6 97	B	45 - 46	0	
264	ARGR	63			Sc	1					EF		17 6 97	B	45 - 46	0	
289	ARGR	99	10		Sc	2					EF		17 6 97	B	51 - 52	0	
290	ARGR	105	10		Sc	2					EF		17 6 97	B	51 - 52	0	
291	ARGR	92	8		Sc	2					EF		17 6 97	B	51 - 52	0	
298	ARGR	192	66		Sc	4				R Pel	EF		17 6 97	B	6 - 7	0	
299	ARGR	191	70		Sc	4				R Pel	EF		17 6 97	B	6 - 7	0	
300	ARGR	190	64		Sc	4				R Pel	EF		17 6 97	B	6 - 7	0	
301	ARGR	184	48		Sc	4				R Pel	EF		17 6 97	B	6 - 7	0	
302	ARGR	190	64		Sc	4				R Pel	EF		17 6 97	B	6 - 7	0	
303	ARGR	143	26		Sc	3				R Pel	EF		17 6 97	B	6 - 7	0	
304	ARGR	139	20		Sc	3				R Pel	EF		17 6 97	B	6 - 7	0	
305	ARGR	103	8		Sc	2					EF		17 6 97	B	6 - 7	0	
311	ARGR	341	388	10	Sc	9	6338	22	28		AL		17 6 97	B7	B7 outlet	0	
312	ARGR	339	386	20	Sc	10	6339	23	42		AL		17 6 97	B7	B7 outlet	0	
313	ARGR	331	350	10	Sc	8	6340	23	45		AL		17 6 97	B7	B7 outlet	0	
363	ARGR	80	4		Sc	1					EF		18 6 97	D	0 - 1	0	
364	ARGR	73	3		Sc	1					EF		18 6 97	D	0 - 1	0	
510	ARGR	228	130		Sc	3				L Pec	EF		18 6 97	D	1 - 2	0	
525	ARGR	321	346	20	Sc	6	6341	23	46		EF		18 6 97	D	1 - 2	0	
526	ARGR	353	470	10	Sc	7	6342	22	30		EF		18 6 97	D	1 - 2	0	
527	ARGR	274	216	10	Sc	6	6343				EF		18 6 97	D	1 - 2	0	
528	ARGR	262	208		Sc	4	6344				EF		18 6 97	D	1 - 2	0	
529	ARGR	244	158		Sc	4	6345				EF		18 6 97	D	1 - 2	0	
568	ARGR	188	62		Sc	4				L Pel	EF		19 6 97	A	1 - 2	0	
569	ARGR	173	52		Sc	3				L Pel	EF		19 6 97	A	1 - 2	0	
572	ARGR	110	12		Sc	2				L Pel	EF		19 6 97	A	1 - 2	0	
573	ARGR	93	8		Sc	1					EF		19 6 97	A	1 - 2	0	
574	ARGR	91	8		Sc	1					EF		19 6 97	A	1 - 2	0	
575	ARGR	82	4		Sc	1					EF		19 6 97	A	1 - 2	0	
576	ARGR	71	3		Sc	1					EF		19 6 97	A	1 - 2	0	
577	ARGR	66	2		Sc	1					EF		19 6 97	A	1 - 2	0	
612	ARGR	195	76		Sc	4				L Pel	EF		19 6 97	A	2 - 3	0	
613	ARGR	146	30		Sc	2				L Pel	EF		19 6 97	A	2 - 3	0	
614	ARGR	136	28		Sc	2				L Pel	EF		19 6 97	A	2 - 3	0	
615	ARGR	163	38		Sc	3				L Pel	EF		19 6 97	A	2 - 3	0	
616	ARGR	155	36		Sc	3				L Pel	EF		19 6 97	A	2 - 3	2	previously clipped (L Pel)
617	ARGR	151	28		Sc	3				L Pel	EF		19 6 97	A	2 - 3	0	
618	ARGR	138	24		Sc	2				L Pel	EF		19 6 97	A	2 - 3	0	
619	ARGR	107	12		Sc	2					EF		19 6 97	A	2 - 3	0	
620	ARGR	119	16		Sc	2					EF		19 6 97	A	2 - 3	0	
621	ARGR	124	18		Sc	2				L Pel	EF		19 6 97	A	2 - 3	0	
622	ARGR	88	6		Sc	1					EF		19 6 97	A	2 - 3	0	
623	ARGR	80	4		Sc	1					EF		19 6 97	A	2 - 3	0	
630	ARGR	165	42		Sc	3				L Pel	EF		19 6 97	A	3 - 4	0	
633	ARGR	72			Sc	1					EF		19 6 97	A	4 - 5	0	
634	ARGR	71	3		Sc	1					EF		19 6 97	A	4 - 5	0	
635	ARGR	82	4		Sc	1					EF		19 6 97	A	4 - 5	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
636	ARGR	80	4		Sc	1					EF		19 6 97	A	4 - 5	0	
637	ARGR	66	2		Sc	1					EF		19 6 97	A	4 - 5	0	
638	ARGR	90	6		Sc	1					EF		19 6 97	A	4 - 5	0	
639	ARGR	83	6		Sc	1					EF		19 6 97	A	4 - 5	0	
640	ARGR	83	6		Sc	1					EF		19 6 97	A	4 - 5	0	
641	ARGR	80	4		Sc	1					EF		19 6 97	A	4 - 5	0	
642	ARGR	115	12		Sc	2				L Pel	EF		19 6 97	A	4 - 5	0	
643	ARGR	155	32		Sc	3				L Pel	EF		19 6 97	A	4 - 5	0	
644	ARGR	124	16		Sc	2				L Pel	EF		19 6 97	A	4 - 5	0	
645	ARGR	111	14		Sc	2				L Pel	EF		19 6 97	A	4 - 5	0	
646	ARGR	129	22		Sc	3				L Pel	EF		19 6 97	A	4 - 5	0	
651	ARGR	142	30		Sc	3				R Pel	EF		19 6 97	A	6 - 7	0	
652	ARGR	156	40		Sc	3				R Pel	EF		19 6 97	A	6 - 7	0	
653	ARGR	148	28		Sc	3				R Pel	EF		19 6 97	A	6 - 7	0	
654	ARGR	160	38		Sc	3				R Pel	EF		19 6 97	A	6 - 7	0	
655	ARGR	120	16		Sc	2				L Pel	EF		19 6 97	A	6 - 7	0	
656	ARGR	116	12		Sc	2				L Pel	EF		19 6 97	A	6 - 7	0	
657	ARGR	108	14		Sc	2					EF		19 6 97	A	6 - 7	0	
658	ARGR	119	12		Sc	2					EF		19 6 97	A	6 - 7	0	
659	ARGR	137	24		Sc	2				L Pel	EF		19 6 97	A	6 - 7	0	
660	ARGR	111	12		Sc	2					EF		19 6 97	A	6 - 7	0	
661	ARGR	122	16		Sc	2				L Pel	EF		19 6 97	A	6 - 7	0	
662	ARGR	119	16		Sc	2				L Pel	EF		19 6 97	A	6 - 7	0	
663	ARGR	130	26		Sc	2				L Pel	EF		19 6 97	A	6 - 7	0	
664	ARGR	122	18		Sc	2					EF		19 6 97	A	6 - 7	0	
665	ARGR	114	12		Sc	2					EF		19 6 97	A	6 - 7	0	
666	ARGR	110	12		Sc	2					EF		19 6 97	A	6 - 7	0	
667	ARGR	65			Sc	1					EF		19 6 97	A	6 - 7	0	
691	ARGR	138	20		Sc	3				R Pec	EF		21 6 97	F	0 - 1	0	
692	ARGR	123	22		Sc	2				R Pec	EF		21 6 97	F	0 - 1	0	
693	ARGR	115	14		Sc	2				R Pec	EF		21 6 97	F	0 - 1	0	
694	ARGR	132	20		Ot, Sc	2					EF		21 6 97	F	0 - 1	1	
755	ARGR	206	96		Sc	4					EF		21 6 97	MR-U	ML - MR	0	
756	ARGR	67			Sc	1					EF		21 6 97	MR-U	ML - MR	0	
792	ARGR	57			Sc	1					EF		22 6 97	B	68 - 69	0	
801	ARGR	117	14		Sc	2					EF		22 6 97	B	0 - 1	0	
802	ARGR	120	14		Sc	3					EF		22 6 97	B	0 - 1	0	
803	ARGR	93	8		Sc	1					EF		22 6 97	B	0 - 1	0	
804	ARGR	90	6		Sc	1					EF		22 6 97	B	0 - 1	0	
805	ARGR	89	6		Sc	1					EF		22 6 97	B	0 - 1	0	
807	ARGR	329	364		Sc	6	6376				EF		22 6 97	B	0 - 1	0	
808	ARGR	191	60		Sc	4					EF		22 6 97	B	0 - 1	0	
809	ARGR	109	16		Sc	2					EF		22 6 97	B	0 - 1	0	
810	ARGR	118	14		Sc	2					EF		22 6 97	B	0 - 1	0	
811	ARGR	109	12		Sc	2					EF		22 6 97	B	0 - 1	0	
812	ARGR	118	16		Sc	2					EF		22 6 97	B	0 - 1	0	
813	ARGR	103	8		Sc	2					EF		22 6 97	B	0 - 1	0	
814	ARGR	92	8		Sc	1					EF		22 6 97	B	0 - 1	0	
815	ARGR	114	16		Sc	2					EF		22 6 97	B	0 - 1	0	
816	ARGR	80	4		Sc	1					EF		22 6 97	B	0 - 1	0	
819	ARGR	211	102		Sc	4					EF		22 6 97	B	0 - 1	0	
820	ARGR	170	52		Sc	4					EF		22 6 97	B	0 - 1	0	
821	ARGR	104	10		Sc	2					EF		22 6 97	B	0 - 1	0	
822	ARGR	113	14		Sc	2					EF		22 6 97	B	0 - 1	0	
823	ARGR	108	12		Sc	2					EF		22 6 97	B	0 - 1	0	
824	ARGR	120	18		Sc	2					EF		22 6 97	B	0 - 1	0	
825	ARGR	115	12		Sc	2					EF		22 6 97	B	0 - 1	0	
826	ARGR	117	12		Sc	2					EF		22 6 97	B	0 - 1	0	
827	ARGR	105	12		Sc	2					EF		22 6 97	B	0 - 1	0	
828	ARGR	85	6		Sc	1					EF		22 6 97	B	0 - 1	0	
862	ARGR	379	626	4	Ot, Sc	8					GN	5.5	12 7 97	A8	1	1	St=15 (13 crane fly; 2 NNST)
863	ARGR	341	512		Sc	8	6353				GN	5.5	12 7 97	A8	1	0	
864	ARGR	394	758	4	Ot, Sc	10					GN	3.5	12 7 97	A8	1	1	St=15 (8 insects; 7 NNST)
865	ARGR	383	664	4	Ot, Sc	10					GN	2.5	12 7 97	A8	1	1	St=10 (6 inscets; 4 NNST)
866	ARGR	325	432	4	Ot, Sc	8					GN	2.5	12 7 97	A8	1	1	St=15 (13 crane fly; 2 NNST)
867	ARGR	389	692	4	Ot, Sc	10					GN	2.5	12 7 97	A8	2	1	St=10 (8 insects; 2 NNST)
868	ARGR	163	40		Sc	3					GN	0.75	12 7 97	A8	2	0	
869	ARGR	299	364	10	Sc	6					GN	2.5	13 7 97	A8	3	0	
870	ARGR	311	416	10	Sc	7	6352	23	43		GN	2.5	13 7 97	A8	3	0	
871	ARGR	321	462	10	Sc	8	6354	22	32		GN	2.5	13 7 97	A8	3	0	
872	ARGR	375	650	10	Sc	10	6355	23	44		GN	2.5	13 7 97	A8	3	0	
873	ARGR	414	782	10	Sc	9	6356	22	33		GN	3.5	13 7 97	A8	3	0	
874	ARGR	172	66		Sc	3					GN	1.5	13 7 97	A8	3	1	St=5 (5 Caddis)
875	ARGR	155	52		Sc	3					GN	1.5	13 7 97	A8	3	1	St=5 (5 Caddis)
930	ARGR	365	590	20	Sc	8	6357				GN	4.5	14 7 97	A6	1	0	
931	ARGR	330	440	20	Sc	8	6358				GN	2.5	14 7 97	A6	1	0	
932	ARGR	354	568	20	Sc	10	6359	22	36		GN	3.5	14 7 97	A6	1	0	
933	ARGR	361	562	10	Sc	8	6360	23	39		GN	3.5	14 7 97	A6	1	0	
934	ARGR	367	568	10	Sc	9	6361				GN	2.5	14 7 97	A6	1	0	
935	ARGR	310	352	20	Sc	6	6362				GN	2.5	14 7 97	A6	1	0	
936	ARGR	316	366	20	Sc	6	6363				GN	2.5	14 7 97	A6	1	0	
937	ARGR	297	278	4	Ot, Sc	5					GN	3.5	14 7 97	A6	1	1	St=10 (Caddis flies)
938	ARGR	96	10		Sc	1				RPel	EF		15 7 97	B	4 - 5	0	
939	ARGR	97	10		Sc	1				RPel	EF		15 7 97	B	4 - 5	0	
940	ARGR	94	8		Sc	1				RPel	EF		15 7 97	B	4 - 5	0	
941	ARGR	85	6		Sc	1				RPel	EF		15 7 97	B	4 - 5	0	
942	ARGR	24				0					EF		15 7 97	B	4 - 5	1	preserved
980	ARGR	358	500	20	Sc	7	6364				GN	2.5	15 7 97	B5	1	0	
981	ARGR	383	568	10	Sc	7	6365				GN	2.5	15 7 97	B5	1	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
982	ARGR	387	638	10	Sc	8	6366	23	48		GN	2.5	15 7 97	B5	1	0	
983	ARGR	394	658	20	Sc	8	6367	22	38		GN	3.5	15 7 97	B5	1	0	
984	ARGR	298	318	20	Sc	5	6368				GN	1.5	15 7 97	B5	1	0	
985	ARGR	382	580	10	Sc	8	6369				GN	2.5	15 7 97	B5	1	0	
986	ARGR	378	582	10	Sc	7	6370				GN	2.5	15 7 97	B5	1	0	
987	ARGR	383	590	20	Sc	8	6371				GN	2.5	15 7 97	B5	1	0	
988	ARGR	435	752	4	Ot, Sc	9					GN	4.5	15 7 97	B5	1	1	
1058	ARGR	342	462	10	Sc	7	6379				FN		12 7 97	ML-E	1 EB	0	
1114	ARGR	220	122		FR, Sc	3				RPel	FN		13 7 97	ML-E	2 WB	0	
1254	ARGR	398	728		Sc	9	6387				FN		13 7 97	ML-E	2 EB	0	
1255	ARGR	292	304		Sc	6	6388				FN		13 7 97	ML-E	2 EB	0	
1256	ARGR	270	226		Sc	6	6389				FN		13 7 97	ML-E	2 EB	0	
1257	ARGR	200	90		Sc	4				RPel	FN		13 7 97	ML-E	2 EB	0	
1291	ARGR	322	410		Sc	8	6393				FN		13 7 97	ML-E	3 WB	0	
1360	ARGR	322	362		Sc	6	6399				FN		13 7 97	ML-E	3 EB	0	
1380	ARGR	377	608		Sc	8	6803				FN		14 7 97	ML-E	4 WB	0	
1457	ARGR	340	458	10	Sc	6	6814				FN		15 7 97	ML-E	6 WB	0	
1473	ARGR	353	554	20	Sc	6	6816				FN		15 7 97	ML-E	6 EB	0	
1516	ARGR	389	582		Sc	8	6821				FN		15 7 97	ML-E	7 EB	0	
1526	ARGR	360	578	10	Sc	7	6823				FN		16 7 97	ML-E	8 EB	0	
1527	ARGR	362	532	20	Sc	10	6824				FN		16 7 97	ML-E	8 EB	0	
1528	ARGR	275	292	20	Sc	5	6825				FN		16 7 97	ML-E	8 EB	0	
1611	ARGR	361	578				6823				FN		17 7 97	ML-E	10 WB	2	tagged 16 Jul in FN-EB
1612	ARGR	329	436	20	Sc	7	6126				FN		17 7 97	ML-E	10 WB	0	
1613	ARGR	358	562	20	FR, Sc	8	6127			RPel	FN		17 7 97	ML-E	10 WB	0	
1614	ARGR	394	656		Sc	8	6128				FN		17 7 97	ML-E	10 WB	0	
1615	ARGR	342	458	20	Sc	8	6129				FN		17 7 97	ML-E	10 WB	0	
1617	ARGR	364	540	10	Sc	8	6130				FN		17 7 97	ML-E	10 WB	0	
1619	ARGR	353	502		Sc	6	6132				FN		17 7 97	ML-E	10 WB	0	could also be Tag # 6131
1633	ARGR	340	498	10	FR, Sc	7	6850			RPel	FN		17 7 97	ML-E	10 EB	0	
1637	ARGR	270	232	20	Sc	6	6848				FN		17 7 97	ML-E	10 EB	0	
1638	ARGR	135	28		Ot, Sc	2					FN		17 7 97	ML-E	10 EB	1	St=2 (unid)
1641	ARGR	233	146		FR, Sc	4				RPel	FN		17 7 97	ML-E	10 EB	0	
1652	ARGR	185	74		FR, Sc	3				RPel	FN		17 7 97	ML-E	10 EB	0	
1653	ARGR	254	200		FR, Sc	4	6836			RPel	FN		17 7 97	ML-E	10 EB	0	
1654	ARGR	224	138		FR, Sc	4				RPel	FN		17 7 97	ML-E	10 EB	0	
1655	ARGR	170	52		FR, Sc	3				RPel	FN		17 7 97	ML-E	10 EB	0	
1656	ARGR	167	54		FR, Sc	3				RPel	FN		17 7 97	ML-E	10 EB	0	
1659	ARGR	138	26		FR, Sc	2				RPel	FN		17 7 97	ML-E	10 EB	0	
1666	ARGR	400	730	20	FR, Sc	10	6841			RPel	FN		17 7 97	ML-E	10 EB	0	black
1667	ARGR	382	590	20	FR, Sc	8	6842			RPel	FN		17 7 97	ML-E	10 EB	0	recap'd 23 Jul in FN19EB
1668	ARGR	342	510	10	FR, Sc	9	6843			RPel	FN		17 7 97	ML-E	10 EB	0	
1669	ARGR	318	358		Sc	6	6844				FN		17 7 97	ML-E	10 EB	0	
1670	ARGR	317	394		Sc	7	6845				FN		17 7 97	ML-E	10 EB	0	
1671	ARGR	287	280		Sc	6	6846				FN		17 7 97	ML-E	10 EB	0	
1672	ARGR	301	352		Sc	6	6847				FN		17 7 97	ML-E	10 EB	0	
1859	ARGR	368	586	10	FR, Sc	9	6140			RPel	FN		18 7 97	ML-E	12 EB	0	
2009	ARGR	25				0					EF		15 7 97	B	5 - 6	0	
2010	ARGR	27				0					EF		15 7 97	B	5 - 6	0	
2011	ARGR	30				0					EF		15 7 97	B	5 - 6	0	
2012	ARGR	25				0					EF		15 7 97	B	5 - 6	0	
2013	ARGR	26				0					EF		15 7 97	B	5 - 6	0	
2014	ARGR	24				0					EF		15 7 97	B	5 - 6	0	
2015	ARGR	26				0					EF		15 7 97	B	5 - 6	0	
2016	ARGR	27				0					EF		15 7 97	B	5 - 6	0	
2017	ARGR	27				0					EF		15 7 97	B	5 - 6	0	
2018	ARGR	28				0					EF		15 7 97	B	5 - 6	0	
2019	ARGR	24				0					EF		15 7 97	B	5 - 6	1	preserved
2020	ARGR	23				0					EF		15 7 97	B	5 - 6	1	preserved
2021	ARGR	35				0					EF		15 7 97	B	5 - 6	0	
2023	ARGR	27				0					EF		15 7 97	B	5 - 6	0	
2024	ARGR	32				0					EF		15 7 97	B	5 - 6	0	
2025	ARGR	30				0					EF		15 7 97	B	5 - 6	0	
2026	ARGR	32				0					EF		15 7 97	B	5 - 6	0	
2027	ARGR	28				0					EF		15 7 97	B	5 - 6	0	
2028	ARGR	25				0					EF		15 7 97	B	5 - 6	0	
2029	ARGR	308	320	20	Sc	4	6372				GN	2.5	17 7 97	D7	1	0	
2030	ARGR	334	492	20	Sc	7	6373	23	41		AL		17 7 97	B5		0	
2031	ARGR	303	424	20	Sc	4	6374	22	37		GN	1.5	17 7 97	D7	2	0	
2032	ARGR	300	370	14	Ot, Sc	4					GN	2.5	17 7 97	D7	2	1	St=20 (15 NNST, 4 Caddis, 1 beetle)
2033	ARGR	287	324	20	Sc	4					GN	2.5	17 7 97	D7	2	0	
2035	ARGR	314	324	10	Sc	7	6401				GN	2.5	18 7 97	B7	1	0	
2036	ARGR	337	410	10	Sc	7	6402				GN	2.5	18 7 97	B7	1	0	
2037	ARGR	311	316	10	Sc	7	6403				GN	1.5	18 7 97	B7	1	0	
2038	ARGR	303	312	20	Sc	7	6404				AL		18 7 97	B7		0	
2039	ARGR	297	302	20	Sc	7	6405				AL		18 7 97	B7		0	
2040	ARGR	319	370	10	Sc	7	6406				AL		18 7 97	B6		0	
2041	ARGR	211	124		Sc	4				RPel	AL		18 7 97	B6		2	recap
2045	ARGR	26				0					EF		18 7 97	B	6 - 7	0	
2046	ARGR	25				0					EF		18 7 97	B	6 - 7	0	
2047	ARGR	26				0					EF		18 7 97	B	6 - 7	0	
2048	ARGR	27				0					EF		18 7 97	B	6 - 7	0	
2049	ARGR	29				0					EF		18 7 97	B	6 - 7	0	
2050	ARGR	27				0					EF		18 7 97	B	6 - 7	0	
2051	ARGR	29				0					EF		18 7 97	B	6 - 7	0	
2052	ARGR	24				0					EF		18 7 97	B	6 - 7	0	
2053	ARGR	31				0					EF		18 7 97	B	6 - 7	0	
2054	ARGR	30				0					EF		18 7 97	B	6 - 7	0	
2055	ARGR	27				0					EF		18 7 97	B	6 - 7	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
2056	ARGR	28				0					EF		18 7 97	B	6 - 7	0	
2057	ARGR	30				0					EF		18 7 97	B	6 - 7	0	
2058	ARGR	27				0					EF		18 7 97	B	6 - 7	0	
2059	ARGR	26				0					EF		18 7 97	B	6 - 7	0	
2060	ARGR	29				0					EF		18 7 97	B	6 - 7	0	
2061	ARGR	27				0					EF		18 7 97	B	6 - 7	0	
2063	ARGR	30				0					EF		18 7 97	B	6 - 7	1	preserved
2064	ARGR	29				0					EF		18 7 97	B	6 - 7	1	preserved
2065	ARGR	30				0					EF		18 7 97	B	6 - 7	1	preserved
2066	ARGR	27				0					EF		18 7 97	B	6 - 7	1	preserved
2067	ARGR	30				0					EF		18 7 97	B	6 - 7	1	preserved
2068	ARGR	28				0					EF		18 7 97	B	6 - 7	1	preserved
2069	ARGR	29				0					EF		18 7 97	B	6 - 7	1	preserved
2070	ARGR	29				0					EF		18 7 97	B	6 - 7	1	preserved
2071	ARGR	27				0					EF		18 7 97	B	6 - 7	1	preserved
2072	ARGR	293	366	20	Sc	4	6407	22	34		AF		19 7 97	D7		0	
2073	ARGR	314	406	20	Sc	4	6408	23	49		GN	2.5	19 7 97	D7	3	0	
2074	ARGR	235	158		FR, Sc	3				LPel	GN	3.5	19 7 97	D7	3	0	
2075	ARGR	227	148		FR, Sc	3				LPel	AF		19 7 97	D7		0	
2076	ARGR	174	58		FR, Sc	2				LPel	AF		19 7 97	D7		0	
2077	ARGR	95	8		Sc	1					EF		19 7 97	B	1 - 2	1	St=5 (Chir)
2078	ARGR	108	12		Sc	2				LPel	EF		19 7 97	B	1 - 2	0	
2079	ARGR	100	12		Sc	1				LPel	EF		19 7 97	B	1 - 2	0	
2080	ARGR	109	14		Sc	2				LPel	EF		19 7 97	B	1 - 2	0	
2081	ARGR	115	16		Sc	1				LPel	EF		19 7 97	B	1 - 2	0	
2082	ARGR	110									EF		19 7 97	B	1 - 2	0	
2083	ARGR	149	38		Sc	2				LPel	EF		19 7 97	B	1 - 2	0	
2084	ARGR	116								LPel	EF		19 7 97	B	1 - 2	0	
2085	ARGR	99								LPel	EF		19 7 97	B	1 - 2	0	
2086	ARGR	104								LPel	EF		19 7 97	B	1 - 2	0	
2087	ARGR	117								LPel	EF		19 7 97	B	1 - 2	0	
2088	ARGR	92			Sc	1				LPel	EF		19 7 97	B	1 - 2	0	
2089	ARGR	102								LPel	EF		19 7 97	B	1 - 2	0	
2090	ARGR	113								LPel	EF		19 7 97	B	1 - 2	0	
2091	ARGR	94								LPel	EF		19 7 97	B	1 - 2	0	
2092	ARGR	103								LPel	EF		19 7 97	B	1 - 2	0	
2093	ARGR	91			Sc	1				LPel	EF		19 7 97	B	1 - 2	0	
2094	ARGR	90			Sc	1				LPel	EF		19 7 97	B	1 - 2	0	
2095	ARGR	90								LPel	EF		19 7 97	B	1 - 2	0	
2096	ARGR	101								LPel	EF		19 7 97	B	1 - 2	0	
2097	ARGR	96								LPel	EF		19 7 97	B	1 - 2	0	
2113	ARGR	214	112		Sc	4				LPel	EF		19 7 97	B	0 - 1	0	
2114	ARGR	177	52		Sc	2				LPel	EF		19 7 97	B	0 - 1	0	
2115	ARGR	164	48		Sc	2				LPel	EF		19 7 97	B	0 - 1	0	
2117	ARGR	141	36		Sc	2				LPel	EF		19 7 97	B	0 - 1	0	
2118	ARGR	132	32		Sc	2				LPel	EF		19 7 97	B	0 - 1	0	
2119	ARGR	114	16		Sc	2				LPel	EF		19 7 97	B	0 - 1	0	
2120	ARGR	91	10		Sc	1				LPel	EF		19 7 97	B	0 - 1	0	
2121	ARGR	132	22		Sc	2				LPel	EF		19 7 97	B	0 - 1	0	
2122	ARGR	97	8		Sc	1				LPel	EF		19 7 97	B	0 - 1	0	
2123	ARGR	96	8		Sc	1				LPel	EF		19 7 97	B	0 - 1	0	
2124	ARGR	90	6		Sc	1				LPel	EF		19 7 97	B	0 - 1	0	
2125	ARGR	90	6		Sc	1				LPel	EF		19 7 97	B	0 - 1	0	
2158	ARGR	112	14		Ot, Sc	1					EF		20 7 97	B	3 - 4	1	St=5 (mos.)
2159	ARGR	75	6		Sc	1					EF		20 7 97	B	3 - 4	0	
2160	ARGR	110	14		Sc	1				RPel	EF		20 7 97	B	3 - 4	0	
2164	ARGR	192	80		Sc	3				LPel	EF		20 7 97	MR-U	ML - MR	0	
2165	ARGR	104	10		Sc	1				LPel	EF		20 7 97	MR-U	ML - MR	0	
2230	ARGR	100	6		Sc	1				RPel	EF		24 7 97	D	0 - 1	0	
2231	ARGR	36				0					EF		24 7 97	D	0 - 1	0	
2232	ARGR	32				0					EF		24 7 97	D	0 - 1	0	
2233	ARGR	46				0					EF		24 7 97	D	0 - 1	0	
2234	ARGR	42				0					EF		24 7 97	D	0 - 1	0	
3235	ARGR	103	10		FR, Sc	1				RPel	FN		19 7 97	ML-E	14 WB	0	
3264	ARGR	340	494	20	Sc	7	6876				FN		19 7 97	ML-E	14 EB	0	
3265	ARGR	365	558	10	Sc	8	6877				FN		19 7 97	ML-E	14 EB	0	
3311	ARGR	81	6		Sc	1					FN		19 7 97	ML-E	15 EB	0	
3740	ARGR	329	428	10	Sc	8	6884				FN		20 7 97	ML-E	16 WB	0	
3782	ARGR	138	26	1	Ot, Sc	2					FN		21 7 97	ML-E	17 WB	1	St=20 (Caddis)
3783	ARGR	144	30	11	Ot, Sc	2					FN		21 7 97	ML-E	17 WB	1	St=20 (10 beetles; 10 Caddis)
3790	ARGR	379	572	10	Sc	9	6891				FN		21 7 97	ML-E	17 WB	0	
3791	ARGR	350	504		Sc	8	6892				FN		21 7 97	ML-E	17 WB	0	
3792	ARGR	307	362		Sc	6	6893				FN		21 7 97	ML-E	17 WB	0	
3794	ARGR	220	134		FR, Sc	4				RPel	FN		21 7 97	ML-E	17 EB	0	
4071	ARGR	377	554	20			6842				FN		23 7 97	ML-E	19 EB	2	tagged 17 Jul in FN-EB
4072	ARGR	325	408	20	FR, Sc	8	8552			RPel	FN		23 7 97	ML-E	19 EB	0	
4073	ARGR	249	182		FR, Sc	4				RPel	FN		23 7 97	ML-E	19 EB	0	
4074	ARGR	260	204		Sc	4	8553				FN		23 7 97	ML-E	19 EB	0	
4085	ARGR	93	8		Sc	1				RPel	FN		23 7 97	ML-E	19 EB	0	
4097	ARGR	358	548	10	Sc	8	8555				FN		24 7 97	ML-E	20 WB	0	
4098	ARGR	266	218	20	Sc	6	8556				FN		24 7 97	ML-E	20 WB	0	
4099	ARGR	319	390	10	Sc	7	8557				FN		24 7 97	ML-E	20 WB	0	
4100	ARGR	366	570	10	Sc	8	8558				FN		24 7 97	ML-E	20 WB	0	
4106	ARGR	112	14		FR, Sc	1				RPel	FN		24 7 97	ML-E	20 WB	0	
4107	ARGR	173	52		FR, Sc	3				RPel	FN		24 7 97	ML-E	20 WB	0	
4184	ARGR	398	744	10	Sc	10	8562				FN		24 7 97	ML-E	20 EB	0	
4289	ARGR	314	376	20	Sc	8	8567				FN		25 7 97	ML-E	21 EB	0	
4312	ARGR	344	474	20	Sc	8	8573				FN		26 7 97	ML-E	22 WB	0	
4313	ARGR	319	400	10	Sc	7	8574				FN		26 7 97	ML-E	22 WB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
4314	ARGR	322	406	20	Sc	6	8575				FN		26	7	97	ML-E	22	WB	0	
4401	ARGR	362	548		Sc	8	8060				GN	3.5	17	8	97	A6	1		0	
4404	ARGR	324	364		Sc	7	8064				GN	3.5	18	8	97	A8	1		0	
4405	ARGR	362	456		Sc	10	8063				GN	2.5	18	8	97	A8	1		0	
4406	ARGR	316	308		Sc	7	8061				GN	2.5	18	8	97	A8	1		0	
4407	ARGR	347	424		Sc	8	8062				GN	2.5	18	8	97	A8	1		0	
4409	ARGR	346			Sc	7	8067				GN	3.5	18	8	97	B2	1		0	
4414	ARGR	340			Sc	6					GN	3.5	18	8	97	B5	1		0	
4415	ARGR	180		1	Ot, Sc	2					GN	1.5	18	8	97	B5	1		1	St=0
4416	ARGR	378			Sc	8	8069				GN	3.5	18	8	97	B5	1		0	
4417	ARGR	277			Sc	4	8068				GN	2.5	18	8	97	B5	1		0	
4477	ARGR	335	410				6376				GN	2.5	26	8	97	B2	2		2	recap
4478	ARGR	262	188		Sc	4	7056				GN	2.5	26	8	97	B2	3		0	
4479	ARGR	317	358		Sc	6	7054				GN	2.5	26	8	97	B2	3		0	
4480	ARGR	389	616		Sc	8	7055				GN	3.5	26	8	97	B2	3		0	
4481	ARGR	340	434		Sc	6	7053				GN	3.5	26	8	97	B2	3		0	
4496	ARGR	270	258		Sc	3	7067				GN	2.5	28	8	97	D3	1		0	
4498	ARGR	278	266		Sc	3	7068				GN	2.5	28	8	97	D3	1		0	
4499	ARGR	328	430	4	Sc	4					GN	3.5	28	8	97	D3	1		1	St=5 (NNST)
4500	ARGR	322	432		Sc	4	7070				GN	2.5	28	8	97	D3	2		0	
4501	ARGR	254	208		Sc	3	7071				GN	2.5	28	8	97	D3	2		0	
4502	ARGR	270	262		Sc	3	7072				GN	3.5	28	8	97	D3	2		0	
4503	ARGR	180	68		Sc	2					GN	1.5	28	8	97	D3	2		0	
4523	ARGR	121	16		Sc	2				RPel	EF		25	8	97	B	1	- 2	0	
4524	ARGR	128	20		Sc	2				RPel	EF		25	8	97	B	1	- 2	0	
4530	ARGR	197	70		Sc	3				RPel	EF		24	8	97	B	3	- 4	2	recap based on fin clip
4531	ARGR	210	92		Sc	2				RPel	EF		24	8	97	B	3	- 4	0	
4540	ARGR	118	14		Sc	1					EF		24	8	97	MR-U	ML	- MR	0	
4541	ARGR	130	20		Sc	1					EF		24	8	97	MR-U	ML	- MR	0	
4542	ARGR	135	20		Sc	1					EF		24	8	97	MR-U	ML	- MR	0	
4576	ARGR	53				0					EF		24	8	97	B	4	- 5	0	
4589	ARGR	43				0					EF		24	8	97	B	6	- 7	0	captured in upper section
5007	ARGR	254									TU		16	8	97	MR-L	1	A	0	
5010	ARGR	258	210		Ot, Sc	4					TU		16	8	97	MR-L	2	P	1	St=10 (2 maggots; 8 caddis)
5158	ARGR	311	365		Sc	5	7744				TU		19	8	97	MR-L	7	A	0	
5301	ARGR	258									TU		21	8	97	MR-L	12	P	0	
5302	ARGR	267									TU		21	8	97	MR-L	12	P	0	
5482	ARGR	258									TU		23	8	97	MR-L	16	P	0	
5672	ARGR	305			Sc	5	7564				TU		25	8	97	MR-L	20	P	0	
5967	ARGR	339		20	Sc	6	6853				TU		30	8	97	MR-L	29	A	0	
5997	ARGR	267		20	Sc	4					TU		31	8	97	MR-L	31	A	0	
6002	ARGR	363			Sc	6	7108				TU		31	8	97	MR-L	32	P	0	
6037	ARGR	290		20	Sc	5	7645				TU		2	9	97	MR-L	35	A	0	
6043	ARGR	256			Sc	4					TU		2	9	97	MR-L	35	A	0	
6064	ARGR	300	280		Sc	5	7617				TU		3	9	97	MR-L	37	A	0	
224	BURB	204	56								EF		16	6	97	B	3	- 4	0	
233	BURB	318	144								EF		16	6	97	B	3	- 4	0	
1477	BURB	96	4								FN		15	7	97	ML-E	6	EB	0	
2111	BURB	265	92								EF		19	7	97	B	0	- 1	0	
2112	BURB	224	60								EF		19	7	97	B	0	- 1	0	
2128	BURB	73									EF		19	7	97	B	0	- 1	0	
2137	BURB	270	142								EF		20	7	97	B	3	- 4	0	
2138	BURB	264	104								EF		20	7	97	B	3	- 4	0	
2139	BURB	115	18								EF		20	7	97	B	3	- 4	0	
2140	BURB	128	20								EF		20	7	97	B	3	- 4	0	
2229	BURB	87									EF		24	7	97	D	0	- 1	0	
4296	BURB	108	6		Ot						FN		25	7	97	ML-E	21	EB	1	St=0
806	CISC	110	10		Sc	2					EF		22	6	97	B	0	- 1	0	
817	CISC	139	18		Sc	2					EF		22	6	97	B	0	- 1	0	
818	CISC	77			Sc	1					EF		22	6	97	B	0	- 1	0	
929	CISC	356	558		Sc	6					GN	3.5	14	7	97	A6	1		0	
1081	CISC	324	392		Sc	8					FN		13	7	97	ML-E	2	WB	0	
1083	CISC	242	138		Sc	5					FN		13	7	97	ML-E	2	WB	0	
1117	CISC	102	8		Sc	1					FN		13	7	97	ML-E	2	WB	0	
1118	CISC	114	14		Sc	1					FN		13	7	97	ML-E	2	WB	0	
1126	CISC	91	6		Sc	1					FN		13	7	97	ML-E	2	WB	1	
1127	CISC	107	10		Sc	1					FN		13	7	97	ML-E	2	WB	1	
1128	CISC	93	8		Sc	1					FN		13	7	97	ML-E	2	WB	1	
1129	CISC	93	6		Ot, Sc	1					FN		13	7	97	ML-E	2	WB	1	
1130	CISC	104	10		Ot, Sc	1					FN		13	7	97	ML-E	2	WB	1	
1131	CISC	105	10		Ot, Sc	1					FN		13	7	97	ML-E	2	WB	1	
1132	CISC	100	8		Ot, Sc	1					FN		13	7	97	ML-E	2	WB	1	
1133	CISC	82	4		Ot, Sc	1					FN		13	7	97	ML-E	2	WB	1	
1134	CISC	90	6		Ot, Sc	1					FN		13	7	97	ML-E	2	WB	1	
1135	CISC	110	12		Ot, Sc	1					FN		13	7	97	ML-E	2	WB	1	
1136	CISC	89	6								FN		13	7	97	ML-E	2	WB	1	
1137	CISC	79	4								FN		13	7	97	ML-E	2	WB	1	
1138	CISC	103	10								FN		13	7	97	ML-E	2	WB	1	
1139	CISC	107	10								FN		13	7	97	ML-E	2	WB	1	
1140	CISC	96	8								FN		13	7	97	ML-E	2	WB	1	
1141	CISC	109	10								FN		13	7	97	ML-E	2	WB	1	
1142	CISC	106	10								FN		13	7	97	ML-E	2	WB	1	
1143	CISC	100	8								FN		13	7	97	ML-E	2	WB	1	
1144	CISC	102	8								FN		13	7	97	ML-E	2	WB	1	
1145	CISC	92	6								FN		13	7	97	ML-E	2	WB	1	
1146	CISC	91	6								FN		13	7	97	ML-E	2	WB	1	
1147	CISC	96	6								FN		13	7	97	ML-E	2	WB	1	
1148	CISC	100	8								FN		13	7	97	ML-E	2	WB	1	
1149	CISC	108	8								FN		13	7	97	ML-E	2	WB	1	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
1150	CISC	96	6								FN		13	7	97	ML-E	2	WB	1	
1151	CISC	96	6								FN		13	7	97	ML-E	2	WB	1	
1152	CISC	96	8								FN		13	7	97	ML-E	2	WB	1	
1153	CISC	97	8								FN		13	7	97	ML-E	2	WB	1	
1154	CISC	92	6								FN		13	7	97	ML-E	2	WB	1	
1155	CISC	95	6								FN		13	7	97	ML-E	2	WB	1	
1156	CISC	106	12								FN		13	7	97	ML-E	2	WB	1	
1157	CISC	95	8								FN		13	7	97	ML-E	2	WB	1	
1158	CISC	96	8								FN		13	7	97	ML-E	2	WB	1	
1159	CISC	90	6								FN		13	7	97	ML-E	2	WB	1	
1160	CISC	104	10								FN		13	7	97	ML-E	2	WB	1	
1161	CISC	103	10								FN		13	7	97	ML-E	2	WB	1	
1162	CISC	97	6								FN		13	7	97	ML-E	2	WB	1	
1163	CISC	103	8								FN		13	7	97	ML-E	2	WB	1	
1164	CISC	98	8								FN		13	7	97	ML-E	2	WB	1	
1165	CISC	92	6								FN		13	7	97	ML-E	2	WB	1	
1166	CISC	100	8								FN		13	7	97	ML-E	2	WB	1	
1167	CISC	89	6								FN		13	7	97	ML-E	2	WB	1	
1168	CISC	98	8								FN		13	7	97	ML-E	2	WB	1	
1169	CISC	95	8								FN		13	7	97	ML-E	2	WB	1	
1170	CISC	90	6								FN		13	7	97	ML-E	2	WB	1	
1171	CISC	97	8								FN		13	7	97	ML-E	2	WB	1	
1172	CISC	102	8								FN		13	7	97	ML-E	2	WB	1	
1173	CISC	96	8								FN		13	7	97	ML-E	2	WB	1	
1174	CISC	91									FN		13	7	97	ML-E	2	WB	1	
1175	CISC	96	8								FN		13	7	97	ML-E	2	WB	1	
1176	CISC	91	6								FN		13	7	97	ML-E	2	WB	1	
1177	CISC	94	6								FN		13	7	97	ML-E	2	WB	1	
1178	CISC	80	4								FN		13	7	97	ML-E	2	WB	1	
1179	CISC	86	4								FN		13	7	97	ML-E	2	WB	1	
1180	CISC	98	8								FN		13	7	97	ML-E	2	WB	1	
1181	CISC	96	8								FN		13	7	97	ML-E	2	WB	1	
1182	CISC	93	6								FN		13	7	97	ML-E	2	WB	1	
1183	CISC	97	6								FN		13	7	97	ML-E	2	WB	1	
1184	CISC	92	8								FN		13	7	97	ML-E	2	WB	1	
1185	CISC	91	6								FN		13	7	97	ML-E	2	WB	1	
1186	CISC	91	6								FN		13	7	97	ML-E	2	WB	1	
1262	CISC	93	8		Ot	1					FN		13	7	97	ML-E	2	EB	1	
1287	CISC	304	286		Sc	8					FN		13	7	97	ML-E	3	WB	0	
1459	CISC	103	8		Ot, Sc	1					FN		15	7	97	ML-E	6	WB	1	preserved
1460	CISC	108	10		Ot, Sc	1					FN		15	7	97	ML-E	6	WB	1	preserved
1529	CISC	330	398		FR, Sc	8	6826			RPel	FN		16	7	97	ML-E	8	EB	0	
1537	CISC	177	56		FR, Sc	3				RPel	FN		16	7	97	ML-E	8	EB	0	
1541	CISC	188	70	11	Ot, Sc	3					FN		16	7	97	ML-E	8	EB	1	St=20 (Chir?)
1569	CISC	322	342	4	Ot, Sc	7					FN		16	7	97	ML-E	9	EB	1	St=18 (Chir?)
1570	CISC	332	386		FR, Sc	8	6834			RPel	FN		16	7	97	ML-E	9	EB	0	
1571	CISC	313	336		FR, Sc	7	6833			RPel	FN		16	7	97	ML-E	9	EB	0	
1572	CISC	325	370		FR, Sc	7	6832			RPel	FN		16	7	97	ML-E	9	EB	0	
1573	CISC	313	366		FR, Sc	7	6831			RPel	FN		16	7	97	ML-E	9	EB	0	
1574	CISC	331	432		FR, Sc	8	6830			RPel	FN		16	7	97	ML-E	9	EB	0	
1575	CISC	318	364		FR, Sc	7	6829			RPel	FN		16	7	97	ML-E	9	EB	0	
1576	CISC	325	388		FR, Sc	8	6828			RPel	FN		16	7	97	ML-E	9	EB	0	
1577	CISC	330	388		FR, Sc	8	6827			RPel	FN		16	7	97	ML-E	9	EB	0	
1578	CISC	322	388		FR, Sc	8				RPel	FN		16	7	97	ML-E	9	EB	0	
1618	CISC	305	314		FR, Sc	8	6131			RPel	FN		17	7	97	ML-E	10	WB	0	could also be Tag # 6132
1625	CISC	148	28	1	Ot, Sc	2					FN		17	7	97	ML-E	10	WB	1	St=8 (Chir?)
1636	CISC	195	70		FR, Sc	3				RPel	FN		17	7	97	ML-E	10	EB	0	
1639	CISC	97	8		FR, Sc	1				RPel	FN		17	7	97	ML-E	10	EB	0	
1645	CISC	305	326		FR, Sc	8				RPel	FN		17	7	97	ML-E	10	EB	0	
1646	CISC	326	346		FR, Sc	8				RPel	FN		17	7	97	ML-E	10	EB	0	
1647	CISC	314	302		FR, Sc	7				RPel	FN		17	7	97	ML-E	10	EB	0	
1648	CISC	332	376		FR, Sc	8				RPel	FN		17	7	97	ML-E	10	EB	0	
1649	CISC	322	386		FR, Sc	6				RPel	FN		17	7	97	ML-E	10	EB	0	
1650	CISC	322	384		FR, Sc	7				RPel	FN		17	7	97	ML-E	10	EB	0	
1651	CISC	320	326		FR, Sc	8				RPel	FN		17	7	97	ML-E	10	EB	0	
1660	CISC	179	54		FR, Sc	3				RPel	FN		17	7	97	ML-E	10	EB	0	
1661	CISC	94	8		FR, Sc	1				RPel	FN		17	7	97	ML-E	10	EB	0	
1662	CISC	105	10		FR, Sc	1				RPel	FN		17	7	97	ML-E	10	EB	0	
1664	CISC	211	92		FR, Sc	3				RPel	FN		17	7	97	ML-E	10	EB	0	
1681	CISC	99	8								FN		17	7	97	ML-E	10	EB	1	preserved
1682	CISC	119	12								FN		17	7	97	ML-E	10	EB	1	preserved
1683	CISC	111	10								FN		17	7	97	ML-E	10	EB	1	preserved
1684	CISC	96	6								FN		17	7	97	ML-E	10	EB	1	preserved
1685	CISC	104	8								FN		17	7	97	ML-E	10	EB	1	preserved
1686	CISC	96	8								FN		17	7	97	ML-E	10	EB	1	preserved
1687	CISC	108	12								FN		17	7	97	ML-E	10	EB	1	preserved
1688	CISC	91	6								FN		17	7	97	ML-E	10	EB	1	preserved
1689	CISC	92	8								FN		17	7	97	ML-E	10	EB	1	preserved
1690	CISC	97	8								FN		17	7	97	ML-E	10	EB	1	preserved
1691	CISC	106	10								FN		17	7	97	ML-E	10	EB	1	preserved
1692	CISC	107	10								FN		17	7	97	ML-E	10	EB	1	preserved
1693	CISC	101	8								FN		17	7	97	ML-E	10	EB	1	preserved
1694	CISC	96	6								FN		17	7	97	ML-E	10	EB	1	preserved
1695	CISC	98	8								FN		17	7	97	ML-E	10	EB	1	preserved
1696	CISC	97	6								FN		17	7	97	ML-E	10	EB	1	preserved
1697	CISC	106	8								FN		17	7	97	ML-E	10	EB	1	preserved
1698	CISC	107	10								FN		17	7	97	ML-E	10	EB	1	preserved
1699	CISC	104	8								FN		17	7	97	ML-E	10	EB	1	preserved
1700	CISC	95	6								FN		17	7	97	ML-E	10	EB	1	preserved

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
1701	CISC	97	6								FN		17	7	97	ML-E	10	EB	1	preserved
1702	CISC	82	4								FN		17	7	97	ML-E	10	EB	1	preserved
1816	CISC	214	106		FR, Sc	3				RPel	FN		17	7	97	ML-E	11	WB	0	
1865	CISC	121	14		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1866	CISC	152	28		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1867	CISC	145	26		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1868	CISC	136	24		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1869	CISC	155	32		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1870	CISC	88	6		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1871	CISC	149	30		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1872	CISC	121	14		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1873	CISC	140	24		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1874	CISC	144	26		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1875	CISC	153	34		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1876	CISC	146	26		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1877	CISC	117	12		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1878	CISC	119	16		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1879	CISC	180	56		Sc	3					FN		18	7	97	ML-E	12	EB	0	
1880	CISC	82	4		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1881	CISC	88	6		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1882	CISC	118	14		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1883	CISC	115	12		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1884	CISC	112	12		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1885	CISC	142	24		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1886	CISC	90	6		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1887	CISC	95	8		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1888	CISC	110	10		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1889	CISC	143	26		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1890	CISC	157	30		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1891	CISC	147	30		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1892	CISC	160	32		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1893	CISC	152	30		Sc	2					FN		18	7	97	ML-E	12	EB	0	
1894	CISC	114	14		Sc	1					FN		18	7	97	ML-E	12	EB	0	
1895	CISC	100	8								FN		18	7	97	ML-E	12	EB	0	
1896	CISC	100	8								FN		18	7	97	ML-E	12	EB	0	
1897	CISC	98	8								FN		18	7	97	ML-E	12	EB	0	
1898	CISC	114	14								FN		18	7	97	ML-E	12	EB	0	
1899	CISC	109	10								FN		18	7	97	ML-E	12	EB	0	
1905	CISC	102	8								FN		18	7	97	ML-E	12	EB	0	
1906	CISC	111	10								FN		18	7	97	ML-E	12	EB	0	
1907	CISC	103	10								FN		18	7	97	ML-E	12	EB	0	
1908	CISC	108	10								FN		18	7	97	ML-E	12	EB	0	
1909	CISC	98	8								FN		18	7	97	ML-E	12	EB	0	
1910	CISC	107	10								FN		18	7	97	ML-E	12	EB	0	
1911	CISC	99	8								FN		18	7	97	ML-E	12	EB	0	
1912	CISC	107	10								FN		18	7	97	ML-E	12	EB	0	
1913	CISC	101	8								FN		18	7	97	ML-E	12	EB	0	
1914	CISC	109	10								FN		18	7	97	ML-E	12	EB	0	
1915	CISC	98	8								FN		18	7	97	ML-E	12	EB	0	
1916	CISC	96	8								FN		18	7	97	ML-E	12	EB	0	
1917	CISC	101	8								FN		18	7	97	ML-E	12	EB	0	
1918	CISC	97	8								FN		18	7	97	ML-E	12	EB	0	
1919	CISC	97	8								FN		18	7	97	ML-E	12	EB	0	
1920	CISC	90	6								FN		18	7	97	ML-E	12	EB	0	
1921	CISC	101									FN		18	7	97	ML-E	12	EB	0	
1922	CISC	103									FN		18	7	97	ML-E	12	EB	0	
1923	CISC	105									FN		18	7	97	ML-E	12	EB	0	
1924	CISC	108									FN		18	7	97	ML-E	12	EB	0	
1925	CISC	104									FN		18	7	97	ML-E	12	EB	0	
1926	CISC	106									FN		18	7	97	ML-E	12	EB	0	
1927	CISC	99									FN		18	7	97	ML-E	12	EB	0	
1928	CISC	101									FN		18	7	97	ML-E	12	EB	0	
1929	CISC	99									FN		18	7	97	ML-E	12	EB	0	
1930	CISC	104									FN		18	7	97	ML-E	12	EB	0	
1931	CISC	108									FN		18	7	97	ML-E	12	EB	0	
1932	CISC	100									FN		18	7	97	ML-E	12	EB	0	
1933	CISC	105									FN		18	7	97	ML-E	12	EB	0	
1934	CISC	100									FN		18	7	97	ML-E	12	EB	0	
1935	CISC	96									FN		18	7	97	ML-E	12	EB	0	
1936	CISC	95									FN		18	7	97	ML-E	12	EB	0	
1937	CISC	100									FN		18	7	97	ML-E	12	EB	0	
1938	CISC	97									FN		18	7	97	ML-E	12	EB	0	
1939	CISC	102									FN		18	7	97	ML-E	12	EB	0	
1940	CISC	105									FN		18	7	97	ML-E	12	EB	0	
1941	CISC	99									FN		18	7	97	ML-E	12	EB	0	
1942	CISC	105									FN		18	7	97	ML-E	12	EB	0	
1943	CISC	101									FN		18	7	97	ML-E	12	EB	0	
1944	CISC	114									FN		18	7	97	ML-E	12	EB	0	
1945	CISC	106									FN		18	7	97	ML-E	12	EB	0	
1946	CISC	93									FN		18	7	97	ML-E	12	EB	0	
1947	CISC	106									FN		18	7	97	ML-E	12	EB	0	
1948	CISC	98									FN		18	7	97	ML-E	12	EB	0	
1949	CISC	100									FN		18	7	97	ML-E	12	EB	0	
1950	CISC	103									FN		18	7	97	ML-E	12	EB	0	
1951	CISC	94									FN		18	7	97	ML-E	12	EB	0	
1952	CISC	112									FN		18	7	97	ML-E	12	EB	0	
1953	CISC	102									FN		18	7	97	ML-E	12	EB	0	
1954	CISC	98									FN		18	7	97	ML-E	12	EB	0	
1955	CISC	103									FN		18	7	97	ML-E	12	EB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
1956	CISC	101									FN		18	7	97	ML-E	12	EB	0	
1957	CISC	94									FN		18	7	97	ML-E	12	EB	0	
1958	CISC	111									FN		18	7	97	ML-E	12	EB	0	
1959	CISC	102									FN		18	7	97	ML-E	12	EB	0	
1960	CISC	108									FN		18	7	97	ML-E	12	EB	0	
1961	CISC	92									FN		18	7	97	ML-E	12	EB	0	
1962	CISC	107									FN		18	7	97	ML-E	12	EB	0	
1963	CISC	102									FN		18	7	97	ML-E	12	EB	0	
1964	CISC	103									FN		18	7	97	ML-E	12	EB	0	
1965	CISC	107									FN		18	7	97	ML-E	12	EB	0	
1966	CISC	104									FN		18	7	97	ML-E	12	EB	0	
1967	CISC	95									FN		18	7	97	ML-E	12	EB	0	
1968	CISC	107									FN		18	7	97	ML-E	12	EB	0	
1969	CISC	97									FN		18	7	97	ML-E	12	EB	0	
1970	CISC	95									FN		18	7	97	ML-E	12	EB	0	
1971	CISC	101									FN		18	7	97	ML-E	12	EB	0	
1972	CISC	99									FN		18	7	97	ML-E	12	EB	0	
1973	CISC	101									FN		18	7	97	ML-E	12	EB	0	
1974	CISC	110									FN		18	7	97	ML-E	12	EB	0	
1975	CISC	112									FN		18	7	97	ML-E	12	EB	0	
1976	CISC	99									FN		18	7	97	ML-E	12	EB	0	
1977	CISC	95									FN		18	7	97	ML-E	12	EB	0	
1978	CISC	106									FN		18	7	97	ML-E	12	EB	0	
1979	CISC	108									FN		18	7	97	ML-E	12	EB	0	
1980	CISC	93									FN		18	7	97	ML-E	12	EB	0	
1981	CISC	104									FN		18	7	97	ML-E	12	EB	0	
1982	CISC	104									FN		18	7	97	ML-E	12	EB	0	
1983	CISC	98									FN		18	7	97	ML-E	12	EB	0	
1984	CISC	110									FN		18	7	97	ML-E	12	EB	0	
1985	CISC	116									FN		18	7	97	ML-E	12	EB	0	
1986	CISC	95									FN		18	7	97	ML-E	12	EB	0	
1987	CISC	97									FN		18	7	97	ML-E	12	EB	0	
1988	CISC	108									FN		18	7	97	ML-E	12	EB	0	
1989	CISC	91									FN		18	7	97	ML-E	12	EB	0	
1990	CISC	104									FN		18	7	97	ML-E	12	EB	0	
1991	CISC	107									FN		18	7	97	ML-E	12	EB	0	
1992	CISC	113									FN		18	7	97	ML-E	12	EB	0	
1993	CISC	109									FN		18	7	97	ML-E	12	EB	0	
1994	CISC	109									FN		18	7	97	ML-E	12	EB	0	
1995	CISC	110									FN		18	7	97	ML-E	12	EB	0	
1996	CISC	106									FN		18	7	97	ML-E	12	EB	0	
1997	CISC	96									FN		18	7	97	ML-E	12	EB	0	
1998	CISC	109									FN		18	7	97	ML-E	12	EB	0	
1999	CISC	109									FN		18	7	97	ML-E	12	EB	0	
2034	CISC	295	228		Sc	7	6375				GN	0.75	18	7	97	B7	1		0	
2130	CISC	325	640		Sc	8	6411				GN	2.5	20	7	97	B2	1		0	
2131	CISC	376	820		Sc	6	6410				GN	3.5	20	7	97	B2	1		0	
2132	CISC	376	924	4	Ot, Sc	6					GN	3.5	20	7	97	B2	1		1	St=5 (Clams)
2133	CISC	327	440		Sc	6	6409				GN	2.5	20	7	97	B2	1		0	
2134	CISC	356	706		Sc	8					GN	3.5	20	7	97	B2	1		0	
2135	CISC	290	290		Sc	4	6412				GN	2.5	20	7	97	B2	2		0	
2275	CISC	112	12		Sc	1					GN	0.75	26	7	97	D1	1		0	
2276	CISC	118	14		Ot, Sc	1					GN	0.75	26	7	97	D1	1		1	St=5 (unid)
2277	CISC	191	72		Ot, Sc	4					GN	1.5	26	7	97	D1	1		1	St=0
3001	CISC	99									FN		18	7	97	ML-E	12	EB	0	
3002	CISC	105									FN		18	7	97	ML-E	12	EB	0	
3003	CISC	97									FN		18	7	97	ML-E	12	EB	0	
3004	CISC	97									FN		18	7	97	ML-E	12	EB	0	
3005	CISC	107									FN		18	7	97	ML-E	12	EB	0	
3006	CISC	102									FN		18	7	97	ML-E	12	EB	0	
3007	CISC	102									FN		18	7	97	ML-E	12	EB	0	
3008	CISC	109									FN		18	7	97	ML-E	12	EB	0	
3009	CISC	101									FN		18	7	97	ML-E	12	EB	0	
3010	CISC	91									FN		18	7	97	ML-E	12	EB	0	
3011	CISC	100									FN		18	7	97	ML-E	12	EB	0	
3012	CISC	97									FN		18	7	97	ML-E	12	EB	0	
3013	CISC	95									FN		18	7	97	ML-E	12	EB	0	
3014	CISC	110									FN		18	7	97	ML-E	12	EB	0	
3015	CISC	115									FN		18	7	97	ML-E	12	EB	0	
3016	CISC	109									FN		18	7	97	ML-E	12	EB	0	
3017	CISC	93									FN		18	7	97	ML-E	12	EB	0	
3018	CISC	98									FN		18	7	97	ML-E	12	EB	0	
3019	CISC	100									FN		18	7	97	ML-E	12	EB	0	
3020	CISC	104									FN		18	7	97	ML-E	12	EB	0	
3021	CISC	109									FN		18	7	97	ML-E	12	EB	0	
3022	CISC	112									FN		18	7	97	ML-E	12	EB	0	
3023	CISC	101									FN		18	7	97	ML-E	12	EB	0	
3024	CISC	98									FN		18	7	97	ML-E	12	EB	0	
3025	CISC	97									FN		18	7	97	ML-E	12	EB	0	
3026	CISC	95									FN		18	7	97	ML-E	12	EB	0	
3027	CISC	96									FN		18	7	97	ML-E	12	EB	0	
3028	CISC	100									FN		18	7	97	ML-E	12	EB	0	
3029	CISC	99									FN		18	7	97	ML-E	12	EB	0	
3030	CISC	101									FN		18	7	97	ML-E	12	EB	0	
3031	CISC	103									FN		18	7	97	ML-E	12	EB	0	
3032	CISC	96									FN		18	7	97	ML-E	12	EB	0	
3033	CISC	101									FN		18	7	97	ML-E	12	EB	0	
3068	CISC	178	64		Sc	3					FN		18	7	97	ML-E	12	WB	0	
3069	CISC	109	10		Sc	1					FN		18	7	97	ML-E	12	WB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
3070	CISC	109	10		Sc	1					FN		18	7	97	ML-E	12	WB	0	
3071	CISC	117	14		Sc	1					FN		18	7	97	ML-E	12	WB	0	
3072	CISC	110	12		Sc	1					FN		18	7	97	ML-E	12	WB	0	
3073	CISC	107	10		Sc	1					FN		18	7	97	ML-E	12	WB	0	
3074	CISC	92	6		Sc	1					FN		18	7	97	ML-E	12	WB	0	
3075	CISC	106	10		Sc	1					FN		18	7	97	ML-E	12	WB	0	
3076	CISC	195	80		Sc	3					FN		18	7	97	ML-E	12	WB	0	
3104	CISC	153	32		Sc	2					FN		18	7	97	ML-E	13	WB	0	
3105	CISC	154	34		Sc	2					FN		18	7	97	ML-E	13	WB	0	
3106	CISC	199	70		Sc	3					FN		18	7	97	ML-E	13	WB	0	
3107	CISC	177	56		Sc	3					FN		18	7	97	ML-E	13	WB	0	
3108	CISC	182	58		Sc	3					FN		18	7	97	ML-E	13	WB	0	
3109	CISC	181	54		Sc	3					FN		18	7	97	ML-E	13	WB	0	
3142	CISC	144	26		Sc	2					FN		18	7	97	ML-E	13	EB	0	
3153	CISC	96									FN		18	7	97	ML-E	13	EB	0	
3154	CISC	109									FN		18	7	97	ML-E	13	EB	0	
3155	CISC	108									FN		18	7	97	ML-E	13	EB	0	
3156	CISC	95									FN		18	7	97	ML-E	13	EB	0	
3157	CISC	89									FN		18	7	97	ML-E	13	EB	0	
3158	CISC	100									FN		18	7	97	ML-E	13	EB	0	
3215	CISC	105									FN		18	7	97	ML-E	13	WB	0	
3216	CISC	109									FN		18	7	97	ML-E	13	WB	0	
3217	CISC	115									FN		18	7	97	ML-E	13	WB	0	
3218	CISC	112									FN		18	7	97	ML-E	13	WB	0	
3219	CISC	113									FN		18	7	97	ML-E	13	WB	0	
3251	CISC	149	32		Ot, Sc	2					FN		19	7	97	ML-E	14	WB	1	St=0
3303	CISC	125	18		Sc	1					FN		19	7	97	ML-E	15	EB	0	
3304	CISC	146	28		Sc	2					FN		19	7	97	ML-E	15	EB	0	
3305	CISC	122	16		Sc	1					FN		19	7	97	ML-E	15	EB	0	
3306	CISC	88	6		Sc	1					FN		19	7	97	ML-E	15	EB	0	
3307	CISC	120	14		Sc	1					FN		19	7	97	ML-E	15	EB	0	
3308	CISC	119	12		Sc	1					FN		19	7	97	ML-E	15	EB	0	
3314	CISC	110									FN		19	7	97	ML-E	15	EB	0	
3315	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3316	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3317	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3318	CISC	94									FN		19	7	97	ML-E	15	EB	0	
3319	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3320	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3321	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3322	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3323	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3324	CISC	95									FN		19	7	97	ML-E	15	EB	0	
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3326	CISC	95									FN		19	7	97	ML-E	15	EB	0	
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3330	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3331	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3332	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3333	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3334	CISC	108									FN		19	7	97	ML-E	15	EB	0	
3335	CISC	96									FN		19	7	97	ML-E	15	EB	0	
3336	CISC	110									FN		19	7	97	ML-E	15	EB	0	
3337	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3338	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3339	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3340	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3341	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3342	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3343	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3344	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3345	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3346	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3347	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3348	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3349	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3350	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3351	CISC	110									FN		19	7	97	ML-E	15	EB	0	
3352	CISC	96									FN		19	7	97	ML-E	15	EB	0	
3353	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3354	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3355	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3356	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3357	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3358	CISC	113									FN		19	7	97	ML-E	15	EB	0	
3359	CISC	108									FN		19	7	97	ML-E	15	EB	0	
3360	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3361	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3362	CISC	96									FN		19	7	97	ML-E	15	EB	0	
3363	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3364	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3365	CISC	94									FN		19	7	97	ML-E	15	EB	0	
3366	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3367	CISC	92									FN		19	7	97	ML-E	15	EB	0	
3368	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3369	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3370	CISC	104									FN		19	7	97	ML-E	15	EB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
3371	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3372	CISC	115									FN		19	7	97	ML-E	15	EB	0	
3373	CISC	114									FN		19	7	97	ML-E	15	EB	0	
3374	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3375	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3376	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3377	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3378	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3379	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3380	CISC	110									FN		19	7	97	ML-E	15	EB	0	
3381	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3382	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3383	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3384	CISC	95									FN		19	7	97	ML-E	15	EB	0	
3385	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3386	CISC	94									FN		19	7	97	ML-E	15	EB	0	
3387	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3388	CISC	94									FN		19	7	97	ML-E	15	EB	0	
3389	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3390	CISC	91									FN		19	7	97	ML-E	15	EB	0	
3391	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3392	CISC	108									FN		19	7	97	ML-E	15	EB	0	
3393	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3394	CISC	96									FN		19	7	97	ML-E	15	EB	0	
3395	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3396	CISC	118									FN		19	7	97	ML-E	15	EB	0	
3397	CISC	94									FN		19	7	97	ML-E	15	EB	0	
3398	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3399	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3400	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3401	CISC	112									FN		19	7	97	ML-E	15	EB	0	
3402	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3403	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3404	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3405	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3406	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3407	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3408	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3409	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3410	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3411	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3412	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3413	CISC	110									FN		19	7	97	ML-E	15	EB	0	
3414	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3415	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3416	CISC	89									FN		19	7	97	ML-E	15	EB	0	
3417	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3418	CISC	98									FN		19	7	97	ML-E	15	EB	0	
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3421	CISC	90									FN		19	7	97	ML-E	15	EB	0	
3422	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3423	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3424	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3425	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3426	CISC	114									FN		19	7	97	ML-E	15	EB	0	
3427	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3428	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3429	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3430	CISC	97									FN		19	7	97	ML-E	15	EB	0	
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3433	CISC	95									FN		19	7	97	ML-E	15	EB	0	
3434	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3435	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3436	CISC	94									FN		19	7	97	ML-E	15	EB	0	
3437	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3438	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3439	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3440	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3441	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3442	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3443	CISC	115									FN		19	7	97	ML-E	15	EB	0	
3444	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3445	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3446	CISC	115									FN		19	7	97	ML-E	15	EB	0	
3447	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3448	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3449	CISC	108									FN		19	7	97	ML-E	15	EB	0	
3450	CISC	110									FN		19	7	97	ML-E	15	EB	0	
3451	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3452	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3453	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3454	CISC	92									FN		19	7	97	ML-E	15	EB	0	
3455	CISC	112									FN		19	7	97	ML-E	15	EB	0	
3456	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3457	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3458	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3459	CISC	116									FN		19	7	97	ML-E	15	EB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
3460	CISC	108									FN		19	7	97	ML-E	15	EB	0	
3461	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3462	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3463	CISC	90									FN		19	7	97	ML-E	15	EB	0	
3464	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3465	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3466	CISC	115									FN		19	7	97	ML-E	15	EB	0	
3467	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3468	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3469	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3470	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3471	CISC	113									FN		19	7	97	ML-E	15	EB	0	
3472	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3473	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3474	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3475	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3476	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3477	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3478	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3479	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3480	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3481	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3482	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3483	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3484	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3485	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3486	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3487	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3488	CISC	114									FN		19	7	97	ML-E	15	EB	0	
3489	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3490	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3491	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3492	CISC	113									FN		19	7	97	ML-E	15	EB	0	
3493	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3494	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3495	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3496	CISC	114									FN		19	7	97	ML-E	15	EB	0	
3497	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3498	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3499	CISC	116									FN		19	7	97	ML-E	15	EB	0	
3500	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3501	CISC	116									FN		19	7	97	ML-E	15	EB	0	
3502	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3503	CISC	118									FN		19	7	97	ML-E	15	EB	0	
3504	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3505	CISC	112									FN		19	7	97	ML-E	15	EB	0	
3506	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3507	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3508	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3509	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3510	CISC	118									FN		19	7	97	ML-E	15	EB	0	
3511	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3512	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3513	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3514	CISC	110									FN		19	7	97	ML-E	15	EB	0	
3515	CISC	120									FN		19	7	97	ML-E	15	EB	0	
3516	CISC	114									FN		19	7	97	ML-E	15	EB	0	
3517	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3518	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3519	CISC	94									FN		19	7	97	ML-E	15	EB	0	
3520	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3521	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3522	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3523	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3524	CISC	94									FN		19	7	97	ML-E	15	EB	0	
3525	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3526	CISC	112									FN		19	7	97	ML-E	15	EB	0	
3527	CISC	96									FN		19	7	97	ML-E	15	EB	0	
3528	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3529	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3530	CISC	110									FN		19	7	97	ML-E	15	EB	0	
3531	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3532	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3533	CISC	95									FN		19	7	97	ML-E	15	EB	0	
3534	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3535	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3536	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3537	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3538	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3539	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3540	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3541	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3542	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3543	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3544	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3545	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3546	CISC	93									FN		19	7	97	ML-E	15	EB	0	
3547	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3548	CISC	107									FN		19	7	97	ML-E	15	EB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
3549	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3550	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3551	CISC	119									FN		19	7	97	ML-E	15	EB	0	
3552	CISC	96									FN		19	7	97	ML-E	15	EB	0	
3553	CISC	108									FN		19	7	97	ML-E	15	EB	0	
3554	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3555	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3556	CISC	92									FN		19	7	97	ML-E	15	EB	0	
3557	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3558	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3559	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3560	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3561	CISC	112									FN		19	7	97	ML-E	15	EB	0	
3562	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3563	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3564	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3565	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3566	CISC	108									FN		19	7	97	ML-E	15	EB	0	
3567	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3568	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3569	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3570	CISC	96									FN		19	7	97	ML-E	15	EB	0	
3571	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3572	CISC	108									FN		19	7	97	ML-E	15	EB	0	
3573	CISC	92									FN		19	7	97	ML-E	15	EB	0	
3574	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3575	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3576	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3577	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3578	CISC	95									FN		19	7	97	ML-E	15	EB	0	
3579	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3580	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3581	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3582	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3583	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3584	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3585	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3586	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3587	CISC	109									FN		19	7	97	ML-E	15	EB	0	
3588	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3589	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3590	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3591	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3592	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3593	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3594	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3595	CISC	112									FN		19	7	97	ML-E	15	EB	0	
3596	CISC	118									FN		19	7	97	ML-E	15	EB	0	
3597	CISC	110									FN		19	7	97	ML-E	15	EB	0	
3598	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3599	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3600	CISC	112									FN		19	7	97	ML-E	15	EB	0	
3601	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3602	CISC	98									FN		19	7	97	ML-E	15	EB	0	
3603	CISC	96									FN		19	7	97	ML-E	15	EB	0	
3604	CISC	100									FN		19	7	97	ML-E	15	EB	0	
3605	CISC	99									FN		19	7	97	ML-E	15	EB	0	
3606	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3607	CISC	92									FN		19	7	97	ML-E	15	EB	0	
3608	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3609	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3610	CISC	113									FN		19	7	97	ML-E	15	EB	0	
3611	CISC	95									FN		19	7	97	ML-E	15	EB	0	
3612	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3613	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3614	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3615	CISC	101									FN		19	7	97	ML-E	15	EB	0	
3616	CISC	110									FN		19	7	97	ML-E	15	EB	0	
3617	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3618	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3619	CISC	104									FN		19	7	97	ML-E	15	EB	0	
3620	CISC	115									FN		19	7	97	ML-E	15	EB	0	
3621	CISC	105									FN		19	7	97	ML-E	15	EB	0	
3622	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3623	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3624	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3625	CISC	95									FN		19	7	97	ML-E	15	EB	0	
3626	CISC	106									FN		19	7	97	ML-E	15	EB	0	
3627	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3628	CISC	96									FN		19	7	97	ML-E	15	EB	0	
3629	CISC	111									FN		19	7	97	ML-E	15	EB	0	
3630	CISC	107									FN		19	7	97	ML-E	15	EB	0	
3631	CISC	117									FN		19	7	97	ML-E	15	EB	0	
3632	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3633	CISC	114									FN		19	7	97	ML-E	15	EB	0	
3634	CISC	103									FN		19	7	97	ML-E	15	EB	0	
3635	CISC	113									FN		19	7	97	ML-E	15	EB	0	
3636	CISC	97									FN		19	7	97	ML-E	15	EB	0	
3637	CISC	110									FN		19	7	97	ML-E	15	EB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
3638	CISC	102									FN		19	7	97	ML-E	15	EB	0	
3697	CISC	105									FN		19	7	97	ML-E	15	WB	0	
3698	CISC	103									FN		19	7	97	ML-E	15	WB	0	
3699	CISC	90									FN		19	7	97	ML-E	15	WB	0	
3700	CISC	96									FN		19	7	97	ML-E	15	WB	0	
3701	CISC	95									FN		19	7	97	ML-E	15	WB	0	
3720	CISC	304	332		FR, Sc	7	6882			RPel	FN		20	7	97	ML-E	16	WB	0	
3738	CISC	102	8		Ot, Sc	1					FN		20	7	97	ML-E	16	WB	1	St=0
3753	CISC	112	10		Ot, Sc	1					FN		20	7	97	ML-E	16	EB	1	St=0
3754	CISC	118	14		Ot, Sc	1					FN		20	7	97	ML-E	16	EB	1	St=0
3755	CISC	109	10		Ot	1					FN		20	7	97	ML-E	16	EB	1	
3781	CISC	196	72	11	Ot, Sc	3					FN		21	7	97	ML-E	17	WB	1	St=0
4002	CISC	107	12		Sc	1					FN		21	7	97	ML-E	17	EB	0	
4029	CISC	114	10		Ot, Sc	1					FN		22	7	97	ML-E	18	WB	1	
4030	CISC	108	10		Ot, Sc	1					FN		22	7	97	ML-E	18	WB	1	
4035	CISC	132	20	11	Ot, Sc	1					GN	0.75	22	7	97	ML-E	6		1	St=10 (Plankton)
4036	CISC	110	12	1	Ot, Sc	1					GN	0.75	22	7	97	ML-E	6		1	St=0
4037	CISC	111	12	11	Ot, Sc	1					GN	0.75	22	7	97	ML-E	6		1	St=5 (Plankton)
4038	CISC	114	12	1	Ot, Sc	1					GN	0.75	22	7	97	ML-E	6		1	St=5 (Chir)
4039	CISC	121	16		Ot, Sc	1					GN	0.75	22	7	97	ML-E	6		1	St=5 (Chir)
4040	CISC	106	10								GN	0.75	22	7	97	ML-E	6		0	
4041	CISC	115	12								GN	0.75	22	7	97	ML-E	6		0	
4042	CISC	110	10								GN	0.75	22	7	97	ML-E	6		0	
4043	CISC	105	10								GN	0.75	22	7	97	ML-E	6		1	
4044	CISC	115	12								GN	0.75	22	7	97	ML-E	6		1	
4045	CISC	103	10								GN	0.75	22	7	97	ML-E	6		1	
4046	CISC	109	12								GN	0.75	22	7	97	ML-E	6		1	
4047	CISC	113	14								GN	0.75	22	7	97	ML-E	6		1	
4048	CISC	105	10								GN	0.75	22	7	97	ML-E	6		1	
4049	CISC	103	10								GN	0.75	22	7	97	ML-E	6		1	
4050	CISC	103	8								GN	0.75	22	7	97	ML-E	6		1	
4051	CISC	114	14								GN	0.75	22	7	97	ML-E	6		1	
4052	CISC	116	14								GN	0.75	22	7	97	ML-E	6		1	
4053	CISC	110	10								GN	0.75	22	7	97	ML-E	6		1	
4054	CISC	114	12								GN	0.75	22	7	97	ML-E	6		1	
4055	CISC	110	14								GN	0.75	22	7	97	ML-E	6		1	
4067	CISC	113	12		Sc	1					FN		23	7	97	ML-E	19	WB	0	
4069	CISC	107	10		Sc	1					FN		23	7	97	ML-E	19	WB	0	
4095	CISC	324	384		FR, Sc	7				RPel	FN		24	7	97	ML-E	20	WB	0	
4096	CISC	325	358		FR, Sc	7				RPel	FN		24	7	97	ML-E	20	WB	0	
4108	CISC	194	64		FR, Sc	4				RPel	FN		24	7	97	ML-E	20	WB	0	
4116	CISC	128									FN		24	7	97	ML-E	20	WB	0	
4117	CISC	105	10								FN		24	7	97	ML-E	20	WB	0	
4118	CISC	109	10								FN		24	7	97	ML-E	20	WB	0	
4119	CISC	111	10								FN		24	7	97	ML-E	20	WB	0	
4120	CISC	107	10								FN		24	7	97	ML-E	20	WB	0	
4121	CISC	151	32								FN		24	7	97	ML-E	20	WB	0	
4122	CISC	107	12								FN		24	7	97	ML-E	20	WB	0	
4123	CISC	106	10								FN		24	7	97	ML-E	20	WB	0	
4124	CISC	111									FN		24	7	97	ML-E	20	WB	0	
4125	CISC	111									FN		24	7	97	ML-E	20	WB	0	
4126	CISC	112									FN		24	7	97	ML-E	20	WB	0	
4127	CISC	104									FN		24	7	97	ML-E	20	WB	0	
4128	CISC	102									FN		24	7	97	ML-E	20	WB	0	
4129	CISC	117									FN		24	7	97	ML-E	20	WB	0	
4130	CISC	106									FN		24	7	97	ML-E	20	WB	0	
4131	CISC	110									FN		24	7	97	ML-E	20	WB	0	
4132	CISC	117									FN		24	7	97	ML-E	20	WB	0	
4133	CISC	118									FN		24	7	97	ML-E	20	WB	0	
4134	CISC	112									FN		24	7	97	ML-E	20	WB	0	
4135	CISC	111									FN		24	7	97	ML-E	20	WB	0	
4136	CISC	106									FN		24	7	97	ML-E	20	WB	0	
4137	CISC	116									FN		24	7	97	ML-E	20	WB	0	
4138	CISC	107									FN		24	7	97	ML-E	20	WB	0	
4139	CISC	115									FN		24	7	97	ML-E	20	WB	0	
4140	CISC	107									FN		24	7	97	ML-E	20	WB	0	
4141	CISC	107									FN		24	7	97	ML-E	20	WB	0	
4142	CISC	108									FN		24	7	97	ML-E	20	WB	0	
4143	CISC	99									FN		24	7	97	ML-E	20	WB	0	
4144	CISC	111									FN		24	7	97	ML-E	20	WB	0	
4145	CISC	105									FN		24	7	97	ML-E	20	WB	0	
4146	CISC	105									FN		24	7	97	ML-E	20	WB	0	
4147	CISC	105									FN		24	7	97	ML-E	20	WB	0	
4148	CISC	113									FN		24	7	97	ML-E	20	WB	0	
4149	CISC	128									FN		24	7	97	ML-E	20	WB	0	
4150	CISC	115									FN		24	7	97	ML-E	20	WB	0	
4151	CISC	110									FN		24	7	97	ML-E	20	WB	0	
4152	CISC	111									FN		24	7	97	ML-E	20	WB	0	
4153	CISC	113									FN		24	7	97	ML-E	20	WB	0	
4154	CISC	112									FN		24	7	97	ML-E	20	WB	0	
4155	CISC	107									FN		24	7	97	ML-E	20	WB	0	
4156	CISC	104									FN		24	7	97	ML-E	20	WB	0	
4157	CISC	108									FN		24	7	97	ML-E	20	WB	0	
4158	CISC	109									FN		24	7	97	ML-E	20	WB	0	
4159	CISC	105									FN		24	7	97	ML-E	20	WB	0	
4160	CISC	109									FN		24	7	97	ML-E	20	WB	0	
4161	CISC	112									FN		24	7	97	ML-E	20	WB	0	
4162	CISC	112									FN		24	7	97	ML-E	20	WB	0	
4163	CISC	116									FN		24	7	97	ML-E	20	WB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
4164	CISC	109									FN		24	7	97	ML-E	20	WB	0	
4165	CISC	115									FN		24	7	97	ML-E	20	WB	0	
4166	CISC	103									FN		24	7	97	ML-E	20	WB	0	
4167	CISC	99									FN		24	7	97	ML-E	20	WB	0	
4168	CISC	109									FN		24	7	97	ML-E	20	WB	0	
4169	CISC	111									FN		24	7	97	ML-E	20	WB	0	
4170	CISC	112									FN		24	7	97	ML-E	20	WB	0	
4171	CISC	111									FN		24	7	97	ML-E	20	WB	0	
4172	CISC	105									FN		24	7	97	ML-E	20	WB	0	
4173	CISC	109									FN		24	7	97	ML-E	20	WB	0	
4174	CISC	96									FN		24	7	97	ML-E	20	WB	0	
4175	CISC	97									FN		24	7	97	ML-E	20	WB	0	
4176	CISC	102									FN		24	7	97	ML-E	20	WB	0	
4177	CISC	115									FN		24	7	97	ML-E	20	WB	0	
4178	CISC	108									FN		24	7	97	ML-E	20	WB	0	
4179	CISC	102									FN		24	7	97	ML-E	20	WB	0	
4180	CISC	102									FN		24	7	97	ML-E	20	WB	0	
4181	CISC	142	26	11	Ot, Sc	2					FN		24	7	97	ML-E	20	WB	1	St=0
4182	CISC	85	4	11	Ot, Sc	1					FN		24	7	97	ML-E	20	WB	1	St=0
4187	CISC	165	40		Sc	2					FN		24	7	97	ML-E	20	EB	0	
4188	CISC	147	26		Sc	2					FN		24	7	97	ML-E	20	EB	0	
4189	CISC	144	26		Sc	2					FN		24	7	97	ML-E	20	EB	0	
4190	CISC	157	28		Sc	2					FN		24	7	97	ML-E	20	EB	0	
4191	CISC	106	8		Sc	1					FN		24	7	97	ML-E	20	EB	0	
4192	CISC	166	38	1	Ot, Sc	2					FN		24	7	97	ML-E	20	EB	1	St=0
4193	CISC	150	26	11	Ot, Sc	2					FN		24	7	97	ML-E	20	EB	1	St=0
4194	CISC	159	28	11	Ot, Sc	2					FN		24	7	97	ML-E	20	EB	1	St=8 (unid)
4198	CISC	113	12		Ot, Sc	1					FN		24	7	97	ML-E	20	EB	1	
4199	CISC	98									FN		24	7	97	ML-E	20	EB	0	
4200	CISC	104									FN		24	7	97	ML-E	20	EB	0	
4201	CISC	110									FN		24	7	97	ML-E	20	EB	0	
4202	CISC	98									FN		24	7	97	ML-E	20	EB	0	
4203	CISC	111									FN		24	7	97	ML-E	20	EB	0	
4204	CISC	122									FN		24	7	97	ML-E	20	EB	0	
4205	CISC	106									FN		24	7	97	ML-E	20	EB	0	
4206	CISC	105									FN		24	7	97	ML-E	20	EB	0	
4207	CISC	97									FN		24	7	97	ML-E	20	EB	0	
4208	CISC	114									FN		24	7	97	ML-E	20	EB	0	
4209	CISC	111									FN		24	7	97	ML-E	20	EB	0	
4210	CISC	105									FN		24	7	97	ML-E	20	EB	0	
4211	CISC	113									FN		24	7	97	ML-E	20	EB	0	
4212	CISC	102									FN		24	7	97	ML-E	20	EB	0	
4213	CISC	107									FN		24	7	97	ML-E	20	EB	0	
4214	CISC	105									FN		24	7	97	ML-E	20	EB	0	
4215	CISC	100									FN		24	7	97	ML-E	20	EB	0	
4216	CISC	117									FN		24	7	97	ML-E	20	EB	0	
4217	CISC	102									FN		24	7	97	ML-E	20	EB	0	
4218	CISC	97									FN		24	7	97	ML-E	20	EB	0	
4219	CISC	94									FN		24	7	97	ML-E	20	EB	0	
4220	CISC	92									FN		24	7	97	ML-E	20	EB	0	
4221	CISC	104									FN		24	7	97	ML-E	20	EB	0	
4222	CISC	102									FN		24	7	97	ML-E	20	EB	0	
4223	CISC	108									FN		24	7	97	ML-E	20	EB	0	
4224	CISC	106									FN		24	7	97	ML-E	20	EB	0	
4225	CISC	110									FN		24	7	97	ML-E	20	EB	0	
4226	CISC	108									FN		24	7	97	ML-E	20	EB	0	
4227	CISC	103									FN		24	7	97	ML-E	20	EB	0	
4228	CISC	110									FN		24	7	97	ML-E	20	EB	0	
4229	CISC	109									FN		24	7	97	ML-E	20	EB	0	
4230	CISC	115									FN		24	7	97	ML-E	20	EB	0	
4231	CISC	107									FN		24	7	97	ML-E	20	EB	0	
4232	CISC	114									FN		24	7	97	ML-E	20	EB	0	
4233	CISC	102									FN		24	7	97	ML-E	20	EB	0	
4234	CISC	94									FN		24	7	97	ML-E	20	EB	0	
4235	CISC	100									FN		24	7	97	ML-E	20	EB	0	
4236	CISC	106									FN		24	7	97	ML-E	20	EB	0	
4237	CISC	120									FN		24	7	97	ML-E	20	EB	0	
4238	CISC	112									FN		24	7	97	ML-E	20	EB	0	
4239	CISC	96									FN		24	7	97	ML-E	20	EB	0	
4240	CISC	106									FN		24	7	97	ML-E	20	EB	0	
4241	CISC	119									FN		24	7	97	ML-E	20	EB	0	
4242	CISC	110									FN		24	7	97	ML-E	20	EB	0	
4243	CISC	105									FN		24	7	97	ML-E	20	EB	0	
4244	CISC	112									FN		24	7	97	ML-E	20	EB	0	
4245	CISC	102									FN		24	7	97	ML-E	20	EB	0	
4246	CISC	97									FN		24	7	97	ML-E	20	EB	0	
4247	CISC	99									FN		24	7	97	ML-E	20	EB	0	
4248	CISC	110									FN		24	7	97	ML-E	20	EB	0	
4249	CISC	98									FN		24	7	97	ML-E	20	EB	0	
4250	CISC	100									FN		24	7	97	ML-E	20	EB	0	
4251	CISC	111									FN		24	7	97	ML-E	20	EB	0	
4252	CISC	102									FN		24	7	97	ML-E	20	EB	0	
4253	CISC	95									FN		24	7	97	ML-E	20	EB	0	
4254	CISC	105									FN		24	7	97	ML-E	20	EB	0	
4255	CISC	92									FN		24	7	97	ML-E	20	EB	0	
4256	CISC	102									FN		24	7	97	ML-E	20	EB	0	
4257	CISC	103									FN		24	7	97	ML-E	20	EB	0	
4258	CISC	86									FN		24	7	97	ML-E	20	EB	0	
4259	CISC	102									FN		24	7	97	ML-E	20	EB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
4260	CISC	110									FN		24	7	97	ML-E	20	EB	0	
4261	CISC	102									FN		24	7	97	ML-E	20	EB	0	
4262	CISC	100									FN		24	7	97	ML-E	20	EB	0	
4263	CISC	110									FN		24	7	97	ML-E	20	EB	0	
4264	CISC	99									FN		24	7	97	ML-E	20	EB	0	
4265	CISC	98									FN		24	7	97	ML-E	20	EB	0	
4266	CISC	103									FN		24	7	97	ML-E	20	EB	0	
4267	CISC	104									FN		24	7	97	ML-E	20	EB	0	
4268	CISC	106									FN		24	7	97	ML-E	20	EB	0	
4269	CISC	98									FN		24	7	97	ML-E	20	EB	0	
4270	CISC	96									FN		24	7	97	ML-E	20	EB	0	
4271	CISC	114									FN		24	7	97	ML-E	20	EB	0	
4272	CISC	105									FN		24	7	97	ML-E	20	EB	0	
4273	CISC	87									FN		24	7	97	ML-E	20	EB	0	
4274	CISC	102									FN		24	7	97	ML-E	20	EB	0	
4275	CISC	107									FN		24	7	97	ML-E	20	EB	0	
4276	CISC	90									FN		24	7	97	ML-E	20	EB	0	
4277	CISC	98									FN		24	7	97	ML-E	20	EB	0	
4278	CISC	87									FN		24	7	97	ML-E	20	EB	0	
4279	CISC	95									FN		24	7	97	ML-E	20	EB	0	
4280	CISC	89									FN		24	7	97	ML-E	20	EB	0	
4281	CISC	91									FN		24	7	97	ML-E	20	EB	0	
4282	CISC	102									FN		24	7	97	ML-E	20	EB	0	
4297	CISC	117	14		Ot, Sc	1					FN		25	7	97	ML-E	21	EB	1	St=0
4299	CISC	107	10		Ot, Sc	1					FN		25	7	97	ML-E	21	EB	1	St=0
4301	CISC	111	12		Sc	1					FN		25	7	97	ML-E	21	WB	0	
4302	CISC	96	6		Sc	1					FN		25	7	97	ML-E	21	WB	0	
4303	CISC	99	8		Sc	1					FN		25	7	97	ML-E	21	WB	0	
4304	CISC	134	22		Sc	2					FN		25	7	97	ML-E	21	WB	0	
4305	CISC	109	10		Sc	1					FN		25	7	97	ML-E	21	WB	0	
4306	CISC	105	12		Sc	1					FN		25	7	97	ML-E	21	WB	0	
4307	CISC	99	6		Sc	1					FN		25	7	97	ML-E	21	WB	0	
4315	CISC	110									FN		26	7	97	ML-E	22	WB	0	
4316	CISC	114									FN		26	7	97	ML-E	22	WB	0	
4317	CISC	121									FN		26	7	97	ML-E	22	WB	0	
4318	CISC	106									FN		26	7	97	ML-E	22	WB	0	
4319	CISC	115									FN		26	7	97	ML-E	22	WB	0	
4320	CISC	94									FN		26	7	97	ML-E	22	WB	0	
4321	CISC	103									FN		26	7	97	ML-E	22	WB	0	
4322	CISC	114									FN		26	7	97	ML-E	22	WB	0	
4323	CISC	121									FN		26	7	97	ML-E	22	WB	0	
4324	CISC	109									FN		26	7	97	ML-E	22	WB	0	
4325	CISC	119									FN		26	7	97	ML-E	22	WB	0	
4326	CISC	108									FN		26	7	97	ML-E	22	WB	0	
4327	CISC	106									FN		26	7	97	ML-E	22	WB	0	
4328	CISC	97									FN		26	7	97	ML-E	22	WB	0	
4329	CISC	107									FN		26	7	97	ML-E	22	WB	0	
4330	CISC	103									FN		26	7	97	ML-E	22	WB	0	
4331	CISC	105									FN		26	7	97	ML-E	22	WB	0	
4332	CISC	106									FN		26	7	97	ML-E	22	WB	0	
4333	CISC	106									FN		26	7	97	ML-E	22	WB	0	
4334	CISC	110									FN		26	7	97	ML-E	22	WB	0	
4335	CISC	102									FN		26	7	97	ML-E	22	WB	0	
4336	CISC	113									FN		26	7	97	ML-E	22	WB	0	
4341	CISC	100									FN		26	7	97	ML-E	22	WB	0	
4349	CISC	124	16		Sc	1					FN		26	7	97	ML-E	22	EB	0	
4350	CISC	120									FN		26	7	97	ML-E	22	EB	0	
4351	CISC	113									FN		26	7	97	ML-E	22	EB	0	
4352	CISC	114									FN		26	7	97	ML-E	22	EB	0	
4353	CISC	118									FN		26	7	97	ML-E	22	EB	0	
4402	CISC	417	900	4	Ot, Sc	7					GN	1.5	17	8	97	A6	1		1	St=5 (clams)
4403	CISC	367	534		Sc	6					GN	3.5	17	8	97	A6	1		0	no tag very weak
4408	CISC	285			Sc	4					GN	2.5	18	8	97	B2	1		0	no tag very weak
4410	CISC	375			Sc	6	8066				GN	3.5	18	8	97	B2	1		0	
4411	CISC	170			Sc	2					GN	0.75	18	8	97	B2	1		0	
4412	CISC	348	678		Sc	6	8065				GN	1.5	18	8	97	B2	1		0	
4413	CISC	334	386		Sc	7					GN	1.5	18	8	97	B2	1		0	no tag; very weak
4418	CISC	367	554		Sc	9	8073				GN	3.5	19	8	97	B7	1		0	
4419	CISC	320	386		Sc	7	8071				GN	3.5	19	8	97	B7	1		0	
4420	CISC	333	422		Sc	9	8072				GN	2.5	19	8	97	B7	1		0	
4421	CISC	342	384		Sc	7	8074				GN	3.5	19	8	97	B7	1		0	
4429	CISC	109	8		Ot, Sc	1					GN	0.75	19	8	97	D1	1		1	St=0
4430	CISC	119	16		Ot, Sc	1					GN	0.75	19	8	97	D1	1		1	St=0
4431	CISC	215	92		Sc	3					GN	2.5	19	8	97	D1	1		0	
4432	CISC	130	24		Ot, Sc	1					GN	0.75	19	8	97	D1	1		1	St=5 (insects)
4433	CISC	115	10		Ot, Sc	1					GN	0.75	20	8	97	D1	2		1	St=0
4447	CISC	115	12		Ot, Sc	1					GN	0.75	21	8	97	D1	5		1	St=0
4448	CISC	126	12		Ot, Sc	1					GN	0.75	21	8	97	D1	5		1	St=0
4449	CISC	132	14		Ot, Sc	1					GN	0.75	21	8	97	D1	5		1	St=5 (insects)
4450	CISC	113	10		Ot, Sc	1					GN	0.75	21	8	97	D1	5		1	St=0
4451	CISC	115	12		Ot, Sc	1					GN	0.75	21	8	97	D1	5		1	St=0
4452	CISC	122	12		Sc	1					GN	0.75	21	8	97	D1	6		0	
4453	CISC	131	18		Sc	1					GN	0.75	21	8	97	D1	6		0	
4454	CISC	120	12		Sc	1					GN	0.75	21	8	97	D1	6		0	
4457	CISC	250	180	11	Ot, Sc	4					GN	1.5	21	8	97	D1	7		1	St=15 (Amphipods)
4470	CISC	240	144		Ot, Sc	4					GN	1.5	23	8	97	A1	2		1	St=0
4472	CISC	296	314		Sc	4					GN	2.5	26	8	97	B2	2		0	no tag; very weak
4473	CISC	365	524		Sc	8					GN	2.5	26	8	97	B2	2		0	no tag; very weak
4474	CISC	352	494		Sc	5	7051				GN	3.5	26	8	97	B2	2		0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
4475	CISC	355	612		Sc	9	7028				GN	1.5	26 8 97	B2	2	0	
4476	CISC	378	678		Sc	8	7052				GN	2.5	26 8 97	B2	2	0	
4491	CISC	270	312	1	Ot, Sc	4					GN	2.5	27 8 97	D1	10	1	St=5 (shrimp)
1	LKTR	519	1785		FR, Sc		6326				AL		14 6 97	MR-U	ML - MR	0	
2	LKTR	592	2380		FR, Sc		6327				AL		14 6 97	MR-U	ML - MR	0	
3	LKTR	486	1485		FR, Sc		6328				AL		14 6 97	MR-U	ML - MR	0	
4	LKTR	780		4	Ot, FR	30					CR		14 6 97	ML-E	at Camp	1	
5	LKTR	532	1990	14	Ot, FR	11					CR		14 6 97	ML-E	at Camp	1	St=20 (18 amph, 2 clams)
6	LKTR	763	4086	4	Ot, FR	28					CR		14 6 97	ML-E	at Camp	1	St=10 (8 BURB 1 NNST 1 THST)
8	LKTR	67			Sc	1					EF		15 6 97	A	0 - 1	0	
11	LKTR	64			Sc	1					EF		15 6 97	A	0 - 1	0	
188	LKTR	377	575		FR, Sc		6331				AL		15 6 97	MR-L	d/s LML	0	rel'd 15V 540000 6976200
360	LKTR	684		10	Ot, FR	26					CR		17 6 97	ML-E	at Camp	1	6 lbs (gutless)
361	LKTR	700		10	Ot, FR	23					CR		17 6 97	ML-E	at Camp	1	7.5 lbs (gutless)
362	LKTR	74	4		Sc	1					EF		18 6 97	D	0 - 1	0	
420	LKTR	66			Sc	1					EF		18 6 97	D	0 - 1	0	
530	LKTR	540	2830		FR, Sc		6346	21	89		AL		18 6 97	D1	D1 inlet	0	
531	LKTR	70			FR, Sc					R Pel	EF		18 6 97	G	0 - 1	0	
532	LKTR	506	884		FR, Sc		6347				AL		18 6 97	ML-C	G mouth	0	skinny
533	LKTR	72			Ot, Sc	1					EF		18 6 97	G	0 - 1	1	preserved
534	LKTR	146	38		FR, Sc	2				R Pel	EF		18 6 97	G	0 - 1	0	
535	LKTR	134	26		FR, Sc	2				R Pel	EF		18 6 97	G	0 - 1	0	
571	LKTR	107	10		Sc	1				L Pel	EF		19 6 97	A	1 - 2	0	
624	LKTR	110	16		Sc	1				L Pel	EF		19 6 97	A	2 - 3	0	
695	LKTR	70	4		Sc						EF		21 6 97	F	0 - 1	0	
696	LKTR	70	4		Sc						EF		21 6 97	F	0 - 1	0	
697	LKTR	70	4		Sc						EF		21 6 97	F	0 - 1	0	
698	LKTR	71	4		Sc						EF		21 6 97	F	0 - 1	0	
757	LKTR	533	1589		FR, Sc		6348				AL		21 6 97	MR-U	ML - MR	0	
765	LKTR	578	2497		FR, Sc		6349	21	84		AL		21 6 97	MR-U	ML - MR	0	
800	LKTR	320	278		FR, Sc	7	6350				EF		22 6 97	B	0 - 1	0	
829	LKTR	94			Sc	1					EF		22 6 97	B	0 - 1	0	
830	LKTR	61			Sc	1					EF		22 6 97	B	0 - 1	0	
861	LKTR	496			FR, Sc		6351				AL		23 6 97	ML-E	at Camp	0	
876	LKTR	122	22		Sc	2				LPel	EF		13 7 97	A	5 - 6	2	Recap- previous left pelvic clip
877	LKTR	128	18		Sc	2				LPel	EF		13 7 97	A	5 - 6	2	recap- previous left pelvic clip
878	LKTR	119	26		Sc	2				LPel	EF		13 7 97	A	5 - 6	0	
879	LKTR	122	22		Sc	2				LPel	EF		13 7 97	A	5 - 6	0	
880	LKTR	108	12		Sc	2				LPel	EF		13 7 97	A	5 - 6	0	
881	LKTR	76	4		Sc	1				LPel	EF		13 7 97	A	5 - 6	0	
882	LKTR	80	6		Sc	1				LPel	EF		13 7 97	A	5 - 6	0	
883	LKTR	72	4		Sc					LPel	EF		13 7 97	A	5 - 6	0	
1001	LKTR	422	730		FR, Sc					RPel	GN	2.5	12 7 97	ML-E	1	0	
1035	LKTR	75	4		Ot, Sc	1					FN		12 7 97	ML-E	1 WB	1	preserved
1057	LKTR	91	6		FR, Sc					RPel	FN		12 7 97	ML-E	1 EB	0	
1109	LKTR	123	16		FR, Sc					RPel	FN		13 7 97	ML-E	2 WB	0	
1110	LKTR	144	20		FR, Sc	3				RPel	FN		13 7 97	ML-E	2 WB	0	
1116	LKTR	151	24		FR, Sc	3				RPel	FN		13 7 97	ML-E	2 WB	0	
1119	LKTR	130	18		Ot, Sc	2					FN		13 7 97	ML-E	2 WB	1	preserved
1120	LKTR	83	6		Ot, Sc						FN		13 7 97	ML-E	2 WB	1	
1121	LKTR	84	6		Ot, Sc	1					FN		13 7 97	ML-E	2 WB	1	
1250	LKTR	420	672		FR, Sc		6383			RPel	FN		13 7 97	ML-E	2 EB	0	
1251	LKTR	307	312		FR, Sc	7	6384			RPel	FN		13 7 97	ML-E	2 EB	0	
1252	LKTR	355	506		FR, Sc	8	6385			RPel	FN		13 7 97	ML-E	2 EB	0	
1253	LKTR	467	1124		FR, Sc		6386			RPel	FN		13 7 97	ML-E	2 EB	0	
1261	LKTR	193	74		FR, Sc	5				RPel	FN		13 7 97	ML-E	2 EB	0	
1288	LKTR	85			FR, Sc					RPel	FN		13 7 97	ML-E	3 WB	0	
1289	LKTR	397	742		FR, Sc		6394			RPel	FN		13 7 97	ML-E	3 WB	0	
1378	LKTR	448	822		FR, Sc		6801			RPel	FN		14 7 97	ML-E	4 WB	0	
1379	LKTR	408	636		FR, Sc		6802			RPel	FN		14 7 97	ML-E	4 WB	0	
1381	LKTR	430	976		FR, Sc		6804			RPel	FN		14 7 97	ML-E	4 WB	0	
1382	LKTR	640	2760		FR, Sc		6805			RPel	FN		14 7 97	ML-E	4 WB	0	
1385	LKTR	96	6		FR, Sc	1				RPel	FN		14 7 97	ML-E	4 WB	0	
1399	LKTR	477	1260		FR, Sc		6807			RPel	FN		14 7 97	ML-E	4 EB	0	
1411	LKTR	411	842		FR, Sc		6808			RPel	GN	2.5	14 7 97	ML-E	2	0	
1412	LKTR	478	1260		FR, Sc		6809			RPel	FN		14 7 97	ML-E	5 WB	0	
1417	LKTR	142	24		FR, Sc	3				RPel	FN		14 7 97	ML-E	5 WB	0	
1437	LKTR	845	7800		FR, Sc		6812	20	50	RPel	FN		14 7 97	ML-E	5 EB	0	
1453	LKTR	213	82		FR, Sc	5				RPel	FN		15 7 97	ML-E	6 WB	0	
1454	LKTR	553	1705		FR, Sc		6811			RPel	FN		15 7 97	ML-E	6 WB	0	
1456	LKTR	670	4400		FR, Sc		6815			RPel	FN		15 7 97	ML-E	6 WB	0	
1458	LKTR	93	6		Ot, Sc	1					FN		15 7 97	ML-E	6 WB	1	preserved
1474	LKTR	282	232		FR, Sc	7	6817			RPel	FN		15 7 97	ML-E	6 EB	0	
1493	LKTR	360	466		FR, Sc	9	6818			RPel	GN	2.5	15 7 97	ML-E	3	0	
1496	LKTR	682	4000		FR, Sc		6822	21	79	RPel	FN		15 7 97	ML-E	7 WB	0	
1530	LKTR	176	53		FR, Sc	4				RPel	FN		16 7 97	ML-E	8 EB	0	
1531	LKTR	182	56		FR, Sc	4				RPel	FN		16 7 97	ML-E	8 EB	0	
1538	LKTR	120	14		FR, Sc					RPel	FN		16 7 97	ML-E	8 EB	0	
1539	LKTR	120	16		FR, Sc					RPel	FN		16 7 97	ML-E	8 EB	0	
1540	LKTR	121	14		FR, Sc					RPel	FN		16 7 97	ML-E	8 EB	0	
1579	LKTR	572	2130		FR, Sc		6835	20	54	RPel	FN		16 7 97	ML-E	9 EB	0	
1616	LKTR	82	6		Ot, Sc	1					FN		17 7 97	ML-E	10 WB	1	St=5 (unid Chir?)
1620	LKTR	393	668		FR, Sc		6133			RPel	FN		17 7 97	ML-E	10 WB	0	
1622	LKTR	226	114		FR, Sc	5				RPel	FN		17 7 97	ML-E	10 WB	0	
1626	LKTR	88	6		FR, Sc						FN		17 7 97	ML-E	10 WB	1	St=10 (Chir?)
1634	LKTR	125	16		FR, Sc					RPel	FN		17 7 97	ML-E	10 EB	0	
1640	LKTR	95	6		FR, Sc					RPel	FN		17 7 97	ML-E	10 EB	0	
1642	LKTR	300	282		FR, Sc	8	6849			RPel	FN		17 7 97	ML-E	10 EB	0	
1643	LKTR	166	44		FR, Sc	3				RPel	FN		17 7 97	ML-E	10 EB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location			Cap. Code	Comments
1663	LKTR	611	3030		FR, Sc		6839			RPel	FN		17	7	97	ML-E	10		EB	0	
1673	LKTR	154	34		FR, Sc	3				RPel	FN		17	7	97	ML-E	10		EB	0	
1721	LKTR	89	8		FR, Sc					RPel	FN		17	7	97	ML-E	11		EB	0	
1860	LKTR	315	348		FR, Sc	7	6141			RPel	FN		18	7	97	ML-E	12		EB	0	
1861	LKTR	90	6		FR, Sc					RPel	FN		18	7	97	ML-E	12		EB	0	
1862	LKTR	93	8		FR, Sc					RPel	FN		18	7	97	ML-E	12		EB	0	
1863	LKTR	90	6		FR, Sc					RPel	FN		18	7	97	ML-E	12		EB	0	
1864	LKTR	139	22		FR, Sc	2				RPel	FN		18	7	97	ML-E	12		EB	0	
2098	LKTR	82	6		Sc					LPel	EF		19	7	97	B	1	-	2	0	
2099	LKTR	97			Sc					LPel	EF		19	7	97	B	1	-	2	0	
2100	LKTR	85			Sc					LPel	EF		19	7	97	B	1	-	2	0	
2101	LKTR	86			Sc					LPel	EF		19	7	97	B	1	-	2	0	
2102	LKTR	79			Sc					LPel	EF		19	7	97	B	1	-	2	0	
2103	LKTR	115	16		Sc	2				LPel	EF		19	7	97	B	1	-	2	0	
2104	LKTR	89			Sc					LPel	EF		19	7	97	B	1	-	2	0	
2105	LKTR	76	4		Ot, Sc	1					EF		19	7	97	B	1	-	2	1	
2106	LKTR	73	4		Ot, Sc	1					EF		19	7	97	B	1	-	2	1	
2107	LKTR	73	4		Ot, Sc	1					EF		19	7	97	B	1	-	2	1	
2126	LKTR	86	6		Sc					LPel	EF		19	7	97	B	0	-	1	0	
2127	LKTR	81	6		Sc					LPel	EF		19	7	97	B	0	-	1	0	
2136	LKTR	360	466		FR, Sc	8	6413			LPel	GN	2.5	20	7	97	B2	2			0	
2161	LKTR	155	28		FR, Sc	3				RPel	EF		20	7	97	B	3	-	4	0	
2162	LKTR	130	24		FR, Sc	2				RPel	EF		20	7	97	B	3	-	4	0	
2168	LKTR	51			Sc						EF		20	7	97	MR-U	ML	-	MR	1	preserved
2177	LKTR	422	750		FR, Sc		6415			RPel	AL		20	7	97	MR-U	ML	-	MR	0	
2178	LKTR	594	2200		FR, Sc		6414	20	66	RPel	AL		20	7	97	MR-U	ML	-	MR	0	
2211	LKTR	138	16		FR, Sc	2				RPel	EF		24	7	97	D	0	-	1	0	
2212	LKTR	118	12		FR, Sc	2				RPel	EF		24	7	97	D	0	-	1	0	
2213	LKTR	81	4		FR, Sc					RPel	EF		24	7	97	D	0	-	1	0	
2214	LKTR	88	6		FR, Sc					RPel	EF		24	7	97	D	0	-	1	0	
3063	LKTR	82	6		FR, Sc					RPel	FN		18	7	97	ML-E	12		WB	0	
3102	LKTR	427	745		FR, Sc		6144			RPel	GN	1.5	18	7	97	ML-E	4			0	
3103	LKTR	369	450		FR, Sc	9	6143			RPel	GN	0.75	18	7	97	ML-E	4			0	
3143	LKTR	80	4		Ot, Sc	1					FN		18	7	97	ML-E	13		EB	1	St=0
3149	LKTR	381	524		FR, Sc		6147			RPel	FN		18	7	97	ML-E	13		EB	0	
3150	LKTR	342	418		FR, Sc	8	6148			RPel	FN		18	7	97	ML-E	13		EB	0	
3151	LKTR	408	718		FR, Sc		6149			RPel	FN		18	7	97	ML-E	13		EB	0	
3152	LKTR	412	700		FR, Sc		6150			RPel	FN		18	7	97	ML-E	13		EB	0	
3236	LKTR	86	6		FR, Sc						FN		19	7	97	ML-E	14		WB	1	preserved
3237	LKTR	88	6		FR, Sc					RPel	FN		19	7	97	ML-E	14		WB	0	
3238	LKTR	89	6		FR, Sc					RPel	FN		19	7	97	ML-E	14		WB	0	
3239	LKTR	102	8		Sc						FN		19	7	97	ML-E	14		WB	0	
3240	LKTR	77	4		Sc						FN		19	7	97	ML-E	14		WB	0	
3241	LKTR	83	6		Sc						FN		19	7	97	ML-E	14		WB	0	
3242	LKTR	83	4		Sc						FN		19	7	97	ML-E	14		WB	0	
3243	LKTR	118	16		FR, Sc	2				RPel	FN		19	7	97	ML-E	14		WB	0	
3244	LKTR	94	8		Sc						FN		19	7	97	ML-E	14		WB	0	
3245	LKTR	120	16		FR, Sc					RPel	FN		19	7	97	ML-E	14		WB	0	
3247	LKTR	88	6		Sc						FN		19	7	97	ML-E	14		WB	0	
3248	LKTR	90	6		Sc						FN		19	7	97	ML-E	14		WB	0	
3249	LKTR	91	6		Sc						FN		19	7	97	ML-E	14		WB	0	
3268	LKTR	87	6		Sc						FN		19	7	97	ML-E	14		EB	0	
3269	LKTR	656	3500		FR, Sc		6878	20	70	RPel	FN		19	7	97	ML-E	14		EB	0	
3299	LKTR	314	320		FR, Sc	6	6879			RPel	GN	0.75	19	7	97	ML-E	5			0	
3300	LKTR	346	360		FR, Sc	8	6880			RPel	GN	1.5	19	7	97	ML-E	5			0	
3301	LKTR	435	860		FR, Sc		6881			RPel	GN	1.5	19	7	97	ML-E	5			0	
3302	LKTR	473	1165		Ot, Sc	10					GN	3.5	19	7	97	ML-E	5			1	St=6 (4 CISC, 1 midge, 1 moth)
3313	LKTR	90	8		FR, Sc					RPel	FN		19	7	97	ML-E	15		EB	0	
3730	LKTR	141	28		FR, Sc					RPel	FN		20	7	97	ML-E	16		WB	0	
3731	LKTR	146	32		FR, Sc	3				RPel	FN		20	7	97	ML-E	16		WB	0	
3732	LKTR	123	16		FR, Sc	2				RPel	FN		20	7	97	ML-E	16		WB	0	
3733	LKTR	141	28		FR, Sc					RPel	FN		20	7	97	ML-E	16		WB	0	
3734	LKTR	135	24		FR, Sc	2				RPel	FN		20	7	97	ML-E	16		WB	0	
3735	LKTR	117	16		FR, Sc					RPel	FN		20	7	97	ML-E	16		WB	0	
3736	LKTR	117	14		FR, Sc					RPel	FN		20	7	97	ML-E	16		WB	0	
3739	LKTR	85	6		Ot, Sc						FN		20	7	97	ML-E	16		WB	1	St=0
3741	LKTR	452	1045		FR, Sc		6885			RPel	FN		20	7	97	ML-E	16		WB	0	
3742	LKTR	532	2090		FR, Sc		6886	21	85	RPel	FN		20	7	97	ML-E	16		WB	0	
3743	LKTR	568	2475		FR, Sc		6887	20	69	RPel	FN		20	7	97	ML-E	16		WB	0	red fins
3744	LKTR	552	2160		FR, Sc		6888	21	81	RPel	FN		20	7	97	ML-E	16		WB	0	
3756	LKTR	100	8		Ot	1					FN		20	7	97	ML-E	16		EB	1	
3757	LKTR	95	8		FR, Sc					RPel	FN		20	7	97	ML-E	16		EB	0	
3758	LKTR	95	8		FR, Sc					RPel	FN		20	7	97	ML-E	16		EB	0	
3759	LKTR	153	38		FR, Sc	3				RPel	FN		20	7	97	ML-E	16		EB	0	
3760	LKTR	335	444		FR, Sc	9	6883			RPel	FN		20	7	97	ML-E	16		EB	0	
3764	LKTR	427	844		FR, Sc		6890			RPel	FN		21	7	97	ML-E	17		WB	0	
3765	LKTR	94	8		FR, Sc					RPel	FN		21	7	97	ML-E	17		WB	0	
3766	LKTR	123	16		FR, Sc					RPel	FN		21	7	97	ML-E	17		WB	0	
3777	LKTR	152	32		FR, Sc	3				RPel	FN		21	7	97	ML-E	17		WB	0	
3778	LKTR	132	22		FR, Sc					RPel	FN		21	7	97	ML-E	17		WB	0	
3784	LKTR	127	20	1	Ot, Sc	2					FN		21	7	97	ML-E	17		WB	1	St=0
3785	LKTR	126	18	1	Ot, Sc	2					FN		21	7	97	ML-E	17		WB	1	St=4 (unid)
3786	LKTR	87	6	11	Ot, Sc	1					FN		21	7	97	ML-E	17		WB	1	St=0
3787	LKTR	85	6	1	Ot, Sc	1					FN		21	7	97	ML-E	17		WB	1	St=5 (unid)
3789	LKTR	439	1028		FR, Sc		6889			RPel	FN		21	7	97	ML-E	17		WB	0	
3795	LKTR	164	44		FR, Sc	4				RPel	FN		21	7	97	ML-E	17		EB	0	
3796	LKTR	125	18		FR, Sc	2				RPel	FN		21	7	97	ML-E	17		EB	0	
3797	LKTR	118	16		FR, Sc	2				RPel	FN		21	7	97	ML-E	17		EB	0	
3798	LKTR	90	6		FR, Sc					RPel	FN		21	7	97	ML-E	17		EB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
3799	LKTR	125	18		FR, Sc					RPel	FN		21 7 97	ML-E	17 EB	0	
4006	LKTR	90	6		Sc						FN		21 7 97	ML-E	17 EB	0	
4008	LKTR	415	892		FR, Sc		6894			RPel	FN		21 7 97	ML-E	17 EB	0	
4009	LKTR	338	350		FR, Sc	9	6416			RPel	AL		21 7 97	ML-E	E Arm	0	rel'd 15V 546754 6985309
4010	LKTR	550	1610		FR, Sc		6417	20	59	RPel	AL		21 7 97	ML-E	E Arm	0	rel'd 15V 546754 6985309
4011	LKTR	391	606		FR, Sc		6418			RPel	AL		21 7 97	ML-E	E Arm	0	rel'd 15V 546754 6985309
4012	LKTR	492	1235		FR, Sc		6419			RPel	AL		21 7 97	ML-E	E Arm	0	rel'd 15V 546347 6985512
4013	LKTR	770	5100		FR, Sc		6420	21	78	RPel	AL		21 7 97	ML-E	E Arm	0	rel'd 15V 546347 6985512
4014	LKTR	613	2600		FR, Sc		6421			RPel	AL		21 7 97	ML-E	E Arm	0	released at camp
4015	LKTR	593	2500		FR, Sc		6422			RPel	AL		21 7 97	ML-E	E Arm	0	
4016	LKTR	692	4200		FR, Sc		6423	21	77	RPel	AL		21 7 97	ML-E	E Arm	0	
4017	LKTR	545	1920		FR, Sc		6424			RPel	AL		21 7 97	ML-E	E Arm	0	
4018	LKTR	578	2020		FR, Sc		6895			RPel	FN		22 7 97	ML-E	18 EB	0	
4019	LKTR	94	8		Sc						FN		22 7 97	ML-E	18 EB	0	
4022	LKTR	75	4		Sc						FN		22 7 97	ML-E	18 EB	0	
4024	LKTR	692	4200				6423			RPel	FN		22 7 97	ML-E	18 EB	2	radiotag'd recap from 21 Ju
4026	LKTR	82	5		Sc						FN		22 7 97	ML-E	18 WB	0	
4027	LKTR	86	5		Sc						FN		22 7 97	ML-E	18 WB	0	
4031	LKTR	315	306		FR, Sc	7	6896			RPel	AL		22 7 97	ML-E	E Arm	0	rel'd 15V 545266 6990022
4032	LKTR	425	826		FR, Sc		6897			RPel	AL		22 7 97	ML-E	E Arm	0	rel'd 15V 545266 6990022
4033	LKTR	304	308		FR, Sc	8	6898			RPel	GN	0.75	22 7 97	ML-E	6	0	
4034	LKTR	493	1354	14	Ot, Sc	12					GN	2.5	22 7 97	ML-E	6	1	St=15 (THST)
4056	LKTR	450			FR, Sc		6899			RPel	AL		22 7 97	ML-E	E Arm	0	angled by Dustin
4057	LKTR	620	2750		Ot, Sc						CR		22 7 97	ML-E	E Arm	1	
4058	LKTR	585	2250		Ot, Sc	16					CR		22 7 97	ML-E	E Arm	1	
4059	LKTR	647	3100		Ot, Sc	20					CR		22 7 97	ML-E	E Arm	1	
4060	LKTR	694	3500		Ot, Sc	22					CR		22 7 97	ML-E	E Arm	1	
4065	LKTR	99	8		FR, Sc					RPel	FN		23 7 97	ML-E	19 WB	0	
4086	LKTR	274	214	11	Ot, Sc	8					GN	1.5	23 7 97	ML-E	7	1	St=8 (5 fish remains; 3 SLSC)
4087	LKTR	380	680		FR, Sc					RPel	GN	2.5	23 7 97	ML-E	7	0	
4088	LKTR	433	810	1	Ot, Sc	10					GN	2.5	23 7 97	ML-E	7	1	St=15 (CISC)
4089	LKTR	315	360	1	Ot, Sc	8					GN	1.5	23 7 97	ML-E	7	1	St=10 (SLSC)
4091	LKTR	388	640	1	Ot, Sc	12					GN	2.5	23 7 97	ML-E	7	1	St=5 (4 THST; 1 bee)
4092	LKTR	332	360		FR, Sc	9	8554			RPel	GN	1.5	23 7 97	ML-E	7	0	
4093	LKTR	423	816	1	Ot, Sc	10					GN	3.5	23 7 97	ML-E	7	1	St=5 (2 beetle; 3 fish remains)
4094	LKTR	366	484		FR, Sc		6900			RPel	AL		23 7 97	ML-E	E Arm	0	rel'd 15V 542406 6990970
4101	LKTR	122	16		FR, Sc					RPel	FN		24 7 97	ML-E	20 WB	0	
4102	LKTR	129	24		FR, Sc					RPel	FN		24 7 97	ML-E	20 WB	0	
4103	LKTR	130	16		FR, Sc					RPel	FN		24 7 97	ML-E	20 WB	0	
4104	LKTR	180	54		FR, Sc	4				RPel	FN		24 7 97	ML-E	20 WB	0	
4105	LKTR	130	16		FR, Sc					RPel	FN		24 7 97	ML-E	20 WB	0	
4109	LKTR	600	2575		FR, Sc		8559			LPel	FN		24 7 97	ML-E	20 WB	0	big cyst on right pelvic
4110	LKTR	531	1845		FR, Sc		8560			RPel	FN		24 7 97	ML-E	20 WB	0	
4113	LKTR	91	8		Ot, Sc	1					FN		24 7 97	ML-E	20 WB	1	
4183	LKTR	438	1080		FR, Sc		8561			RPel	FN		24 7 97	ML-E	20 EB	0	
4185	LKTR	153	36		FR, Sc	3				RPel	FN		24 7 97	ML-E	20 EB	0	
4186	LKTR	231	126		FR, Sc	6				RPel	FN		24 7 97	ML-E	20 EB	0	
4195	LKTR	90	8		Ot, Sc	1					FN		24 7 97	ML-E	20 EB	1	St=0
4196	LKTR	87	8		Ot, Sc	1					FN		24 7 97	ML-E	20 EB	1	St=0
4197	LKTR	84	6		Ot, Sc	1					FN		24 7 97	ML-E	20 EB	1	
4283	LKTR	539			FR, Sc		6425			RPel	AL		22 7 97	ML-E	E Arm	0	
4286	LKTR	704	4250		FR, Sc		8564			RPel	FN		25 7 97	ML-E	21 EB	0	
4287	LKTR	438	896		FR, Sc		8565			RPel	FN		25 7 97	ML-E	21 EB	0	
4293	LKTR	231	96		FR, Sc	5				RPel	FN		25 7 97	ML-E	21 EB	0	
4295	LKTR	88	6		Ot, Sc	1					FN		25 7 97	ML-E	21 EB	1	St=5 (unid)
4300	LKTR	586	2810		FR, Sc		8568			RPel	FN		25 7 97	ML-E	21 WB	0	
4308	LKTR	437	1015		FR, Sc		8569			RPel	AL		25 7 97	ML-E	E Arm	0	rel'd 15V 546170 6985442
4309	LKTR	475	1310		FR, Sc		8570			RPel	AL		25 7 97	ML-E	E Arm	0	rel'd 15V 545685 6986000
4342	LKTR	105	12		FR, Sc					RPel	FN		26 7 97	ML-E	22 WB	0	
4343	LKTR	85	6		Ot, Sc	1					FN		26 7 97	ML-E	22 WB	1	
4344	LKTR	92	8		FR, Sc					RPel	FN		26 7 97	ML-E	22 WB	0	
4345	LKTR	125	18		FR, Sc					RPel	FN		26 7 97	ML-E	22 WB	0	
4346	LKTR	91	6		FR, Sc					RPel	FN		26 7 97	ML-E	22 WB	0	
4360	LKTR	129	22		FR, Sc	2				RPel	FN		26 7 97	ML-E	22 EB	0	
4361	LKTR	92	6		FR, Sc					RPel	FN		26 7 97	ML-E	22 EB	0	
4362	LKTR	115	14		FR, Sc					RPel	FN		26 7 97	ML-E	22 EB	0	
4364	LKTR	139	24		FR, Sc	3				RPel	FN		26 7 97	ML-E	22 EB	0	
4365	LKTR	778	5200	14	Ot, FR	23					CR		26 7 97	ML-E	E Arm	1	St=1 (unid fish)
4366	LKTR	357	410		FR, Sc		6301			RPel	FN		27 7 97	ML-E	23 EB	0	
4368	LKTR	86	5		Sc						FN		27 7 97	ML-E	23 EB	0	
4369	LKTR	116	15		FR, Sc					RPel	FN		27 7 97	ML-E	23 EB	0	
4370	LKTR	155	35		FR, Sc	3				RPel	FN		27 7 97	ML-E	23 EB	0	
4371	LKTR	179	55		FR, Sc	4				RPel	FN		27 7 97	ML-E	23 EB	0	
4372	LKTR	154	40		FR, Sc					RPel	FN		27 7 97	ML-E	23 EB	0	
4373	LKTR	178	50		FR, Sc					RPel	FN		27 7 97	ML-E	23 WB	0	
4374	LKTR	128	20		FR, Sc					RPel	FN		27 7 97	ML-E	23 WB	0	
4376	LKTR	133	25		FR, Sc					RPel	FN		27 7 97	ML-E	23 WB	0	
4377	LKTR	91	5		Sc						FN		27 7 97	ML-E	23 WB	0	
4378	LKTR	94	5		Sc						FN		27 7 97	ML-E	23 WB	0	
4379	LKTR	650	2724	14	Ot, Sc	18					CR		28 7 97	ML-E	Narrows	1	St=0
4380	LKTR	583	1816	15	Ot, Sc	15					CR		28 7 97	ML-E	Narrows	1	St=5 (CISC)
4381	LKTR	965		14	Ot, Sc	29					CR		9 7 97	ML-E	E Arm	1	Kirk's 44 lbs; gutted wt = 11.7 kg
4440	LKTR	285	294		Sc	6	7042			RPel	GN	2.5	20 8 97	D1	4	0	
4461	LKTR	554			Sc		7033			RPel	GN	1.5	22 8 97	ML-S	1	0	
4462	LKTR	378	486	11	Ot, Sc	11					GN	2.5	22 8 97	ML-S	2	1	St=5 (NNST)
4464	LKTR	254	222		Ot, Sc	5					GN	1.5	23 8 97	A1	1	1	St=10 (NNST)
4467	LKTR	272	222		Sc	7	7030			RPel	GN	2.5	23 8 97	A1	2	0	
4468	LKTR	280	254		Sc	6	7031			RPel	GN	3.5	23 8 97	A1	2	0	
4469	LKTR	342	548		Ot, Sc	7					GN	4.5	23 8 97	A1	2	1	St=20 (NNST)

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
4535	LKTR	50									EF		24 8 97	MR-U	ML - MR	0	
4536	LKTR	43									EF		24 8 97	MR-U	ML - MR	0	
4537	LKTR	60									EF		24 8 97	MR-U	ML - MR	0	
4538	LKTR	61									EF		24 8 97	MR-U	ML - MR	0	
4539	LKTR	45									EF		24 8 97	MR-U	ML - MR	0	
5008	LKTR	302									TU		16 8 97	MR-L	1 A	0	
5177	LKTR	499	1265		FR, Sc		7187				TU		19 8 97	MR-L	8 P	0	
6072	LKTR	432	805		FR, Sc		7073				GN	2.5	27 9 97	LML	1	0	
6075	LKTR	441	980		FR, Sc		7624				GN	2.5	28 9 97	LML	3	0	
6079	LKTR	456	975		FR, Sc		4775				GN	2.5	28 9 97	LML	3	0	
6080	LKTR	444	1050		FR, Sc		4774				GN	1.5	28 9 97	LML	3	0	
16	NNST	46									EF		15 6 97	A	0 - 1	0	
18	NNST	37									EF		15 6 97	A	0 - 1	0	
19	NNST	40									EF		15 6 97	A	0 - 1	0	
20	NNST	44									EF		15 6 97	A	0 - 1	0	
33	NNST	62									EF		15 6 97	A	0 - 1	0	
34	NNST	39									EF		15 6 97	A	0 - 1	0	
37	NNST	57									EF		15 6 97	A	0 - 1	0	
38	NNST	52									EF		15 6 97	A	0 - 1	0	
39	NNST	50									EF		15 6 97	A	0 - 1	0	
40	NNST	36									EF		15 6 97	A	0 - 1	0	
41	NNST	35									EF		15 6 97	A	0 - 1	0	
42	NNST	42									EF		15 6 97	A	0 - 1	0	
43	NNST	30									EF		15 6 97	A	0 - 1	0	
44	NNST	31									EF		15 6 97	A	0 - 1	0	
45	NNST	34									EF		15 6 97	A	0 - 1	0	
46	NNST	39									EF		15 6 97	A	0 - 1	0	
47	NNST	30									EF		15 6 97	A	0 - 1	0	
48	NNST	33									EF		15 6 97	A	0 - 1	0	
49	NNST	37									EF		15 6 97	A	0 - 1	0	
50	NNST	25									EF		15 6 97	A	0 - 1	0	
51	NNST	32									EF		15 6 97	A	0 - 1	0	
52	NNST	27									EF		15 6 97	A	0 - 1	0	
53	NNST	40									EF		15 6 97	A	0 - 1	0	
54	NNST	42									EF		15 6 97	A	0 - 1	0	
55	NNST	37									EF		15 6 97	A	0 - 1	0	
56	NNST	39									EF		15 6 97	A	0 - 1	0	
57	NNST	37									EF		15 6 97	A	0 - 1	0	
58	NNST	39									EF		15 6 97	A	0 - 1	0	
59	NNST	40									EF		15 6 97	A	0 - 1	0	
60	NNST	35									EF		15 6 97	A	0 - 1	0	
61	NNST	34									EF		15 6 97	A	0 - 1	0	
62	NNST	36									EF		15 6 97	A	0 - 1	0	
63	NNST	34									EF		15 6 97	A	0 - 1	0	
64	NNST	36									EF		15 6 97	A	0 - 1	0	
65	NNST	37									EF		15 6 97	A	0 - 1	0	
66	NNST	30									EF		15 6 97	A	0 - 1	0	
67	NNST	36									EF		15 6 97	A	0 - 1	0	
68	NNST	37									EF		15 6 97	A	0 - 1	0	
69	NNST	37									EF		15 6 97	A	0 - 1	0	
70	NNST	35									EF		15 6 97	A	0 - 1	0	
71	NNST	36									EF		15 6 97	A	0 - 1	0	
72	NNST	40									EF		15 6 97	A	0 - 1	0	
73	NNST	39									EF		15 6 97	A	0 - 1	0	
74	NNST	35									EF		15 6 97	A	0 - 1	0	
75	NNST	37									EF		15 6 97	A	0 - 1	0	
76	NNST	36									EF		15 6 97	A	0 - 1	0	
77	NNST	31									EF		15 6 97	A	0 - 1	0	
102	NNST	77	4								EF		15 6 97	A	5 - 6	0	
103	NNST	61									EF		15 6 97	A	5 - 6	0	
104	NNST	57									EF		15 6 97	A	5 - 6	0	
105	NNST	49									EF		15 6 97	A	5 - 6	0	
106	NNST	65									EF		15 6 97	A	5 - 6	0	
107	NNST	57									EF		15 6 97	A	5 - 6	0	
108	NNST	54									EF		15 6 97	A	5 - 6	0	
109	NNST	55									EF		15 6 97	A	5 - 6	0	
110	NNST	55									EF		15 6 97	A	5 - 6	0	
111	NNST	57									EF		15 6 97	A	5 - 6	0	
112	NNST	62									EF		15 6 97	A	5 - 6	0	
113	NNST	64									EF		15 6 97	A	5 - 6	0	
114	NNST	53									EF		15 6 97	A	5 - 6	0	
115	NNST	69									EF		15 6 97	A	5 - 6	0	
116	NNST	56									EF		15 6 97	A	5 - 6	0	
117	NNST	56									EF		15 6 97	A	5 - 6	0	
118	NNST	63									EF		15 6 97	A	5 - 6	0	
119	NNST	65									EF		15 6 97	A	5 - 6	0	
120	NNST	57									EF		15 6 97	A	5 - 6	0	
121	NNST	55									EF		15 6 97	A	5 - 6	0	
122	NNST	61									EF		15 6 97	A	5 - 6	0	
123	NNST	74									EF		15 6 97	A	5 - 6	0	
124	NNST	57									EF		15 6 97	A	5 - 6	0	
125	NNST	54									EF		15 6 97	A	5 - 6	0	
126	NNST	60									EF		15 6 97	A	5 - 6	0	
127	NNST	61									EF		15 6 97	A	5 - 6	0	
128	NNST	62									EF		15 6 97	A	5 - 6	0	
129	NNST	63									EF		15 6 97	A	5 - 6	0	
130	NNST	62									EF		15 6 97	A	5 - 6	0	
131	NNST	57									EF		15 6 97	A	5 - 6	0	
132	NNST	54									EF		15 6 97	A	5 - 6	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
133	NNST	55									EF		15 6 97	A	5 - 6	0	
134	NNST	50									EF		15 6 97	A	5 - 6	0	
135	NNST	64									EF		15 6 97	A	5 - 6	0	
136	NNST	63									EF		15 6 97	A	5 - 6	0	
137	NNST	59									EF		15 6 97	A	5 - 6	0	
138	NNST	57									EF		15 6 97	A	5 - 6	0	
139	NNST	56									EF		15 6 97	A	5 - 6	0	
140	NNST	52									EF		15 6 97	A	5 - 6	0	
141	NNST	59									EF		15 6 97	A	5 - 6	0	
146	NNST	73									EF		15 6 97	A	5 - 6	0	
147	NNST	68									EF		15 6 97	A	5 - 6	0	
148	NNST	82									EF		15 6 97	A	5 - 6	0	
149	NNST	65									EF		15 6 97	A	5 - 6	0	
150	NNST	59									EF		15 6 97	A	5 - 6	0	
151	NNST	65									EF		15 6 97	A	5 - 6	0	
152	NNST	63									EF		15 6 97	A	5 - 6	0	
153	NNST	62									EF		15 6 97	A	5 - 6	0	
154	NNST	57									EF		15 6 97	A	5 - 6	0	
155	NNST	63									EF		15 6 97	A	5 - 6	0	
156	NNST	55									EF		15 6 97	A	5 - 6	0	
157	NNST	68									EF		15 6 97	A	5 - 6	0	
158	NNST	67									EF		15 6 97	A	5 - 6	0	
159	NNST	66									EF		15 6 97	A	5 - 6	0	
160	NNST	60									EF		15 6 97	A	5 - 6	0	
161	NNST	57									EF		15 6 97	A	5 - 6	0	
162	NNST	61									EF		15 6 97	A	5 - 6	0	
163	NNST	75									EF		15 6 97	A	5 - 6	0	
164	NNST	62									EF		15 6 97	A	5 - 6	0	
165	NNST	64									EF		15 6 97	A	5 - 6	0	
166	NNST	52									EF		15 6 97	A	5 - 6	0	
167	NNST	56									EF		15 6 97	A	5 - 6	0	
168	NNST	57									EF		15 6 97	A	5 - 6	0	
169	NNST	57									EF		15 6 97	A	5 - 6	0	
170	NNST	57									EF		15 6 97	A	5 - 6	0	
171	NNST	58									EF		15 6 97	A	5 - 6	0	
172	NNST	59									EF		15 6 97	A	5 - 6	0	
173	NNST	57									EF		15 6 97	A	5 - 6	0	
174	NNST	52									EF		15 6 97	A	5 - 6	0	
175	NNST	60									EF		15 6 97	A	5 - 6	0	
176	NNST	57									EF		15 6 97	A	5 - 6	0	
177	NNST	56									EF		15 6 97	A	5 - 6	0	
178	NNST	69									EF		15 6 97	A	5 - 6	0	
179	NNST	71									EF		15 6 97	A	5 - 6	0	
180	NNST	76									EF		15 6 97	A	5 - 6	0	
181	NNST	62									EF		15 6 97	A	5 - 6	0	
182	NNST	57									EF		15 6 97	A	5 - 6	0	
183	NNST	55									EF		15 6 97	A	5 - 6	0	
184	NNST	53									EF		15 6 97	A	5 - 6	0	
185	NNST	52									EF		15 6 97	A	5 - 6	0	
195	NNST	55									EF		16 6 97	A	7 - 8	0	
196	NNST	75									EF		16 6 97	A	7 - 8	0	
197	NNST	67									EF		16 6 97	A	7 - 8	0	
198	NNST	53									EF		16 6 97	A	7 - 8	0	
199	NNST	64									EF		16 6 97	A	7 - 8	0	
200	NNST	63									EF		16 6 97	A	7 - 8	0	
201	NNST	50									EF		16 6 97	A	7 - 8	0	
202	NNST	55									EF		16 6 97	A	7 - 8	0	
203	NNST	59									EF		16 6 97	A	7 - 8	0	
204	NNST	50									EF		16 6 97	A	7 - 8	0	
215	NNST	46									EF		16 6 97	B	1 - 2	0	
216	NNST	38									EF		16 6 97	B	1 - 2	0	
226	NNST	65									EF		16 6 97	B	3 - 4	0	
227	NNST	62									EF		16 6 97	B	3 - 4	0	
228	NNST	61									EF		16 6 97	B	3 - 4	0	
229	NNST	59									EF		16 6 97	B	3 - 4	0	
230	NNST	39									EF		16 6 97	B	3 - 4	0	
234	NNST	63									EF		16 6 97	B	3 - 4	0	
235	NNST	43									EF		16 6 97	B	3 - 4	0	
236	NNST	45									EF		16 6 97	B	3 - 4	0	
237	NNST	52									EF		16 6 97	B	3 - 4	0	
238	NNST	60									EF		16 6 97	B	3 - 4	0	
244	NNST	50									EF		16 6 97	B	4 - 5	0	
245	NNST	60									EF		16 6 97	B	4 - 5	0	
246	NNST	57									EF		16 6 97	B	4 - 5	0	
247	NNST	50									EF		16 6 97	B	4 - 5	0	
248	NNST	53									EF		16 6 97	B	4 - 5	0	
249	NNST	57									EF		16 6 97	B	4 - 5	0	
250	NNST	58									EF		16 6 97	B	4 - 5	0	
251	NNST	57									EF		16 6 97	B	4 - 5	0	
252	NNST	52									EF		16 6 97	B	4 - 5	0	
253	NNST	57									EF		16 6 97	B	4 - 5	0	
254	NNST	55									EF		16 6 97	B	4 - 5	0	
255	NNST	60									EF		16 6 97	B	4 - 5	0	
256	NNST	50									EF		16 6 97	B	4 - 5	0	
257	NNST	35									EF		16 6 97	B	4 - 5	0	
258	NNST	45									EF		16 6 97	B	4 - 5	0	
259	NNST	46									EF		16 6 97	B	4 - 5	0	
260	NNST	50									EF		16 6 97	B	4 - 5	0	
261	NNST	45									EF		16 6 97	B	4 - 5	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
262	NNST	35									EF		16 6 97	B	4 - 5	0	
265	NNST	40									EF		17 6 97	B	45 - 46	0	
266	NNST	75									EF		17 6 97	B	45 - 46	0	
267	NNST	82									EF		17 6 97	B	45 - 46	0	
268	NNST	74									EF		17 6 97	B	45 - 46	0	
269	NNST	71									EF		17 6 97	B	45 - 46	0	
270	NNST	65									EF		17 6 97	B	45 - 46	0	
271	NNST	56									EF		17 6 97	B	45 - 46	0	
272	NNST	57									EF		17 6 97	B	45 - 46	0	
273	NNST	55									EF		17 6 97	B	45 - 46	0	
274	NNST	60									EF		17 6 97	B	45 - 46	0	
275	NNST	52									EF		17 6 97	B	45 - 46	0	
276	NNST	40									EF		17 6 97	B	45 - 46	0	
277	NNST	46									EF		17 6 97	B	45 - 46	0	
278	NNST	57									EF		17 6 97	B	45 - 46	0	
279	NNST	60									EF		17 6 97	B	45 - 46	0	
280	NNST	56									EF		17 6 97	B	45 - 46	0	
281	NNST	50									EF		17 6 97	B	45 - 46	0	
282	NNST	48									EF		17 6 97	B	45 - 46	0	
283	NNST	40									EF		17 6 97	B	45 - 46	0	
284	NNST	52									EF		17 6 97	B	45 - 46	0	
285	NNST	43									EF		17 6 97	B	45 - 46	0	
286	NNST	47									EF		17 6 97	B	45 - 46	0	
287	NNST	45									EF		17 6 97	B	45 - 46	0	
288	NNST	40									EF		17 6 97	B	45 - 46	0	
292	NNST	82									EF		17 6 97	B	51 - 52	0	
293	NNST	50									EF		17 6 97	B	51 - 52	0	
294	NNST	52									EF		17 6 97	B	51 - 52	0	
295	NNST	46									EF		17 6 97	B	51 - 52	0	
296	NNST	47									EF		17 6 97	B	51 - 52	0	
297	NNST	42									EF		17 6 97	B	51 - 52	0	
307	NNST	71									EF		17 6 97	B	6 - 7	0	
308	NNST	68									EF		17 6 97	B	6 - 7	0	
309	NNST	50									EF		17 6 97	B	6 - 7	0	
310	NNST	47									EF		17 6 97	B	6 - 7	0	
314	NNST	55									EF		17 6 97	G	1 - 2	0	
315	NNST	56									EF		17 6 97	G	1 - 2	0	
316	NNST	26									EF		17 6 97	G	1 - 2	0	
317	NNST	55									EF		17 6 97	G	1 - 2	0	
318	NNST	49									EF		17 6 97	G	1 - 2	0	
319	NNST	51									EF		17 6 97	G	1 - 2	0	
320	NNST	49									EF		17 6 97	G	1 - 2	0	
321	NNST	47									EF		17 6 97	G	1 - 2	0	
322	NNST	28									EF		17 6 97	G	1 - 2	0	
323	NNST	27									EF		17 6 97	G	1 - 2	0	
324	NNST	40									EF		17 6 97	G	1 - 2	0	
325	NNST	27									EF		17 6 97	G	1 - 2	0	
326	NNST	26									EF		17 6 97	G	1 - 2	0	
327	NNST	26									EF		17 6 97	G	1 - 2	0	
328	NNST	29									EF		17 6 97	G	1 - 2	0	
329	NNST	70									EF		17 6 97	B	5 - 6	0	
330	NNST	54									EF		17 6 97	B	5 - 6	0	
331	NNST	57									EF		17 6 97	B	5 - 6	0	
332	NNST	50									EF		17 6 97	B	5 - 6	0	
333	NNST	60									EF		17 6 97	B	5 - 6	0	
334	NNST	75									EF		17 6 97	B	5 - 6	0	
335	NNST	59									EF		17 6 97	B	5 - 6	0	
336	NNST	65									EF		17 6 97	B	5 - 6	0	
337	NNST	55									EF		17 6 97	B	5 - 6	0	
338	NNST	56									EF		17 6 97	B	5 - 6	0	
339	NNST	49									EF		17 6 97	B	5 - 6	0	
340	NNST	59									EF		17 6 97	B	5 - 6	0	
341	NNST	54									EF		17 6 97	B	5 - 6	0	
342	NNST	67									EF		17 6 97	B	5 - 6	0	
343	NNST	62									EF		17 6 97	B	5 - 6	0	
344	NNST	58									EF		17 6 97	B	5 - 6	0	
345	NNST	57									EF		17 6 97	B	5 - 6	0	
346	NNST	56									EF		17 6 97	B	5 - 6	0	
347	NNST	60									EF		17 6 97	B	5 - 6	0	
348	NNST	53									EF		17 6 97	B	5 - 6	0	
349	NNST	57									EF		17 6 97	B	5 - 6	0	
350	NNST	53									EF		17 6 97	B	5 - 6	0	
351	NNST	57									EF		17 6 97	B	5 - 6	0	
352	NNST	63									EF		17 6 97	B	5 - 6	0	
353	NNST	64									EF		17 6 97	B	5 - 6	0	
354	NNST	55									EF		17 6 97	B	5 - 6	0	
355	NNST	57									EF		17 6 97	B	5 - 6	0	
356	NNST	57									EF		17 6 97	B	5 - 6	0	
357	NNST	44									EF		17 6 97	B	5 - 6	0	
357.1	NNST	57									EF		17 6 97	B	5 - 6	0	
357.2	NNST	49									EF		17 6 97	B	5 - 6	0	
357.3	NNST	53									EF		17 6 97	B	5 - 6	0	
357.4	NNST	57									EF		17 6 97	B	5 - 6	0	
357.5	NNST	55									EF		17 6 97	B	5 - 6	0	
386	NNST	44									EF		18 6 97	D	0 - 1	0	
387	NNST	47									EF		18 6 97	D	0 - 1	0	
388	NNST	44									EF		18 6 97	D	0 - 1	0	
389	NNST	44									EF		18 6 97	D	0 - 1	0	
390	NNST	46									EF		18 6 97	D	0 - 1	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
391	NNST	59									EF		18 6 97	D	0 - 1	0	
392	NNST	27									EF		18 6 97	D	0 - 1	0	
393	NNST	40									EF		18 6 97	D	0 - 1	0	
394	NNST	34									EF		18 6 97	D	0 - 1	0	
403	NNST	65									EF		18 6 97	D	0 - 1	0	
404	NNST	59									EF		18 6 97	D	0 - 1	0	
405	NNST	56									EF		18 6 97	D	0 - 1	0	
406	NNST	47									EF		18 6 97	D	0 - 1	0	
407	NNST	42									EF		18 6 97	D	0 - 1	0	
408	NNST	53									EF		18 6 97	D	0 - 1	0	
409	NNST	58									EF		18 6 97	D	0 - 1	0	
410	NNST	42									EF		18 6 97	D	0 - 1	0	
411	NNST	37									EF		18 6 97	D	0 - 1	0	
412	NNST	44									EF		18 6 97	D	0 - 1	0	
413	NNST	46									EF		18 6 97	D	0 - 1	0	
414	NNST	36									EF		18 6 97	D	0 - 1	0	
415	NNST	39									EF		18 6 97	D	0 - 1	0	
416	NNST	33									EF		18 6 97	D	0 - 1	0	
417	NNST	28									EF		18 6 97	D	0 - 1	0	
418	NNST	35									EF		18 6 97	D	0 - 1	0	
419	NNST	30									EF		18 6 97	D	0 - 1	0	
421	NNST	60									EF		18 6 97	D	5 - 6	0	
422	NNST	60									EF		18 6 97	D	5 - 6	0	
423	NNST	66									EF		18 6 97	D	5 - 6	0	
424	NNST	60									EF		18 6 97	D	5 - 6	0	
425	NNST	41									EF		18 6 97	D	5 - 6	0	
426	NNST	61									EF		18 6 97	D	5 - 6	0	
427	NNST	51									EF		18 6 97	D	5 - 6	0	
428	NNST	56									EF		18 6 97	D	5 - 6	0	
429	NNST	62									EF		18 6 97	D	5 - 6	0	
430	NNST	55									EF		18 6 97	D	5 - 6	0	
431	NNST	53									EF		18 6 97	D	5 - 6	0	
432	NNST	50									EF		18 6 97	D	5 - 6	0	
433	NNST	50									EF		18 6 97	D	5 - 6	0	
434	NNST	45									EF		18 6 97	D	5 - 6	0	
435	NNST	51									EF		18 6 97	D	5 - 6	0	
436	NNST	47									EF		18 6 97	D	5 - 6	0	
437	NNST	48									EF		18 6 97	D	5 - 6	0	
438	NNST	57									EF		18 6 97	D	5 - 6	0	
439	NNST	55									EF		18 6 97	D	5 - 6	0	
440	NNST	52									EF		18 6 97	D	5 - 6	0	
441	NNST	54									EF		18 6 97	D	5 - 6	0	
442	NNST	50									EF		18 6 97	D	5 - 6	0	
443	NNST	54									EF		18 6 97	D	5 - 6	0	
444	NNST	45									EF		18 6 97	D	5 - 6	0	
445	NNST	46									EF		18 6 97	D	5 - 6	0	
446	NNST	39									EF		18 6 97	D	5 - 6	0	
447	NNST	36									EF		18 6 97	D	5 - 6	0	
448	NNST	30									EF		18 6 97	D	5 - 6	0	
449	NNST	55									EF		18 6 97	D	6 - 7	0	
450	NNST	66									EF		18 6 97	D	6 - 7	0	
451	NNST	52									EF		18 6 97	D	6 - 7	0	
452	NNST	56									EF		18 6 97	D	6 - 7	0	
453	NNST	46									EF		18 6 97	D	6 - 7	0	
454	NNST	56									EF		18 6 97	D	6 - 7	0	
455	NNST	57									EF		18 6 97	D	6 - 7	0	
456	NNST	48									EF		18 6 97	D	6 - 7	0	
457	NNST	51									EF		18 6 97	D	6 - 7	0	
458	NNST	51									EF		18 6 97	D	6 - 7	0	
459	NNST	23									EF		18 6 97	D	6 - 7	0	
460	NNST	47									EF		18 6 97	D	6 - 7	0	
461	NNST	56									EF		18 6 97	D	6 - 7	0	
462	NNST	52									EF		18 6 97	D	6 - 7	0	
463	NNST	47									EF		18 6 97	D	6 - 7	0	
464	NNST	53									EF		18 6 97	D	6 - 7	0	
465	NNST	46									EF		18 6 97	D	6 - 7	0	
466	NNST	50									EF		18 6 97	D	6 - 7	0	
467	NNST	57									EF		18 6 97	D	6 - 7	0	
468	NNST	29									EF		18 6 97	D	6 - 7	0	
469	NNST	56									EF		18 6 97	D	6 - 7	0	
470	NNST	49									EF		18 6 97	D	6 - 7	0	
471	NNST	39									EF		18 6 97	D	6 - 7	0	
472	NNST	50									EF		18 6 97	D	6 - 7	0	
473	NNST	55									EF		18 6 97	D	6 - 7	0	
474	NNST	42									EF		18 6 97	D	6 - 7	0	
475	NNST	52									EF		18 6 97	D	6 - 7	0	
476	NNST	57									EF		18 6 97	D	6 - 7	0	
477	NNST	67									EF		18 6 97	D	6 - 7	0	
478	NNST	46									EF		18 6 97	D	6 - 7	0	
479	NNST	57									EF		18 6 97	D	6 - 7	0	
480	NNST	39									EF		18 6 97	D	6 - 7	0	
481	NNST	65									EF		18 6 97	D	6 - 7	0	
482	NNST	62									EF		18 6 97	D	6 - 7	0	
483	NNST	59									EF		18 6 97	D	6 - 7	0	
484	NNST	50									EF		18 6 97	D	6 - 7	0	
485	NNST	59									EF		18 6 97	D	6 - 7	0	
486	NNST	54									EF		18 6 97	D	6 - 7	0	
487	NNST	55									EF		18 6 97	D	6 - 7	0	
488	NNST	48									EF		18 6 97	D	6 - 7	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
489	NNST	55									EF		18 6 97	D	6 - 7	0	
490	NNST	56									EF		18 6 97	D	6 - 7	0	
491	NNST	49									EF		18 6 97	D	6 - 7	0	
492	NNST	47									EF		18 6 97	D	6 - 7	0	
493	NNST	55									EF		18 6 97	D	6 - 7	0	
494	NNST	46									EF		18 6 97	D	6 - 7	0	
495	NNST	51									EF		18 6 97	D	6 - 7	0	
496	NNST	50									EF		18 6 97	D	6 - 7	0	
497	NNST	55									EF		18 6 97	D	6 - 7	0	
498	NNST	56									EF		18 6 97	D	6 - 7	0	
499	NNST	45									EF		18 6 97	D	6 - 7	0	
500	NNST	42									EF		18 6 97	D	6 - 7	0	
501	NNST	45									EF		18 6 97	D	6 - 7	0	
502	NNST	35									EF		18 6 97	D	6 - 7	0	
503	NNST	57									EF		18 6 97	D	6 - 7	0	
504	NNST	42									EF		18 6 97	D	6 - 7	0	
505	NNST	42									EF		18 6 97	D	6 - 7	0	
506	NNST	52									EF		18 6 97	D	6 - 7	0	
507	NNST	45									EF		18 6 97	D	6 - 7	0	
508	NNST	50									EF		18 6 97	D	6 - 7	0	
509	NNST	57									EF		18 6 97	D	6 - 7	0	
511	NNST	82									EF		18 6 97	D	1 - 2	0	
512	NNST	62									EF		18 6 97	D	1 - 2	0	
513	NNST	52									EF		18 6 97	D	1 - 2	0	
514	NNST	61									EF		18 6 97	D	1 - 2	0	
515	NNST	43									EF		18 6 97	D	1 - 2	0	
516	NNST	65									EF		18 6 97	D	1 - 2	0	
517	NNST	37									EF		18 6 97	D	1 - 2	0	
518	NNST	68									EF		18 6 97	D	1 - 2	0	
519	NNST	61									EF		18 6 97	D	1 - 2	0	
520	NNST	67									EF		18 6 97	D	1 - 2	0	
521	NNST	38									EF		18 6 97	D	1 - 2	0	
522	NNST	72									EF		18 6 97	D	1 - 2	0	
523	NNST	44									EF		18 6 97	D	1 - 2	0	
524	NNST	54									EF		18 6 97	D	1 - 2	0	
538	NNST	75	4								EF		18 6 97	G	0 - 1	0	
539	NNST	68									EF		18 6 97	G	0 - 1	0	
540	NNST	60									EF		18 6 97	G	0 - 1	0	
541	NNST	60									EF		18 6 97	G	0 - 1	0	
542	NNST	50									EF		18 6 97	G	0 - 1	0	
543	NNST	57									EF		18 6 97	G	0 - 1	0	
544	NNST	50									EF		18 6 97	G	0 - 1	0	
545	NNST	25									EF		18 6 97	G	0 - 1	0	
546	NNST	50									EF		18 6 97	G	0 - 1	0	
547	NNST	50									EF		18 6 97	G	0 - 1	0	
548	NNST	50									EF		18 6 97	G	0 - 1	0	
549	NNST	63									EF		18 6 97	G	0 - 1	0	
550	NNST	40									EF		18 6 97	G	0 - 1	0	
551	NNST	45									EF		18 6 97	G	0 - 1	0	
552	NNST	40									EF		18 6 97	G	0 - 1	0	
553	NNST	45									EF		18 6 97	G	0 - 1	0	
554	NNST	45									EF		18 6 97	G	0 - 1	0	
555	NNST	57									EF		18 6 97	G	0 - 1	0	
556	NNST	44									EF		18 6 97	G	0 - 1	0	
557	NNST	35									EF		18 6 97	G	0 - 1	0	
558	NNST	55									EF		18 6 97	G	0 - 1	0	
559	NNST	42									EF		18 6 97	G	0 - 1	0	
560	NNST	55									EF		18 6 97	G	0 - 1	0	
561	NNST	56									EF		18 6 97	G	0 - 1	0	
562	NNST	54									EF		18 6 97	G	0 - 1	0	
563	NNST	40									EF		18 6 97	G	0 - 1	0	
564	NNST	40									EF		18 6 97	G	0 - 1	0	
565	NNST	37									EF		18 6 97	G	0 - 1	0	
566	NNST	30									EF		18 6 97	G	0 - 1	0	
567	NNST	45									EF		18 6 97	G	0 - 1	0	
578	NNST	70									EF		19 6 97	A	1 - 2	0	
580	NNST	57									EF		19 6 97	A	1 - 2	0	
582	NNST	61									EF		19 6 97	A	1 - 2	0	
583	NNST	62									EF		19 6 97	A	1 - 2	0	
584	NNST	53									EF		19 6 97	A	1 - 2	0	
585	NNST	52									EF		19 6 97	A	1 - 2	0	
586	NNST	70									EF		19 6 97	A	1 - 2	0	
587	NNST	52									EF		19 6 97	A	1 - 2	0	
588	NNST	52									EF		19 6 97	A	1 - 2	0	
589	NNST	43									EF		19 6 97	A	1 - 2	0	
590	NNST	37									EF		19 6 97	A	1 - 2	0	
591	NNST	63									EF		19 6 97	A	1 - 2	0	
592	NNST	52									EF		19 6 97	A	1 - 2	0	
593	NNST	43									EF		19 6 97	A	1 - 2	0	
594	NNST	51									EF		19 6 97	A	1 - 2	0	
595	NNST	64									EF		19 6 97	A	1 - 2	0	
596	NNST	52									EF		19 6 97	A	1 - 2	0	
597	NNST	43									EF		19 6 97	A	1 - 2	0	
598	NNST	54									EF		19 6 97	A	1 - 2	0	
599	NNST	35									EF		19 6 97	A	1 - 2	0	
600	NNST	60									EF		19 6 97	A	1 - 2	0	
601	NNST	54									EF		19 6 97	A	1 - 2	0	
602	NNST	60									EF		19 6 97	A	1 - 2	0	
603	NNST	51									EF		19 6 97	A	1 - 2	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
604	NNST	53									EF		19 6 97	A	1 - 2	0	
605	NNST	50									EF		19 6 97	A	1 - 2	0	
606	NNST	45									EF		19 6 97	A	1 - 2	0	
607	NNST	46									EF		19 6 97	A	1 - 2	0	
608	NNST	43									EF		19 6 97	A	1 - 2	0	
609	NNST	47									EF		19 6 97	A	1 - 2	0	
610	NNST	32									EF		19 6 97	A	1 - 2	0	
611	NNST	40									EF		19 6 97	A	1 - 2	0	
611.1	NNST	30									EF		19 6 97	A	1 - 2	0	
625	NNST	89	8								EF		19 6 97	A	2 - 3	0	
626	NNST	60									EF		19 6 97	A	2 - 3	0	
627	NNST	54									EF		19 6 97	A	2 - 3	0	
628	NNST	36									EF		19 6 97	A	2 - 3	0	
629	NNST	47									EF		19 6 97	A	2 - 3	0	
631	NNST	60									EF		19 6 97	A	3 - 4	0	
632	NNST	30									EF		19 6 97	A	3 - 4	0	
647	NNST	82	4								EF		19 6 97	A	4 - 5	0	
648	NNST	63									EF		19 6 97	A	4 - 5	0	
649	NNST	50									EF		19 6 97	A	4 - 5	0	
650	NNST	52									EF		19 6 97	A	4 5	0	
674	NNST	51									EF		19 6 97	A	6 - 7	0	
675	NNST	58									EF		19 6 97	A	6 - 7	0	
676	NNST	47									EF		19 6 97	A	6 - 7	0	
677	NNST	53									EF		19 6 97	A	6 - 7	0	
678	NNST	44									EF		19 6 97	A	6 - 7	0	
679	NNST	75									EF		20 6 97	B	4 - 36	0	
680	NNST	78									EF		20 6 97	B	4 - 36	0	
681	NNST	63									EF		20 6 97	B	4 - 36	0	
682	NNST	57									EF		20 6 97	B	4 - 36	0	
683	NNST	58									EF		20 6 97	B	4 - 36	0	
684	NNST	52									EF		20 6 97	B	4 - 36	0	
685	NNST	65									EF		20 6 97	B	4 - 45	0	
686	NNST	61									EF		20 6 97	B	4 - 45	0	
687	NNST	53									EF		20 6 97	B	4 - 45	0	
688	NNST	42									EF		20 6 97	B	4 - 45	0	
689	NNST	44									EF		20 6 97	B	4 - 45	0	
690	NNST	30									EF		20 6 97	B	4 - 45	0	
701	NNST	66									EF		21 6 97	F	0 - 1	0	
702	NNST	53									EF		21 6 97	F	0 - 1	0	
703	NNST	60									EF		21 6 97	F	0 - 1	0	
704	NNST	57									EF		21 6 97	F	0 - 1	0	
705	NNST	35									EF		21 6 97	F	0 - 1	0	
710	NNST	54									EF		21 6 97	F	0 - 1	0	
711	NNST	35									EF		21 6 97	F	0 - 1	0	
714	NNST	30									EF		21 6 97	F	0 - 1	0	
715	NNST	40									EF		21 6 97	F	0 - 1	0	
716	NNST	30									EF		21 6 97	F	0 - 1	0	
717	NNST	25									EF		21 6 97	F	0 - 1	0	
718	NNST	24									EF		21 6 97	F	0 - 1	0	
720	NNST	30									EF		21 6 97	F	0 - 1	0	
722	NNST	32									EF		21 6 97	F	0 - 1	0	
733	NNST	54									EF		21 6 97	F	5 - 6	0	
734	NNST	60									EF		21 6 97	F	5 - 6	0	
735	NNST	60									EF		21 6 97	F	5 - 6	0	
736	NNST	52									EF		21 6 97	F	5 - 6	0	
737	NNST	42									EF		21 6 97	F	5 - 6	0	
738	NNST	61									EF		21 6 97	F	5 - 6	0	
739	NNST	47									EF		21 6 97	F	5 - 6	0	
740	NNST	64									EF		21 6 97	F	5 - 6	0	
741	NNST	64									EF		21 6 97	F	5 - 6	0	
742	NNST	39									EF		21 6 97	F	5 - 6	0	
743	NNST	35									EF		21 6 97	F	5 - 6	0	
744	NNST	43									EF		21 6 97	F	5 - 6	0	
745	NNST	45									EF		21 6 97	F	5 - 6	0	
746	NNST	65									EF		21 6 97	F	5 - 6	0	
747	NNST	54									EF		21 6 97	F	5 - 6	0	
748	NNST	37									EF		21 6 97	F	5 - 6	0	
749	NNST	51									EF		21 6 97	F	5 - 6	0	
750	NNST	45									EF		21 6 97	F	5 - 6	0	
751	NNST	40									EF		21 6 97	F	5 - 6	0	
752	NNST	47									EF		21 6 97	F	5 - 6	0	
753	NNST	40									EF		21 6 97	F	5 - 6	0	
754	NNST	35									EF		21 6 97	F	5 - 6	0	
759	NNST	42									EF		21 6 97	MR-U	ML - MR	0	
766	NNST	62									EF		22 6 97	D	4 - 5	0	
767	NNST	41									EF		22 6 97	D	4 - 5	0	
768	NNST	32									EF		22 6 97	D	4 - 5	0	
769	NNST	73									EF		22 6 97	B	52 - 53	0	
770	NNST	47									EF		22 6 97	B	52 - 53	0	
771	NNST	43									EF		22 6 97	B	52 - 53	0	
772	NNST	51									EF		22 6 97	B	52 - 53	0	
773	NNST	67									EF		22 6 97	B	52 - 53	0	
774	NNST	52									EF		22 6 97	B	52 - 53	0	
775	NNST	72									EF		22 6 97	B	52 - 53	0	
776	NNST	28									EF		22 6 97	B	52 - 53	0	
777	NNST	39									EF		22 6 97	B	52 - 53	0	
778	NNST	57									EF		22 6 97	B	52 - 53	0	
779	NNST	50									EF		22 6 97	B	52 - 53	0	
780	NNST	52									EF		22 6 97	B	52 - 53	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area. 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
781	NNST	54									EF		22 6 97	B	52 - 53	0	
782	NNST	50									EF		22 6 97	B	52 - 53	0	
783	NNST	50									EF		22 6 97	B	52 - 53	0	
784	NNST	60									EF		22 6 97	B	52 - 53	0	
785	NNST	51									EF		22 6 97	B	52 - 53	0	
786	NNST	45									EF		22 6 97	B	52 - 53	0	
787	NNST	48									EF		22 6 97	B	52 - 53	0	
788	NNST	51									EF		22 6 97	B	52 - 53	0	
789	NNST	43									EF		22 6 97	B	52 - 53	0	
790	NNST	41									EF		22 6 97	B	52 - 53	0	
791	NNST	41									EF		22 6 97	B	52 - 53	0	
793	NNST	78	4								EF		22 6 97	B	68 - 69	0	
794	NNST	66									EF		22 6 97	B	68 - 69	0	
795	NNST	61									EF		22 6 97	B	68 - 69	0	
796	NNST	61									EF		22 6 97	B	68 - 69	0	
797	NNST	64									EF		22 6 97	B	68 - 69	0	
798	NNST	56									EF		22 6 97	B	68 - 69	0	
854	NNST	40									EF		22 6 97	B	0 - 1	0	
855	NNST	36									EF		22 6 97	B	0 - 1	0	
856	NNST	43									EF		22 6 97	B	0 - 1	0	
857	NNST	46									EF		22 6 97	B	0 - 1	0	
858	NNST	48									EF		22 6 97	B	0 - 1	0	
859	NNST	36									EF		22 6 97	B	0 - 1	0	
860	NNST	40									EF		22 6 97	B	0 - 1	0	
893	NNST	47									EF		13 7 97	A	5 - 6	0	
894	NNST	62									EF		13 7 97	A	5 - 6	0	
895	NNST	35									EF		13 7 97	A	5 - 6	0	
896	NNST	50									EF		13 7 97	A	5 - 6	0	
897	NNST	56									EF		13 7 97	A	5 - 6	0	
898	NNST	62									EF		13 7 97	A	5 - 6	0	
899	NNST	55									EF		13 7 97	A	5 - 6	0	
900	NNST	42									EF		13 7 97	A	5 - 6	0	
901	NNST	40									EF		13 7 97	A	5 - 6	0	
902	NNST	32									EF		13 7 97	A	5 - 6	0	
903	NNST	56									EF		13 7 97	A	5 - 6	0	
904	NNST	56									EF		13 7 97	A	5 - 6	0	
905	NNST	45									EF		13 7 97	A	5 - 6	0	
906	NNST	42									EF		13 7 97	A	5 - 6	0	
907	NNST	70									EF		13 7 97	A	5 - 6	0	
908	NNST	60									EF		13 7 97	A	5 - 6	0	
909	NNST	47									EF		13 7 97	A	5 - 6	0	
910	NNST	56									EF		13 7 97	A	5 - 6	0	
911	NNST	45									EF		13 7 97	A	5 - 6	0	
912	NNST	50									EF		13 7 97	A	5 - 6	0	
913	NNST	42									EF		13 7 97	A	5 - 6	0	
914	NNST	49									EF		13 7 97	A	5 - 6	0	
915	NNST	52									EF		13 7 97	A	5 - 6	0	
916	NNST	37									EF		13 7 97	A	5 - 6	0	
917	NNST	46									EF		13 7 97	A	5 - 6	0	
918	NNST	42									EF		13 7 97	A	5 - 6	0	
919	NNST	37									EF		13 7 97	A	5 - 6	0	
920	NNST	30									EF		13 7 97	A	5 - 6	0	
921	NNST	32									EF		13 7 97	A	5 - 6	0	
927	NNST	58									EF		14 7 97	A	6 - 7	0	
928	NNST	42									EF		14 7 97	A	6 - 7	0	
948	NNST	78									EF		15 7 97	B	4 - 5	0	
949	NNST	52									EF		15 7 97	B	4 - 5	0	
950	NNST	53									EF		15 7 97	B	4 - 5	0	
951	NNST	58									EF		15 7 97	B	4 - 5	0	
952	NNST	41									EF		15 7 97	B	4 - 5	0	
953	NNST	45									EF		15 7 97	B	4 - 5	0	
954	NNST	56									EF		15 7 97	B	4 - 5	0	
955	NNST	43									EF		15 7 97	B	4 - 5	0	
956	NNST	57									EF		15 7 97	B	4 - 5	0	
957	NNST	44									EF		15 7 97	B	4 - 5	0	
958	NNST	52									EF		15 7 97	B	4 - 5	0	
959	NNST	59									EF		15 7 97	B	4 - 5	0	
960	NNST	48									EF		15 7 97	B	4 - 5	0	
961	NNST	60									EF		15 7 97	B	4 - 5	0	
962	NNST	57									EF		15 7 97	B	4 - 5	0	
963	NNST	53									EF		15 7 97	B	4 - 5	0	
964	NNST	44									EF		15 7 97	B	4 - 5	0	
965	NNST	52									EF		15 7 97	B	4 - 5	0	
966	NNST	47									EF		15 7 97	B	4 - 5	0	
967	NNST	46									EF		15 7 97	B	4 - 5	0	
968	NNST	52									EF		15 7 97	B	4 - 5	0	
969	NNST	47									EF		15 7 97	B	4 - 5	0	
970	NNST	53									EF		15 7 97	B	4 - 5	0	
971	NNST	48									EF		15 7 97	B	4 - 5	0	
972	NNST	48									EF		15 7 97	B	4 - 5	0	
973	NNST	53									EF		15 7 97	B	4 - 5	0	
974	NNST	48									EF		15 7 97	B	4 - 5	0	
975	NNST	57									EF		15 7 97	B	4 - 5	0	
976	NNST	57									EF		15 7 97	B	4 - 5	0	
977	NNST	54									EF		15 7 97	B	4 - 5	0	
978	NNST	36									EF		15 7 97	B	4 - 5	0	
979	NNST	38									EF		15 7 97	B	4 - 5	0	
989	NNST	57									EF		15 7 97	B	5 - 6	0	
990	NNST	65									EF		15 7 97	B	5 - 6	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
991	NNST	52									EF		15 7 97	B	5 - 6	0	
992	NNST	52									EF		15 7 97	B	5 - 6	0	
993	NNST	54									EF		15 7 97	B	5 - 6	0	
994	NNST	52									EF		15 7 97	B	5 - 6	0	
995	NNST	59									EF		15 7 97	B	5 - 6	0	
996	NNST	55									EF		15 7 97	B	5 - 6	0	
997	NNST	52									EF		15 7 97	B	5 - 6	0	
998	NNST	50									EF		15 7 97	B	5 - 6	0	
999	NNST	69									EF		15 7 97	B	5 - 6	0	
1000	NNST	57									EF		15 7 97	B	5 - 6	0	
2000	NNST	55									EF		15 7 97	B	5 - 6	0	
2001	NNST	54									EF		15 7 97	B	5 - 6	0	
2002	NNST	60									EF		15 7 97	B	5 - 6	0	
2003	NNST	58									EF		15 7 97	B	5 - 6	0	
2004	NNST	50									EF		15 7 97	B	5 - 6	0	
2005	NNST	63									EF		15 7 97	B	5 - 6	0	
2006	NNST	52									EF		15 7 97	B	5 - 6	0	
2007	NNST	53									EF		15 7 97	B	5 - 6	0	
2008	NNST	54									EF		15 7 97	B	5 - 6	0	
2042	NNST	48									EF		18 7 97	B	6 - 7	0	
2043	NNST	53									EF		18 7 97	B	6 - 7	0	
2044	NNST	51									EF		18 7 97	B	6 - 7	0	
2062	NNST	25									EF		18 7 97	B	6 - 7	0	
2108	NNST	60									EF		19 7 97	B	1 - 2	0	
2156	NNST	62									EF		20 7 97	B	3 - 4	0	
2157	NNST	59									EF		20 7 97	B	3 - 4	0	
2170	NNST	50									EF		20 7 97	MR-U	ML - MR	0	
2186	NNST	49									EF		21 7 97	A	0 - 1	0	
2187	NNST	46									EF		21 7 97	A	0 - 1	0	
2188	NNST	42									EF		21 7 97	A	0 - 1	0	
2189	NNST	60									EF		21 7 97	A	0 - 1	0	
2190	NNST	51									EF		21 7 97	A	0 - 1	0	
2191	NNST	43									EF		21 7 97	A	0 - 1	0	
2192	NNST	51									EF		21 7 97	A	0 - 1	0	
2193	NNST	57									EF		21 7 97	A	0 - 1	0	
2194	NNST	44									EF		21 7 97	A	0 - 1	0	
2195	NNST	41									EF		21 7 97	A	0 - 1	0	
2196	NNST	43									EF		21 7 97	A	0 - 1	0	
2197	NNST	34									EF		21 7 97	A	0 - 1	0	
2198	NNST	36									EF		21 7 97	A	0 - 1	0	
2199	NNST	35									EF		21 7 97	A	0 - 1	0	
2200	NNST	31									EF		21 7 97	A	0 - 1	0	
2201	NNST	37									EF		21 7 97	A	0 - 1	0	
2202	NNST	36									EF		21 7 97	A	0 - 1	0	
2203	NNST	62									EF		22 7 97	A	7 - 8	0	
2204	NNST	59									EF		22 7 97	A	7 - 8	0	
2205	NNST	46									EF		22 7 97	A	7 - 8	0	
2206	NNST	38									EF		22 7 97	A	7 - 8	0	
2207	NNST	20									EF		22 7 97	A	7 - 8	0	
2208	NNST	20									EF		22 7 97	A	7 - 8	0	
2209	NNST	20									EF		22 7 97	A	7 - 8	0	
2210	NNST	15									EF		22 7 97	A	7 - 8	0	
2235	NNST	50									EF		24 7 97	D	0 - 1	0	
2236	NNST	52									EF		24 7 97	D	0 - 1	0	
2253	NNST	75									EF		26 7 97	D	1 - 2	0	
2254	NNST	65									EF		26 7 97	D	1 - 2	0	
2255	NNST	45									EF		26 7 97	D	1 - 2	0	
2256	NNST	35									EF		26 7 97	D	1 - 2	0	
2257	NNST	35									EF		26 7 97	D	1 - 2	0	
2258	NNST	40									EF		26 7 97	D	1 - 2	0	
2259	NNST	35									EF		26 7 97	D	1 - 2	0	
2260	NNST	37									EF		26 7 97	D	1 - 2	0	
2261	NNST	25									EF		26 7 97	D	1 - 2	0	
2262	NNST	37									EF		26 7 97	D	1 - 2	0	
2263	NNST	42									EF		26 7 97	D	1 - 2	0	
2264	NNST	42									EF		26 7 97	D	1 - 2	0	
2265	NNST	43									EF		26 7 97	D	1 - 2	0	
2266	NNST	46									EF		26 7 97	D	1 - 2	0	
2267	NNST	33									EF		26 7 97	D	1 - 2	0	
2268	NNST	46									EF		26 7 97	D	1 - 2	0	
2269	NNST	37									EF		26 7 97	D	1 - 2	0	
4525	NNST	42									EF		25 8 97	B	1 - 2	0	
4526	NNST	53									EF		25 8 97	B	1 - 2	0	
4527	NNST	36									EF		25 8 97	B	1 - 2	0	
4532	NNST	52									EF		24 8 97	MR-U	ML - MR	0	
4533	NNST	42									EF		24 8 97	MR-U	ML - MR	0	
4543	NNST	46									EF		25 8 97	D	0 - 1	0	
4544	NNST	32									EF		25 8 97	D	0 - 1	0	
4545	NNST	37									EF		25 8 97	D	0 - 1	0	
4546	NNST	38									EF		25 8 97	D	0 - 1	0	
4547	NNST	46									EF		25 8 97	D	0 - 1	0	
4548	NNST	42									EF		25 8 97	D	0 - 1	0	
4549	NNST	29									EF		25 8 97	D	0 - 1	0	
4550	NNST	30									EF		25 8 97	D	0 - 1	0	
4551	NNST	31									EF		25 8 97	D	0 - 1	0	
4552	NNST	42									EF		25 8 97	D	0 - 1	0	
4556	NNST	42									EF		25 8 97	D	6 - 7	0	
4557	NNST	36									EF		25 8 97	D	6 - 7	0	
4558	NNST	46									EF		25 8 97	D	6 - 7	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
4559	NNST	29									EF		25 8 97	D	6 - 7	0	
4560	NNST	31									EF		25 8 97	D	6 - 7	0	
4561	NNST	36									EF		25 8 97	D	6 - 7	0	
4562	NNST	44									EF		25 8 97	D	6 - 7	0	
4563	NNST	50									EF		25 8 97	D	6 - 7	0	
4564	NNST	42									EF		25 8 97	D	1 - 2	0	
4565	NNST	36									EF		25 8 97	D	1 - 2	0	
4566	NNST	29									EF		25 8 97	D	1 - 2	0	
4567	NNST	32									EF		25 8 97	D	1 - 2	0	
4568	NNST	46									EF		25 8 97	D	1 - 2	0	
4569	NNST	47									EF		25 8 97	D	1 - 2	0	
4570	NNST	32									EF		25 8 97	D	1 - 2	0	
4571	NNST	37									EF		25 8 97	D	1 - 2	0	
4572	NNST	29									EF		25 8 97	D	1 - 2	0	
4573	NNST	27									EF		25 8 97	D	1 - 2	0	
4574	NNST	36									EF		25 8 97	D	1 - 2	0	
4577	NNST	32									EF		24 8 97	B	4 - 5	0	
4578	NNST	43									EF		24 8 97	B	4 - 5	0	
4579	NNST	27									EF		24 8 97	B	4 - 5	0	
4580	NNST	28									EF		24 8 97	B	4 - 5	0	
4581	NNST	32									EF		24 8 97	B	4 - 5	0	
4582	NNST	37									EF		24 8 97	B	4 - 5	0	
4583	NNST	42									EF		24 8 97	B	4 - 5	0	
4584	NNST	46									EF		24 8 97	B	4 - 5	0	
4585	NNST	42									EF		24 8 97	B	4 - 5	0	
4586	NNST	37									EF		24 8 97	B	4 - 5	0	
4587	NNST	29									EF		24 8 97	B	4 - 5	0	
4588	NNST	23									EF		24 8 97	B	4 - 5	0	
4590	NNST	56									EF		24 8 97	B	6 - 7	0	
4591	NNST	42									EF		24 8 97	B	6 - 7	0	
4592	NNST	32									EF		24 8 97	B	6 - 7	0	
1034	RNWH	135	18		Ot, Sc	2					FN		12 7 97	ML-E	1 WB	1	preserved
1122	RNWH	93	6		Sc	1					FN		13 7 97	ML-E	2 WB	1	frozen
1123	RNWH	81	4		Sc	1					FN		13 7 97	ML-E	2 WB	1	frozen
1124	RNWH	92	6		Sc	1					FN		13 7 97	ML-E	2 WB	1	frozen
1125	RNWH	94	6		Sc	1					FN		13 7 97	ML-E	2 WB	1	frozen
1292	RNWH	368	530		Sc	8	6392				FN		13 7 97	ML-E	3 WB	0	
1397	RNWH	200	65		FR, Sc	3				RPel	FN		14 7 97	ML-E	4 EB	0	
1398	RNWH	95			FR, Sc	1				RPel	FN		14 7 97	ML-E	4 EB	0	
1413	RNWH	478	1114		FR, Sc	18	6810			RPel	FN		14 7 97	ML-E	5 WB	0	
1455	RNWH	445	940		FR, Sc	14	6813			RPel	FN		15 7 97	ML-E	6 WB	0	
1461	RNWH	89	6	11	Ot, Sc	1					FN		15 7 97	ML-E	6 WB	1	St=5 (unidentified)
1462	RNWH	88	6		Ot, Sc	1					FN		15 7 97	ML-E	6 WB	1	preserved
1475	RNWH	155	26		FR, Sc	2				RPel	FN		15 7 97	ML-E	6 EB	0	
1492	RNWH	294	258	4	Ot, Sc	5					GN	1.5	15 7 97	ML-E	3	1	St=15 (Caddis)
1494	RNWH	368	532		FR, Sc	8	6819			RPel	FN		15 7 97	ML-E	7 WB	0	
1495	RNWH	420	806		FR, Sc	13	6820			RPel	FN		15 7 97	ML-E	7 WB	0	
1532	RNWH	143	24		FR, Sc	2				RPel	FN		16 7 97	ML-E	8 EB	0	
1533	RNWH	99	8		FR, Sc	1				RPel	FN		16 7 97	ML-E	8 EB	0	
1534	RNWH	100	8		FR, Sc	1				RPel	FN		16 7 97	ML-E	8 EB	0	
1535	RNWH	97	8		FR, Sc	1				RPel	FN		16 7 97	ML-E	8 EB	0	
1536	RNWH	88	6		FR, Sc	1				RPel	FN		16 7 97	ML-E	8 EB	0	
1542	RNWH	103	8		Ot, Sc	1					FN		16 7 97	ML-E	8 EB	1	St=15 (Chir?)
1543	RNWH	100	8		Ot, Sc	1					FN		16 7 97	ML-E	8 EB	1	St=7 (Chir?)
1623	RNWH	264	162	1	Ot, Sc	4					FN		17 7 97	ML-E	10 WB	1	St=0
1624	RNWH	443	622	4	Ot, Sc	15					FN		17 7 97	ML-E	10 WB	1	St=2 (Caddis) SKINNY
1675	RNWH	176	42	11	Ot, Sc	3					FN		17 7 97	ML-E	10 EB	1	St=0
1676	RNWH	87	6		FR, Sc	1				RPel	FN		17 7 97	ML-E	10 EB	0	
1677	RNWH	91	6		Sc	1					FN		17 7 97	ML-E	10 EB	1	preserved
1678	RNWH	104	8		Sc	1					FN		17 7 97	ML-E	10 EB	1	preserved
1679	RNWH	95	8		Sc	1					FN		17 7 97	ML-E	10 EB	1	preserved
1680	RNWH	95	6		Sc	1					FN		17 7 97	ML-E	10 EB	1	preserved
1720	RNWH	156	28		FR, Sc	2				RPel	FN		17 7 97	ML-E	11 EB	0	
2240	RNWH	213	92		Sc	3					GN	1.5	24 7 97	A1	2	0	
3064	RNWH	152	32		FR, Sc	2				RPel	FN		18 7 97	ML-E	12 WB	0	
3065	RNWH	90	6		FR, Sc	1				RPel	FN		18 7 97	ML-E	12 WB	0	
3066	RNWH	93	6		FR, Sc	1				RPel	FN		18 7 97	ML-E	12 WB	0	
3067	RNWH	94	6		FR, Sc	1				RPel	FN		18 7 97	ML-E	12 WB	0	
3110	RNWH	165	38		FR, Sc	2				RPel	FN		18 7 97	ML-E	13 WB	0	
3250	RNWH	142	20		FR, Sc	2				RPel	FN		19 7 97	ML-E	14 WB	0	
3266	RNWH	164	34		FR, Sc	2				RPel	FN		19 7 97	ML-E	14 EB	0	
3267	RNWH	90	8		Sc	1					FN		19 7 97	ML-E	14 EB	0	
3309	RNWH	142	24							RPel	FN		19 7 97	ML-E	15 EB	2	recap
3788	RNWH	90	6	1	Ot, Sc	1					FN		21 7 97	ML-E	17 WB	1	St=0
4004	RNWH	106	10		FR, Sc	1				RPel	FN		21 7 97	ML-E	17 EB	0	
4061	RNWH	333	404		Ot, Sc	6					FN		23 7 97	ML-E	19 WB	1	
4066	RNWH	100	8		Sc	1					FN		23 7 97	ML-E	19 WB	0	
4090	RNWH	399	700	14	Ot, Sc	8					GN	1.5	23 7 97	ML-E	7	1	St=5 (Hydro)
4111	RNWH	342	454	14	Ot, Sc	5					FN		24 7 97	ML-E	20 WB	1	St=0
4115	RNWH	91	6		Ot, Sc	1					FN		24 7 97	ML-E	20 WB	1	
4284	RNWH	435	628		FR, Sc	10	8563			RPel	FN		25 7 97	ML-E	21 EB	0	skinny
4285	RNWH	261	186		FR, Sc	4				RPel	FN		25 7 97	ML-E	21 EB	0	
4298	RNWH	109	10		Ot, Sc	1					FN		25 7 97	ML-E	21 EB	1	St=0
4310	RNWH	465	1070		FR, Sc	13	8571			RPel	FN		26 7 97	ML-E	22 WB	0	
4311	RNWH	439	920		FR, Sc	11	8572			RPel	FN		26 7 97	ML-E	22 WB	0	
4337	RNWH	113	10		Ot, Sc	1					FN		26 7 97	ML-E	22 WB	1	
4338	RNWH	98	6		Ot, Sc	1					FN		26 7 97	ML-E	22 WB	1	
4339	RNWH	153	26		FR, Sc	2				RPel	FN		26 7 97	ML-E	22 WB	0	
4340	RNWH	141	24		FR, Sc	2				RPel	FN		26 7 97	ML-E	22 WB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
4354	RNWH	152	28		FR, Sc	2				RPel	FN		26 7 97	ML-E	22 EB	0	
4355	RNWH	104	8		FR, Sc	1				RPel	FN		26 7 97	ML-E	22 EB	0	
4356	RNWH	97	6		FR, Sc	1				RPel	FN		26 7 97	ML-E	22 EB	0	
4357	RNWH	100	8		FR, Sc	1				RPel	FN		26 7 97	ML-E	22 EB	0	
4358	RNWH	106	10		FR, Sc	1				RPel	FN		26 7 97	ML-E	22 EB	0	
4359	RNWH	93	6		FR, Sc	1				RPel	FN		26 7 97	ML-E	22 EB	0	
5009	RNWH	425	670		Ot, Sc	12					TU		16 8 97	MR-L	2 P	1	St=0
5036	RNWH	343	395		FR, Sc	5	8572				TU		17 8 97	MR-L	4 P	0	
5159	RNWH	317	310		Sc	5	7745				TU		19 8 97	MR-L	7 A	0	
5160	RNWH	428	700		Sc	11	7746				TU		19 8 97	MR-L	7 A	0	
5278	RNWH	437	820		Sc	11	7238				TU		20 8 97	MR-L	10 P	0	
5297	RNWH	422	690		Sc	10	7257				TU		21 8 97	MR-L	11 A	0	
5303	RNWH	343									TU		21 8 97	MR-L	12 P	0	
5483	RNWH	420					7969				TU		23 8 97	MR-L	16 P	0	
5484	RNWH	420					7876				TU		23 8 97	MR-L	16 P	0	
5530	RNWH	435					8611				TU		24 8 97	MR-L	17 A	0	
5611	RNWH	409			Sc	11	7578				TU		25 8 97	MR-L	19 A	0	
5673	RNWH	451			Sc	12	7565				TU		25 8 97	MR-L	20 P	0	
5674	RNWH	357					7566				TU		25 8 97	MR-L	20 P	0	
5675	RNWH	429			Sc		7567				TU		25 8 97	MR-L	20 P	0	
5676	RNWH	433			Sc	12	7568				TU		25 8 97	MR-L	20 P	0	
5677	RNWH	436			Sc	12	7569				TU		25 8 97	MR-L	20 P	0	
5678	RNWH	347			Sc	5	7570				TU		25 8 97	MR-L	20 P	0	
5679	RNWH	333	355	4	Ot, Sc	5					TU		25 8 97	MR-L	20 P	1	St=0 found dead Aug 28
5680	RNWH	283			Sc	4	7572				TU		25 8 97	MR-L	20 P	0	
5756	RNWH	263									TU		26 8 97	MR-L	22 P	0	
5757	RNWH	342			Sc	5	7822				TU		26 8 97	MR-L	22 P	0	
5758	RNWH	421			Sc	13	7823				TU		26 8 97	MR-L	22 P	0	
5834	RNWH	436			Sc	11	7398				TU		27 8 97	MR-L	24 P	0	
5905	RNWH	448			Sc	13	7417				TU		28 8 97	MR-L	26 P	0	
6015	RNWH	432	760		Sc	12	7121				TU		1 9 97	MR-L	33 A	0	
6024	RNWH	407			Sc	12	7632				TU		1 9 97	MR-L	34 P	0	
6038	RNWH	459			Sc	15	7646				TU		2 9 97	MR-L	35 A	0	
6039	RNWH	402			Sc	11	7647				TU		2 9 97	MR-L	35 A	0	
6063	RNWH	410	640		Sc	11	7616				TU		3 9 97	MR-L	37 A	0	
6070	RNWH	418	720		Sc	13					GN	2.5	27 9 97	LML	1	0	
6071	RNWH	407	770		Sc	12					GN	2.5	27 9 97	LML	1	0	
6073	RNWH	389	570		Sc	10					GN	2.5	27 9 97	LML	1	0	
6076	RNWH	396	650		Sc	10					GN	1.5	28 9 97	LML	3	0	
6077	RNWH	357	445	4	Ot, Sc	8					GN	1.5	28 9 97	LML	3	1	St=5 (snails)
6081	RNWH	385	555		Sc	9					GN	0.75	28 9 97	LML	3	0	
6082	RNWH	311	290		Sc	5					GN	2.5	28 9 97	LML	3	0	
6083	RNWH	444	965		Sc	14					GN	2.5	28 9 97	LML	3	0	St=0; tissues
6084	RNWH	347	445		Sc	6					GN	1.5	28 9 97	LML	3	0	
7	SLSC	124	25		FR						EF		15 6 97	A	0 - 1	0	
10	SLSC	84	5								EF		15 6 97	A	0 - 1	0	
23	SLSC	59									EF		15 6 97	A	0 - 1	0	
193	SLSC	66									EF		16 6 97	A	7 - 8	0	
194	SLSC	75									EF		16 6 97	A	7 - 8	0	
214	SLSC	65									EF		16 6 97	B	1 - 2	0	
225	SLSC	83	6								EF		16 6 97	B	3 - 4	0	
306	SLSC	55									EF		17 6 97	B	6 - 7	0	
358	SLSC	50									EF		17 6 97	B	5 - 6	1	preserved
365	SLSC	62									EF		18 6 97	D	0 - 1	0	
366	SLSC	78									EF		18 6 97	D	0 - 1	0	
367	SLSC	75									EF		18 6 97	D	0 - 1	0	
368	SLSC	59									EF		18 6 97	D	0 - 1	0	
369	SLSC	69									EF		18 6 97	D	0 - 1	0	
370	SLSC	57									EF		18 6 97	D	0 - 1	0	
371	SLSC	55									EF		18 6 97	D	0 - 1	0	
372	SLSC	80									EF		18 6 97	D	0 - 1	0	
373	SLSC	62									EF		18 6 97	D	0 - 1	0	
374	SLSC	67									EF		18 6 97	D	0 - 1	0	
375	SLSC	55									EF		18 6 97	D	0 - 1	0	
376	SLSC	44									EF		18 6 97	D	0 - 1	0	
377	SLSC	47									EF		18 6 97	D	0 - 1	0	
378	SLSC	55									EF		18 6 97	D	0 - 1	0	
379	SLSC	60									EF		18 6 97	D	0 - 1	0	
380	SLSC	56									EF		18 6 97	D	0 - 1	0	
381	SLSC	53									EF		18 6 97	D	0 - 1	0	
382	SLSC	54									EF		18 6 97	D	0 - 1	0	
383	SLSC	54									EF		18 6 97	D	0 - 1	0	
384	SLSC	53									EF		18 6 97	D	0 - 1	0	
385	SLSC	49									EF		18 6 97	D	0 - 1	0	
395	SLSC	95	10								EF		18 6 97	D	0 - 1	0	
396	SLSC	76	4								EF		18 6 97	D	0 - 1	0	
397	SLSC	81	4								EF		18 6 97	D	0 - 1	0	
398	SLSC	74	4								EF		18 6 97	D	0 - 1	0	
399	SLSC	72	4								EF		18 6 97	D	0 - 1	0	
400	SLSC	71									EF		18 6 97	D	0 - 1	0	
401	SLSC	68									EF		18 6 97	D	0 - 1	0	
402	SLSC	55									EF		18 6 97	D	0 - 1	0	
668	SLSC	84									EF		19 6 97	A	6 - 7	0	
669	SLSC	55									EF		19 6 97	A	6 - 7	0	
670	SLSC	87									EF		19 6 97	A	6 - 7	0	
671	SLSC	89									EF		19 6 97	A	6 - 7	0	
672	SLSC	55									EF		19 6 97	A	6 - 7	0	
673	SLSC	57									EF		19 6 97	A	6 - 7	0	
699	SLSC	66	2								EF		21 6 97	F	0 - 1	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
764	SLSC	59									EF		21 6 97	MR-U	ML - MR	0	
799	SLSC	47									EF		22 6 97	B	68 - 69	0	
831	SLSC	50									EF		22 6 97	B	0 - 1	0	
832	SLSC	70	4								EF		22 6 97	B	0 - 1	0	
833	SLSC	60									EF		22 6 97	B	0 - 1	0	
845	SLSC	62									EF		22 6 97	B	0 - 1	0	
846	SLSC	68									EF		22 6 97	B	0 - 1	0	
849	SLSC	88	4								EF		22 6 97	B	0 - 1	0	
850	SLSC	57									EF		22 6 97	B	0 - 1	0	
851	SLSC	60									EF		22 6 97	B	0 - 1	0	
852	SLSC	50									EF		22 6 97	B	0 - 1	0	
884	SLSC	90	10								EF		13 7 97	A	5 - 6	0	
885	SLSC	66									EF		13 7 97	A	5 - 6	0	
886	SLSC	53									EF		13 7 97	A	5 - 6	0	
887	SLSC	60									EF		13 7 97	A	5 - 6	0	
888	SLSC	59									EF		13 7 97	A	5 - 6	0	
889	SLSC	55									EF		13 7 97	A	5 - 6	0	
890	SLSC	56									EF		13 7 97	A	5 - 6	0	
891	SLSC	53									EF		13 7 97	A	5 - 6	0	
892	SLSC	44									EF		13 7 97	A	5 - 6	0	
923	SLSC	52									EF		14 7 97	A	6 - 7	0	
924	SLSC	57									EF		14 7 97	A	6 - 7	0	
925	SLSC	45									EF		14 7 97	A	6 - 7	0	
926	SLSC	56									EF		14 7 97	A	6 - 7	0	
943	SLSC	90	6								EF		15 7 97	B	4 - 5	0	
944	SLSC	80	4								EF		15 7 97	B	4 - 5	0	
945	SLSC	75	4								EF		15 7 97	B	4 - 5	0	
946	SLSC	65	2								EF		15 7 97	B	4 - 5	0	
947	SLSC	60	2								EF		15 7 97	B	4 - 5	0	
1036	SLSC	55									FN		12 7 97	ML-E	1 WB	0	
1517	SLSC	60									FN		15 7 97	ML-E	7 EB	0	
1719	SLSC	60									FN		17 7 97	ML-E	10 EB	0	
2110	SLSC	44									EF		19 7 97	B	1 - 2	0	
2141	SLSC	65									EF		20 7 97	B	3 - 4	0	
2142	SLSC	80									EF		20 7 97	B	3 - 4	0	
2143	SLSC	63									EF		20 7 97	B	3 - 4	0	
2144	SLSC	65									EF		20 7 97	B	3 - 4	0	
2145	SLSC	67									EF		20 7 97	B	3 - 4	0	
2146	SLSC	54									EF		20 7 97	B	3 - 4	0	
2147	SLSC	76									EF		20 7 97	B	3 - 4	0	
2148	SLSC	77									EF		20 7 97	B	3 - 4	0	
2149	SLSC	66									EF		20 7 97	B	3 - 4	0	
2150	SLSC	86									EF		20 7 97	B	3 - 4	0	
2151	SLSC	53									EF		20 7 97	B	3 - 4	0	
2152	SLSC	64									EF		20 7 97	B	3 - 4	0	
2153	SLSC	60									EF		20 7 97	B	3 - 4	0	
2154	SLSC	57									EF		20 7 97	B	3 - 4	0	
2155	SLSC	63									EF		20 7 97	B	3 - 4	0	
2171	SLSC	74	4								EF		20 7 97	MR-U	ML - MR	0	
2172	SLSC	66	2								EF		20 7 97	MR-U	ML - MR	0	
2173	SLSC	54									EF		20 7 97	MR-U	ML - MR	0	
2174	SLSC	56									EF		20 7 97	MR-U	ML - MR	0	
2175	SLSC	45									EF		20 7 97	MR-U	ML - MR	0	
2176	SLSC	50									EF		20 7 97	MR-U	ML - MR	0	
2179	SLSC	78									EF		21 7 97	A	0 - 1	0	
2181	SLSC	47									EF		21 7 97	A	0 - 1	0	
2215	SLSC	105	10								EF		24 7 97	D	0 - 1	0	
2216	SLSC	46									EF		24 7 97	D	0 - 1	0	
2217	SLSC	59									EF		24 7 97	D	0 - 1	0	
2218	SLSC	76	4								EF		24 7 97	D	0 - 1	0	
2219	SLSC	65									EF		24 7 97	D	0 - 1	0	
2220	SLSC	68									EF		24 7 97	D	0 - 1	0	
2221	SLSC	65									EF		24 7 97	D	0 - 1	0	
2222	SLSC	50									EF		24 7 97	D	0 - 1	0	
2223	SLSC	55									EF		24 7 97	D	0 - 1	0	
2224	SLSC	52									EF		24 7 97	D	0 - 1	0	
2225	SLSC	66									EF		24 7 97	D	0 - 1	0	
2226	SLSC	52									EF		24 7 97	D	0 - 1	0	
2227	SLSC	55									EF		24 7 97	D	0 - 1	0	
2228	SLSC	52									EF		24 7 97	D	0 - 1	0	
2241	SLSC	87	8								EF		26 7 97	D	1 - 2	0	
2242	SLSC	100	12								EF		26 7 97	D	1 - 2	0	
2243	SLSC	75	6								EF		26 7 97	D	1 - 2	0	
2244	SLSC	75	6								EF		26 7 97	D	1 - 2	0	
2245	SLSC	70	4								EF		26 7 97	D	1 - 2	0	
2246	SLSC	65	4								EF		26 7 97	D	1 - 2	0	
2247	SLSC	65	2								EF		26 7 97	D	1 - 2	0	
2248	SLSC	62									EF		26 7 97	D	1 - 2	0	
2249	SLSC	49									EF		26 7 97	D	1 - 2	0	
2250	SLSC	50									EF		26 7 97	D	1 - 2	0	
4528	SLSC	46									EF		25 8 97	B	1 - 2	0	
4529	SLSC	42									EF		25 8 97	B	1 - 2	0	
4534	SLSC	40									EF		24 8 97	MR-U	ML - MR	0	
4553	SLSC	62									EF		25 8 97	D	0 - 1	0	
4554	SLSC	47									EF		25 8 97	D	0 - 1	0	
4555	SLSC	52									EF		25 8 97	D	0 - 1	0	
4575	SLSC	110	14								EF		24 8 97	B	4 - 5	0	
13	THST	52									EF		15 6 97	A	0 - 1	0	
14	THST	55									EF		15 6 97	A	0 - 1	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
15	THST	60									EF		15 6 97	A	0 - 1	0	
17	THST	47									EF		15 6 97	A	0 - 1	0	
25	THST	67									EF		15 6 97	A	0 - 1	0	
26	THST	57									EF		15 6 97	A	0 - 1	0	
27	THST	63									EF		15 6 97	A	0 - 1	0	
28	THST	60									EF		15 6 97	A	0 - 1	0	
29	THST	63									EF		15 6 97	A	0 - 1	0	
30	THST	66									EF		15 6 97	A	0 - 1	0	
31	THST	60									EF		15 6 97	A	0 - 1	0	
32	THST	50									EF		15 6 97	A	0 - 1	0	
35	THST	60									EF		15 6 97	A	0 - 1	0	
36	THST	58									EF		15 6 97	A	0 - 1	0	
78	THST	24									EF		15 6 97	A	0 - 1	0	
79	THST	24									EF		15 6 97	A	0 - 1	0	
80	THST	26									EF		15 6 97	A	0 - 1	0	
81	THST	26									EF		15 6 97	A	0 - 1	0	
82	THST	27									EF		15 6 97	A	0 - 1	0	
83	THST	52									EF		15 6 97	A	0 - 1	0	
84	THST	60									EF		15 6 97	A	0 - 1	0	
85	THST	55									EF		15 6 97	A	0 - 1	0	
86	THST	57									EF		15 6 97	A	0 - 1	0	
87	THST	58									EF		15 6 97	A	0 - 1	0	
88	THST	52									EF		15 6 97	A	0 - 1	0	
89	THST	50									EF		15 6 97	A	0 - 1	0	
90	THST	27									EF		15 6 97	A	0 - 1	0	
91	THST	25									EF		15 6 97	A	0 - 1	0	
92	THST	24									EF		15 6 97	A	0 - 1	0	
536	THST	60									EF		18 6 97	G	0 - 1	0	
537	THST	49									EF		18 6 97	G	0 - 1	0	
579	THST	63									EF		19 6 97	A	1 - 2	0	
581	THST	58									EF		19 6 97	A	1 - 2	0	
700	THST	68									EF		21 6 97	F	0 - 1	0	
706	THST	52									EF		21 6 97	F	0 - 1	0	
707	THST	52									EF		21 6 97	F	0 - 1	0	
708	THST	56									EF		21 6 97	F	0 - 1	0	
709	THST	52									EF		21 6 97	F	0 - 1	0	red belly
712	THST	40									EF		21 6 97	F	0 - 1	0	
713	THST	30									EF		21 6 97	F	0 - 1	0	
719	THST	27									EF		21 6 97	F	0 - 1	0	
721	THST	25									EF		21 6 97	F	0 - 1	0	
758	THST	60									EF		21 6 97	MR-U	ML - MR	0	
760	THST	42									EF		21 6 97	MR-U	ML - MR	0	
761	THST	29									EF		21 6 97	MR-U	ML - MR	0	
762	THST	28									EF		21 6 97	MR-U	ML - MR	0	
763	THST	24									EF		21 6 97	MR-U	ML - MR	0	
834	THST	61									EF		22 6 97	B	0 - 1	0	
835	THST	55									EF		22 6 97	B	0 - 1	0	
836	THST	57									EF		22 6 97	B	0 - 1	0	
837	THST	30									EF		22 6 97	B	0 - 1	0	
838	THST	59									EF		22 6 97	B	0 - 1	0	
839	THST	61									EF		22 6 97	B	0 - 1	0	
840	THST	50									EF		22 6 97	B	0 - 1	0	
841	THST	27									EF		22 6 97	B	0 - 1	0	
842	THST	32									EF		22 6 97	B	0 - 1	0	
843	THST	31									EF		22 6 97	B	0 - 1	0	
844	THST	27									EF		22 6 97	B	0 - 1	0	
847	THST	56									EF		22 6 97	B	0 - 1	0	
848	THST	61									EF		22 6 97	B	0 - 1	0	
853	THST	59									EF		22 6 97	B	0 - 1	0	
1400	THST	62									FN		14 7 97	ML-E	4 EB	0	
1401	THST	63									FN		14 7 97	ML-E	4 EB	0	
1402	THST	62									FN		14 7 97	ML-E	4 EB	0	
1403	THST	54									FN		14 7 97	ML-E	4 EB	0	
1404	THST	55									FN		14 7 97	ML-E	4 EB	0	
1405	THST	49									FN		14 7 97	ML-E	4 EB	0	
1406	THST	60									FN		14 7 97	ML-E	4 EB	0	
1407	THST	58									FN		14 7 97	ML-E	4 EB	0	
1408	THST	48									FN		14 7 97	ML-E	4 EB	0	
1409	THST	52									FN		14 7 97	ML-E	4 EB	0	
1410	THST	56									FN		14 7 97	ML-E	4 EB	0	
1418	THST	65									FN		14 7 97	ML-E	5 WB	0	
1419	THST	70									FN		14 7 97	ML-E	5 WB	0	
1420	THST	62									FN		14 7 97	ML-E	5 WB	0	
1421	THST	71									FN		14 7 97	ML-E	5 WB	0	
1422	THST	54									FN		14 7 97	ML-E	5 WB	0	
1423	THST	66									FN		14 7 97	ML-E	5 WB	0	
1424	THST	60									FN		14 7 97	ML-E	5 WB	0	
1425	THST	64									FN		14 7 97	ML-E	5 WB	0	
1426	THST	72									FN		14 7 97	ML-E	5 WB	0	
1427	THST	67									FN		14 7 97	ML-E	5 WB	0	
1428	THST	67									FN		14 7 97	ML-E	5 WB	0	
1429	THST	64									FN		14 7 97	ML-E	5 WB	0	
1430	THST	70									FN		14 7 97	ML-E	5 WB	0	
1431	THST	61									FN		14 7 97	ML-E	5 WB	0	
1432	THST	62									FN		14 7 97	ML-E	5 WB	0	
1433	THST	56									FN		14 7 97	ML-E	5 WB	0	
1434	THST	56									FN		14 7 97	ML-E	5 WB	0	
1435	THST	57									FN		14 7 97	ML-E	5 WB	0	
1436	THST	45									FN		14 7 97	ML-E	5 WB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture			Basin	Location		Cap. Code	Comments
1438	THST	62									FN		14	7	97	ML-E	5	EB	0	
1439	THST	72									FN		14	7	97	ML-E	5	EB	0	
1440	THST	57									FN		14	7	97	ML-E	5	EB	0	
1441	THST	57									FN		14	7	97	ML-E	5	EB	0	
1442	THST	61									FN		14	7	97	ML-E	5	EB	0	
1443	THST	64									FN		14	7	97	ML-E	5	EB	0	
1444	THST	52									FN		14	7	97	ML-E	5	EB	0	
1445	THST	63									FN		14	7	97	ML-E	5	EB	0	
1446	THST	62									FN		14	7	97	ML-E	5	EB	0	
1447	THST	56									FN		14	7	97	ML-E	5	EB	0	
1448	THST	61									FN		14	7	97	ML-E	5	EB	0	
1449	THST	54									FN		14	7	97	ML-E	5	EB	0	
1463	THST	59									FN		15	7	97	ML-E	6	WB	0	
1464	THST	75									FN		15	7	97	ML-E	6	WB	0	
1465	THST	69									FN		15	7	97	ML-E	6	WB	0	
1466	THST	59									FN		15	7	97	ML-E	6	WB	0	
1467	THST	42									FN		15	7	97	ML-E	6	WB	0	
1468	THST	41									FN		15	7	97	ML-E	6	WB	0	
1469	THST	64									FN		15	7	97	ML-E	6	WB	0	
1470	THST	44									FN		15	7	97	ML-E	6	WB	0	
1471	THST	52									FN		15	7	97	ML-E	6	WB	0	
1472	THST	59									FN		15	7	97	ML-E	6	WB	0	
1478	THST	70									FN		15	7	97	ML-E	6	EB	0	
1479	THST	71									FN		15	7	97	ML-E	6	EB	0	
1480	THST	72									FN		15	7	97	ML-E	6	EB	0	
1481	THST	65									FN		15	7	97	ML-E	6	EB	0	
1482	THST	62									FN		15	7	97	ML-E	6	EB	0	
1483	THST	60									FN		15	7	97	ML-E	6	EB	0	
1484	THST	52									FN		15	7	97	ML-E	6	EB	0	
1485	THST	55									FN		15	7	97	ML-E	6	EB	0	
1486	THST	58									FN		15	7	97	ML-E	6	EB	0	
1487	THST	65									FN		15	7	97	ML-E	6	EB	0	
1488	THST	54									FN		15	7	97	ML-E	6	EB	0	
1489	THST	49									FN		15	7	97	ML-E	6	EB	0	
1490	THST	42									FN		15	7	97	ML-E	6	EB	0	
1491	THST	45									FN		15	7	97	ML-E	6	EB	0	
1497	THST	62									FN		15	7	97	ML-E	7	WB	0	
1498	THST	62									FN		15	7	97	ML-E	7	WB	0	
1499	THST	66									FN		15	7	97	ML-E	7	WB	0	
1500	THST	38									FN		15	7	97	ML-E	7	WB	0	
1501	THST	71									FN		15	7	97	ML-E	7	WB	0	
1502	THST	60									FN		15	7	97	ML-E	7	WB	0	
1503	THST	51									FN		15	7	97	ML-E	7	WB	0	
1504	THST	59									FN		15	7	97	ML-E	7	WB	0	
1505	THST	72									FN		15	7	97	ML-E	7	WB	0	
1506	THST	62									FN		15	7	97	ML-E	7	WB	0	
1507	THST	42									FN		15	7	97	ML-E	7	WB	0	
1508	THST	41									FN		15	7	97	ML-E	7	WB	0	
1509	THST	49									FN		15	7	97	ML-E	7	WB	0	
1510	THST	40									FN		15	7	97	ML-E	7	WB	0	
1511	THST	52									FN		15	7	97	ML-E	7	WB	0	
1512	THST	33									FN		15	7	97	ML-E	7	WB	0	
1513	THST	70									FN		15	7	97	ML-E	7	WB	0	
1514	THST	41									FN		15	7	97	ML-E	7	WB	0	
1515	THST	58									FN		15	7	97	ML-E	7	WB	0	
1518	THST	56									FN		15	7	97	ML-E	7	EB	0	
1519	THST	51									FN		15	7	97	ML-E	7	EB	0	
1520	THST	53									FN		15	7	97	ML-E	7	EB	0	
1521	THST	55									FN		15	7	97	ML-E	7	EB	0	
1522	THST	60									FN		15	7	97	ML-E	7	EB	0	
1523	THST	53									FN		15	7	97	ML-E	7	EB	0	
1524	THST	43									FN		15	7	97	ML-E	7	EB	0	
1525	THST	40									FN		15	7	97	ML-E	7	EB	0	
1544	THST	67									FN		16	7	97	ML-E	8	EB	0	
1545	THST	57									FN		16	7	97	ML-E	8	EB	0	
1546	THST	39									FN		16	7	97	ML-E	8	EB	0	
1547	THST	39									FN		16	7	97	ML-E	8	EB	0	
1548	THST	37									FN		16	7	97	ML-E	8	EB	0	
1549	THST	64									FN		16	7	97	ML-E	8	EB	0	
1550	THST	57									FN		16	7	97	ML-E	8	EB	0	
1551	THST	43									FN		16	7	97	ML-E	8	EB	0	
1552	THST	44									FN		16	7	97	ML-E	8	EB	0	
1553	THST	33									FN		16	7	97	ML-E	8	EB	0	
1554	THST	47									FN		16	7	97	ML-E	8	EB	0	
1555	THST	42									FN		16	7	97	ML-E	8	EB	0	
1556	THST	33									FN		16	7	97	ML-E	8	EB	0	
1557	THST	54									FN		16	7	97	ML-E	8	EB	0	
1558	THST	44									FN		16	7	97	ML-E	8	EB	0	
1559	THST	34									FN		16	7	97	ML-E	8	EB	0	
1560	THST	28									FN		16	7	97	ML-E	8	EB	0	
1561	THST	55									FN		16	7	97	ML-E	8	EB	0	
1562	THST	29									FN		16	7	97	ML-E	8	EB	0	
1563	THST	39									FN		16	7	97	ML-E	8	EB	0	
1564	THST	56									FN		16	7	97	ML-E	8	EB	0	
1565	THST	60									FN		16	7	97	ML-E	8	EB	0	
1566	THST	61									FN		16	7	97	ML-E	8	EB	0	
1567	THST	58									FN		16	7	97	ML-E	8	EB	0	
1568	THST	54									FN		16	7	97	ML-E	8	EB	0	
1580	THST	39									FN		16	7	97	ML-E	9	EB	0	

Table C20 (cont'd). Raw data for fish captured in the Meliadine Study Area, 1997.

Sample No.	Species	Fork Length (mm)	Weight (g)	Sex	Age Meth	Age (yr)	Floy Tag No.	Radio Tag Ch.	Radio Tag Cod	Fin Clip	Capture Method	Mesh (in)	Date of Capture	Basin	Location	Cap. Code	Comments
1581	THST	45									FN		16 7 97	ML-E	9 EB	0	
1582	THST	70									FN		16 7 97	ML-E	9 EB	0	
1583	THST	63									FN		16 7 97	ML-E	9 EB	0	
1584	THST	70									FN		16 7 97	ML-E	9 EB	0	
1585	THST	66									FN		16 7 97	ML-E	9 EB	0	
1586	THST	58									FN		16 7 97	ML-E	9 EB	0	
1587	THST	49									FN		16 7 97	ML-E	9 EB	0	
1588	THST	53									FN		16 7 97	ML-E	9 EB	0	
1589	THST	57									FN		16 7 97	ML-E	9 EB	0	
1590	THST	67									FN		16 7 97	ML-E	9 EB	0	
1591	THST	44									FN		16 7 97	ML-E	9 EB	0	
1592	THST	76									FN		16 7 97	ML-E	9 EB	0	
1593	THST	61									FN		16 7 97	ML-E	9 EB	0	
1594	THST	48									FN		16 7 97	ML-E	9 EB	0	
1595	THST	57									FN		16 7 97	ML-E	9 EB	0	
1596	THST	66									FN		16 7 97	ML-E	9 EB	0	
1597	THST	59									FN		16 7 97	ML-E	9 EB	0	
1598	THST	66									FN		16 7 97	ML-E	9 EB	0	
1599	THST	58									FN		16 7 97	ML-E	9 EB	0	
1600	THST	46									FN		16 7 97	ML-E	9 EB	0	
1601	THST	47									FN		16 7 97	ML-E	9 EB	0	
1602	THST	60									FN		16 7 97	ML-E	9 EB	0	
1603	THST	54									FN		16 7 97	ML-E	9 EB	0	
1604	THST	51									FN		16 7 97	ML-E	9 EB	0	
1605	THST	58									FN		16 7 97	ML-E	9 EB	0	
1606	THST	46									FN		16 7 97	ML-E	9 EB	0	
1607	THST	38									FN		16 7 97	ML-E	9 EB	0	
1608	THST	38									FN		16 7 97	ML-E	9 EB	0	
1609	THST	55									FN		16 7 97	ML-E	9 EB	0	
1610	THST	45									FN		16 7 97	ML-E	9 EB	0	
2109	THST	62									EF		19 7 97	B	1 - 2	0	
2129	THST	55									EF		19 7 97	B	0 - 1	0	
2180	THST	55									EF		21 7 97	A	0 - 1	0	
2182	THST	62									EF		21 7 97	A	0 - 1	0	
2183	THST	44									EF		21 7 97	A	0 - 1	0	
2184	THST	59									EF		21 7 97	A	0 - 1	0	
2185	THST	45									EF		21 7 97	A	0 - 1	0	
2237	THST	32									EF		24 7 97	D	0 - 1	0	
2238	THST	29									EF		24 7 97	D	0 - 1	0	
2239	THST	55									EF		24 7 97	D	0 - 1	0	
2251	THST	70									EF		26 7 97	D	1 - 2	0	
2252	THST	62	2								EF		26 7 97	D	1 - 2	0	

Explanation of Codes:

Species: For a list of species codes see Table 2.4

Sex:
1 = male; immature, never spawned before and will not spawn during the coming season
4 = male; definite gonad development, has spawned before
5 = male; definite gonad development, has spawned before but will not spawn during the coming season
7 = male; gravid, fully developed
8 = male; ripe, milt is extruded by slight pressure on the belly
10 = male; determined by external characteristics
11 = female; immature, never spawned before and will not spawn during the coming season
12 = female; maturity questionable due to small gonad size
14 = female; definite gonad development, has spawned before
15 = female; definite gonad development, has spawned before but will not spawn during the coming season
17 = female; gravid, fully developed
18 = female; ripe, roe are extruded by slight pressure on the belly
20 = female; determined by external characteristics

Ageing methods:
Sc = scales
FR = fin rays
Ot = otoliths

Capture method:
EF = backpack electrofishing
FN = fyke net
GN = gill net
AF = angling (using flies)
AL = angling (using lures)
CR = creel (sampled from fisherman's catch
TU = fish fence for upstream migrants
FD = found dead
TR = tag return

Capture codes:
0 = first capture, released
1 = first capture, sacrificed
2 = recapture, released
3 = recapture, sacrificed

Table C21. Floy tag recapture data for the Meliadine Study Area, Jul-Nov 1997.

Fish Capture and Tag Application Data										Tag Recapture Data								
								Release Location							Recapture Location			
Sample No.	Species	Fork Length (mm)	Weight (g)	Floy Tag No.	Capture Method[1]	Date	Basin	Easting (15V)	Northing (15V)	Sample No.	Capture Method[1]	Date	Capture Code[2]	Basin	Easting (15V)	Northing (15V)	Days at Large	Distance Moved (km)
2272	ARCH	437	1010	7077	GN	26-Jun-97	D1	533000	6989500	4438	GN	20-Aug-97	2	D1	533000	6989500	55	0.0
4426	ARCH	482		7048	GN	19-Aug-97	D1	533000	6989500	4443	GN	20-Aug-97	3	D1	533000	6989500	1	0.0
4434	ARCH	340	458	7046	GN	20-Aug-97	D1	533000	6989500	4494	GN	27-Aug-97	2	D1	533000	6989500	7	0.0
4435	ARCH	258	210	7047	GN	20-Aug-97	D1	533000	6989500	4495	GN	27-Aug-97	2	D1	533000	6989500	7	0.0
4458	ARCH	470	1228	7062	GN	21-Aug-97	D1	533000	6989500	4492	GN	27-Aug-97	2	D1	533000	6989500	6	0.0
4459	ARCH	400	820	7034	GN	21-Aug-97	D1	533000	6989500	4493	GN	27-Aug-97	2	D1	533000	6989500	6	0.0
5069	ARCH	581		7680	TU	18-Aug-97	MR-L	544600	6971600	6213	TR	02-Nov-97	3	LML	539200	6977200	76	8.8
5102	ARCH	619		7714	TU	18-Aug-97	MR-L	544600	6971600	6219	TR	14-Oct-97	3	ML-S	528000	6992700	57	45.0
5121	ARCH	622	3155	7658	TU	19-Aug-97	MR-L	544600	6971600	6214	TR	02-Nov-97	3	LML	539200	6977200	75	9.3
5129	ARCH	652	3665	7666	TU	19-Aug-97	MR-L	544600	6971600	6201	TR	26-Sep-97	3	LML	538200	6977200	38	9.5
5148	ARCH	624	2855	7735	TU	19-Aug-97	MR-L	544600	6971600	6203	TR	25-Aug-97	3	LML	537300	6977850	6	11.1
5219	ARCH	625	2975	8179	TU	20-Aug-97	MR-L	544600	6971600	6202	TR	25-Aug-97	3	LML	537300	6977850	5	10.6
5201	ARCH	530	1870	7161	TU	20-Aug-97	MR-L	544600	6971600	6210	TR	16-Sep-97	3	ML-S	531650	6989300	27	40.0
5179	ARCH	583	2285	7189	TU	20-Aug-97	MR-L	544600	6971600	6212	TR	26-Sep-97	3	LML	538200	6977200	37	10.0
5180	ARCH	559	1875	7190	TU	20-Aug-97	MR-L	544600	6971600	6205	TR	05-Sep-97	3	LML	539000	6976850	16	8.7
5196	ARCH	592	2615	7156	TU	20-Aug-97	MR-L	544600	6971600	6216	TR	23-Sep-97	3	LML	537200	6977800	34	11.0
5260	ARCH	569	2345	7220	TU	20-Aug-97	MR-L	544600	6971600	6218	TR	10-Oct-97	3	ML-S	532500	6989500	51	41.0
5424	ARCH	564		7369	TU	23-Aug-97	MR-L	544600	6971600	6217	TR	10-Oct-97	3	ML-S	532500	6989500	48	41.0
5430	ARCH	541		7372	TU	23-Aug-97	MR-L	544600	6971600	6207	TR	12-Sep-97	3	LML	538400	6977500	20	10.1
5503	ARCH	597		7895	TU	24-Aug-97	MR-L	544600	6971600	6209	TR	16-Sep-97	3	ML-S	531650	6989300	23	40.0
5594	ARCH	418		7861	TU	25-Aug-97	MR-L	544600	6971600	6206	TR	07-Sep-97	3	ML-S	531650	6989300	13	40.0
5669	ARCH	378		7561	TU	25-Aug-97	MR-L	544600	6971600	6211	TR	26-Sep-97	3	LML	538200	6977200	32	9.5
5697	ARCH	578		7539	TU	26-Aug-97	MR-L	544600	6971600	6220	TR	14-Oct-97	3	ML-S	528000	6992700	49	45.0
5717	ARCH	547		4483	TU	26-Aug-97	MR-L	544600	6971600	6204	TR	29-Aug-97	3	LML	537600	6978200	3	10.6
5929	ARCH *	673	3210	7491	TU	29-Aug-97	MR-L	544600	6971600	6215	TR	23-Sep-97	3	LML	537200	6977800	25	11.0
5955	ARCH *	463	1315	7016	TU	30-Aug-97	MR-L	544600	6971600	6208	TR	12-Sep-97	3	LML	538400	6977500	13	9.6
807	ARGR	329	364	6376	EF	22-Jun-97	B1	537350	6985650	4477	GN	26-Aug-97	2	B2	537400	6986500	65	0.9
1526	ARGR	360	578	6823	FN	16-Jul-97	ML-E	542100	6988700	1611	FN	17-Jul-97	2	ML-E	542100	6988700	1	0.0
1667	ARGR	382	590	6842	FN	17-Jul-97	ML-E	542100	6988700	4071	FN	23-Jul-97	2	ML-E	542100	6988700	6	0.0
4016	LKTR	692	4200	6423	AL	21-Jul-97	ML-E	542100	6988700	4024	FN	22-Jul-97	2	ML-E	542100	6988700	1	0.0

[1] Capture Methods:
FN = fyke net
GN = gill net
AL = angling (using lures)
EF = backpack electrofishing
TU = fish fence for upstream migrants
TR = tag return

[2] Capture Codes:
2 = released after recapture
3 = sacrificed

* also implanted with a radio transmitter

Table C22. Radio tagged fish in the Meliadine Study Area and tracking results, Jul - Oct 1997.

Fish No.	Species	Fork Length (mm)	Floy Tag #	Radio Tag Ch.	Radio Tag Code	Release Date (1997)	Release Location Basin	Release Location Easting (15V)	Release Location Northing (15V)	Tracked 21-23 Jul 97 Basin	Tracked 21-23 Jul 97 Easting (15V)	Tracked 21-23 Jul 97 Northing (15V)	Tracked 29 Jul 97 Basin	Tracked 29 Jul 97 Easting (15V)	Tracked 29 Jul 97 Northing (15V)	Tracked 17 Aug 97 Basin	Tracked 17 Aug 97 Easting (15V)	Tracked 17 Aug 97 Northing (15V)	Tracked 1 Sep 97 Basin	Tracked 1 Sep 97 Easting (15V)	Tracked 1 Sep 97 Northing (15V)	Tracked 14 Sep 97 Basin	Tracked 14 Sep 97 Easting (15V)	Tracked 14 Sep 97 Northing (15V)	Tracked 26-27 Sep 97 Basin	Tracked 26-27 Sep 97 Easting (15V)	Tracked 26-27 Sep 97 Northing (15V)	Tracked 24-25 Oct 97 Basin	Tracked 24-25 Oct 97 Easting (15V)	Tracked 24-25 Oct 97 Northing (15V)
4488	ARCH	577	7066	20	52	27-Aug	D1	533300	6989500										D1	533000	6989500	D1	533000	6989500	D1	533000	6989500	D1	533000	6989500
4487	ARCH	504	7061	20	53	27-Aug	D1	533300	6989500										D1	533000	6989500	D1	533000	6989500	D1	533000	6989500	D1	533000	6989500
4490	ARCH	530	7060	20	65	27-Aug	D1	533300	6989500										D1	533000	6989500	D1	533000	6989500	D1	533000	6989500	D1	533000	6989500
4458	ARCH	470	7062	20	67	21-Aug	D1	533300	6989500										D1	533000	6989500	D1	533000	6989500	D1	533000	6989500	D1	533000	6989500
4441	ARCH	530	7040	21	72	20-Aug	D1	533300	6989500										D1	533000	6989500	D1	533000	6989500				D1	533000	6989500
4444	ARCH	405	7039	21	82	21-Aug	D1	533300	6989500										D1	533000	6989500	D1	533000	6989500	D1	533000	6989500	D1	533000	6989500
4459	ARCH	400	7034	21	83	21-Aug	D1	533300	6989500										D1	533000	6989500	D1	533000	6989500	D1	533000	6989500	D1	533000	6989500
4456	ARCH	494	7036	21	93	21-Aug	D1	533300	6989500										D1	533000	6989500	D1	533000	6989500	D1	533000	6989500	D1	533000	6989500
6009	ARCH	571	7115	20	51	31-Aug	MR-L	544600	6971600										MR-L	543100	6972950	MR-L	540200	6976000	LML	539300	6977000	LML	539300	6977000
5990	ARCH	523	6875	20	56	31-Aug	MR-L	544600	6971600										LML	539300	6976800	MR-L	540250	6976000	LML	538800	6977750	LML	538800	6977750
5977	ARCH	494	6863	20	57	30-Aug	MR-L	544600	6971600																LML	538200	6977700	LML	538200	6977700
5956	ARCH	438	7017	20	58	30-Aug	MR-L	544600	6971600																LML	539300	6976800	LML	539300	6976800
5991	ARCH	497	7004	20	60	31-Aug	MR-L	544600	6971600																			LML	539100	6977000
5955	ARCH *	463	7016	20	62	30-Aug	MR-L	544600	6971600													LML	539300	6976800	*			*		
6078	ARCH	600	7625	20	62	28-Sep	LML	536550	6979300																					
5954	ARCH	476	7015	20	64	30-Aug	MR-L	544600	6971600										LML	539700	6976750	LML	540300	6976000	LML	536750	6978850	LML	536750	6978850
5996	ARCH	457	7103	20	71	31-Aug	MR-L	544600	6971600										MR-L	542500	6973250	LML	539150	6977050	LML	536150	6979550	LML	536150	6979550
6026	ARCH	602	7634	21	73	01-Sep	MR-L	544600	6971600													LML	538250	6978100	LML	536300	6979500	LML	536300	6979500
5016	ARCH	508	6310	21	74	17-Aug	MR-L	544600	6971600										LML	539500	6976750				LML	536350	6979300	LML	536350	6979300
5929	ARCH**	673	7491	21	75	29-Aug	MR-L	544600	6971600										MR-L	543400	6972200	LML	535900	6979800	**			**		
5930	ARCH	560	7492	21	76	29-Aug	MR-L	544600	6971600										LML	536100	6979700				LML	537050	6978800	LML	537050	6978800
6014	ARCH	537	7120	21	80	01-Sep	MR-L	544600	6971600										MR-L	543600	6972000	LML	536300	6979300						
5015	ARCH	501	6308	21	87	17-Aug	MR-L	544600	6971600										LML	536400	6979100	LML	537300	6978850	LML	536250	6979100	LML	536250	6979100
6025	ARCH	542	7633	21	88	01-Sep	MR-L	544600	6971600													MR-L	540350	6976000	LML	539700	6976800	LML	539700	6976800
6044	ARCH	543	7601	21	90	02-Sep	MR-L	544600	6971600																			LML	538567	6977450
5978	ARCH	460	6864	21	91	30-Aug	MR-L	544600	6971600										MR-L	539900	6976300	LML	539050	6977300	LML	536300	6979500	LML	536300	6979500
5063	ARCH	592	6307	21	92	18-Aug	MR-L	544600	6971600										MR-L	540600	6974900	MR-L	540550	6974950				LML	539000	6977000
932	ARGR	354	6359	22	36	14-Jul	A6	541900	6985300	A6	541700	6985450	A6	542250	6986050	A6	541800	6985400	A6	541900	6985700	A6	541600	6985400	A6	542000	6985800	A6	541876	6985900
933	ARGR	361	6360	23	39	14-Jul	A6	541900	6985300	A6	541750	6985500	A6	541700	6985550	A6	542000	6985900	A6	542100	6985800	A6	541800	6985600	A6	541800	6985400	A6	541800	6985400
871	ARGR	321	6354	22	32	13-Jul	A8	540850	6986800	A8	540700	6986900	A8	540650	6987000	A8	540550	6986950	A8	540250	6987100	A8	540350	6987050				A8	540500	6987000
873	ARGR	414	6356	22	33	13-Jul	A8	540850	6986800	A8	540650	6986850	A8	540750	6986800	A8	540650	6986900	A8	540500	6987200	A8	540550	6987100	A8	540500	6986600	A8	540500	6986950
870	ARGR	311	6352	23	43	13-Jul	A8	540850	6986800	A8	540650	6986550	A8	540350	6986700	A8	540450	6987000	A8	540250	6987000	A8	540550	6987100	A8	540400	6987000	A8	540400	6987000
872	ARGR	375	6355	23	44	13-Jul	A8	540850	6986800	A8	540650	6986950	A8	540400	6987250	A8	540500	6987300	A8	540400	6987400	A8	540500	6987400	A8	540500	6987300	A8	540500	6987300
241	ARGR	308	6335	22	29	16-Jun	B2	537750	6986800				ML-W	528100	6996150	ML-W	527350	6996750	ML-W	527700	6996550	ML-W	531900	6999400	ML-W	532300	6999500	ML-W	529110	7000100
240	ARGR	382	6334	23	47	16-Jun	B2	537750	6986800	B4	538650	6986900	ML-S	530600	6991750	ML-S	530800	6991250				ML-S	531300	6989500	ML-S	535700	6986900	ML-S	535000	6986800
983	ARGR	394	6367	22	38	15-Jul	B5	538700	6987700	B5	538400	6987800	B5	538400	6987850	B5	538350	6987750	B5	538550	6987700	B5	538400	6987950	B5	538300	6988000	B5	538300	6988000
982	ARGR	387	6366	23	48	15-Jul	B5	538700	6987700	B5	538350	6987900	B5	538400	6987700	B5	538450	6987650	B5	538400	6987750	B5	538600	6987750	B5	538500	6987700			
2030	ARGR	334	6373	23	41	17-Jul	B5	537300	6988750	B5	538400	6987750	B5	537600	6988500	B5	537500	6988600	B5	537400	6988700	B5	537900	6988400	B5	537800	6988500	B5	537800	6988500
311	ARGR	341	6338	22	28	17-Jun	B7	537950	6989200	B7	538050	6989500	B7	537900	6989350	B7	538300	6989100	B7	538000	6989300	B7	538400	6989100	B7	538600	6988900	B7	538600	6988900
312	ARGR	339	6339	23	42	17-Jun	B7	537950	6989200	B7	538200	6989250	B7	538350	6989050	B7	538250	6989150	B7	538300	6989100	B7	538600	6989000	B7	538500	6989050	B7	538500	6989050
313	ARGR	331	6340	23	45	17-Jun	B7	537950	6989200	B7	538150	6989250	B7	538150	6989200	B7	538200	6989250	B7	538450	6988950	B7	538650	6988900	B7	538250	6989250	B7	538250	6989250
526	ARGR	353	6342	22	30	18-Jun	D1	533400	6989400	ML-S	532200	6990000	ML-S	531300	6990800	ML-S	532100	6990300				ML-S	532500	6988950	ML-S	533700	6987850	ML-S	532236	6989500
525	ARGR	321	6341	23	46	18-Jun	D1	533400	6989400	D1	533150	6989500	ML-S	532500	6988900	ML-S	532700	6989000				ML-S	531900	6989200	ML-S	533100	6988500	ML-S	532856	6989175
2031	ARGR	303	6374	22	37	17-Jul	D7	536100	6988750	D7	536350	6989250	D7	536200	6988750	D7	536150	6988700	D7	536200	6988700	D7	536350	6988850	D7	536250	6988750	D7	536250	6988750
2073	ARGR	314	6408	23	49	19-Jul	D7	536100	6988750	D7	536450	6988750	D7	536500	6988700	ML-S	533100	6991000										ML-S	533323	6991000
2072	ARGR	293	6407	22	34	19-Jul	D7	536400	6988550	D7	536200	6988700	D7	536400	6988650	D7	536700	6988700	D7	536400	6988900	D7	536300	6988800	D7	536500	6989100	D7	536636	6988650
530	LKTR	540	6346	21	89	18-Jun	D1	533400	6989400							MR-U	530550	6989250							ML-S	532600	6989800	ML-S	532843	6988100
1437	LKTR	845	6812	20	50	14-Jul	ML-E	542050	6988650	ML-E	547950	6983200	ML-E	547000	6984100				ML-E	544000	6987000	ML-E	543700	6987400				ML-E	543582	6987550
1579	LKTR	572	6835	20	54	16-Jul	ML-E	542050	6988650							ML-C	538400	6991250	ML-C	538900	6991150	ML-C	538700	6991100				ML-C	538854	6992500
3743	LKTR	568	6887	20	69	20-Jul	ML-E	542050	6988650	ML-E	540650	6989950				ML-E	546050	6989700	ML-E	546200	6989400	ML-E	546300	6989300	ML-E	545900	6989700	ML-E	545000	6990500
3269	LKTR	656	6878	20	70	19-Jul	ML-E	542050	6988650	ML-E	545800	6986950	ML-E	546000	6989750	ML-E	545150	6990300	ML-E	545400	6989950				ML-E	544100	6990900	ML-E	544100	6990900
4016	LKTR	692	6423	21	77	21-Jul	ML-E	542050	6988650							ML-W	528000	7000250	ML-W	528850	6999100	ML-S	530400	6993200	ML-W	528050	6998100	ML-W	530923	6996100
1496	LKTR	682	6822	21	79	15-Jul	ML-E	542050	6988650							ML-E	541900	6989400	ML-E	544300	6986500							ML-E	545623	6989900
3744	LKTR	552	6888	21	81	20-Jul	ML-E	542050	6988650	ML-E	545000	6988400	ML-E	546050	6986400	ML-E	543600	6987800	ML-E	546100	6990200	ML-E	545000	6986900	ML-E	545200	6986600	ML-E	545200	6986600
3742	LKTR	532	6886	21	85	20-Jul	ML-E	542050	6988650	ML-E	541600	6990150	ML-E	541800	6989400				ML-W	526700	6998100									
4010	LKTR	550	6417	20	59	21-Jul	ML-E	546500	6985300	ML-E	546100	6985600	ML-E	546200	6985300	ML-E	546000	6985800	ML-E	546600	6985100	ML-E	545900	6985850	ML-E	545950	6985500	ML-E	545950	6985500
4013	LKTR	770	6420	21	78	21-Jul	ML-E	546300	6985500	ML-E	546600	6985000				ML-E	547500	6983950	ML-E	547500	6983900				ML-E	547500	6983700			
2178	LKTR	594	6414	20	66	20-Jul	MR-U	530650	6989250										MR-U	526700	6990100	MR-U	526950	6987300	MR-U	527000	6988800	MR-U	527000	6988800
765	LKTR	578	6349	21	84	21-Jun	MR-U	530650	6989250				MR-U	527700	6986900	MR-U	528550	6986400	MR-U	528950	6986100	MR-U	529000	6986050	MR-U	526400	6988100	MR-U	526400	6988100

* captured by local fishermen in Little Meliadine Lake on 15 Sep 97; radio tag was redeployed in fish # 6078 on 28 Sep 97

** captured by local fishermen in Little Meliadine Lake on 23 Sep 97

Table C23. Detection limits and metal concentrations (in µg/g on dry weight basis) in preparation blanks and Certified Reference Materials (CRM) for the analysis of fish tissues from the Meliadine Study Area, 1997.

Constituent	Detection Limit	Preparation Blank #1	Preparation Blank #2	CRM NBS 1566A		CRM DORM-2	
				Lab Value	Certified Value ± 95% C.I.	Lab Value	Certified Value ± 95% C.I.
Aluminium	1	<1	<1	165	202.5 ± 12.5	10	10.9 ± 1.7
Antimony	0.1	<0.1	<0.1	0.1		<0.1	
Arsenic	0.05	<0.05	<0.05	17.20	14.0 ± 1.2	16.80	18.0 ± 1.1
Barium	0.01	<0.01	<0.01	3.18		2.97	
Beryllium	0.05	<0.05	<0.05	<0.05		<0.05	
Boron	0.5	<0.5	<0.5	9.0		1.7	
Cadmium	0.05	<0.05	<0.05	4.08	4.15 ± 0.38	<0.05	0.043 ± 0.008
Calcium	0.5	1.6	<0.5	1930	1960 ± 190	200	
Chromium	0.5	<0.5	<0.5	2.0	1.43 ± 0.46	33.1	34.7 ± 5.5
Cobalt	0.05	<0.05	<0.05	0.58	0.57 ± 0.11	0.17	0.182 ± 0.031
Copper	0.05	<0.05	<0.05	79.80	66.3 ± 4.3	2.39	2.34 ± 0.16
Iron	1	<1	<5	625	539 ± 15	110	142 ± 10
Lead	0.05	<0.05	<0.05	0.36	0.371 ± 0.014	<0.2	0.065 ± 0.007
Magnesium	0.5	<0.5	0.1	842	1180 ± 170	759	
Manganese	0.05	<0.05	<0.05	13.00	12.3 ± 1.5	2.77	3.66 ± 0.34
Mercury	0.005	<0.005	<0.005	0.09	0.0642 ± 0.0067	3.87	4.64 ± 0.26
Molybdenum	0.1	<0.1	<0.1	11.3		0.2	
Nickel	0.1	<0.1	<0.1	2.3	2.25 ± 0.44	14.1	19.4 ± 3.1
Phosphorus	10	<10	<10	5110.00	6230 ± 180	6360.00	
Potassium	0.5	<10	<0.5	7180	7900 ± 470	12000	
Silver	0.01	<0.01	<0.01	1.92	1.68 ± 0.15	0.04	0.041 ± 0.013
Sodium	0.5	<0.5	<0.5	3340.00	4170 ± 130	3670.00	
Strontium	0.01	<0.01	<0.01	11.90	11.1 ± 1.0	1.90	
Tin	0.1	<0.1	<0.1	3.3		<0.1	0.023
Titanium	0.1	<0.1	<0.1	266.00		1.30	
Vanadium	0.5	<0.5	<0.5	9.3	4.68 ± 0.15	0.9	
Zinc	0.05	<0.05	<0.05	789.0	830 ± 57	24.6	25.6 ± 2.3

Table C24. Metal concentrations (in µg/g on dry weight basis) in Arctic charr muscle tissue samples collected in the Meliadine Study Area, 1997.

Constituent	Fish Number / Fork Length (mm) / Age (years)																		
	5300	5337	5338	5339	5340	5341	5342	5343	6051	6051*	6052	6053	6054	6055	6069	6074	6085	6086	6087
	533	*535*	*636*	*535*	*540*	*557*	*548*	*540*	*648*	*648*	*600*	*605*	*485*	*534*	*545*	*578*	*547*	*570*	*554*
	8	7	8	6	8	9	6	7	9	9	6	8	5	8	7	8	6	8	7
Aluminium	<1	<1	<1	<1	<1	<1	<1	<1	<1	6	<1	<1	<1	<1	1	<1	<1	<1	<1
Antimony	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	1.3	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
Arsenic	2.24	2.64	3.79	2.66	3.87	3.13	4.06	2.84	7.32	5.06	2.49	2.63	7.20	4.42	3.10	4.19	3.12	4.70	4.61
Barium	0.08	1.14	0.11	0.20	0.09	0.06	0.05	0.07	0.03	0.26	0.04	0.04	0.05	<0.01	0.07	0.02	<0.01	0.06	<0.01
Beryllium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	1.2	1.8	1.0	1.6	1.6	1.2	2.2	1.7	1.5	1.3	1.0	1.7	1.2	1.0	1.8	1.3	0.7	0.7	0.8
Cadmium	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	0.06	<0.05	<0.05	0.06	<0.05	<0.05	0.09	0.08	<0.05	<0.05	<0.05
Calcium	827	2770	1630	6260	2810	2440	2840	2180	3410	3970	606	1180	1200	805	1670	500	1180	1330	213
Chromium	2.1	3.8	2.4	3.9	3.5	4.2	8.0	6.1	2.4	3.3	1.5	4.1	2.7	2.4	3.9	2.5	2.1	3.1	3.1
Cobalt	<0.05	0.39	<0.05	0.28	0.34	0.33	0.20	0.07	0.25	0.08	0.08	<0.05	<0.05	<0.05	0.42	<0.05	<0.05	<0.05	<0.05
Copper	2.45	2.16	1.37	2.26	2.82	2.23	2.54	2.33	2.49	3.07	1.46	2.33	1.87	1.56	2.86	2.07	2.60	1.47	1.09
Iron	78	125	70	104	73	94	236	122	93	116	41	75	58	46	90	30	20	29	25
Lead	0.08	0.32	0.07	0.42	<0.05	0.07	2.94	0.24	<0.05	0.06	<0.05	2.76	0.08	0.18	<0.05	<0.2	<0.2	<0.2	<0.3
Magnesium	663	940	1180	574	620	625	687	658	635	695	736	593	745	667	635	976	985	910	919
Manganese	0.24	0.36	0.27	0.54	0.45	0.26	0.39	0.37	0.28	0.43	0.19	0.33	0.27	0.21	0.39	0.31	0.17	0.22	0.21
Mercury	0.312	0.056	0.176	<0.005	0.088	0.080	0.080	<0.005	<0.005	<0.005	0.272	<0.005	<0.005	<0.005	<0.005	0.121	<0.005	0.495	0.484
Molybdenum	2.6	3.0	1.2	0.8	2.8	2.5	4.4	3.3	2.6	3.8	1.2	<0.3	2.9	1.9	1.6	<0.1	<0.1	<0.1	<0.1
Nickel	0.2	0.6	0.3	2.4	0.6	2.3	0.7	0.6	0.4	0.3	0.1	0.1	0.2	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Phosphorus	1590	5950	3600	2340	2520	3310	3860	4440	4180	5290	5400	4440	5030	5160	5050	10100	9040	8670	8460
Potassium	6260	7460	9070	6210	7240	8320	9130	9670	9720	10400	11900	9020	11000	10300	10300	14500	16800	23600	18000
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01
Sodium	679	729	1270	588	748	835	1020	1160	1020	1320	1260	1010	1090	1120	1020	1060	1020	891	1130
Strontium	0.58	4.56	1.99	10.50	4.50	4.09	2.52	2.34	0.54	n.d.	0.35	0.42	1.07	0.35	1.03	1.58	1.36	2.97	0.24
Tin	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.4	0.2	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	12.2	17.7	12.4	16.3	16.7	13.5	21.7	17.0	17.0	18.0	11.6	14.2	14.8	12.1	22.2	1.3	1.3	1.3	1.3
Vanadium	0.7	1.1	0.7	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	<0.5	0.6	1.1	0.5	0.5	<0.5	0.5	<0.5	<0.5	<0.5
Zinc	9.7	12.6	7.3	15.0	15.9	14.5	19.4	19.7	11.6	16.9	11.9	10.9	8.1	6.1	19.4	12.8	12.5	11.9	12.4
% Moisture	*71.0*	*70.4*	*67.6*	*65.1*	*68.4*	*68.5*	*68.6*	*66.6*	*68.1*	*68.1*	*71.5*	*64.4*	*70.1*	*66.1*	*68.9*	*75.0*	*74.5*	*82.2*	*75.7*

* duplicate sample (for QA/QC) n.d. = not determined

Table C25. Metal concentrations (in µg/g on dry weight basis) in Arctic charr liver tissue samples collected in the Meliadine Study Area, 1997.

Constituent	Fish Number / Fork Length (mm) / Age (years)																			
	5300	5337	5338	5339	5340	5341	5342	5343	6051	6051*	6052	6053	6054	6055	6069	6074	6074*	6085	6086	6087
	533	*535*	*636*	*535*	*540*	*557*	*548*	*540*	*648*	*648*	*600*	*605*	*485*	*534*	*545*	*578*	*578*	*547*	*570*	*554*
	8	7	8	6	8	9	6	7	9	9	6	8	5	8	7	8	8	6	8	7
Aluminium	<1	<1	<1	<1	<1	<1	<1	185	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Antimony	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	3.81	4.59	4.69	4.87	8.28	2.66	3.14	1.84	2.96	2.63	3.32	2.18	3.93	4.54	2.07	1.98	2.17	3.32	6.23	2.74
Barium	0.05	0.04	<0.01	<0.01	0.05	<0.01	<0.01	0.03	0.03	0.11	<0.01	<0.01	0.03	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Beryllium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	0.8	0.8	1.3	0.7	1.3	0.7	0.6	0.7	0.7	1.2	0.9	0.6	0.7	1.1	1.1	0.5	0.6	0.5	0.7	0.6
Cadmium	0.13	0.15	0.38	0.11	0.21	0.20	0.11	0.12	0.17	0.20	0.17	0.14	0.20	0.28	0.21	0.65	0.79	0.41	0.32	0.75
Calcium	610	624	901	618	933	537	493	614	856	878	726	514	577	914	953	728	755	437	571	258
Chromium	2.6	2.9	3.9	2.6	4.7	3.0	2.8	2.7	2.4	2.6	3.5	2.3	2.6	4.1	3.7	2.5	2.3	2.5	2.0	3.1
Cobalt	0.14	0.24	0.50	0.23	0.27	0.12	0.19	0.19	0.23	0.25	0.29	0.11	0.14	0.25	0.27	0.25	0.19	0.32	0.36	0.35
Copper	12.90	5.00	28.50	6.93	36.20	36.50	17.60	13.30	62.70	88.80	38.00	6.24	22.90	29.50	18.00	3.49	4.28	3.24	3.04	3.61
Iron	375	320	745	298	705	369	277	239	636	940	471	391	334	678	455	664	836	293	647	497
Lead	0.45	<0.05	0.07	0.60	0.05	<0.05	0.22	0.26	<0.05	<0.05	<0.05	0.27	0.40	<0.05	<0.05	<0.3	<0.3	<0.3	<0.3	<0.3
Magnesium	214	274	275	253	270	274	213	264	324	316	204	282	316	269	230	872	1010	727	911	832
Manganese	2.21	2.60	3.84	1.94	3.99	2.49	1.54	3.12	2.56	3.91	2.66	2.22	2.40	3.35	3.23	6.29	6.66	4.14	6.01	5.31
Mercury	0.472	0.120	0.184	0.248	0.168	0.136	0.224	0.176	0.352	0.408	0.136	0.128	<0.005	0.144	0.112	0.539	0.407	0.616	0.440	0.484
Molybdenum	9.1	6.5	13.5	8.3	15.5	10.5	6.4	9.0	10.6	11.9	9.4	8.7	9.3	10.6	11.7	0.3	0.3	0.2	0.2	0.2
Nickel	<0.1	<0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phosphorus	3570	3650	3680	3490	3840	4580	3150	4180	4050	4370	3700	3970	4340	4370	3860	15100	16800	12200	15500	15000
Potassium	4030	5080	4570	3940	4200	5450	3480	4840	5670	5560	4310	5250	5780	5400	4270	11000	24400	16000	32800	16700
Silver	0.41	0.12	0.46	0.18	0.88	0.51	0.34	0.23	0.94	1.34	0.60	0.14	0.53	0.56	0.18	<0.01	0.02	0.02	0.01	0.01
Sodium	2760	1710	1990	2210	2080	3000	1550	2670	2400	2360	1830	1840	2280	2680	2040	2160	2350	1570	2090	2130
Strontium	0.15	0.25	0.20	0.10	0.23	0.10	0.09	0.16	0.13	0.16	0.11	0.07	0.11	0.20	0.18	0.24	0.25	0.17	0.22	0.22
Tin	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	8.9	10.7	15.2	8.3	14.9	8.3	6.6	9.3	10.3	15.8	11.2	9.7	9.0	14.2	13.6	1.3	1.8	1.5	1.8	1.6
Vanadium	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	0.6	0.7	0.5	0.7
Zinc	57.6	53.0	86.3	42.4	107.0	62.7	49.5	71.9	76.4	126.0	85.8	47.1	66.3	102.0	82.2	75.2	82.3	67.7	73.6	95.1
% Moisture	*57.5*	*57.8*	*57.9*	*52.7*	*57.8*	*57.9*	*49.9*	*57.6*	*56.2*	*57.2*	*53.7*	*56.3*	*58.2*	*58.3*	*55.1*	*72.1*	*76.1*	*72.1*	*75.1*	*75.0*

* duplicate sample (for QA/QC)

Table C26. Metal concentrations (in µg/g on dry weight basis) in Arctic charr kidney tissue samples collected in the Meliadine Study Area, 1997.

Constituent	Fish Number / Fork Length (mm) / Age (years)																		
	5300	5337	5338	5339	5340	5341	5342	5343	6051	6051*	6052	6053	6054	6055	6069	6074	6085	6086	6087
	533	*535*	*636*	*535*	*540*	*557*	*548*	*540*	*648*	*648*	*600*	*605*	*485*	*534*	*545*	*578*	*547*	*570*	*554*
	8	7	8	6	8	9	6	7	9	9	6	8	5	8	7	8	6	8	7
Aluminium	31	2	<1	2	<1	<1	<1	<1	3	<1	<1	<1	<1	<1	<1	1	<1	2	2
Antimony	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Arsenic	5.12	3.32	3.73	3.19	2.35	0.98	2.64	2.06	3.16	2.61	2.41	4.80	2.63	1.23	2.38	4.11	3.51	5.30	11.60
Barium	0.65	0.19	0.36	0.36	0.14	0.15	0.18	0.28	0.22	0.20	0.33	<0.01	<0.01	0.23	0.36	0.16	0.11	0.20	0.24
Beryllium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	1.9	1.5	1.4	1.4	1.0	0.7	1.1	0.9	1.3	0.8	1.2	1.0	1.3	0.6	1.3	1.0	1.1	1.2	0.8
Cadmium	0.73	0.48	1.75	0.95	0.43	0.56	0.40	0.59	0.88	0.71	0.96	0.52	1.00	0.52	0.94	3.18	1.46	1.41	2.56
Calcium	1180	991	1300	1070	879	777	1030	846	1180	1240	1330	1140	1400	663	1330	847	1370	413	610
Chromium	4.2	3.6	4.5	4.1	3.4	3.1	6.1	3.8	4.5	3.7	5.1	4.3	6.1	2.6	5.9	2.6	3.4	3.2	3.1
Cobalt	1.50	0.77	0.67	1.52	0.94	1.07	1.13	0.51	1.70	1.00	1.68	2.24	1.71	0.64	1.56	0.37	0.43	0.78	0.06
Copper	10.80	5.60	7.32	11.40	4.96	3.25	4.43	7.16	5.52	4.55	10.00	5.96	7.64	9.03	10.40	5.39	4.42	4.92	7.03
Iron	615	586	851	541	480	543	534	332	806	630	820	682	946	361	749	290	316	346	341
Lead	0.63	0.11	0.09	0.20	0.22	0.40	<0.05	1.41	0.10	0.09	0.07	0.15	<0.05	0.08	<0.05	<0.2	<0.3	<0.3	<0.4
Magnesium	598	506	534	690	589	497	575	501	750	741	630	626	529	699	708	735	857	1010	740
Manganese	3.88	2.71	4.12	4.73	2.43	1.72	2.58	2.56	3.28	2.65	4.29	2.87	3.24	2.09	4.24	1.77	1.53	2.43	2.47
Mercury	0.592	0.272	0.736	0.704	0.208	0.304	0.472	0.240	0.160	0.264	0.248	0.048	<0.005	0.240	0.088	0.286	0.572	0.836	0.528
Molybdenum	10.7	7.4	10.8	16.2	6.3	4.5	7.6	8.0	7.8	7.0	10.8	8.4	10.1	8.9	13.0	0.3	0.1	0.2	0.3
Nickel	0.7	0.2	1.0	0.7	0.2	0.2	0.4	0.3	0.6	0.4	0.6	0.4	1.5	0.1	0.5	<0.1	<0.1	<0.1	<0.1
Phosphorus	9710	7140	8020	9260	7650	7510	8700	6800	9310	8120	7380	7090	8200	7510	7940	15400	15800	19700	14000
Potassium	11700	11000	11600	11800	12100	11300	11400	10600	14900	14100	11600	11400	13100	13100	12900	15800	15900	18400	6000
Silver	0.08	0.06	0.02	0.05	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.16	0.03	0.06	0.02	0.04	0.05	0.05	0.10
Sodium	8550	4340	5900	5600	5550	4520	5650	5250	6150	6150	6200	5700	6350	5700	4230	8770	7280	7290	8140
Strontium	1.33	1.26	2.27	1.21	1.47	0.72	1.14	1.01	1.37	1.27	1.19	1.63	0.99	0.47	1.93	2.17	1.41	1.90	1.84
Tin	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	29.7	25.9	25.9	31.9	25.8	15.1	23.4	16.7	32.4	20.9	26.0	27.9	30.2	16.5	31.7	1.9	2.6	2.6	2.2
Vanadium	1.5	1.3	1.7	1.2	0.9	0.9	1.2	0.9	1.4	1.2	1.7	1.3	1.8	1.0	1.9	0.9	1.1	1.1	1.0
Zinc	153.0	106.0	129.0	162.0	129.0	88.7	118.0	90.2	124.0	138.0	176.0	146.0	152.0	90.1	174.0	86.7	93.1	126.0	97.4
% Moisture	*80.3*	*74.2*	*79.5*	*79.4*	*75.1*	*77.8*	*78.2*	*78.5*	*79.1*	*79.1*	*80.1*	*75.7*	*78.7*	*78.4*	*77.5*	*82.4*	*83.0*	*82.2*	*81.9*

* duplicate sample (for QA/QC)

Table C27. Mean metal concentrations (in µg/g on dry weight basis) in Arctic charr tissue samples collected in the Meliadine Study Area, 1997.

Constituent	Muscle (n=18)				Liver (n=18)				Kidney (n=18)			
	Mean[1]	S.D.	n<D.L.[2]	Range	Mean[1]	S.D.	n<D.L.[2]	Range	Mean[1]	S.D.	n<D.L.[2]	Range
Aluminium	**0.53**	0.12	*17*	0.50 - 1.00	**10.75**	43.49	*17*	0.50 - 185	**2.69**	7.11	*11*	0.50 - 31.00
Antimony	**0.14**	0.30	*15*	0.05 - 1.30	**0.08**	0.06	*14*	0.05 - 0.20	**0.06**	0.04	*16*	0.05 - 0.20
Arsenic	**3.83**	1.47	*0*	2.24 - 7.32	**3.73**	1.64	*0*	1.84 - 8.28	**3.58**	2.33	*0*	0.98 - 11.60
Barium	**0.12**	0.26	*3*	0.01 - 1.14	**0.02**	0.02	*12*	0.01 - 0.05	**0.23**	0.15	*2*	0.01 - 0.65
Beryllium	**0.025**	0.000	*18*	0.025 - 0.025	**0.025**	0.000	*18*	0.025 - 0.025	**0.025**	0.000	*18*	0.025 - 0.025
Boron	**1.33**	0.43	*0*	0.70 - 2.20	**0.79**	0.25	*0*	0.50 - 1.30	**1.15**	0.31	*0*	0.60 - 1.90
Cadmium	**0.04**	0.03	*12*	0.03 - 0.13	**0.26**	0.18	*0*	0.11 - 0.75	**1.07**	0.76	*0*	0.40 - 3.18
Calcium	**1881**	1433	*0*	213 - 6260	**659**	192	*0*	258 - 953	**1020**	288	*0*	413 - 1400
Chromium	**3.43**	1.57	*0*	1.50 - 8.00	**2.99**	0.71	*0*	2.00 - 4.70	**4.09**	1.12	*0*	2.60 - 6.10
Cobalt	**0.14**	0.15	*9*	0.03 - 0.42	**0.25**	0.10	*0*	0.11 - 0.50	**1.07**	0.59	*0*	0.06 - 2.24
Copper	**2.11**	0.52	*0*	1.09 - 2.86	**19.31**	16.53	*0*	3.04 - 62.70	**6.96**	2.46	*0*	3.25 - 11.40
Iron	**78**	51	*0*	20 - 236	**466**	170	*0*	239 - 745	**563**	209	*0*	290 - 946
Lead	**0.43**	0.89	*8*	0.03 - 2.94	**0.17**	0.17	*10*	0.03 - 0.60	**0.23**	0.33	*7*	0.03 - 1.41
Magnesium	**764**	175	*0*	574 - 1180	**389**	250	*0*	204 - 911	**654**	136	*0*	497 - 1010
Manganese	**0.30**	0.10	*0*	0.17 - 0.54	**3.33**	1.37	*0*	1.54 - 6.29	**2.94**	0.97	*0*	1.53 - 4.73
Mercury	**0.121**	0.164	*8*	0.003 - 0.495	**0.260**	0.177	*1*	0.003 - 0.616	**0.363**	0.248	*1*	0.003 - 0.836
Molybdenum	**1.73**	1.35	*5*	0.05 - 4.40	**7.78**	4.68	*0*	0.20 - 15.50	**7.30**	4.66	*0*	0.10 - 16.20
Nickel	**0.51**	0.71	*4*	0.05 - 2.40	**0.09**	0.06	*13*	0.05 - 0.20	**0.42**	0.39	*4*	0.05 - 1.50
Phosphorus	**5174**	2432	*0*	1590 - 10100	**6235**	4576	*0*	3150 - 15500	**9840**	3744	*0*	6800 - 19700
Potassium	**11028**	4532	*0*	6210 - 23600	**7932**	7355	*0*	3480 - 32800	**12478**	2643	*0*	6000 - 18400
Silver	**0.006**	0.004	*15*	0.005 - 0.020	**0.340**	0.291	*1*	0.005 - 0.940	**0.043**	0.040	*4*	0.005 - 0.160
Sodium	**981**	196	*0*	588 - 1270	**2166**	410	*0*	1550 - 3000	**6176**	1350	*0*	4230 - 8770
Strontium	**2.28**	2.51	*0*	0.24 - 10.50	**0.16**	0.06	*0*	0.07 - 0.25	**1.41**	0.48	*0*	0.47 - 2.27
Tin	**0.10**	0.10	*15*	0.05 - 0.40	**0.05**	0.01	*17*	0.05 - 0.10	**0.06**	0.02	*16*	0.05 - 0.10
Titanium	**12.48**	6.82	*0*	1.30 - 22.20	**8.69**	4.59	*0*	1.30 - 15.20	**20.47**	11.21	*0*	1.90 - 32.40
Vanadium	**0.52**	0.36	*9*	0.25 - 1.40	**0.37**	0.22	*13*	0.25 - 1.00	**1.27**	0.33	*0*	0.90 - 1.90
Zinc	**12.9**	4.0	*0*	6.1 - 19.7	**72.3**	18.6	*0*	42.4 - 107.0	**124.5**	30.4	*0*	86.7 - 176.0
% Moisture	***70.1***	*4.4*		*64.4 - 82.2*	***60.1***	*7.8*		*49.9 - 75.1*	***79.0***	*2.5*		*74.2 - 83.0*

[1] values below detection limit were coded as one-half of detection limit to allow statistical calculations

[2] number of samples below detection limit

S.D. = standard deviation

Note: Duplicate samples not included in the above calculations

Table C28. Gill net set locations, effort, and catch data for the small lakes southeast of Meliadine Lake, Oct-Nov 1997.

Lake	Set		Time		Effort	UTM (15V...)		Temperature (°C)		Depth (m)		Substr.	Catch				
No.	No.	Date	Set	Lift	(h)	Easting	Northing	Air	Water	Ice	Water*		LKTR	ARGR	RNWH	CISC	Total
1	1	26-Oct	10:45	15:00	4.3	549358	6980299	-5	0	0.30	1.3-1.7	Si		1			1
1	2	26-Oct	12:45	15:05	2.3	549213	6980415	-4	0	0.45	0.9-1.1	Si/Co		6			6
2	1	26-Oct	too shallow for net			548475	6980235	-4		0.30	0.6-0.7	Si					0
3	1	27-Oct	12:00	17:00	5.0	548823	6971843	-3	1	0.30	1.2-1.3	Si					0
3	2	27-Oct	16:25	17:30	1.1	549932	6970793	-3	1	0.30	1.7-1.8	Si					0
4	1	27-Oct	13:30	16:30	3.0	545218	6974123	-3	1	0.40	1.8-1.9	Si					0
4	2	02-Nov	10:36	16:30	5.9	545218	6974043	-16	0	0.50	1.7-1.8	Si					0
5	1	27-Oct	too shallow for net			546125	6972875	-3	1	0.30	0.6-0.7	Si					0
6	1	31-Oct	10:18	15:50	5.5	542823	6976743	-12	0	0.45	3.8-4.0	Si	3				3
7	1	31-Oct	11:12	15:30	4.3	540533	6978423	-12	0	0.50	3.0-3.1	Si	3				3
8	1	01-Nov	10:10	15:10	5.0	539500	6982103	-15	0	0.45	2.3-2.6	Si		4			4
8	2	01-Nov	13:00	15:20	2.3	539541	6982370	-15	0	0.55	1.8-2.0	Si		4			4
9	1	01-Nov	11:15	15:40	4.4	541002	6981083	-15	0	0.55	2.0-2.1	Si	3				3
9	2	01-Nov	14:20	16:00	1.7	540546	6981080	-15	0	0.55	1.8-2.5	Si	3				3
10	1	02-Nov	11:36	12:15	0.7	544285	6979439	-16	0	0.50	1.0-2.6	Si/Bo	3		5	1	9
TOTAL					**45.5**								**15**	**15**	**5**	**1**	**36**

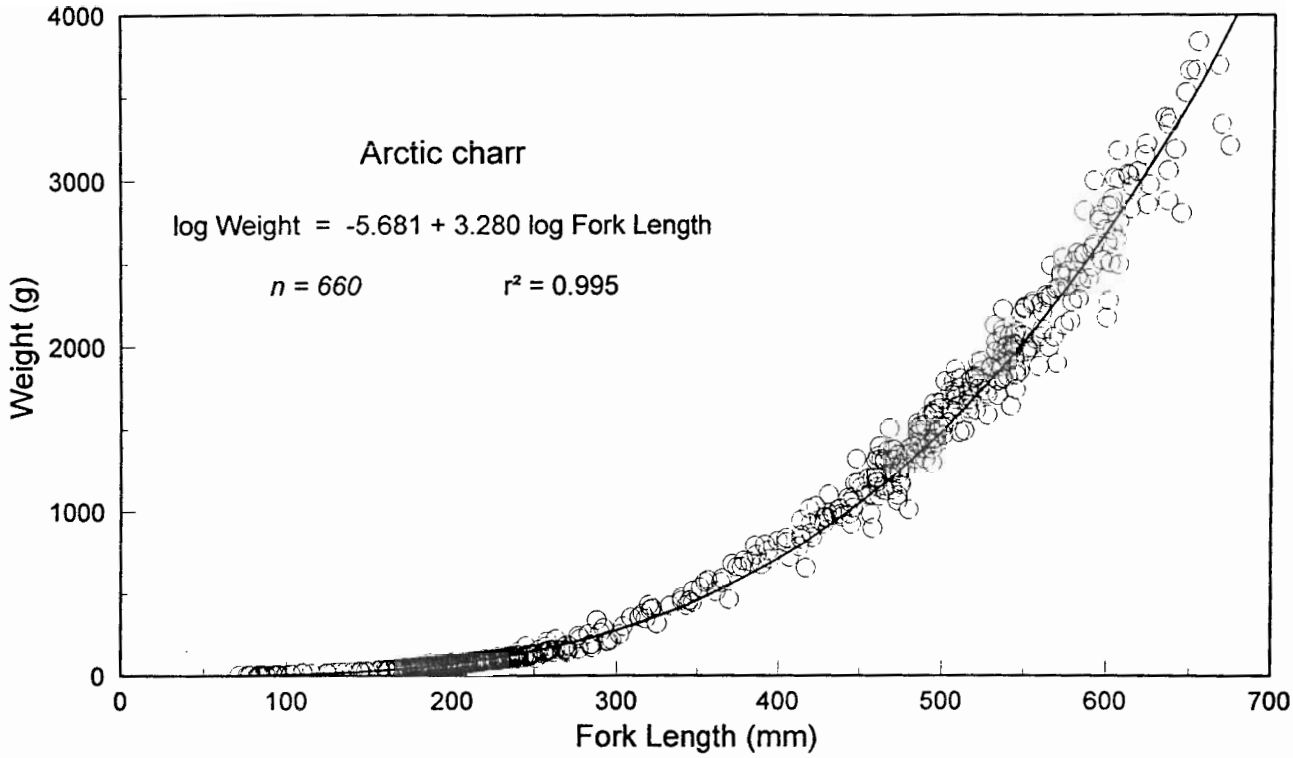
* excludes ice thickness

Table C29. Raw data for fish captured by under-ice gill net sets in small lakes southeast of Meliadine Lake, Oct-Nov 1997.

Fish No.	Species	Fork Length (mm)	Weight (g)	Sex	Ageing Structure Collected	Age (yr)	Floy Tag No.	Mesh (in)	Date of Capture			Lake No.	Cap. Code	Comments
1	ARGR	270	195		Sc	3		1.5	26	10	97	1	0	weak
3	ARGR	155	40		Sc	2		1.5	26	10	97	1	0	
6	ARGR	154	34		Sc	2		1.5	26	10	97	1	0	
5	ARGR	168	50		Sc	2		2.5	26	10	97	1	0	
4	ARGR	236	140		Sc	3		2.5	26	10	97	1	0	
7	ARGR	159	40					2.5	26	10	97	1	0	escaped
2	ARGR	274	230		Sc	3		1.5	26	10	97	1	0	weak
9	LKTR	571	2500		Sc, FR	15	6954	1.5	31	10	97	6	0	
8	LKTR	422	780		Sc, FR	10	6956	3.5	31	10	97	6	0	
10	LKTR	416	635	1	Sc, FR, Ot	9		3.5	31	10	97	6	1	
13	LKTR	478	1110		Sc, FR	13	6953	2.5	31	10	97	7	0	
12	LKTR	355	425		Sc, FR	8	6952	1.5	31	10	97	7	0	
11	LKTR	435	910		Sc, FR	10	6955	3.5	31	10	97	7	0	
14	ARGR	385	615		Sc	8	6957	1.5	1	11	97	8	0	
20	ARGR	322	350		Sc	7	6964	2.5	1	11	97	8	0	
21	ARGR	395	605		Sc	10	6963	2.5	1	11	97	8	0	
16	ARGR	324	410		Sc	6	6960	3.5	1	11	97	8	0	
19	ARGR	324	385		Sc	5	6962	1.5	1	11	97	8	0	
18	ARGR	390	640		Sc	9	6961	1.5	1	11	97	8	0	
15	ARGR	355	520		Sc	8	6959	3.5	1	11	97	8	0	
17	ARGR	205	90		Sc, FR	3		1.5	1	11	97	8	0	
22	LKTR	410	680		Sc, FR	10	6969	2.5	1	11	97	9	0	
25	LKTR	414	685		Sc, FR	10	6967	3.5	1	11	97	9	0	
24	LKTR	396	595		Sc, FR	9	6958	1.5	1	11	97	9	0	
23	LKTR	406	625		Sc, FR	12	6968	2.5	1	11	97	9	0	
26	LKTR	791			Sc, FR	27	6966	1.5	1	11	97	9	0	
27	LKTR	420	705		Sc, FR	13	6965	2.5	1	11	97	9	0	
34	LKTR	808			Sc, FR	28	6971	1.5	2	11	97	10	0	
33	LKTR	920			Sc, FR	34	6970	1.5	2	11	97	10	0	lrg head, thin body
35	LKTR	507	1355		Sc, FR	14	4473	2.5	2	11	97	10	0	
36	CISC	225	100	1	Sc, Ot	2		3.5	2	11	97	10	1	
31	RNWH	436	735		Sc	10	6974	2.5	2	11	97	10	0	
32	RNWH	460	925		Sc	13	4474	2.5	2	11	97	10	0	
29	RNWH	280	180		Sc	4	6972	1.5	2	11	97	10	0	
28	RNWH	460	955		Sc	13	6975	3.5	2	11	97	10	0	
30	RNWH	273	165		Sc	4	6973	1.5	2	11	97	10	0	

Explanation of Codes:

Species:	For a list of species codes see Table 2.4
Sex:	1 = immature male
Ageing Structures:	Sc = scales
	FR = fin rays
	Ot = otoliths
Capture codes:	0 = first capture, released
	1 = first capture, sacrificed



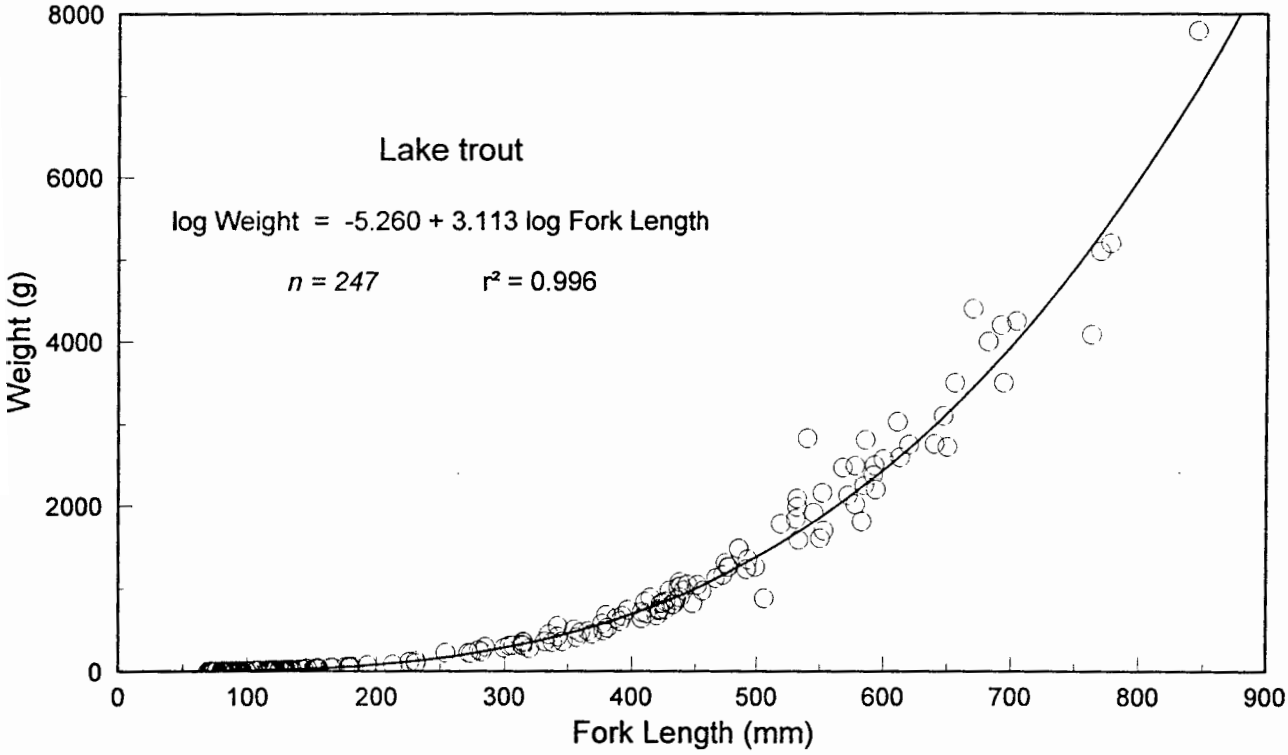
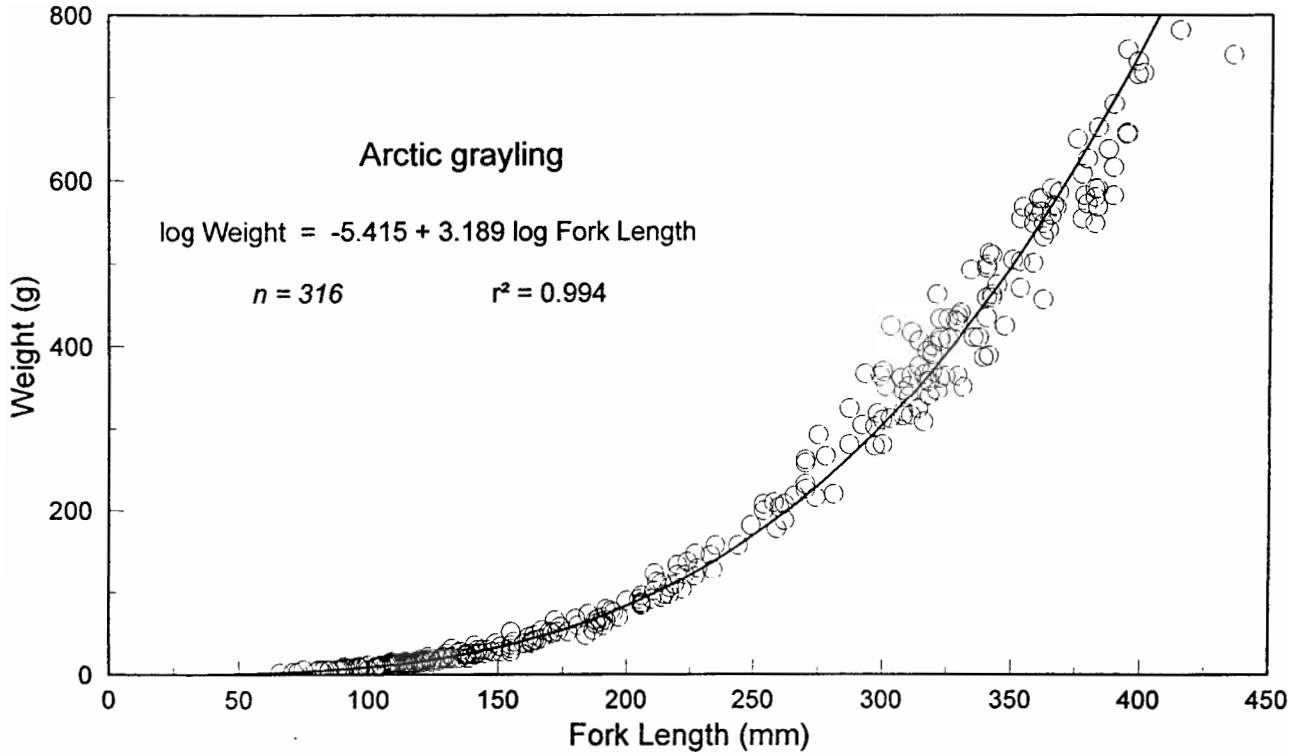


Figure C1. Length-weight regression for Arctic charr and lake trout captured in the Meliadine Study Area, 1997 (all sampling sites, seasons, and methods combined).



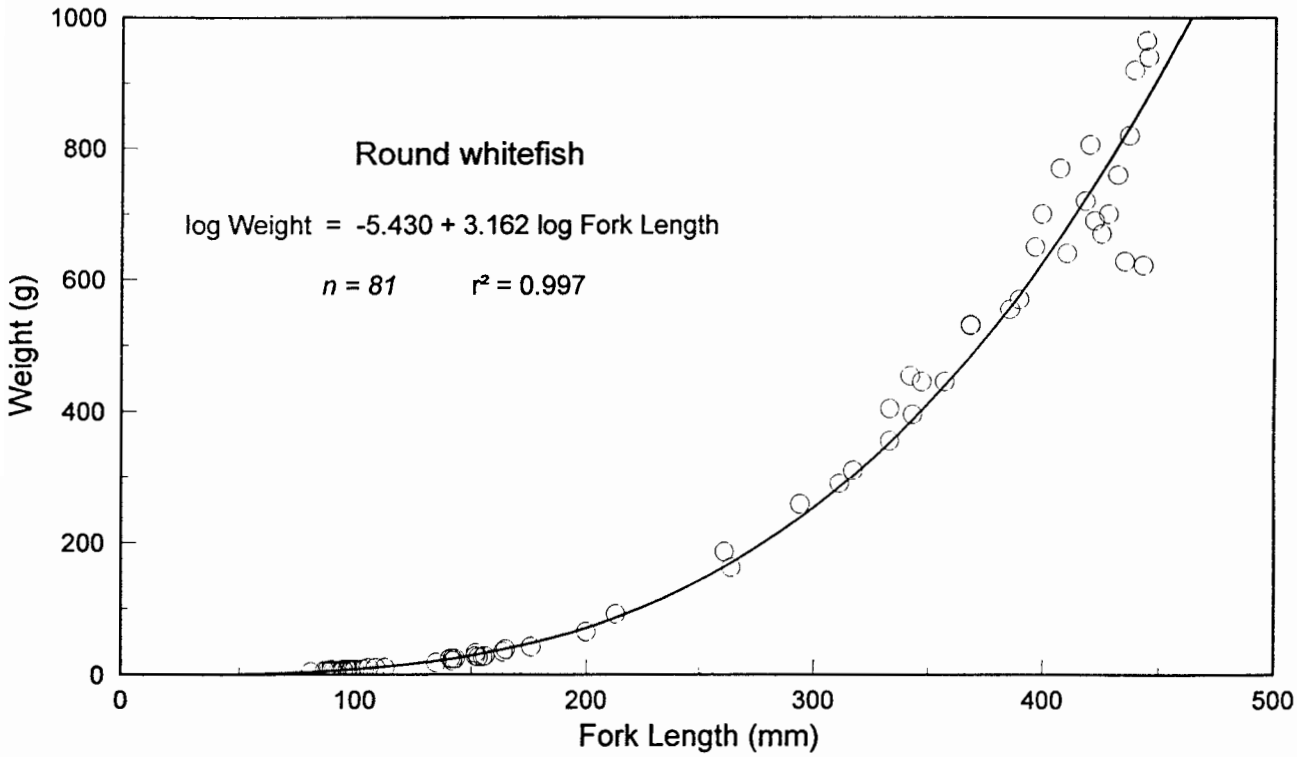
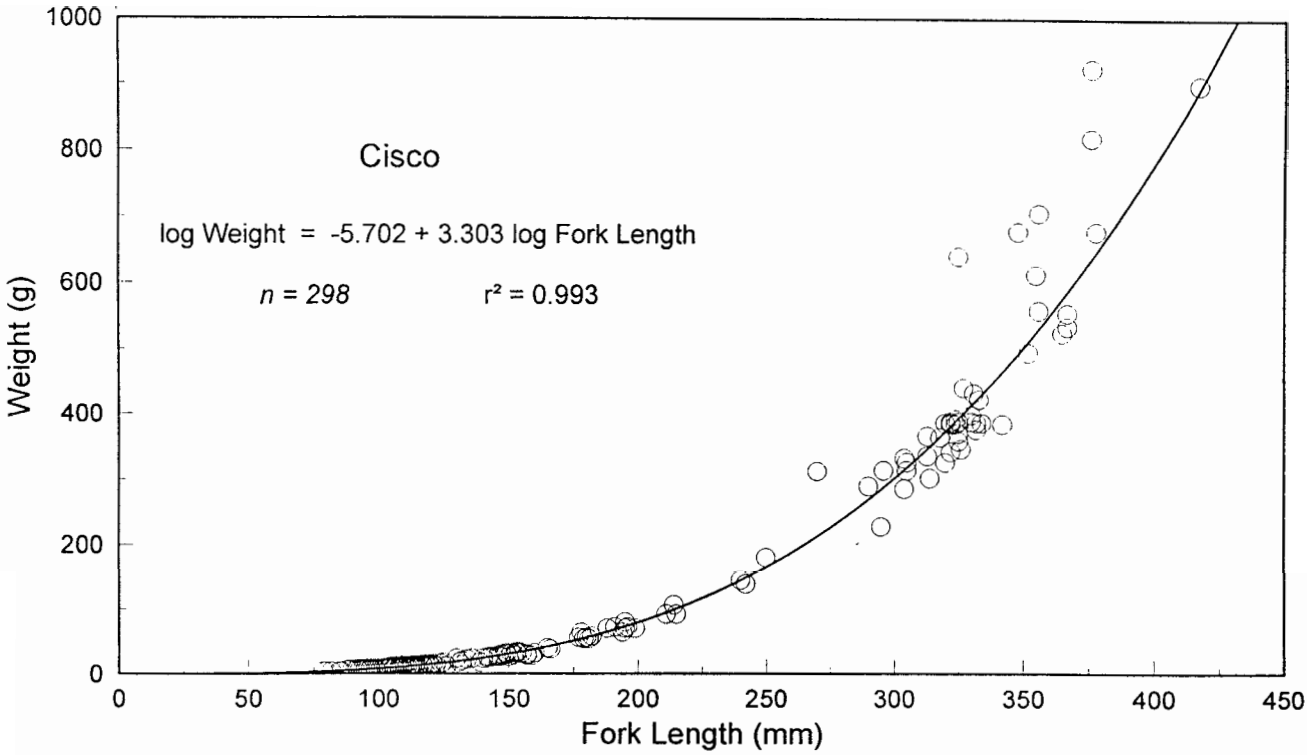


Figure C2. Length-weight regression for Arctic grayling and round whitefish captured in the Meliadine Study Area, 1997 (all sampling sites, seasons, and methods combined).



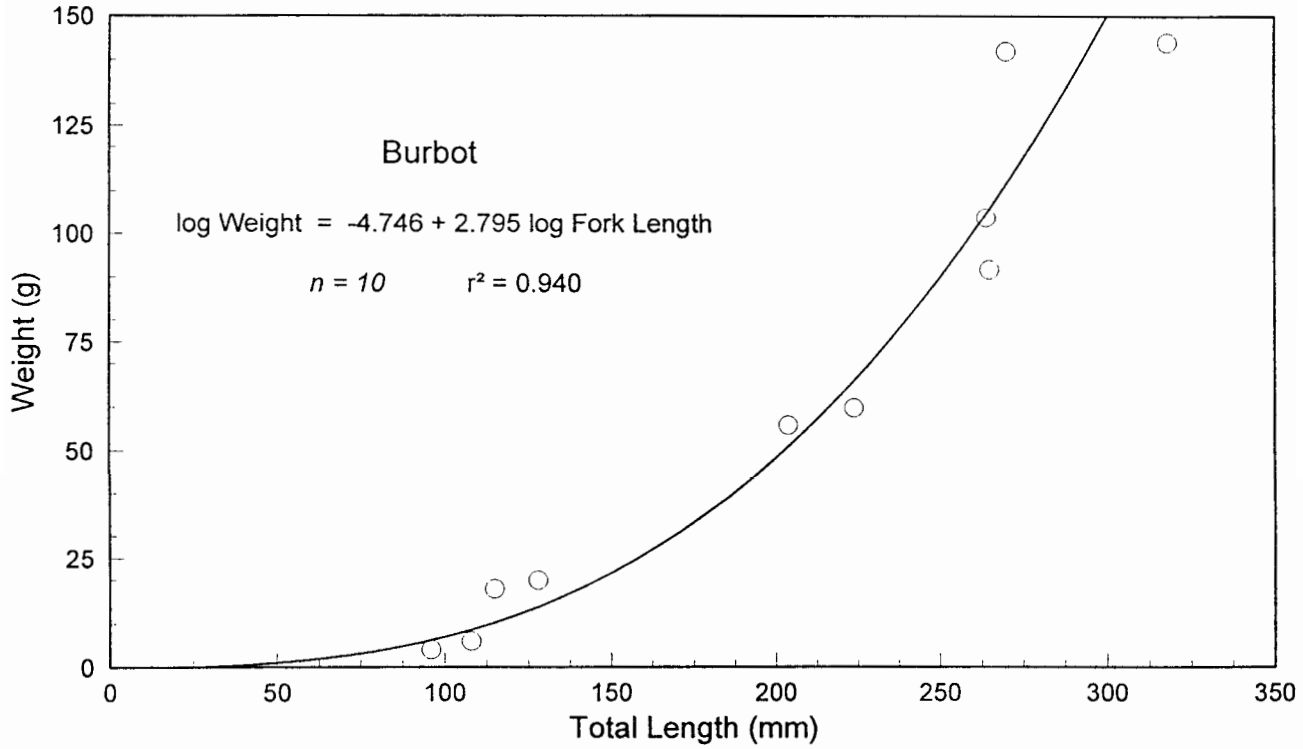


Figure C3. Length-weight regression for cisco and burbot captured in the Meliadine Study Area, 1997 (all sampling sites, seasons, and methods combined).