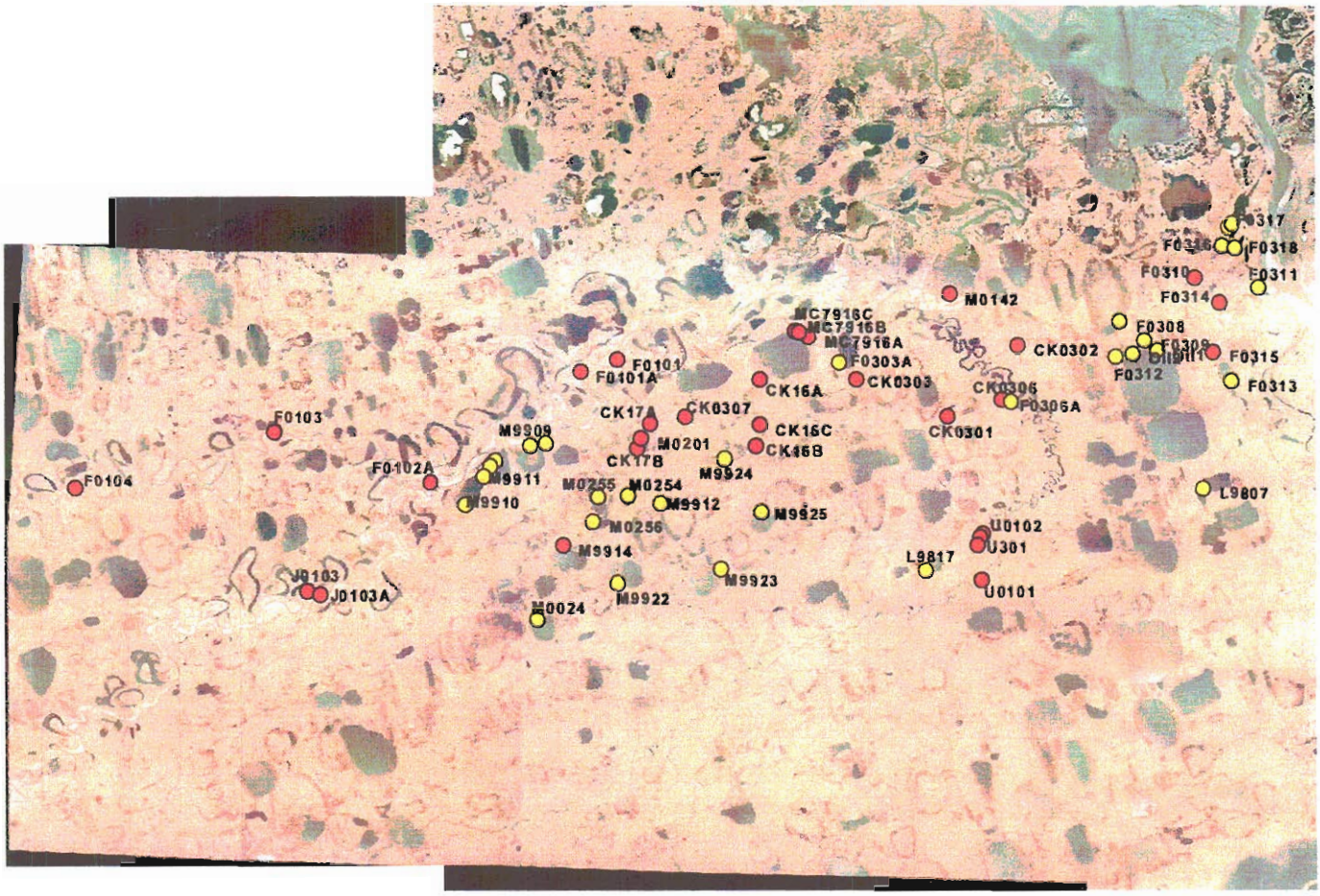
BASELINE SURVEYS OF FISH HABITATS IN EASTERN NPR-A, 2001-2003

Final Report

April 2004



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EXECUTIVE SUMMARY

ConocoPhillips Alaska Inc. (CPAI) has been exploring for oil within the eastern portion of the National Petroleum Reserve–Alaska (NPR-A) since the winter of 1999/2000. Significant oil reserves have been located in the region, and the feasibility of developing a producing field in the area is being investigated. Part of the evaluation process includes assessing the potential environmental impacts. The inventory of fish and fish habitat provides information for assisting permitting decisions regarding road and pipeline routing. In addition, streams in the area may be crossed by ice roads, so an understanding of potential overwintering areas is also desirable. A key element of the study is identifying movements and distribution of fish utilizing the stream systems.

The present study was the first detailed examination of fish populations in the drainages of eastern NPR-A. The study was designed to provide details of fish populations in eastern NPR-A and the habitats used by those populations, so that oilfield facilities can be sited, designed and constructed in a manner that will avoid or minimize impacts. Specific objectives of the 2001-2003 fish survey were to conduct studies on the Uvlutuuq (Fish Creek) and Tingmiaqsiugvik (Ublutuoch) River drainage systems to:

a) describe the fish populations and habitat use patterns within streams and lakes of eastern NPR-A,
b) obtain information on fish movements within the drainages,
c) document the recovery of tagged fish in both study nets and the Nuiqsut fishery from different release locations, and
d) estimate available water in lakes in or near potential development areas.

The study included cooperative efforts among ConocoPhillips Alaska, the North Slope Borough (NSB) and Alaska Department of Fish and Game (ADF&G). An additional objective was to provide fish for radio-tagging by ADF&G.

METHODS

During summer 2001-2003, fyke nets were used to sample major drainages and lakes in the eastern NPR-A study area. Sampling was by fyke net so that fish could be released unharmed. Sampling covered late June to evaluate post-breakup movements, late July-early August to evaluate fish use of channels after spring out-migration was complete, and the end of August into early September to evaluate potential movements to wintering areas. Water chemistry parameters, including water temperature, specific conductance, dissolved oxygen, pH, and turbidity, were measured to assess habitat conditions and provide information on the suitability of the water for domestic and industrial uses.

Fish were tagged to reveal the extent to which fish caught in the study area contribute to the subsistence catch. Recapture was monitored in research sampling within Colville Delta and eastern NPR-A study areas, in the Nuiqsut subsistence fishery and in the Colville Delta commercial fishery.

Bathymetric data were collected in 2002 to allow estimating lake volume. Lake volume was

estimated by contour mapping of depth intervals. The amount allowed for winter water withdrawal when sensitive fish species are present is currently set by ADF&G at 15% of the volume of the lake deeper than 7 feet. When only resistant fish species (i.e. ninespine stickleback and Alaska blackfish) are present, the current allocation recommended by ADF&G is 30% of the volume deeper than 5 feet. There is no withdrawal limit if fish are not present. The area potentially available for ice aggregate was estimated by calculating the area of the lake shallower than 4 feet, assuming that the ice would grow to at least 4 feet by early to mid January, prior to the need for aggregate.

RESULTS

Substantial differences were found in fish use of habitats associated with the drainages of eastern NPR-A. Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), had the lowest catch rates, while tapped lakes had the highest catch rates (not including ninespine sticklebacks) and highest diversity, which parallels results from the nearby Colville River delta. The Tingmiaqsiugvik (Ublutuoch River), a clear water tributary to Uvlutuuq (Fish Creek) and its associated tributaries, produced the second highest catch rates, followed by tundra-stream tributaries to Fish Creek. The catch in these clear water streams was dominated by Arctic grayling.

Catch rates of all species were low in Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), with Arctic grayling and least cisco being the most abundant species. Arctic grayling were also the most abundant fish in the Tingmiaqsiugvik (Ublutuoch River), followed by humpback whitefish, broad whitefish, and round whitefish. Catches in tapped lakes were dominated by broad whitefish and least cisco, with Arctic grayling, humpback whitefish and round whitefish being present in lesser numbers. Tributaries to Fish Creek contained ninespine stickleback, Arctic grayling and Alaska blackfish. Arctic grayling were the most abundant species in clear water tributaries, which also contained Alaska blackfish and ninespine stickleback.

Sampling in lakes revealed that lakes in close proximity to Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), or those connected to the rivers by a stream, tend to support several fish species while those remote from the streams normally support only ninespine stickleback. Most of the fish-bearing lakes are in a corridor along Fish and Judy creeks, where high flows at break-up facilitate dispersal. The distribution of fish in lakes along Fish Creek and Judy Creek was confined to the area lying within the 100-year floodplain. Large isolated tundra lakes had the highest overall catch rates, with all of the catch being ninespine stickleback. Lakes associated with small drainages contained a few juvenile Arctic grayling and Alaska blackfish, but catches were sporadic through the summer.

Arctic Grayling. Arctic grayling were second in abundance to ninespine stickleback and were the most consistently caught species across all habitats, being present in all time periods. The Tingmiaqsiugvik (Ublutuoch River) contained the highest abundance of adult Arctic grayling through the summer, although they were present in the other habitats as well. Rearing juveniles were particularly abundant in the tundra-stream tributaries to Uvlutuuq (Fish Creek). Young-of-the-year were caught almost exclusively at the Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) stations, with none observed in the Tingmiaqsiugvik (Ublutuoch River).

Tags were applied to 582 Arctic grayling, and 41 tags were eventually recovered during 2001-2003. Most were recaptured near the release location, although one moved almost 10 miles from Iqalliqpiq (Judy Creek) into upper Uvlutuuq (Fish Creek), another moved nearly 16.5 miles, and two moved about 29.7 miles from the confluence of Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) to the Tingmiaqsiugvik (Ublutuoch River) sampling station. In 2003, three grayling that had been tagged in 2001 in the Tingmiaqsiugvik (Ublutuoch River) were recaptured in the same drainage, although two had moved into a small tributary stream.

Broad Whitefish. Broad whitefish were the third most abundant fish caught with the majority of the catch being young-of-the-year caught in lake MC7916. Larger broad whitefish were caught primarily in the Tingmiaqsiugvik (Ublutuoch River) during the late July sampling period, with only scattered records of larger individuals at other locations and during other time periods. Tags were applied to 146 broad whitefish, and 1 was recaptured. The recaptured fish was released at the Tingmiaqsiugvik (Ublutuoch River) and recovered in the Nuiqsut fall fishery conducted on the Nigliq Channel approximately 45 river miles from the release point.

Least Cisco. Least cisco were most abundant in lake habitats, including both tapped and perched lakes. There was an early season movement in Uvlutuuq (Fish Creek), then an upstream movement in the Tingmiaqsiugvik (Ublutuoch River) during the July sampling period. Aside from these two periods, few were caught in river channels. They were present in tapped lakes during all sampling periods, over a broad size range. By the Aug/Sep sampling period, young-of-the-year had grown large enough to be caught by the fyke nets, and again were most abundant in tapped lakes.

Tags were applied to 130 least cisco, with 5 recovered. One recovered fish was caught in the Nuiqsut fall fishery, approximately 26 river miles from the release location.

Humpback Whitefish. Humpback whitefish were fourth in abundance, with most of the catch recorded from the Tingmiaqsiugvik (Ublutuoch River). Unlike most other species, over 90% of the captured humpback whitefish were adults. There was a strong upstream movement of these large humpback whitefish in the Tingmiaqsiugvik (Ublutuoch River) during July, which accounted for most of the catch. Tags were applied to 254 humpback whitefish, with 2 recaptured in the Nuiqsut fall fishery approximately 37 and 45 miles from the release location.

Round Whitefish. Round whitefish were encountered in low numbers in all habitats except perched lakes. They were most abundant in the Tingmiaqsiugvik (Ublutuoch River), followed by the Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) nets. Captured round whitefish covered a broad size range, from 40 to 400 mm, with no size range being dominant. Large individuals were especially abundant in the Tingmiaqsiugvik (Ublutuoch River). Tags were applied to 77 round whitefish, with none recovered to date.

Burbot. Eighteen burbot were caught during the study. Burbot were scattered through all of the sampling areas except for the Tingmiaqsiugvik (Ublutuoch River). Captured burbot ranged from young fish (91 to 182 mm) to large adults up to 820 mm. Eleven of the large burbot were

tagged, however none were recovered to date.

Fourteen lakes in the eastern NPR-A study area were evaluated as potential water-source lakes in 2002. The lakes were selected because of their proximity to proposed pads in eastern NPR-A. Information on depth distribution and fish presence were used to evaluate the volumes of water potentially available for use. All of the lakes contained ninespine stickleback, with one supporting a few juvenile Arctic grayling, and four containing Alaska blackfish. The area likely to be available for ice aggregate ranged from 1.4 to 192 acres. The 14 lakes surveyed during 2002 could provide up to 82.1 million gallons of water for use, with up to 820.5 acres available for removing chips for ice aggregate.

CONCLUSIONS

Sampling in eastern NPR-A during 2001-2003 indicated that the main river channels of Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) are sparsely used by fish during the summer and likely serve primarily as migration corridors for fish moving between various other habitats, such as clear water streams, tapped lakes and perched lakes. The unstable channels of Fish and Judy creeks likely limit productivity, and the prey is probably limited compared to other habitats. The Tingmiaqsiugvik (Ublutuoch River), in contrast to Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), is heavily used by Arctic grayling, humpback whitefish and broad whitefish, with round whitefish and least cisco also present during summer. A high percentage of the fish in the Tingmiaqsiugvik (Ublutuoch River) were large fish. Clear water tributaries to Fish Creek and the Ublutuoch River supported high densities of juvenile Arctic grayling.

Lakes connected to the rivers also provide important fish habitat. The value of the lake increases as predictability of access increases. Lakes remote from stream systems supported ninespine stickleback, while lakes with seasonal connections to stream systems also supported low densities of juvenile Arctic grayling. The importance of connected lakes as fish habitat was illustrated by the results of the cooperative radio-tag study with ADF&G. Many of the broad whitefish, Arctic grayling and burbot that were radio-tagged by ADF&G in 2001 moved into connected lakes in various portions of the Uvlutuuq (Fish Creek)/Iqalliqpiq (Judy Creek)/Tingmiaqsiugvik (Ublutuoch River) drainage system.

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BASELINE SURVEYS OF FISH HABITATS IN EASTERN NPR-A, 2001-2003

INTRODUCTION

ConocoPhillips Alaska Inc. (CPAI) has been exploring for oil within the eastern portion of the National Petroleum Reserve–Alaska (NPR-A) since the winter of 1999/2000. Oil reserves have been located in the region, and the feasibility of developing a producing field in the area is being investigated. Part of the evaluation process includes assessing the potential environmental impacts, which requires information specific to the activity area in order to evaluate the biological sensitivity of streams and lakes in the region. Streams in the area may be crossed by ice roads during winter or by roads and/or pipelines after development. An understanding of the fish populations in these streams is needed to minimize effects to these populations during field development. The inventory of fish and fish habitat provides information for assisting permitting decisions regarding road and pipeline routing.

Streams in the study region have previously been investigated by Netsch et al. (1977), and Bendock and Burr (1984). These surveys consisted of one-day visits at each site for inventory-level surveys over a wide area, with sampling by gill net, seine, minnow trap, and angling. Species reported from Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) included broad whitefish, Arctic grayling, round whitefish, slimy sculpin and ninespine stickleback. The Tingmiaqsiugvik (Ublutuoch River) was also reported to contain Arctic grayling, slimy sculpin and ninespine stickleback.

The present study was begun in 2001 as the first detailed examination of fish habitats and populations in the eastern NPR-A study area (Moulton 2002, 2003). The study was designed to provide details of fish populations in eastern NPR-A (Figure 1), and the habitats used by those populations, so that oilfield facilities can be sited, designed and constructed in a manner that will avoid or minimize impacts.

Specific objectives of the 2001-2003 fish survey were to conduct studies on the Uvlutuuq (Fish Creek) and Tingmiaqsiugvik (Ublutuoch River) drainage systems to:

a) describe the fish populations and habitat use patterns within streams and lakes of eastern NPR-A,
b) obtain information on fish movements within the drainages,
c) document the recovery of tagged fish in both study nets and the Nuiqsut fishery from different release locations, and
d) estimate available water in lakes in or near potential development areas.

Surveys conducted in 2003 were organized into two segments: 1) an investigation of fish using small streams in the vicinity of proposed roads and pads, and 2) the distribution of fish in aquatic habitats near the Alpine West region of eastern NPR-A.

METHODS

Biological Sampling

During summer 2001-2003, fyke nets were used to sample major drainages and lakes in the eastern NPR-A study area (Figure 2). The initial stream sampling in 2001 consisted of fyke net stations in lower and upper Uvlutuuq (Fish Creek) (i.e. upstream from the confluence of Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek)), Iqalliqpiq (Judy Creek), and the Tingmiaqsiugvik (Ublutuoch River). In 2002 and 2003, sampling was expanded to smaller tundra stream drainages associated with the greater Uvlutuuq (Fish Creek)/Iqalliqpiq (Judy Creek) system. Additional stations were sampled in lakes throughout the study region.

The rapidly decreasing flows in June 2001 and unstable streambeds in Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) necessitated adjustments in the fyke net location in the early season until reasonably stable sites were located. Additional sampling was conducted in lakes spread across the study area, from near the confluence of Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) to near the Nigliq Channel (Figure 2).

During summer 2002 and 2003, the study design included two tasks to investigating fish habitat in eastern NPR-A. The first task was to sample small streams and associated lakes in the eastern NPR-A study area in the vicinity of potential development (Figure 2). Streams selected were tundra streams that discharged directly into Uvlutuuq (Fish Creek) and Tingmiaqsiugvik (Ublutuoch River) or into lakes associated with those two drainages. The second task involved evaluating aquatic habitats in the Alpine West region. Stations sampled represented a variety of habitats (Figure 3), including tundra lakes, perched lakes, side channel off the Nigliq channel, and backwater areas off the side channel.

Sampling was by fyke net so that fish could be released unharmed. Fyke nets used had an opening 0.9 m deep by 1.1 m wide, the trap end was 4.9 m long, made of 9.5 mm mesh. The wings (5 m long) and lead (15 m long) were made of 12.7 mm mesh. The nets were emptied daily. Fish were measured and released, with no fish retained for laboratory analysis. Duration of each set was recorded to allow calculation of catch rates. Water chemistry measurements taken in conjunction with the fyke net sampling included water temperature, specific conductance, dissolved oxygen, turbidity and pH.

In 2001, fish longer than 250 mm were tagged to reveal the extent to which fish caught in the study area contribute to the subsistence catch. Floy FD-68B anchor tags (monofilament = 5/8 inch, vinyl = 1 1/8 inch) were applied to whitefish, cisco, and burbot caught by fyke net. In 2002 and 2003, a smaller tag (Floy FD-94 anchor tag, monofilament = 1/2 inch, vinyl = 3/4 inch) was used and fish longer than 180 mm were tagged. This change was made to increase the pool of tagged fish in the populations, thus potentially increasing the number of tag returns. Recapture was monitored in research sampling within Colville Delta and eastern NPR-A study areas, in the Nuiqsut subsistence fishery and in the Colville Delta commercial fishery.

In 2001, radio tags were applied by ADF&G to broad whitefish (21 fish), Arctic grayling (10 fish) and burbot (8 fish). Details of methods used will be reported by ADF&G.

Water Chemistry Sampling

Water chemistry parameters were measured to assess habitat conditions and provide information on the suitability of water for use. Water chemistry measurements included surface measures of water temperature, specific conductance, dissolved oxygen, pH, and turbidity. Temperature, specific conductance and dissolved oxygen were *in situ* measurements taken at a depth of approximately 0.5 m near the trap end of the fyke net with a YSI Model 85 meter. A sample obtained from about 15 cm below the surface was returned to the field office to measure pH and turbidity. PH was measured with either a Coning pH meter or an Oaktron pH Tester III. Turbidity was measured with an H.F. Scientific DRT15CE turbidity meter.

Estimating Lake Volumes

Bathymetric data were collected in 2002 to allow estimating lake volume. Many of the lakes surveyed in 2002 had previously been surveyed for one-time use during exploration. With the potential for continued long-term use to support field development, there was a need to better define the available water. Methods described by MBJ (2003) were used to provide a consistent approach to estimating water volumes.

Location and depth were recorded on a Lowrance Model LCX-15MT integrated GPS/depth sounder at approximately 1-2 second intervals. The study design was to record at least six to eight depth transects on each lake. Lake volume was estimated by contour mapping of depth intervals. Contour maps were prepared by plotting the position and depth data obtained by GPS on a geo-referenced photomosaic basemap developed by Aeromap and plotting the contours in 1 or 2 ft intervals on maps of the surveyed lakes (included in Appendix D). One foot intervals were plotted for lakes where the maximum depth was 10 ft or less, two foot intervals were used on deeper lakes. The surface area of each contour was obtained, then the volume was estimated using the formula for truncated cones:

$V = h/3*(A1+A2+(A1*A2)\ (1/2))$

Where h = vertical depth of the stratum, A1 = area of the upper surface, and A2 = area of the lower surface of the stratum whose volume is to be determined. The volumes of individual strata are summed to obtain the volume of the desired depth intervals.

The amount allowed for winter water withdrawal when sensitive fish species are present is currently set by ADF&G at 15% of the volume of the lake deeper than 7 feet. When only resistant fish species (i.e. ninespine stickleback and Alaska blackfish) are present, the current allocation recommended by ADF&G is 30% of the volume deeper than 5 feet. There is no withdrawal limit if fish are not present.

The area potentially available for ice aggregate was estimated by calculating the area of the lake shallower than 4 feet, assuming that the ice would grow to at least 4 feet prior to the need for ice aggregate. If the ice is shallower than 4 feet at the time of ice removal, then the area available for ice aggregate will be less

RESULTS AND DISCUSSION

Physical Environment

Sampling in each year began in June as stream flows were receding from peak break-up flows (Figure 3). In 2001, the rapidly decreasing flows in June necessitated almost daily re-positioning of the fyke nets to ensure the nets were fishing properly. In 2002 and 2003, sampling was in smaller tundra streams and nets were more stable, however, as flow receded, nets had to be re-positioned to keep the trap funnels under water so that the nets continued to fish. In 2003, flow ceased by July in two streams (stations CK0303 and CK0306), and the nets were moved to lakes at the downstream end of the drainages. Sampling during July and August was during the period of consistent base flow, and nets performed more efficiently. The streambed in Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), however, was unstable sand and silt that shifted constantly during the sampling period. This unstable bed affected net stability even with a consistent flow and necessitated frequent maintenance on the net to avoid burying the wings and leads in the shifting sand. In contrast, the Tingmiaqsiugvik (Ublutuoch River) had a stable gravel bed and the nets fished effectively with minimal adjustments.

By the onset of sampling in June, water temperatures in the streams were rising and reached between 12 to 15°C by late June (Figure 4). Temperatures fluctuated between 10 and 20°C through July into early August, then declined into late August. An ice sheet remained in lake MC7916 through June, which moderated temperatures in the lake, and temperatures decreased when southwest winds moved the ice sheet near the fyke net (Figure 4).

Specific conductance rose slowly at all sites through the summer as snow melt and runoff decreased. Some reversals to this trend were apparent after rain (Figure 4). Turbidity was highest in Uvlutuuq (Fish Creek) after break-up, then gradually declined through the summer. Turbidity in the Tingmiaqsiugvik (Ublutuoch River) and tributaries to Uvlutuuq (Fish Creek) was low throughout the summer, generally in the range of 1 NTU, indicating consistently clear water (Table 2).

Water temperature in Alpine West habitats was near 15°C when sampling was initiated in late July, then declined to below 10°C by early August. Specific conductance in Alpine West varied greatly between habitats, with those most closely associated with the Colville River channels having the highest values (Table 2).

Biological Observations

Habitat Use in Drainages

Substantial differences were found in fish use of habitats associated with the drainages of eastern NPR-A. Fyke nets in the major rivers, Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), had the lowest catch rates (Table 3). Fyke nets in tapped lakes (primarily MC7916) had the highest catch rates (not including ninespine sticklebacks) and highest diversity, which parallels results from the

nearby Colville River delta (Table 3). The Tingmiaqsiugvik (Ublutuoch River), a clear water tributary to Uvlutuuq (Fish Creek), produced the second highest catch rates, followed by tundra-stream tributaries to Uvlutuuq (Fish Creek) and Tingmiaqsiugvik (Ublutuoch River). The catch in these clear water streams was dominated by Arctic grayling.

Catch rates of all species were low in Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), with Arctic grayling and least cisco being the most abundant (Table 4, Figure 5). Arctic grayling were also the most abundant fish in the Tingmiaqsiugvik (Ublutuoch River), followed by humpback whitefish, broad whitefish, and round whitefish. Catches in the tapped lake, MC7916, were dominated by broad whitefish and least cisco, with Arctic grayling, humpback whitefish and round whitefish being present in lesser numbers. Tributaries to Uvlutuuq (Fish Creek) and Tingmiaqsiugvik (Ublutuoch River) contained ninespine stickleback, Arctic grayling and Alaska blackfish.

Nine species were captured in small streams in eastern NPR-A during fyke net sampling in 2003 (Tables 3, 5). Ninespine stickleback were the most abundant species, followed by Arctic grayling. Station CK0301 produced the greatest number of grayling, followed by Station U0301 on the Tingmiaqsiugvik (Ublutuoch River). While juvenile grayling dominated the catches, adults were also present (Appendix Table C-1). There were thirteen recaptures of tagged Arctic grayling, with one fish recaptured three times during the summer (Table 11).

A large tapped lake, MC7916, had previously been sampled by McElderry and Craig (1981) during a survey in September 1979 to locate cisco spawning areas. They reported catching broad whitefish, least cisco and Arctic grayling during an overnight set with variable mesh gill nets. All the fish caught were less than 210 mm. This study thus added 8 species to the list of fish known to use the lake.

Twelve species were captured in the Alpine West region of eastern NPR-A during 2003 (Table 3). The greater diversity in this region, as compared to the greater area sampled to the south and west, resulted from the wider range of available habitats. Ninespine stickleback was again the most abundant species followed by longnose sucker and broad whitefish. The catch of adult longnose sucker at Station F0310, a backwater off the Nigliq Channel (Appendix Table C-7), was the greatest number of this species yet recorded from the Colville Delta region.

Habitat Use in Lakes

Tapped lakes contained the greatest species diversity, which is similar to findings in the Colville Delta (Figure 6). Broad whitefish and least cisco were most abundant in these lakes. Perched lakes along Uvlutuuq (Fish Creek) contained the second highest diversity, with Arctic grayling, least cisco and broad whitefish also present in these lakes, although ninespine stickleback were most abundant (Figure 6). The few drainage lakes sampled during 2001-2003 contained mostly ninespine stickleback and Alaska blackfish, while ninespine stickleback were the only species caught in tundra lakes remote from stream systems.

Sampling in lakes from 1999 to 2002 revealed that lakes in close proximity to Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), or those connected to the rivers by a stream, tend to be fish-bearing, while those remote from the streams normally do not support fish other than ninespine stickleback (Moulton 2000a,b; 2001a). Most of the fish-bearing lakes are in a corridor along Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), where high flows at break-up facilitate dispersal. The distribution of fish in lakes along Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) was confined to the area lying within the 100-year floodplain as identified by Dietzman and Helmericks (2003).

Additional fish-bearing lakes are those connected to the major drainages by small tundra streams. These connections can be either continuous through summer or ephemeral, with greatest access afforded during break-up and lesser access after late summer rains. Morris (2003) found substantial use of such lakes by radio-tagged broad whitefish and Arctic grayling. The presence of such lakes on small drainages, such as CK0301, may explain some of the high catch rates on these systems (Figure 7). Use of these drainage lakes varies greatly, most likely influenced primarily by the frequency at which the connecting stream is active during the open-water season. Lakes far up small tributaries, such as M9914, contained a few juvenile Arctic grayling, but catches were sporadic through the summer. Alaska blackfish were present in 5 of 6 drainage lakes surveyed in 2002-2003.

Large isolated tundra lakes had the highest overall catch rates, with all of the catch being ninespine stickleback (Tables 3, 7). Lack of access likely prevents other species from dispersing into these lakes except under extremely high flow or runoff, and the shallowness of these lakes likely limits wintering success.

Habitat Use by Dominant Species

Five species (Arctic grayling, broad whitefish, humpback whitefish, round whitefish and least cisco) comprised 90% of the catch, excluding ninespine stickleback. Ninespine stickleback were almost 90% of the total catch and were ubiquitous, being most abundant in lakes, and present in low numbers in the river channels (Table 3). Burbot were encountered in several habitats, and while not numerous, were conspicuous because of their large size. Since they are a top predator and are an important subsistence species, they are included in the species summaries.

Arctic Grayling. Arctic grayling were second in abundance to ninespine stickleback and were the most consistently caught species across all habitats except remote tundra lakes, being present in all time periods (Figures 5, 6). The Tingmiaqsiugvik (Ublutuoch River) contained the highest abundance of adult Arctic grayling through the summer, although they were present in the other habitats as well (Figure 7). Rearing juveniles, primarily ages 1 and 2, were particularly abundant in the tundra-stream tributaries to Uvlutuuq (Fish Creek) and Tingmiaqsiugvik (Ublutuoch River). Young-of-the-year were caught almost exclusively at the Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) stations, with none observed in the Tingmiaqsiugvik (Ublutuoch River) (Figure 8). It is not known at this time whether this is an artifact of sampling or reflects the high abundance of large predatory fish in this system.

Tags were applied to 582 Arctic grayling, and 41 tags were eventually recovered during 2001-

2003 (Table 9-11). Most were recaptured near the release location (Table 11), although one moved almost 10 miles from Iqalliqpiq (Judy Creek) into upper Uvlutuuq (Fish Creek), another moved nearly 16.5 miles from MC7916 to the confluence of Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), and two moved about 29.7 miles from the confluence of Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) to the Tingmiaqsiugvik (Ublutuoch River) sampling station. In 2003, three grayling that had been tagged in 2001 in the Tingmiaqsiugvik (Ublutuoch River) were recaptured in the same drainage, although two had moved into the small tributary stream CK0301.

Arctic grayling fitted with radio tags in 2001 ranged widely through the Fish Creek/Judy Creek drainage during 2001 and 2002, although most (80%) used the Tingmiaqsiugvik (Ublutuoch River) at some point during this period (Morris 2003). Some of the tagged grayling moved into small tundra drainages and connected lakes to feed during summer. Wintering appeared to be mostly in the lower Tingmiaqsiugvik (Ublutuoch River), however, few Arctic grayling were re-located during winter surveys (Morris 2003).

Broad Whitefish. Broad whitefish were the third most abundant fish caught with the majority of the catch being young-of-the-year caught in lake MC7916 (Figures 9 and 10). Larger broad whitefish were caught primarily in the Tingmiaqsiugvik (Ublutuoch River) during the late July sampling period, with only scattered records of larger individuals at other locations and during other time periods.

Tags were applied to 146 broad whitefish, and 1 was recaptured (Tables 8-11). The recaptured fish was released at the Tingmiaqsiugvik (Ublutuoch River) on July 26, 2001 and recovered in the Nuiqsut fall fishery conducted on the Nigliq Channel on October 20, 2001. The recovery location near Nanuk Lake was approximately 45 river miles from the release point.

Radio-tagged broad whitefish exhibited complex movement patterns. Most remained in the Fish Creek/Judy Creek drainage system, although they moved widely among various channels, tributaries and connected lakes. Many overwintered in the lower portion of the Tingmiaqsiugvik (Ublutuoch River), with a few others in the Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek). Five radio-tagged broad whitefish left the Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) system and moved upstream in the Colville River, eventually overwintering near Ocean Point (Morris 2003).

Least Cisco. Least cisco were most abundant in lake habitats, including both tapped and perched lakes (Table 4). There was an early season movement in Uvlutuuq (Fish Creek), then an upstream movement in the Tingmiaqsiugvik (Ublutuoch River) and associated tributaries during July (Figures 11 and 12). Aside from these two periods, few were caught in river channels. They were present in MC7916 during all sampling periods, over a broad size range (Figure 12). By the Aug/Sep sampling period, young-of-the-year had grown large enough to be caught by the fyke nets, and again were most abundant in MC7916.

Tags were applied to 130 least cisco, with 5 recovered. One recovered fish was tagged in lake

MC7916 and was recovered in the Nuiqsut fall fishery, near Nanuk Lake, on October 30, 2001. The recovery location was approximately 26 river miles from the release location. The other four recaptures were in lakes in which they had been released.

Humpback Whitefish. Humpback whitefish were fifth in abundance, with most of the catch recorded from the Tingmiaqsiugvik (Ublutuoch River), and secondarily from the tapped lake, MC7916 (Figure 13). Unlike most other species, over 90% of the captured humpback whitefish were adults (Figure 14). There was a strong upstream movement of these large humpback whitefish in the Tingmiaqsiugvik (Ublutuoch River) during the July sampling (July 20-30), which accounted for most of the catch. The second greatest catch was in lake MC7916 in June, which may indicate there is a wintering area in the vicinity, or rapid dispersal from Colville River wintering areas. A few young-of-the-year humpback whitefish were caught in the lake in late August.

Tags were applied to 254 humpback whitefish, with 2 recaptured in the Nuiqsut fall fishery (Tables 8-11). The two recoveries had been tagged in the Tingmiaqsiugvik (Ublutuoch River) during the peak movements in July, and were recaptured in late October, 2001 approximately 37 and 45 miles from the release location.

Round Whitefish. Round whitefish were encountered in low numbers in all habitats except perched lakes. They were most abundant in the Tingmiaqsiugvik (Ublutuoch River), followed by the Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) nets (Figure 15). Captured round whitefish covered a broad size range, from 40 to 400 mm, with no size range being dominant (Figure 16). Large individuals were especially abundant in the Tingmiaqsiugvik (Ublutuoch River).

Tags were applied to 77 round whitefish, with one recovered in the lake in which it was released. Round whitefish rarely enter the subsistence catch, thus recoveries are not expected in the Nuiqsut fishery.

Burbot. Eighteen burbot were caught by fyke net during the study. Five additional burbot were captured by hoop traps set by ADF&G personnel who were applying radio tags. The burbot were scattered through all of the sampling areas except for the Tingmiaqsiugvik (Ublutuoch River) and tundra lakes (Table 3). Burbot are often associated with dark areas, which are rare in the shallow, clear water of the Tingmiaqsiugvik (Ublutuoch River). The captured burbot covered a range of sizes from young fish (12 were between 91 to 182 mm), to large adults up to 820 mm. Eleven of the large burbot were tagged, however none were recovered to date.

Radio-tagged burbot moved extensively through the Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) system, although they were conspicuously absent from the upstream portion of the Tingmiaqsiugvik (Ublutuoch River) (Morris 2003). This is consistent with the fyke net sampling, which did not detect burbot in the shallow, clear water portion of the river. Burbot overwintered in the deep, lower portion of the Tingmiaqsiugvik (Ublutuoch River), and in the Uvlutuuq (Fish Creek).

Lake Volumes

Fourteen lakes in the eastern NPR-A study area were evaluated as potential water-source lakes (Table 12). Some of the lakes had previously been surveyed for use during exploration, while others were surveyed for the first time in 2002. Information on depth distribution and fish presence were used to evaluate the volumes of water potentially available for use (Table 13). All of the lakes contained ninespine stickleback, with one (M9914) supporting a few juvenile Arctic grayling, and four containing Alaska blackfish. The area likely to be available for ice aggregate ranged from 1.4 to 192 acres (Table 14).

The 14 lakes surveyed during 2002 could provide up to 82.11 million gallons of water for use, with up to 820.5 acres available for removing chips for ice aggregate.

CONCLUSIONS

The sampling in eastern NPR-A during 2001-2003indicated that the main river channels of Fish and Iqalliqpiq (Judy Creek) are sparsely used by fish during the summer and likely serve primarily as migration corridors for fish moving between various other habitats, such as clear water streams, tapped lakes and perched lakes. The unstable channels of Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek) likely limit productivity, and the prey is probably limited compared to other habitats.

The Tingmiaqsiugvik (Ublutuoch River), in contrast to Uvlutuuq (Fish Creek) and Iqalliqpiq (Judy Creek), is heavily used by Arctic grayling, humpback whitefish and broad whitefish, with round whitefish and least cisco also present during summer. A high percentage of the fish in the Tingmiaqsiugvik (Ublutuoch River) were large fish. It is likely that this high density of large fish reduces the value of the drainage as a rearing area as predation is likely to be intense. Arctic grayling, round whitefish and least cisco, in particular, are known to be opportunistic feeders that prey heavily on young fishes. Clearwater tributaries to Uvlutuuq (Fish Creek) and Tingmiaqsiugvik (Ublutuoch River) supported high density of juvenile Arctic grayling, indicating the importance of these small creeks as summer feeding areas. Adult Arctic grayling also ascended these small tundra drainages to feed, resulting in some tag recaptures.

Lakes connected to the rivers also provide important fish habitat, as evidenced by the heavy use of tapped and the perched lakes, and results from radio-tagged broad whitefish, Arctic grayling, and burbot (Morris 2003). The value of a lake increases as predictability of access increases. Lakes remote from stream systems supported ninespine stickleback, while lakes with seasonal connections to stream systems also supported Alaska blackfish and low densities of juvenile arctic grayling.

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Table 1. Fyke net stations occupied during 2001-2003 in eastern NPR-A.
(datum = NAD27)

Study Element	Station	Location[1]	Habitat	Latitude	Longitude	Sampling Dates	Sampling Effort (hours)
Major Drainages							
	F0101	Fish Ck - RM 18.4	River Channel	70.29577	151.59743	Jun 20-23, 2001	99.8
	F0101A	Fish Ck - RM 19.2	River Channel	70.29155	151.62658	Jun 26-28, 2001	64.9
	F0102A	Fish Ck - RM 26.5	River Channel	70.25568	151.74540	Jul 21-30, 2001	241.2
						Aug 25-Sep 2, 2001	181.3
	F0103	Fish Ck - RM 32.4	River Channel	70.27018	151.87253	Jul 19-30, 2001	289.7
						Aug 25-Sep 2, 2001	212.6
	F0104	Fish Ck - RM 43.3	River Channel	70.25123	152.03190	Jun 20-28, 2001	214.3
	J0103	Judy Ck - RM 21.8	River Channel	70.22058	151.84137	Jun 20-23, 2001	96.3
						Jul 20-30, 2001	263.9
						Aug 25-Sep 2, 2001	183.5
	J0103A	Judy Ck - RM 21.6	River Channel	70.21970	151.83133	Jun 24-28, 2001	117.6
	U0101	Ublutuoch R. - RM 15.4	River Channel	70.22847	151.29937	Jun 20-28, 2001	213.6
	U0102	Ublutuoch R. - RM 13.5	River Channel	70.24320	151.29890	Jul 20-30, 2001	256.7
						Aug 25-Sep 2, 2001	183.4
						Jun 21-27, 2002	163.5
						Jul 20-Aug 6, 2002	426.8
	U0301	Ublutuoch R. - RM 13.8	River Channel	70.24241	151.29841	Jun 14-22, 2003	215.5
						Jul 11-21, 2003	269.2
						Aug 16-22, 2003	161.0
Small Streams							
	CK16A	trib to MC7916	Tundra Stream	70.29034	151.48212	Jun 21-27, 2002	164.5
						Jul 20-27, 2002	188.4
	CK16B	trib to MC7916	Tundra Stream	70.26921	151.48392	Jun 21-27, 2002	165.8
						Jul 20-27, 2002	189.5
	CK16C	trib to MC7916	Tundra Stream	70.27649	151.47816	Jun 15-22, 2003	187.8
						Jul 11-18, 2003	182.5
	CK17A	Fish Ck Trib	Tundra Stream	70.27584	151.56946	Jun 21-27, 2002	162.3
						Jul 20-28, 2002	211.2

Table 1. Fyke net stations occupied during 2001-2003 in eastern NPR-A.
(datum = NAD27)

Study Element	Station	Location[1]	Habitat	Latitude	Longitude	Sampling Dates	Sampling Effort (hours)
Small Streams							
	CK17B	Fish Ck Trib	Tundra Stream	70.26772	151.57947	Jun 21-27, 2002	70.3
						Jul 20-28, 2002	211.4
	CK0307	trib to MC7917	Tundra Stream	70.27830	151.53770	Jun 18-22, 2003	119.4
						Jul 11-18, 2003	191.3
	CK0301	stream	Tundra Stream	70.28001	151.32677	Jun 14-22, 2003	213.3
						Jul 11-21, 2003	260.3
						Aug 16-22, 2003	161.2
	CK0302	stream	Tundra Stream	70.30304	151.27081	Jun 14-22, 2003	214.7
						Jul 11-18, 2003	191.1
	CK0303	stream	Tundra Stream	70.29114	151.40044	Jun 14-22, 2003	211.6
						Jul 11-13, 2003	72.8
	F0303A	perched lake (M0352)	Perched Lake	70.29634	151.41449	Jul 14-21, 2003	189.4
	CK0306	stream	Tundra Stream	70.28560	151.28278	Jun 15-22, 2003	188.8
	F0306A	perched lake (L9824)	Perched Lake	70.28500	151.27585	Jul 11-18, 2003	189.3
Lakes							
	M0142	lower Ublutuoch R.	Tapped Lake	70.31843	151.33052	Jun 22-23, 2001	47.3
	MC7916A	MC7916	Tapped Lake	70.30400	151.44372	Jun 23-24, 2001	47.2
	MC7916B	MC7916	Tapped Lake	70.30575	151.45483	Jun 24-28, 2001	116.4
	MC7916C	MC7916	Tapped Lake	70.30563	151.45123	Jun 25-28, 2001	92.0
						Jul 20-30, 2001	292.9
						Aug 25-31, 2001	159.7
	M9909A	M9909	Perched Lake	70.26811	151.66485	Jul 30-Aug 3, 2001	120.7
	M9909B	M9909	Perched Lake	70.26876	151.65316	Jul 30-Aug 3, 2001	120.6
	M9910A	M9910	Perched Lake	70.25772	151.70222	Jul 27-Aug 3, 2001	188.9
	M9910B	M9910	Perched Lake	70.24866	151.71669	Jul 27-Aug 3, 2001	187.1
	M9911A	M9911	Perched Lake	70.26286	151.69296	Jul 27-29, 2001	67.9
	M9911B	M9911	Perched Lake	70.26095	151.69701	Jul 27-29, 2001	67.7
	M9914A	M9914	Drainage Lake	70.23671	151.63681	Jun 21-27, 2002	161.9
						Jul 20-29, 2002	235.1

Table 1. Fyke net stations occupied during 2001-2003 in eastern NPR-A.
(datum = NAD27)

Study Element	Station	Location[1]	Habitat	Latitude	Longitude	Sampling Dates	Sampling Effort (hours)
Lakes							
	L9807A	L9807	Tundra Lake	70.25859	151.12105	Jul 30-Aug 3, 2002	114.8
	L9817A	L9817	Tundra Lake	70.23150	151.34450	Jul 30-Aug 4, 2002	140.5
	M9912A	M9912	Drainage Lake	70.25106	151.55942	Jul 28-Aug 2, 2002	136.7
	M9922A	M9922	Tundra Lake	70.22532	151.59133	Jul 28-Aug 2, 2002	135.9
	M9923A	M9923	Tundra Lake	70.23043	151.50883	Jul 29-Aug 2, 2002	116.0
	M9924A	M9924	Tundra Lake	70.26529	151.50832	Aug 3-6, 2002	91.8
	M9925A	M9925	Tundra Lake	70.24907	151.47438	Aug 3-6, 2002	92.1
	M0024A	M0024	Tundra Lake	70.21343	151.65614	Jul 29-Aug 2, 2002	115.1
	M0201A	Fish Ck Trib	Drainage Lake	70.27110	151.57614	Jun 22-24, 2002	72.8
	M0254A	M0254	Drainage Lake	70.25330	151.58513	Aug 3-6, 2002	69.8
	M0255A	M0255	Drainage Lake	70.25229	151.60969	Aug 3-4, 2002	44.3
	M0256A	M0256	Drainage Lake	70.24436	151.61259	Aug 5-6, 2002	47.1
	N7797A	Oil Lake	Tundra Lake	70.30174	151.16100	Jul 19, 2002	21.5
	N7797B	Oil Lake	Tundra Lake	70.30067	151.18039	Jul 19, 2002	21.6
Alpine West							
	F0308	tundra lake (MB0301)	Tundra Lake	70.31116	151.18820	Jul 19-22, 2003	100.7
	F0309	tundra lake (M0353)	Tundra Lake	70.30537	151.16808	Jul 19-22, 2003	98.0
	F0310	backwater off channel	Backwater	70.32516	151.12877	Jul 19-22, 2003	100.4
	F0311	perched lake (M0354)	Perched Lake	70.32244	151.07678	Jul 19-22, 2003	101.2
	F0312	tundra lake (M0355)	Tundra Lake	70.30003	151.19144	Jul 22-23, 2003	41.2
	F0313	perched lake (L9306)	Perched Lake	70.29295	151.09669	Jul 23-27, 2003	112.1
	F0314	tapped lake (M0356)	Tapped Lake	70.31739	151.10835	Jul 24-27, 2003	99.5
	F0315	side channel	Side Channel	70.30194	151.11203	Jul 24-27, 2003	96.7
	F0316	perched lake (L9305)	Perched Lake	70.33539	151.10665	Jul 25-27, 2003	73.8
	F0317	perched lake (L9304)	Perched Lake	70.34249	151.09907	Aug 1-3, 2003	67.9
	F0318	perched lake (M9932)	Perched Lake	70.33497	151.09649	Aug 1-3, 2003	68.5

[1] RM - river mile, (h) = hydrology cross-section described in Dietzmann and Aldrich (2001)

Table 2. Means and ranges of water chemistry parameters measured at NPR-A fyke net sampling sites, 2001-2003.

Station	Location	Date Range	Water Temperature mean (°C)	Water Temperature range (°C)	Dissolved Oxygen mean (mg/l)	Dissolved Oxygen range (mg/l)	Specific Conductance mean (microS/cm)	Specific Conductance range (microS/cm)	pH mean	pH range	Turbidity mean (NTU)	Turbidity range (NTU)
M0142	Tapped Lake off Ublutuoch R	Jun 21-23, 2001	6.8	5.7-6.6	11.5	10.9-11.7	96	96-97	8.00	7.92-8.07	17.6	16.8-18.3
MC7916A	Tapped Lake off Fish Ck	Jun 22-24, 2001	7.5	7.0-8.0	12.2	11.6-12.6	123	121-124	7.96	7.91-8.00	5.2	4.4-6.3
MC7916B		Jun 24-28, 2001	5.2	4.2-5.6	12.5	12.1-13.3	110	107-113	7.91	7.74-7.97	4.0	3.3-4.8
MC7916C		Jun 25-28, 2001	5.4	4.9-5.8	12.3	12.0-12.8	110	106-112	7.84	7.70-7.96	3.9	3.0-5.5
		Jul 18-30, 2001	13.1	9.1-16.6	9.7	8.4-11.7	129	117-133	8.03	7.94-8.09	6.3	2.9-17.3
		Aug 25-31, 2001	4.5	3.6-5.2	12.2	11.8-12.6	143	135-152	7.98	7.72-8.07	2.5	1.8-3.2
F0101	Fish Ck	Jun 19-24, 2001	8.9	7.4-10.2	10.7	10.3-11.1	94	93-98	8.03	7.90-8.06	14.2	10.4-20.1
F0101A	Fish Ck	Jun 25-28, 2001	10.6	7.4-14.7	11.0	10.3-11.8	99	93-109	8.05	7.90-8.12	16.9	10.4-23.2
F0102	Fish Ck	Jul 18-20, 2001	15.3	15.1-15.6	8.7	8.7-8.8	125	125.0	8.12	8.06-8.19	6.5	5.3-8.5
F0102A	Fish Ck	Jul 21-30, 2001	12.7	7.6-17.0	9.9	8.8-10.6	138	127-143	8.10	7.95-8.21	5.1	2.8-8.9
		Aug 25-Sep 2, 2001	5.1	3.6-5.9	11.7	10.8-12.8	139	138-140	7.91	7.76-7.98	4.1	3.2-5.8
F0103	Fish Ck	Jul 18-30, 2001	13.1	7.3-16.5	9.6	8.4-11.0	128	117-128	8.10	7.99-8.16	6.5	4.1-13.2
		Aug 25-Sep 2, 2001	5.4	3.9-6.7	11.6	10.0-12.9	129	128-130	7.92	7.67-8.01	3.7	3.1-5.4
F0104	Fish Ck	Jun 19-28, 2001	10.4	7.5-12.9	11.3	10.6-12.1	95	83-112	8.06	8.00-8.14	13.3	9.2-18.2
J0103	Judy Ck	Jun 19-24, 2001	9.9	7.8-13.2	11.0	10.3-11.6	100	96-106	7.95	7.61-8.05	14.5	0.8-23.2
		Jul 19-30, 2001	13.0	7.3-17.6	9.9	8.2-11.1	162	146-172	8.14	8.02-8.25	3.8	2.7-6.0
		Aug 25-Sep 2, 2001	5.9	4.1-7.9	11.8	10.7-12.8	159	153-165	7.94	7.81-8.00	4.4	3.5-6.6
J0103A	Judy Ck	Jun 25-28, 2001	11.7	11.1-13.0	10.0	9.8-10.4	113	108-117	7.65	7.57-7.68	1.7	1.0-2.9
CK16A	Trib. To Fish Ck	Jun 20-27, 2002	7.5	4.7-12.7	10.6	9.7-11.6	103	100-104	7.41	7.09-7.79	0.6	0.4-1.4
		Jul 20-27, 2002	12.0	8.1-16.6	10.0	8.2-11.1	122	120-125	7.39	7.21-7.49	1.5	1.3-1.8
CK16B	Trib. To Fish Ck	Jun 20-27, 2002	8.3	5.3-13.5	10.6	9.7-11.6	100	92-104	7.45	7.22-7.77	0.6	0.4-1.4
		Jul 20-27, 2002	13.3	8.9-19.3	10.2	8.3-11.7	133	128-136	7.39	7.26-7.47	1.5	1.3-1.8
CK16C	Trib. To Fish Ck	Jun 13-22, 2003	5.9	3.1-10.5	11.3	9.4-12.4	107	99-117	7.14	7.0-7.17	0.6	0.4-1.0
		Jul 10-18, 2003	11.2	7.5-15.4	9.7	8.6-11.1	117	112.4-119.2	7.34	7.19-7.50	0.8	0.6-1.1

Table 2. Means and ranges of water chemistry parameters measured at NPR-A fyke net sampling sites, 2001-2003.

Station	Location	Date Range	Water Temperature mean (°C)	Water Temperature range (°C)	Dissolved Oxygen mean (mg/l)	Dissolved Oxygen range (mg/l)	Specific Conductance mean (microS/cm)	Specific Conductance range (microS/cm)	pH mean	pH range	Turbidity mean (NTU)	Turbidity range (NTU)
CK17A	Trib. To Fish Ck	Jun 20-27, 2002	7.1	4.5-11.9	11.1	9.5-12.2	92	89-94	7.38	7.18-7.85	0.6	0.5-0.9
		Jul 20-28, 2002	11.6	8.1-16.4	10.3	8.7-11.8	118	106-125	7.42	7.23-7.64	1.3	1.0-1.7
CK17B	Trib. To Fish Ck	Jun 24-27, 2002	8.5	6.9-11.3	9.7	8.0-11.2	87	85-89	7.31	7.11-7.70	0.7	0.5-1.0
		Jul 20-28, 2002	10.6	6.8-16.3	9.7	7.7-11.1	112	107-118	7.43	7.24-7.70	1.5	1.3-1.7
CK0301	beaded stream	Jun 13-22, 2003	5.5	1.8-10.5	12.4	11.1-13.8	103	90-112	7.42	7.17-7.53	1.0	0.4-1.6
		Jul 10-21, 2003	12.0	7.4-17.5	9.9	9.0-11.0	135	129-141	7.57	7.42-7.66	1.6	1.0-2.5
		Aug 16-22, 2003	5.8	5.1-6.5	12.3	11.9-12.7	152	149-157	7.60	7.51-7.67	1.4	1.1-1.6
CK0302	beaded stream	Jun 13-22, 2003	6.8	0.9-13.0	11.9	10.4-13.4	211	136-257	7.50	7.35-7.60	0.7	0.5-1.1
		Jul 10-18, 2003	10.9	7.2-16.8	10.6	9.6-11.6	222	218-228	7.58	7.28-7.73	1.0	0.7-1.4
CK0303	beaded stream	Jun 13-22, 2003	6.0	1.4-11.6	11.8	10.7-12.5	102	79-125	7.22	7.07-7.51	0.6	0.4-0.9
		Jul 10-13, 2003	12.7	9.7-15.8	10.0	9.5-11.0	160	154-163	7.37	7.20-7.47	0.8	0.5-1.2
F0303A	perched lake	Jul 14-21, 2003	11.3	8.1-16.3	10.6	10.3-11.2	89	86-92	7.87	7.58-8.14	1.4	1.0-2.0
CK0306	beaded stream	Jun 14-22, 2003	6.7	2.6-12.4	11.7	9.7-12.9	86	81-92	7.13	7.06-7.26	0.6	0.4-0.7
F0306A	perched lake	Jul 10-18, 2003	12.5	9.9-15.8	10.3	9.9-10.8	71	66-77	7.54	7.28-7.64	0.8	0.7-1.0
CK0307	beaded stream	Jun 13-22, 2003	6.1	4.1-9.2	11.1	9.7-12.3	92	89-96	6.75	6.71-6.80	0.7	0.3-1.2
		Jul 10-18, 2003	10.1	6.4-14.4	9.9	7.9-11.5	115	112-117	6.98	6.86-7.09	0.6	0.5-0.9
F0308	tundra lake	Jul 19-22, 2003	14.8	12.3-16.6	10.3	9.5-11.2	195	194-198	8.11	8.04-8.24	0.8	0.5-1.3
F0309	tundra lake	Jul 19-22, 2003	15.0	12.3-16.7	10.5	9.8-11.3	218	216-221	8.38	8.21-8.51	0.8	0.7-1.0
F0310	backwater	Jul 19-22, 2003	15.5	12.5-17.2	10.3	9.3-11.0	457	415-475	8.16	8-06-8.22	14.8	11.9-18.2
F0311	perched lake	Jul 19-22, 2003	13.9	12.0-14.6	10.1	9.1-10.8	333	332-335	7.98	7.87-8.09	1.0	0.7-1.5
F0312	tundra lake	Jul 23-24, 2003	13.7	12.7-14.6	10.0	10.0-10.1	200	197-202	8.19	8.05-8.30	2.3	0.8-3.9
F0313	perched lake	Jul 23-27, 2003	12.4	9.8-14.9	10.4	9.7-11.0	164	164-165	7.79	7.66-7.93	1.9	1.3-3.6
F0314	tapped lake	Jul 24-27, 2003	10.4	8.2-13.4	10.6	10.0-11.2	202	192-220	8.21	8.15-8.25	9.1	7.5-9.7
F0315	side channel	Jul 24-27, 2003	11.5	9.5-13.9	10.3	10.0-10.9	173	170-175	8.22	8.20-8.25	9.9	8.1-11.4

Table 2. Means and ranges of water chemistry parameters measured at NPR-A fyke net sampling sites, 2001-2003.

Station	Location	Date Range	Water Temperature mean (°C)	Water Temperature range (°C)	Dissolved Oxygen mean (mg/l)	Dissolved Oxygen range (mg/l)	Specific Conductance mean (microS/cm)	Specific Conductance range (microS/cm)	pH mean	pH range	Turbidity mean (NTU)	Turbidity range (NTU)
F0316	perched lake	Jul 25-27, 2003	11.4	10.2-12.8	9.9	9.5-10.3	94	94.0	7.30	7.28-7.33	2.1	1.8-2.5
F0317	perched lake	Aug 1-3, 2003	8.8	8.5-8.9	11.7	11.3-11.9	209	208-211	7.84	7.75-7.88	1.1	0.8-1.2
F0318	perched lake	Aug 1-3, 2003	8.7	8.4-8.8	11.5	11.5-11.6	432	432-433	7.79	7.72-7.84	1.5	0.9-2.1
U0101	Ublutuoch R	Jun 19-28, 2001	10.7	7.5-12.5	10.4	9.8-11.1	81	78-81	7.70	7.55-7.77	1.3	1.1-1.7
U0102		Jul 19-30, 2001	13.8	8.8-18.0	9.7	8.3-10.7	104	93-1090	7.89	7.81-7.99	1.1	0.8-1.5
		Aug 25-Sep 2, 2001	5.5	4.0-6.1	11.6	10.6-12.4	116	114-121	7.72	7.44-7.93	1.3	1.1-1.6
U0102	Ublutuoch R	Jun 20-27, 2002	9.3	7.0-12.7	10.8	9.9-11.7	93	90.5-95.6	7.65	7.43-8.31	1.3	0.9-3.5
		Jul 20-Aug 6, 2002	13.5	8.1-20.1	10.3	8.5-11.8	114	103-124	7.80	7.30-8.28	1.4	1.1-2.4
U0301	Ublutuoch R	Jun 13-22, 2003	6.7	3.7-11.5	11.9	10.9-13.4	103	100-107	7.46	7.36-7.52	1.7	1.2-2.5
		Jul 10-21, 2003	13.1	9.4-17.5	10.3	9.3-11.2	110	106-112	7.67	7.51-7.86	1.1	1.0-1.4
		Aug 15-22, 2003	6.7	5.5-7.7	12.1	11.8-12.4	118	107-125	7.61	7.53-7.74	1.4	1.3-1.6
M9909	Perched Lakes	Jul 30-Aug 3, 2001	9.7	8.9-10.5	9.7	9.1-10.4	197	191-212	7.95	7.88-8.02	3.6	1.5-13.7
M9910	near Fish/Judy	Jul 27-Aug 3, 2001	10.1	6.8-14.0	9.6	8.6-10.8	145	140-160	7.95	7.76-8.09	2.3	1.1-5.1
M9911	confluence	Jul 27-29, 2001	12.2	10.8-13.3	9.4	8.8-10.1	160	159-162	8.11	8.08-8.14	1.9	1.1-2.9
M0201	Drainage Lake	Jun 21-24, 2002	6.6	5.9-7.4	11.8	11.3-11.9	93	92-94	7.59	7.40-7.95	1.8	0.7-4.1
M9914A	Drainage Lake	Jun 20-27, 2002	6.2	3.5-10.0	12.0	10.4-13.2	64	62-66	7.58	7.20-8.01	1.6	1.2-2.3
		Jul 20-29, 2002	13.2	9.1-18.5	10.1	9.1-11.6	88	86-92	7.54	7.33-7.94	1.6	1.1-2.2
L9807A	Tundra Lake	Jul 30-Aug 3, 2002	13.8	12.3-16.0	9.9	9.1-10.9	148	137-152	8.18	8.13-8.26	1.3	1.0-1.7
L9817A	Tundra Lake	Jul 30-Aug 4, 2002	13.9	12.1-15.9	10.1	9.4-11.3	237	222-244	8.17	8.04-8.26	1.3	1.2-1.5
M0024A	Tundra Lake	Jul 29-Aug 2, 2002	11.7	9.4-13.8	10.9	10.3-11.3	109	104-113	8.03	7.92-8.17	0.9	0.8-1.0
M0254A	Drainage Lake	Aug 3-6, 2002	13.3	10.4-15.1	10.0	9.9-10.3	117	116-118	7.82	7.58-8.09	1.1	0.8-1.4
M0255A	Drainage Lake	Aug 3-4, 2002	15.6	15.4-15.8	9.2	9.0-9.5	104	104-104	8.05	7.99-8.11	1.6	1.3-1.8
M0256A	Drainage Lake	Aug 3-4, 2002	12.3	11.4-13.2	10.0	9.5-10.5	88	87-90	7.83	7.73-7.92	1.2	1.1-1.4
M9912A	Drainage Lake	Jul 28-Aug 2, 2002	12.0	9.9-14.7	10.3	9.8-10.9	94	90-97	8.15	7.83-8.44	1.4	1.2-1.7
M9922A	Tundra Lake	Jul 28-Aug 2, 2002	11.1	7.3-14.1	10.7	9.6-11.4	152	144-159	7.91	7.70-8.03	2.0	1.7-2.8
M9923A	Tundra Lake	Jul 29-Aug 2, 2002	12.1	9.9-13.9	11.0	9.8-11.7	256	244-265	8.18	8.04-8.24	1.9	1.5-2.7
M9924A	Tundra Lake	Aug 3-6, 2002	12.5	7.7-15.9	9.5	8.9-10.6	220	217-222	7.82	7.64-7.96	8.8	4.2-16.8
M9925A	Tundra Lake	Aug 3-6, 2002	11.6	6.1-16.1	10.0	8.0-11.5	314	308-317	8.03	7.82-8.28	8.5	6.2-11.8
N7797	Tundra Lake	Jul 19, 2002	18.0	17.9-18.1	9.4	9.4-9.5	199	198-200	7.81	7.70-7.92	2.2	1.9-2.5

Table 3. Fish caught by fyke net in eastern NPR-A, 2001-2003.

Number of Fish

Species	Fish Creek 2001	Judy Creek 2001	Fish Ck Tribs 2002	Fish Ck Tribs 2003	Ublutuoch River 2001	Ublutuoch River 2002	Ublutuoch River 2003	Ublutuoch Tributaries 2003	Tapped Lakes/Side Channel 2001	Tapped Lakes/Side Channel 2003	Drainage Lakes 2002	Perched Lakes 2001	Perched Lakes 2003	Tundra Lakes 2002	Tundra Lakes 2003	Total 2001-2003 NPR-A
Chum Salmon	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Broad whitefish	44	7	0	0	121	155	6	5	1,644	147	0	1	162	0	0	2,292
Humpback whitefish	3	1	0	0	192	5	1	0	77	4	0	4	4	0	0	291
Arctic cisco	5	0	0	0	0	0	0	0	40	0	0	0	0	0	0	45
Least cisco	141	35	0	0	37	66	2	3	664	25	0	187	86	0	0	1,246
Round whitefish	18	38	0	0	70	11	2	0	18	44	0	0	3	0	0	204
Dolly Varden char	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Arctic grayling	238	105	766	2	660	630	222	1,497	223	23	47	100	126	0	0	4,639
Burbot	4	1	0	0	0	0	0	1	2	5	0	3	2	0	0	18
Alaska blackfish	1	0	76	70	0	0	0	35	26	0	118	4	43	0	0	373
Rainbow smelt	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
Longnose sucker	0	0	0	0	0	0	0	0	0	446	0	0	0	0	0	446
Fourhorn sculpin	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5
Slimy sculpin	8	1	0	0	7	7	9	28	9	0	0	3	5	0	0	77
Ninespine stickleback	80	5	8,815	10,625	52	15	305	807	191	37	2,786	393	6,520	46,322	1,271	78,224
Number of Fish	543	193	9,657	10,697	1,140	889	547	2,376	2,900	733	2,951	695	6,951	46,322	1,271	87,865
Number of Species	11	8	3	3	8	7	7	7	12	10	3	8	9	1	1	15
Effort (hrs)	1,303.7	661.3	1,363.4	892.7	653.7	590.3	645.7	1,229.4	755.5	296.6	790.0	752.8	875.1	825	240	11,875

Catch Rate (fish per day)

Species	Fish Creek 2001	Judy Creek 2001	Fish Ck Tribs 2002	Fish Ck Tribs 2003	Ublutuoch River 2001	Ublutuoch River 2002	Ublutuoch River 2003	Ublutuoch Tributaries 2003	Tapped Lakes/Side Channel 2001	Tapped Lakes/Side Channel 2003	Drainage Lakes 2002	Perched Lakes 2001	Perched Lakes 2003	Tundra Lakes 2002	Tundra Lakes 2003
Chum Salmon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Broad whitefish	0.8	0.3	0.0	0.0	4.4	6.3	0.2	0.1	52.2	11.9	0.0	0.03	4.4	0.0	0.0
Humpback whitefish	0.1	0.0	0.0	0.0	7.0	0.2	0.04	0.0	2.4	0.3	0.0	0.1	0.1	0.0	0.0
Arctic cisco	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Least cisco	2.6	1.3	0.0	0.0	1.4	2.7	0.1	0.1	21.1	2.0	0.0	6.0	2.4	0.0	0.0
Round whitefish	0.3	1.4	0.0	0.0	2.6	0.4	0.1	0.0	0.6	3.6	0.0	0.0	0.1	0.0	0.0
Dolly Varden char	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arctic grayling	4.4	3.8	13.5	0.1	24.2	25.6	8.3	29.2	7.1	1.9	1.4	3.2	3.5	0.0	0.0
Burbot	0.07	0.04	0.0	0.0	0.0	0.0	0.0	0.02	0.06	0.4	0.0	0.1	0.05	0.0	0.0
Alaska blackfish	0.0	0.0	1.3	1.9	0.0	0.0	0.0	0.7	0.8	0.0	3.6	0.1	1.2	0.0	0.0
Rainbow smelt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Longnose sucker	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.1	0.0	0.0	0.0	0.0	0.0
Fourhorn sculpin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Slimy sculpin	0.1	0.04	0.0	0.0	0.3	0.3	0.3	0.5	0.3	0.0	0.0	0.1	0.1	0.0	0.0
Ninespine stickleback	1.5	0.2	155.2	285.7	1.9	0.6	11.3	15.8	6.1	3.0	84.6	12.5	178.8	1346.8	127.1
Total CPUE	10.0	7.0	170.0	287.6	41.9	36.1	20.3	46.4	92.1	59.3	89.7	22.2	190.6	1346.8	127.1

Table 4. Fish caught by fyke net at Uvlutuuq (Fish Creek)/Iqalliqpiq (Judy Creek) stations in eastern NPR-A, 2001-2003.

Fish Creek/Judy Creek

Species	F0101 June Total	F0101A June Total	F0102A July Total	F0102A Aug/Sep Total	F0103 July Total	F0103 Aug/Sep Total	F0104 June Total	J0103 June Total	J0103 July Total	J0103 Aug/Sep Total	J0103A June Total	Fish Ck/ Judy Ck Total
Broad whitefish	3	4	2	6	8	16	5		5	2		51
Humpback whitefish			2			1			1			4
Arctic cisco	2		1				2					5
Least cisco	56	15	1	3		4	62	14	14	4	3	176
Round whitefish	7		3		7		1		36	2		56
Dolly Varden char				1								1
Arctic grayling	24	22	13	10	28	17	124	5	22	22	56	343
Burbot			1	1	1	1					1	5
Alaska blackfish		1										1
Slimy sculpin	5					3			1			9
Ninespine stickleback	14	6	6	21	1	2	30	1	1	3		85
Effort (hrs)	99.8	64.9	241.2	181.3	289.7	212.6	214.3	96.3	263.9	183.5	117.6	1,965.0

Fish Creek Tributaries 2002-2003

Species	CK16A June 2001	CK16A July 2001	CK16B June 2001	CK16B July 2001	CK16C June 2003	CK16C July 2003	CK17A June 2001	CK17A July 2001	CK17B June 2001	CK17B July 2001	CK0303 June 2003	CK0303 July 2003	Fish Ck Tribs Total
Broad whitefish													0
Humpback whitefish													0
Arctic cisco													0
Least cisco													0
Round whitefish													0
Dolly Varden char													0
Arctic grayling	8	1		1	2		250	225	127	154			768
Burbot													0
Alaska blackfish	27	38	8	3	17	2					32	2	129
Slimy sculpin													0
Ninespine stickleback	31	8,309	145	158	8,810	69	9	4	49	110	241	149	18,084
Effort (hrs)	164.5	188.4	165.8	189.5	187.8	182.5	162.3	211.2	70.3	211.4	211.6	72.8	2,018.2

Table 5. Fish caught by fyke net at Tingmiaqsiugvik (Ublutuoch River) stations in eastern NPR-A, 2001-2003.

Ublutuoch River

	2001				2002				2003			
Species	June	July	Aug/Sep	2001 Total	June	July	Aug	2002 Total	June	July	Aug	2003 Total
Chum Salmon	0	0	1	1	0	0	0	0	0	0	0	0
Broad whitefish	2	114	5	121	4	36	115	155	2	4	0	6
Humpback whitefish	2	189	1	192	4	1	0	5	1	0	0	1
Least cisco	0	37	0	37	2	4	60	66	0	2	0	2
Round whitefish	14	47	9	70	2	9	0	11	0	1	1	2
Arctic grayling	415	191	54	660	363	207	60	630	157	44	21	222
Slimy sculpin	7	0	0	7	4	2	1	7	1	8	0	9
Ninespine stickleback	51	1	0	52	0	6	9	15	281	24	0	305
Effort (hrs)	213.6	256.7	183.4	653.7	163.5	283.3	143.4	590.3	215.5	269.2	161.0	645.7

Ublutuoch River Tributaries - 2003

	CK0301			CK0302		CK0306	Ublutuoch
Species	June 2003	July 2003	Aug 2003	June 2003	July 2003	June 2003	Tribs Total
Broad whitefish		3		1	1		5
Humpback whitefish							0
Arctic cisco							0
Least cisco		3					3
Round whitefish							0
Dolly Varden char							0
Arctic grayling	105	1,266	23	10	93		1,497
Burbot			1				1
Alaska blackfish	2				1	32	35
Slimy sculpin		15			13		28
Ninespine stickleback	369	14	8	35	36	345	807
Effort (hrs)	213.3	260.3	161.2	214.7	191.1	188.8	1,229.4

Table 6. Fish caught by fyke net at tapped, perched and drainage lakes in eastern NPR-A, 2001-2003.

	Tapped Lakes								Drainage Lakes						
	M0142	MC7916A	MC7916B	MC7916C			M0356	Tapped	M0201	M9912	M9914	M0254	M0255	M0256	Drainage
	June	June	June	June	July	Aug/Sep	July	Lake	June	Jul/Aug	Jun-Aug	Aug	Aug	Aug	Lake
Species	2001	2001	2001	2001	2001	2001	2003	Total	2002	2002	2002	2002	2002	2002	Total
Broad whitefish	104	1	8	6	667	858	64	1,708							0
Humpback whitefish	13	1	38	8	11	6		77							0
Arctic cisco	37				3			40							0
Least cisco	347		15	18	93	191	3	667							0
Round whitefish	1		3	1	8	5	12	30							0
Arctic grayling	26	3	10	10	152	22	6	229	42		5				47
Burbot						2	2	4							0
Rainbow smelt					1	1		2							0
Longnose sucker							26	26							0
Alaska blackfish			2	3		21		26		53	6	58		1	118
Fourhorn sculpin	4							4							0
Slimy sculpin	1				1	7		9							0
Ninespine stickleback	6	6	5	8	19	147	5	196	58	76	556	1,400	142	554	2,786
Effort (hrs)	47.3	47.2	116.4	92.0	292.9	159.7	99.5	855.0	72.8	136.7	397.0	92.3	44.3	47.1	790.0

	Perched Lakes													
	L9304	L9305	L9306	L9824	M9909	M9910	M9911	M9932	M0352	M0354	MB0301	M0353	M0355	Perched
	August	July	July	July	Lake	Lake	Lake	August	July	July	July	July	July	Lake
Species	2003	2003	2003	2003	2001	2001	2001	2003	2003	2003	2003	2003	2003	Total
Broad whitefish			15		1			2	145					163
Humpback whitefish						4			4					8
Arctic cisco														0
Least cisco	3		30		184	1	2	2	48	3	3	3	3	282
Round whitefish									3					3
Arctic grayling				2		100			124					226
Burbot			1		3				1					5
Rainbow smelt														0
Longnose sucker														0
Alaska blackfish				4	1	1	2		11	30	30	30	30	139
Fourhorn sculpin														0
Slimy sculpin	4				3					1	1	1	1	11
Ninespine stickleback	195	3,150	98	1,687	71	247	75	21	442	1,076	1,076	1,076	1,076	10,290
Effort (hrs)	67.9	73.8	112.1	189.3	241.2	376.0	135.6	68.5	262.2	101.2	101.2	101.2	101.2	1931.4

Table 7. Fish catches by fyke net in tundra lakes in eastern NPRA lakes, 2002-2003.

Lake	Lake Type	Sample Period	Duration (hours)	Species	Number Caught	Catch per Day
L9807	Tundra	Jul 30-Aug 3	114.8	Ninespine stickleback	183	38.3
L9817	Tundra	Jul 30-Aug 4	140.5	Ninespine stickleback	31,754	5,423
M9922	Tundra	Jul 28-Aug 2	135.9	Ninespine stickleback	199	35.1
M9923	Tundra	Jul 29-Aug 2	116.0	Ninespine stickleback	632	130.8
M9924	Tundra	Aug 2-6	68.0	Ninespine stickleback	3,133	819.5
M9925	Tundra	Aug 3-6	92.1	Ninespine stickleback	2,243	584.6
M0024	Tundra	Jul 29-Aug 2	115.1	Ninespine stickleback	778	162.2
M0353	Tundra	Jul 19-22	98.0	Ninespine stickleback	938	229.7
M0355	Tundra	Jul 22-23	41.2	Ninespine stickleback	29	16.9
MB0301	Tundra	Jul 19-22	100.7	Ninespine stickleback	304	72.4
N7797	Tundra	Jul 19	43.1	Ninespine stickleback	7,400	4,122

Table 8. Numbers of tagged fish released and recaptured from fyke net stations in eastern NPR-A, 2001.

(recaptures at the same station on the day after release are not included)

Tags Released

Release Station	Broad whitefish	Humpback whitefish	Least cisco	Round whitefish	Arctic grayling	Burbot
F0101				1	4	
F0102A	1	2	1		10	1
F0102B						1
F0103	3			1	18	3
F0104			7		2	
J0103		1	4	17	23	2
J0103A					9	1
U0101	2	2		9	55	
U0102	102	175	9	28	127	
MC7916	15	58	36	6	29	
M0142		1	3		1	
M9909	1		13			3
M9910		4	1		39	
Total Released:	124	243	74	62	317	11

Tags Recaptured

Release Station	Broad whitefish	Humpback whitefish	Least cisco	Round whitefish	Arctic grayling	Burbot
F0101						
F0102A						
F0102B						
F0103					1	
F0104						
J0103						
J0103A					2	
U0101					2	
U0102	1	2			3	
MC7916			1		3	
M0142						
M9909						
M9910					10	
Total Recaptured:	1	2	1	0	21	0

Table 9. Numbers of tagged fish released and recaptured from fyke net stations in eastern NPR-A, 2002.

(recaptures at the same station on the day after release are not included)

Tags Released

Release Station	Broad whitefish	Humpback whitefish	Least cisco	Round whitefish	Arctic grayling
CK17A					12
CK17B					6
M0201A					3
U0102	5	5	3	6	87
Total Released:	5	5	3	6	108

2001 Tags Recaptured

Release Station	Broad whitefish	Humpback whitefish	Least cisco	Round whitefish	Arctic grayling
CK17A					1
CK17B					
M0201A					
U0102					3
Total Recaptured:	0	0	0	0	4

2002 Tags Recaptured

Release Station	Broad whitefish	Humpback whitefish	Least cisco	Round whitefish	Arctic grayling
CK17A					1
CK17B					1
M0201A					
U0102					1
Total Recaptured:	0	0	0	0	3

Table 10. Numbers of tagged fish released and recaptured from fyke net stations in eastern NPR-A, 2003.

(recaptures at the same station on the day after release are not included)

Tags Released

Release Station	Broad whitefish	Humpback whitefish	Least cisco	Round whitefish	Arctic grayling
CK0301	1		1		89
CK0305					1
F0310	1		5	2	7
F0313	6		11		
F0314	1			3	3
F0315	4	2	1	2	
F0317			1		
F0318	1		2		
M0352	3	3	32	2	4
U0301		1			53
Total Released:	17	6	53	9	157

2001 Tags Recaptured

Release Station	Broad whitefish	Humpback whitefish	Least cisco	Round whitefish	Arctic grayling
U0102					3
Total Recaptured:	0	0	0	0	3

2003 Tags Recaptured

Release Station	Broad whitefish	Humpback whitefish	Least cisco	Round whitefish	Arctic grayling
CK0301					5
U0301					3
F0313			1		
F0314					1
M0352			3	1	1
Total Recaptured:	0	0	4	1	10

Table 11. Release and recapture locations of recovered tagged fish, 2001-2003.
(recaptures at the same station on the day after release are not included)

Species	Release Site	Release Date	Recapture Site[1]	Recapture Date	Days Out	Distance between sites (miles)
Broad whitefish	U0102	7/26/2001	Upper Nigliq	10/20/2001	86	44.8
Humpback whitefis	U0102	7/26/2001	Upper Nigliq	10/31/2001	97	44.8
	U0102	7/28/2001	Nanuk	10/30/2001	94	37.0
Least cisco	MC7916	6/24/2001	Nanuk	10/30/2001	128	26.0
	M0352	7/14/2003	M0352	7/20/2003	6	0.0
	M0352	7/14/2003	M0352	7/21/2003	7	0.0
	M0352	7/14/2003	M0352	7/21/2003	7	0.0
	F0313	7/23/2003	F0313	7/27/2003	4	0.0
Round whitefish	F0313	7/23/2003	F0313	7/27/2003	4	0.0
Arctic grayling	F0102A	8/27/2001	U0102	6/24/2002	301	29.7
	F0102A	7/27/2001	U0102	7/22/2002	360	29.7
	F0103	7/27/2001	F0103	8/27/2001	31	0.0
	J0103A	6/24/2001	J0103	8/26/2001	63	0.2
	J0103A	6/26/2001	F0103	7/28/2001	32	9.8
	U0101	6/27/2001	U0102	7/27/2001	30	1.9
	U0101	6/25/2001	U0102	9/1/2001	68	1.9
	U0101	6/25/2001	U0102	6/25/2002	365	1.9
	U0102	7/23/2001	U0102	8/25/2001	33	0.0
	U0102	7/23/2001	U0102	8/28/2001	36	0.0
	U0102	7/26/2001	U0102	9/2/2001	38	0.0
	MC7916	7/25/2001	MC7916	7/28/2001	3	0.0
	MC7916	7/28/2001	CK17A	6/23/2002	330	10.4
	MC7916	7/26/2001	MC7916	7/29/2001	3	0.0
	MC7916	7/24/2001	F0102A	9/2/2001	40	16.5
	M9910A	7/27/2001	M9910A	7/29/2001	2	0.0
	M9910A	7/27/2001	M9910A	7/30/2001	3	0.0
	M9910A	7/27/2001	M9910B	7/31/2001	4	0.7
	M9910A	7/27/2001	M9910A	8/2/2001	6	0.0
	M9910A	7/27/2001	M9910A	8/3/2001	7	0.0
	M9910A	7/27/2001	M9910B	8/3/2001	7	0.7
	M9910B	7/27/2001	M9910A	7/29/2001	2	0.7
	M9910B	7/27/2001	M9910A	7/29/2001	2	0.7
	M9910B	7/27/2001	M9910A	7/30/2001	3	0.7
	M9910B	7/29/2001	M9910A	7/31/2001	2	0.7

Table 11. Release and recapture locations of recovered tagged fish, 2001-2003.
(recaptures at the same station on the day after release are not included)

Species	Release Site	Release Date	Recapture Site[1]	Recapture Date	Days Out	Distance between sites (miles)	
Arctic grayling	CK17A	6/23/2002	CK17B	6/26/2002	3	0.8	
	CK17B	7/22/2002	CK17B	7/24/2002	2	0.0	
	U0102	7/25/2001	CK0301	7/11/2003	716	10.8	
	CK0301	6/17/2003	CK0301	7/11/2003	24	0.0	
	U0301	6/21/2003	CK0301	7/12/2003	21	11.0	
	U0102	8/31/2001	CK0301	7/18/2003	686	10.8	
	CK0301	7/11/2003	CK0301	7/20/2003	9	0.0	
	CK0301	7/18/2003	CK0301	8/17/2003	30	0.0	
	M0352	7/14/2003	M0352	7/21/2003	7	0.0	
	U0102	6/25/2001	U0301	6/22/2003	727	0.2	**
	U0301	6/22/2003	U0301	7/13/2003	21	0.0	**
	U0301	7/11/2003	U0301	7/13/2003	2	0.0	
	U0301	7/13/2003	U0301	7/16/2003	3	0.0	**

[1] Upper Nigliq and Nanuk are Nuiqsut fishing areas on the Nechelik Channel as described in Moulton (2001b).

** = same fish recovered three times (Tag Number MJM010118)

Table 12. Volumes of 14 lakes sampled in eastern NPRA, 2002.

Lake Name	Latitude (NAD27)	Longitude (NAD27)	Town	Range	Section	Surface Area (acres)	Maximum Depth (feet)	Calculated Volume (mill. gals)
L9807	70.26131	151.10809	10N/11N	4E	4/33/34	140.6	10.1	223.78
L9817	70.23343	151.33681	10N	3E	10	65.4	8.9	101.09
L9823	70.25120	151.29850	10N	3E	2	5.7	13.5	12.73
L9911	70.17049	151.78475	9N/10N	1E	35/36/1/2	559.1	8.0	792.89
M9912	70.25211	151.55356	10N	2E	2	34.8	9.6	61.93
M9914	70.23333	151.62855	10N	2E	9/10	151.1	7.8	205.08
M9922	70.22878	151.58368	10N	2E	10/11/14/15	195.9	6.1	246.94
M9923	70.22787	151.52110	10N	2E	12/13	255.0	6.7	289.60
M0024	70.21116	151.64799	10N	2E	16/21	141.1	8.2	236.90
M0201	70.26982	151.57185	11N	2E	35	14.7	3.7	not estimated
M0254	70.65837	-154.50146	10N	2E	3	30.0	12.7	59.40
M0256	70.64890	-154.50451	10N	2E	3	30.0	9.0	48.00
MC7916	70.29944	151.46012	11N	2E	17/18/19/20	419.6	8.9	605.37
MC7917	70.29113	151.52595	11N	3E	23/24	312.5	12.9	605.92

Table 13. Estimated water volumes available for winter withdrawal from surveyed lakes in the eastern NPR-A study area, based on 2002 depth surveys.

(available water based on 15% of winter volume deeper than 7 ft when sensitive species are present, 30% of winter volume deeper than 5 ft when only resistant fish are present).

Lake	Surface Area (acres)	Max. Depth (feet)	Calculated Volume (mil. gals)	Sensitive Fish Species Present[1]	Resistant Fish Species Present[2]	15% of 7 ft Winter Volume (mil. gals)	30% of 5 ft Winter Volume (mil. gals)	Available Water (mil. gals)
L9807	140.3	10.1	223.78	None	NSSB		8.21	8.21
L9817	65.4	8.9	101.09	None	NSSB		4.85	4.85
L9823	5.7	13.5	12.73	None	NSSB		1.20	1.20
L9911	559.1	8.0	792.89	not sampled	not sampled		29.54	29.54
M9912	148.0	9.6	61.93	None	NSSB, BKFH		3.36	3.36
M9914	14.7	7.8	205.08	GRAY	NSSB, BKFH	0.00		0.00
M9922	30.0	6.1	246.94	None	NSSB		1.32	1.32
M9923	30.0	6.7	289.60	None	NSSB		4.69	4.69
M0024	34.8	8.2	236.90	None	NSSB		11.35	11.34
M0201	151.0	3.7	not estimated	GRAY	NSSB			0.00
M0254	195.6	12.7	59.40	None	NSSB, BKFH		2.91	0.00
M0256	254.7	9.0	48.00	None	NSSB		37.67	2.91
MC7916	419.6	8.9	605.37	BDWF, LSCS	NSSB, BKFH	2.33		2.33
MC7917	312.5	12.9	605.92	LSCS		12.37		12.37

[1] BDWF = broad whitefish, LSCS = least cisco, LKTR = lake trout

[2] NSSB = ninespine stickleback, BKFH = Alaska blackfish

[3] No = lake does not represent fish habitat, Yes = fish present during survey, Y? = fish not caught but lake has potential to be fish habitat.

Table 14. Estimated area available for removing ice aggregate, based on the area covered by water shallower than 4 feet, from 14 lakes in eastern NPR-A.

Lake	Surface Area (acres)	Max. Depth (feet)	Acres covered by Water shallower 4 feet
L9807	140.3	10.1	31.8
L9817	65.4	8.9	17.1
L9823	5.7	13.5	1.4
L9911	559.1	7.6	181.8
M9912	148.0	9.6	5.6
M9914	14.7	6.4	50.5
M9922	30.0	6.1	63.1
M9923	30.0	6.7	118.8
M0024	34.8	8.2	35.8
M0201	151.0	3.7	14.7
M0254	195.6	12.7	8.8
M0256	254.7	9.0	9.2
MC7916	419.6	8.9	192.3
MC7917	312.5	12.9	89.6

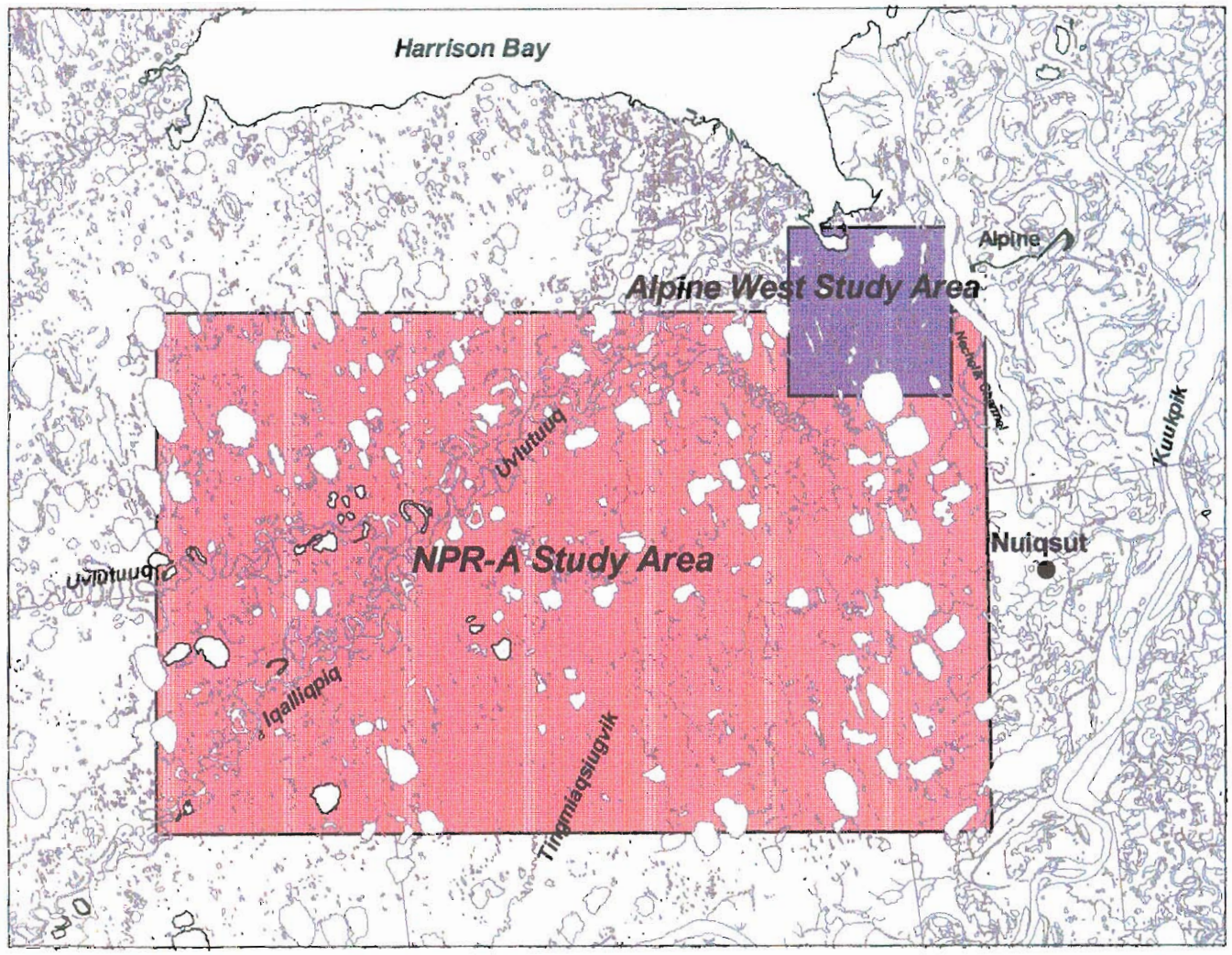


Figure 1. General location of the eastern NPR-A study area, Alaska, 2001-2003.

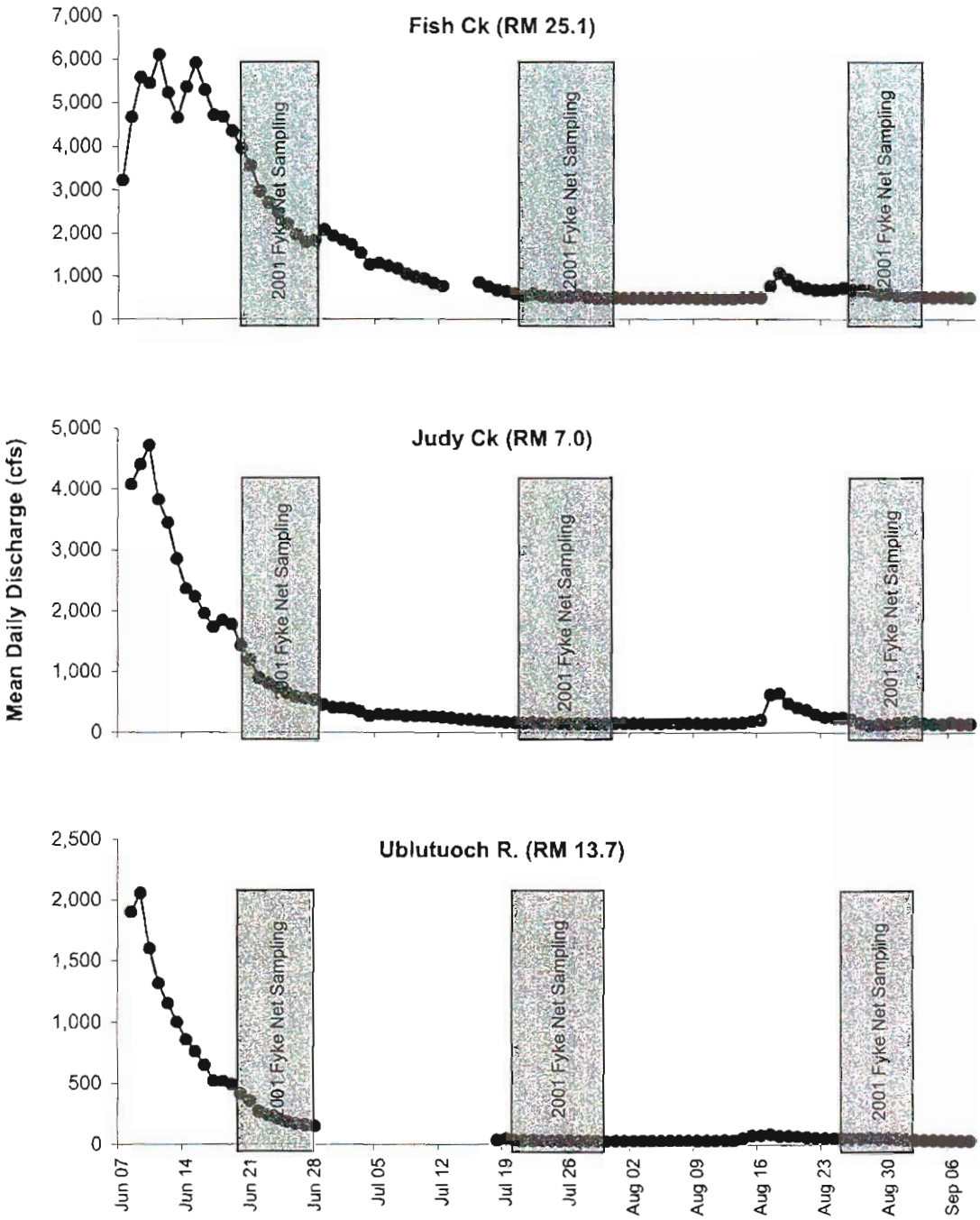


Figure 3. Discharge patterns in creeks sampled in eastern NPR-A during 2001, shaded bars indicate fyke net sampling periods (discharges from Dietzmann and Aldrich 2001, note change of scale between streams).

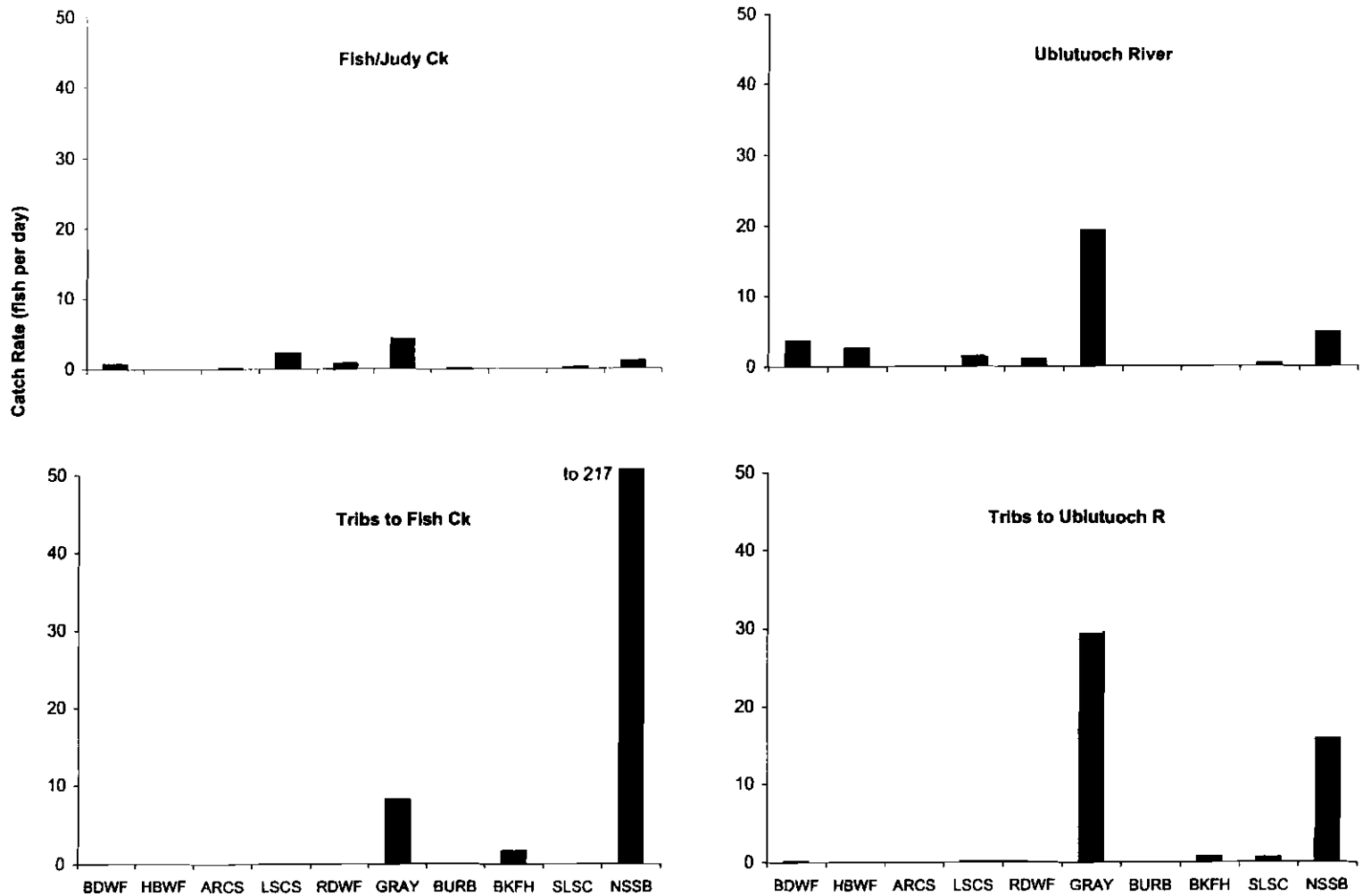


Figure 5. Differences in catch rate of fish species caught during fyke net sampling, by stream type, in eastern NPR-A, during 2001-2003.

BDWF = broad whitefish
HBWF = humpback whitefish
ARCS = arctic cisco
LSCS = least cisco
RDWF = round whitefish
GRAY = arctic grayling
BURB = burbot
BKFH = Alaska blackfish
SLSC = slimy sculpin
NSSB = ninespine stickleback

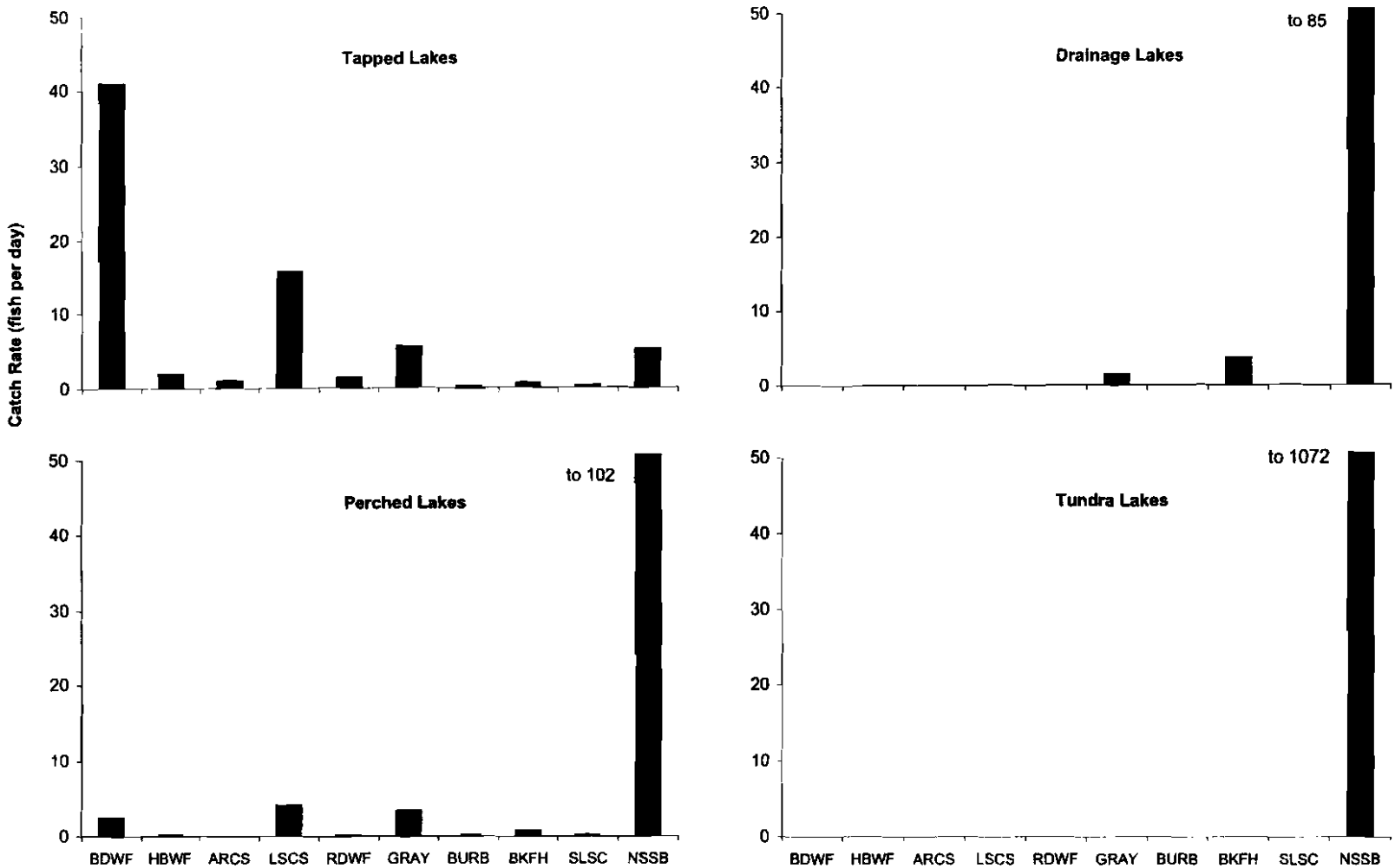


Figure 6. Differences in catch rate of fish species caught during fyke net sampling, by lake type, in eastern NPR-A, during 2001-2003.

BDWF = broad whitefish
HBWF = humpback whitefish
ARCS = arctic cisco
LSCS = least cisco
RDWF = round whitefish
GRAY = arctic grayling
BURB = burbot
BKFH = Alaska blackfish
SLSC = slimy sculpin
NSSB = ninespine stickleback

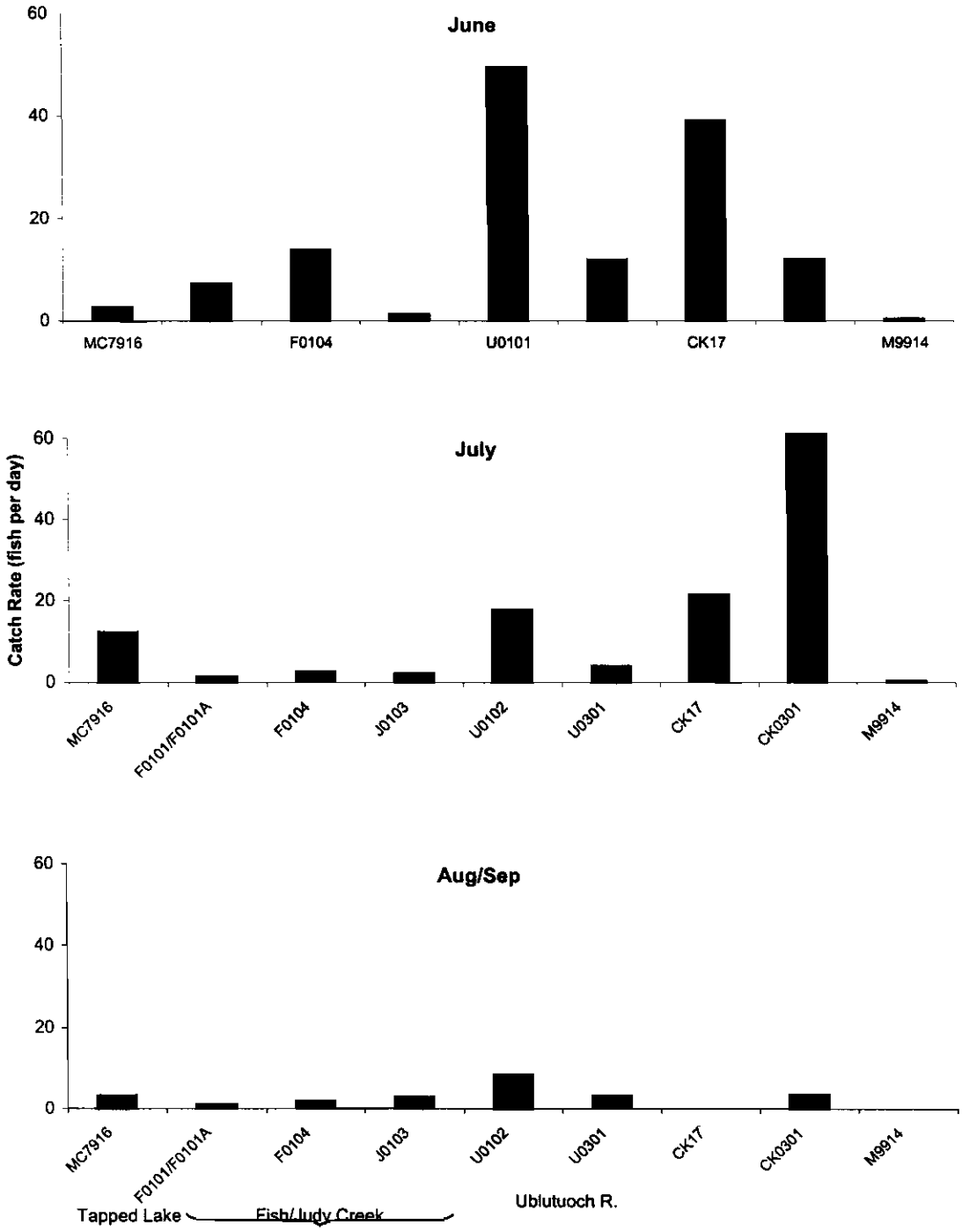


Figure 7. Mean catch rate of arctic grayling at fyke net stations in eastern NPR-A, 2001-2003.

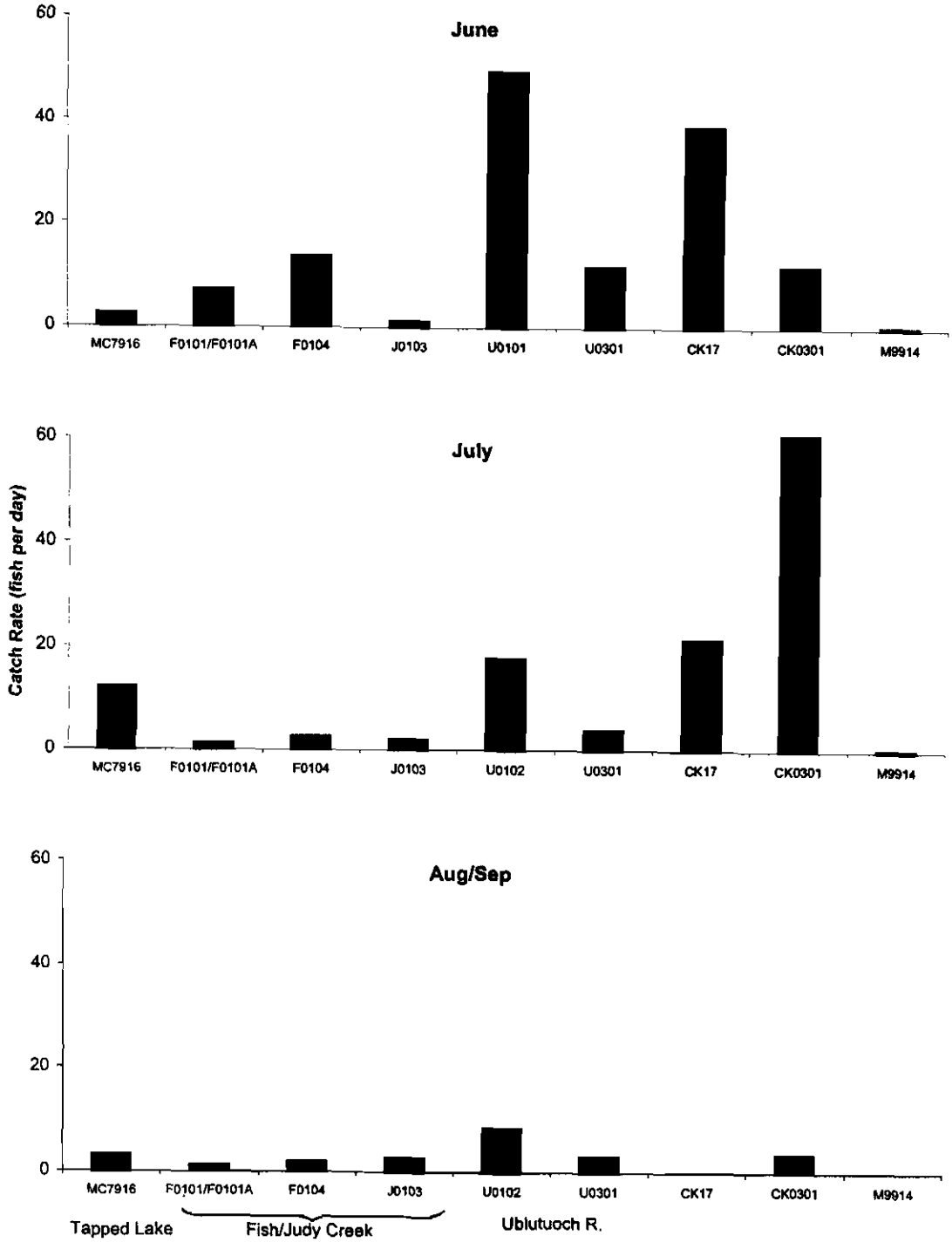


Figure 7. Mean catch rate of arctic grayling at fyke net stations in eastern NPR-A, 2001-2003.

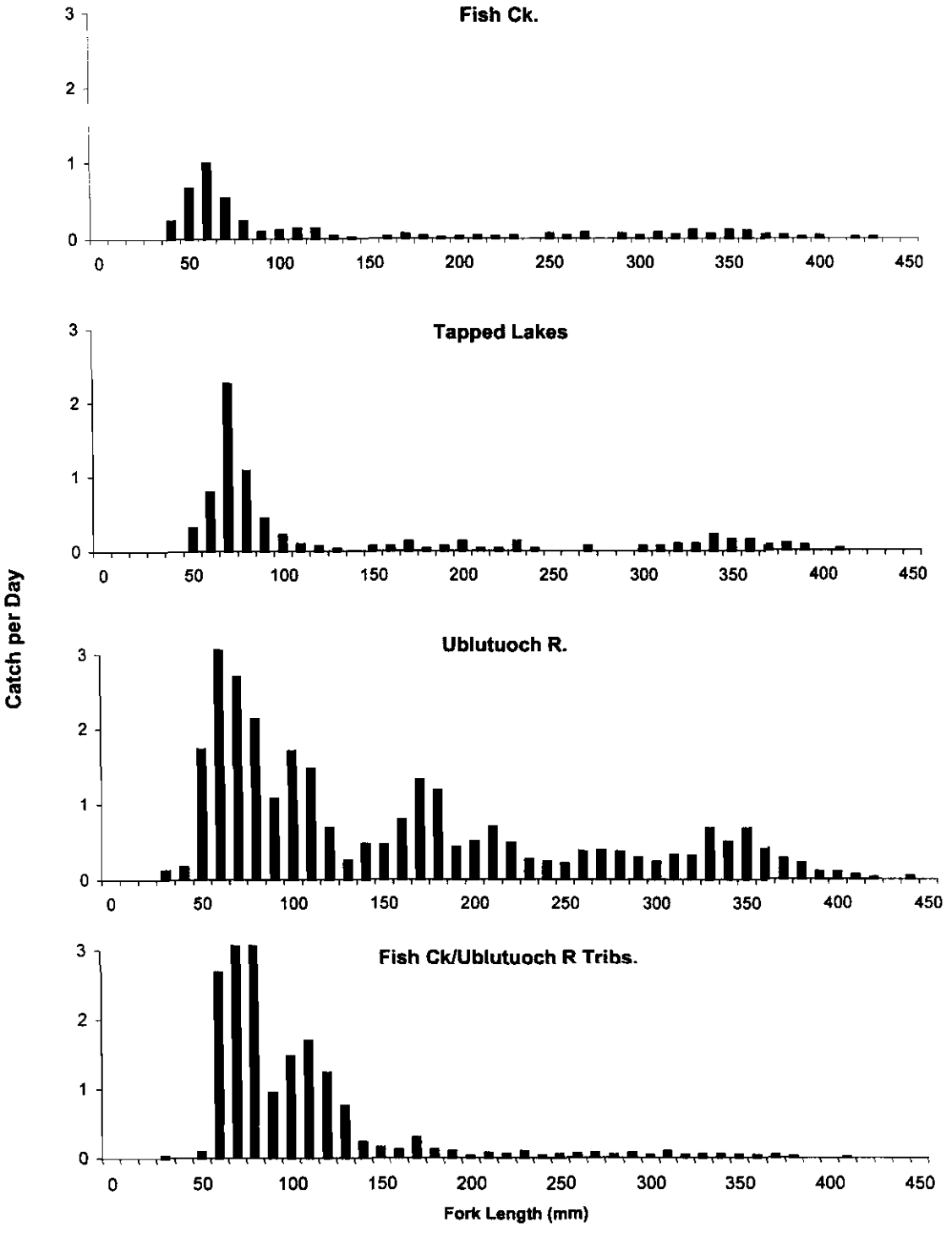


Figure 8. Length frequency of arctic grayling caught by fyke net in eastern NPR-A, 2001-2003.

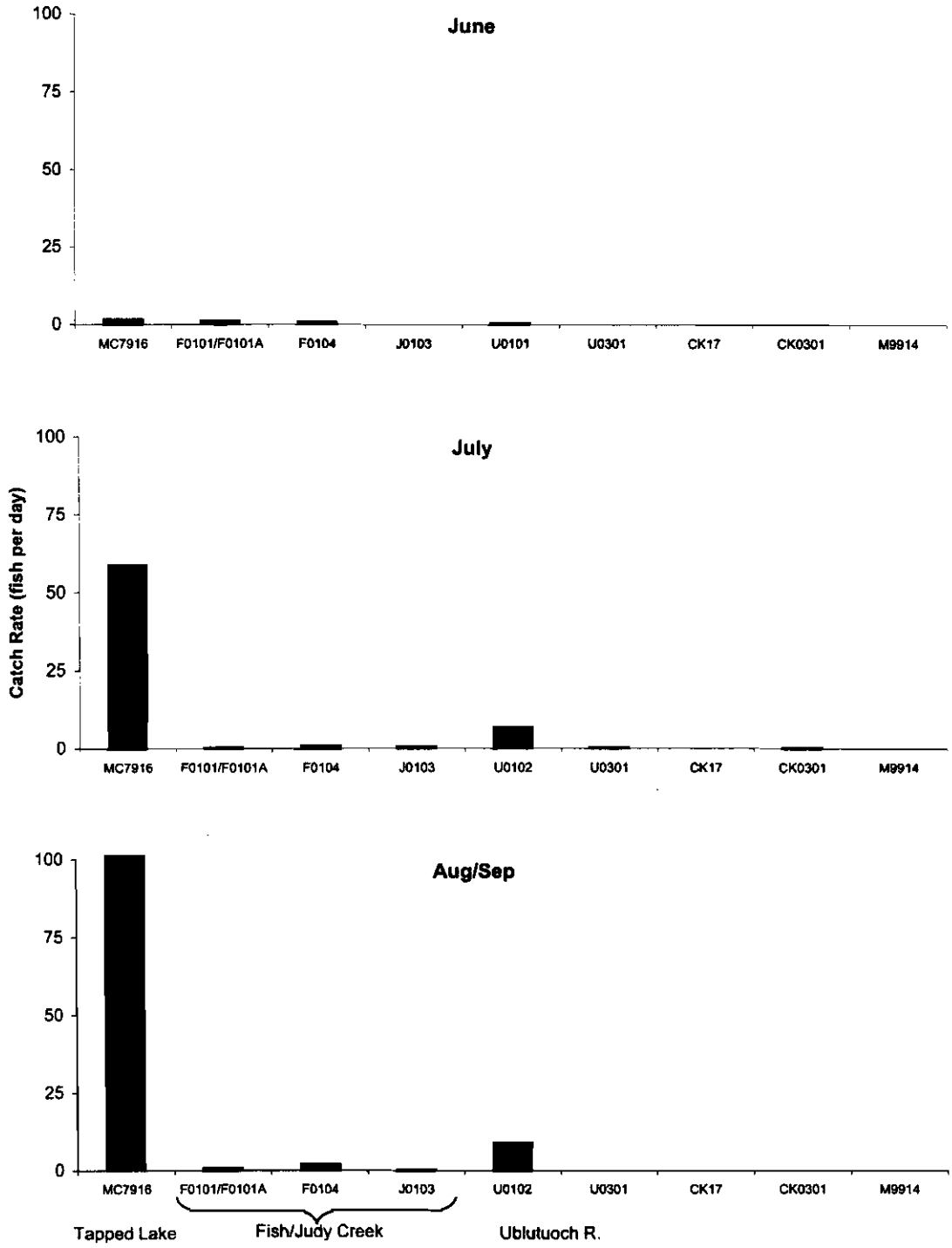


Figure 9. Mean catch rate of broad whitefish at fyke net stations in eastern NPR-A, 2001-2003.

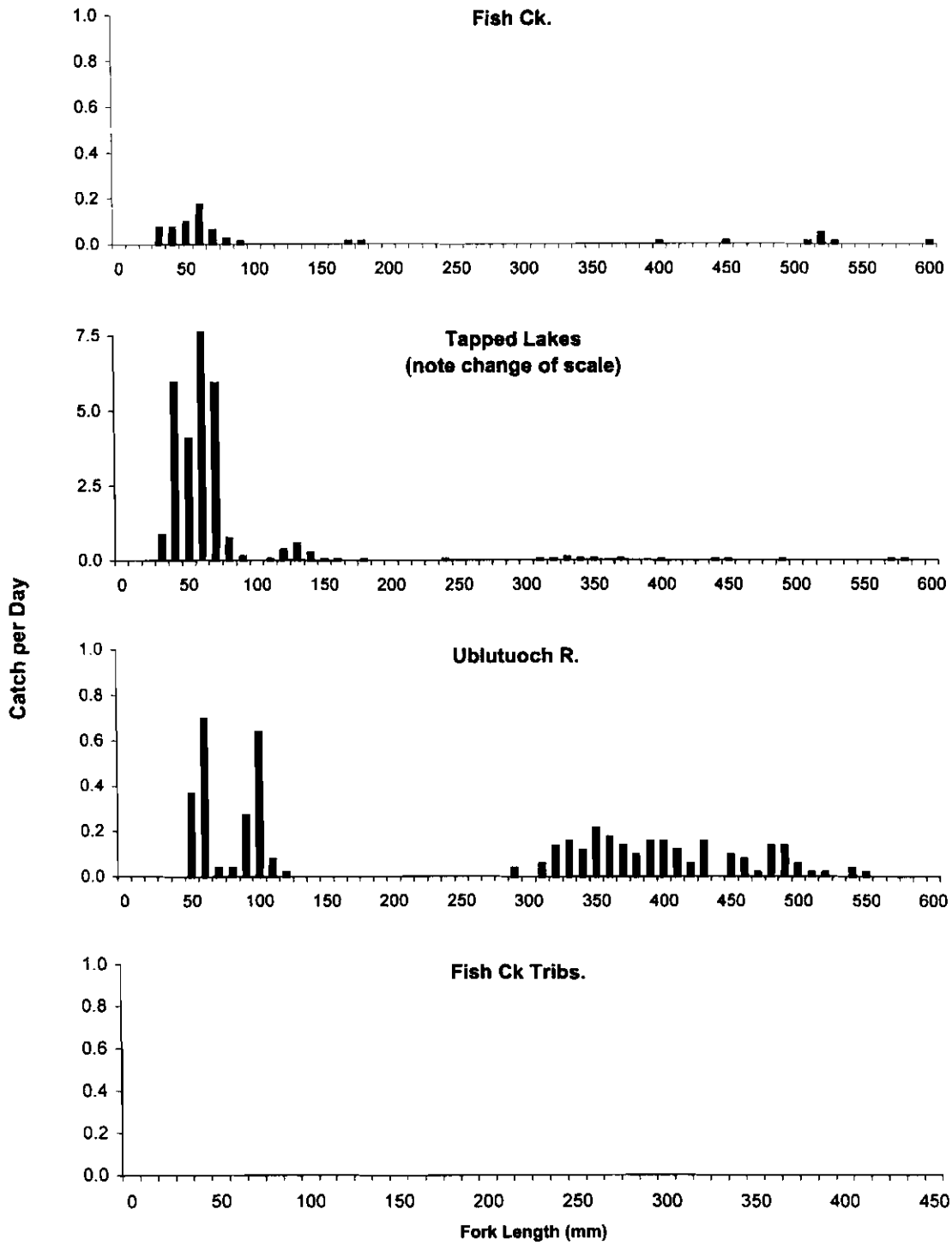


Figure 10. Length frequency of broad whitefish caught by fyke net in eastern NPR-A, 2001-2003.

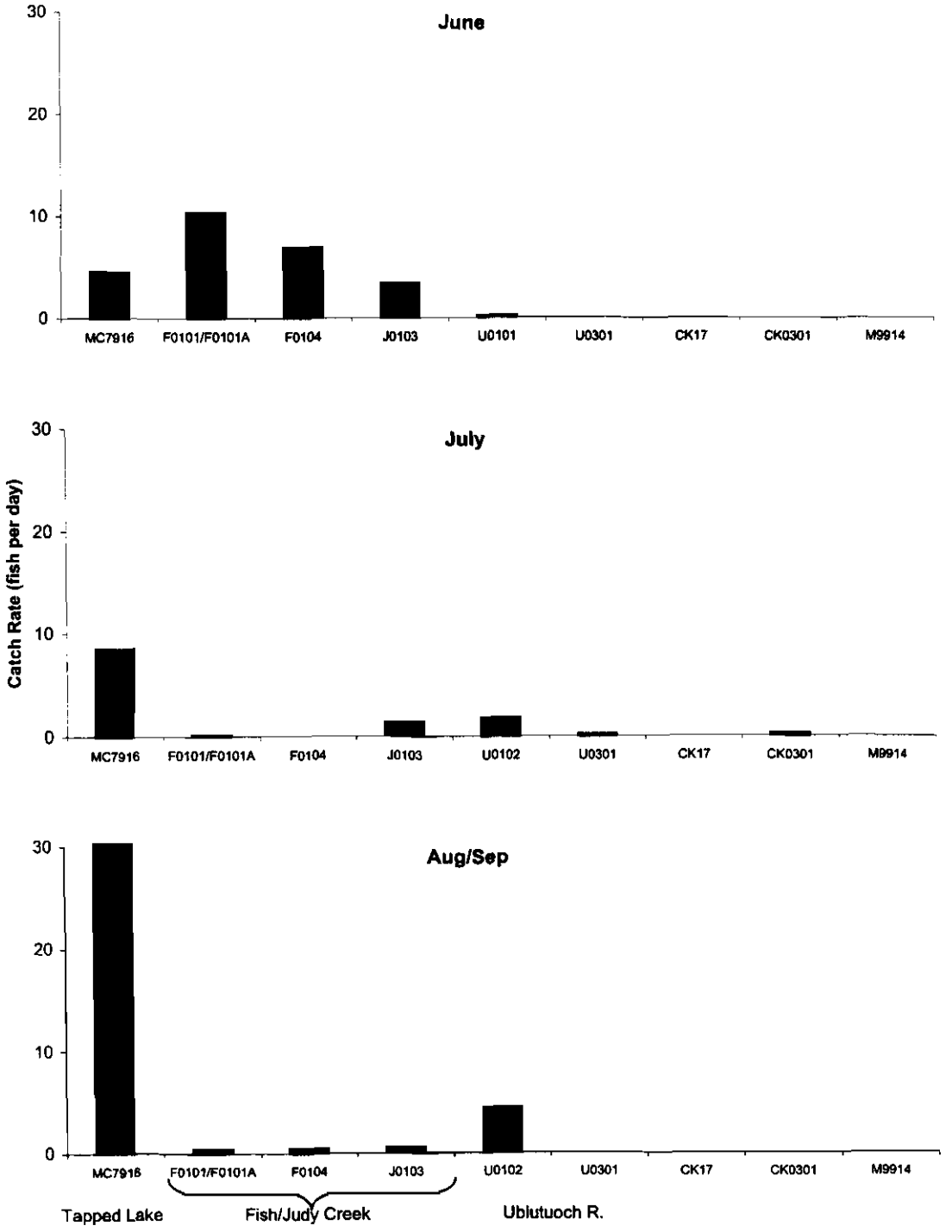


Figure 11. Mean catch rate of least cisco at fyke net stations in eastern NPR-A, 2001-2003.

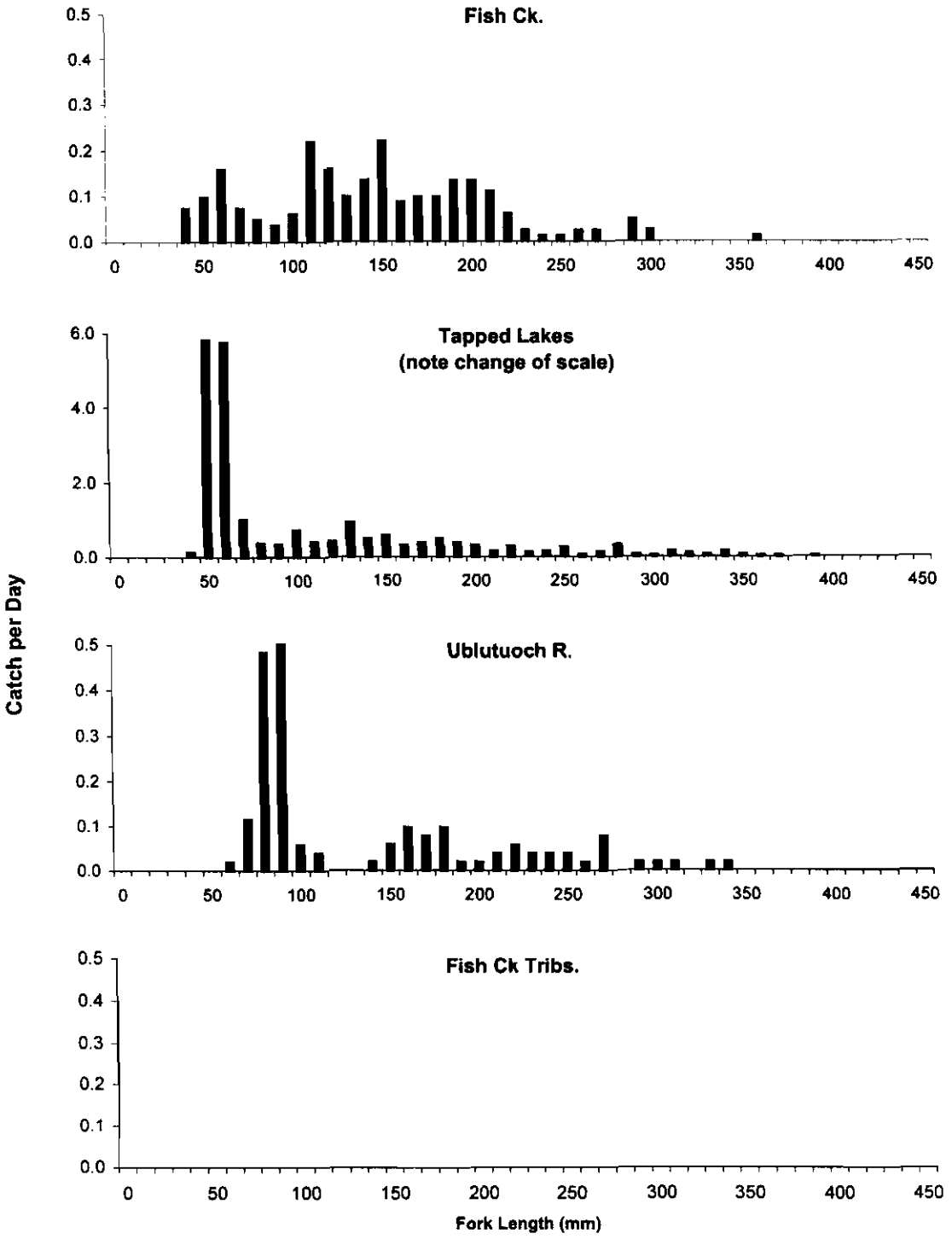


Figure 12. Length frequency of least cisco caught by fyke net in eastern NPR-A, 2001-2003.

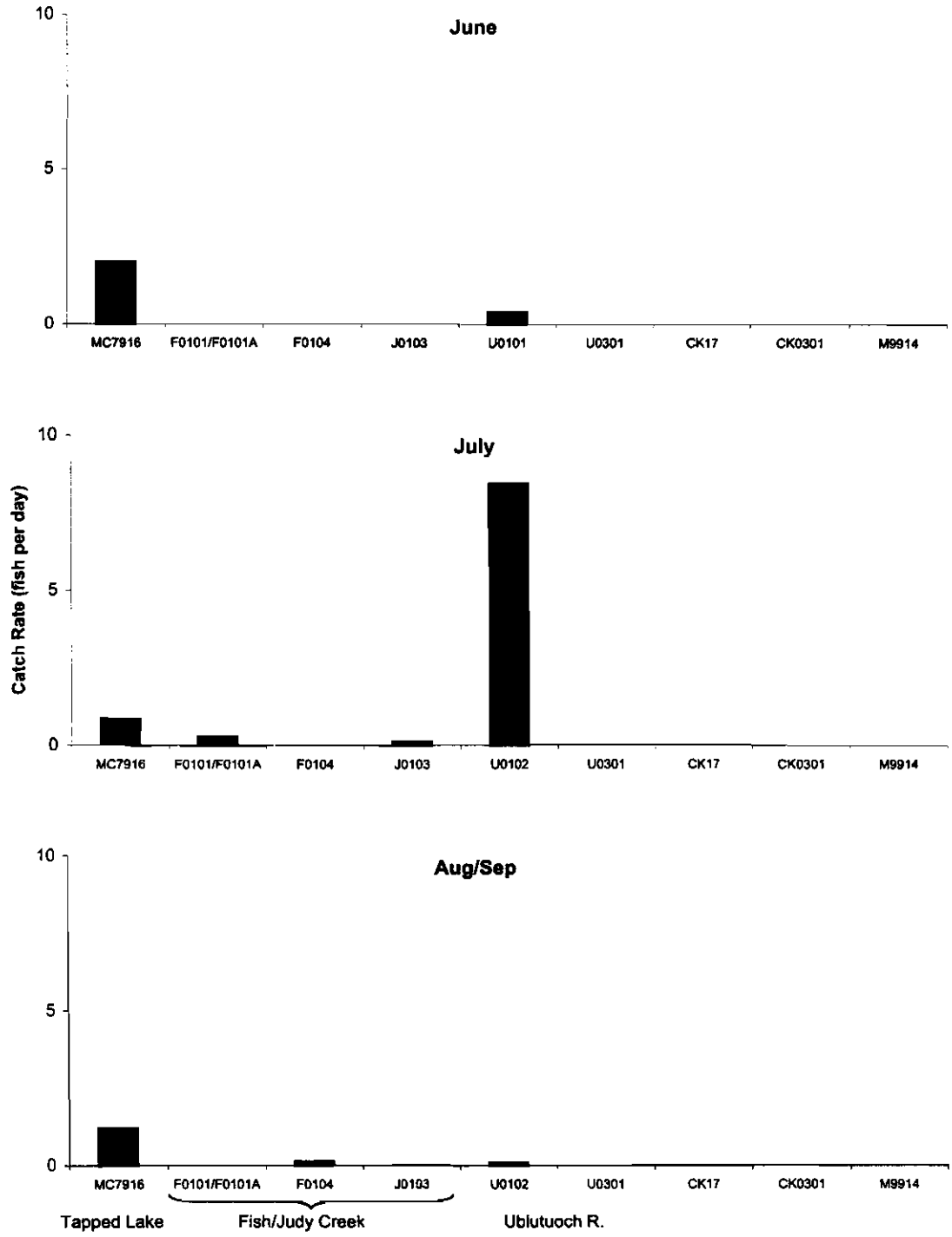


Figure 13. Mean catch rate of humpback whitefish at fyke net stations in eastern NPR-A, 2001-2003.

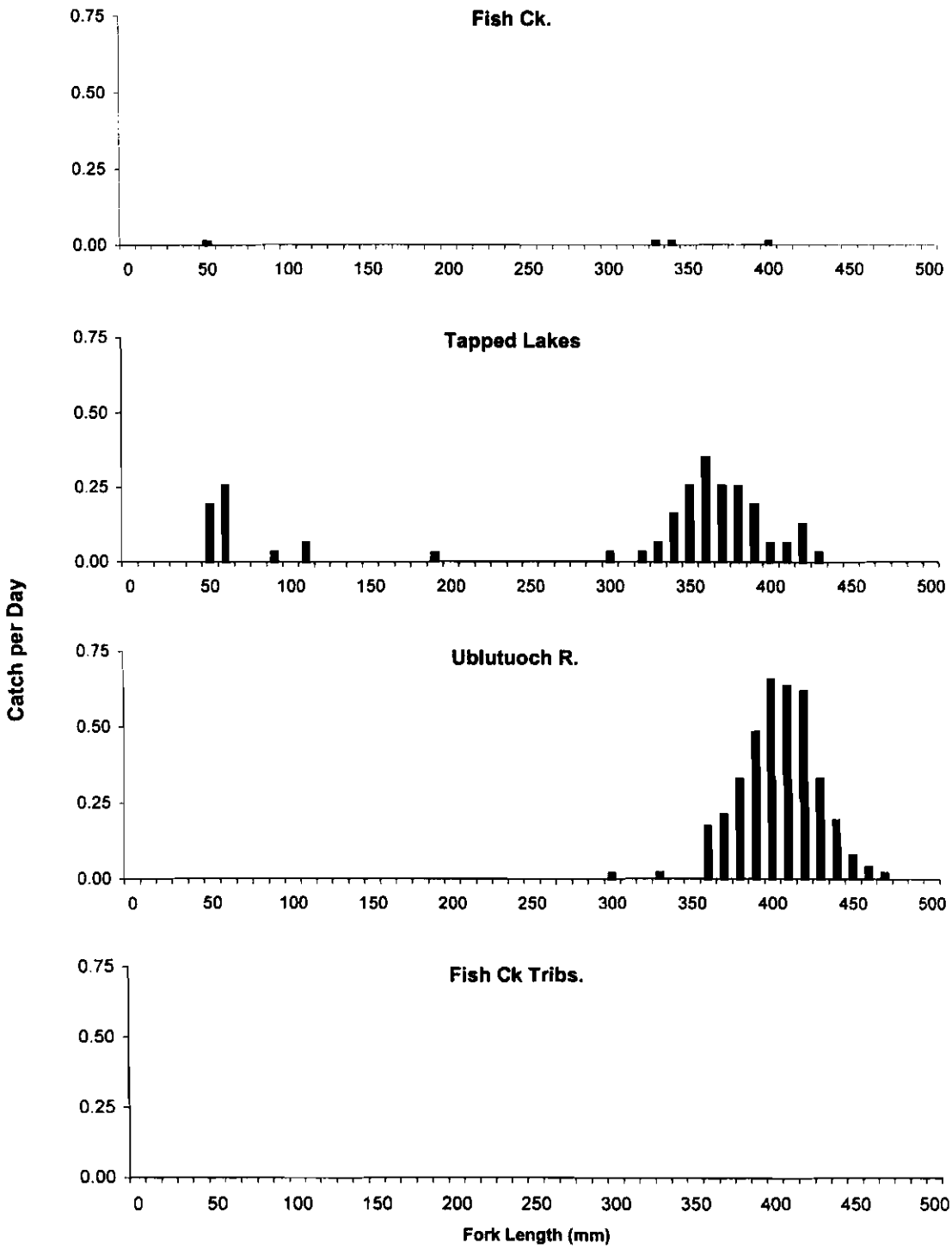


Figure 14. Length frequency of humpback whitefish caught by fyke net in eastern NPR-A, 2001-2003.

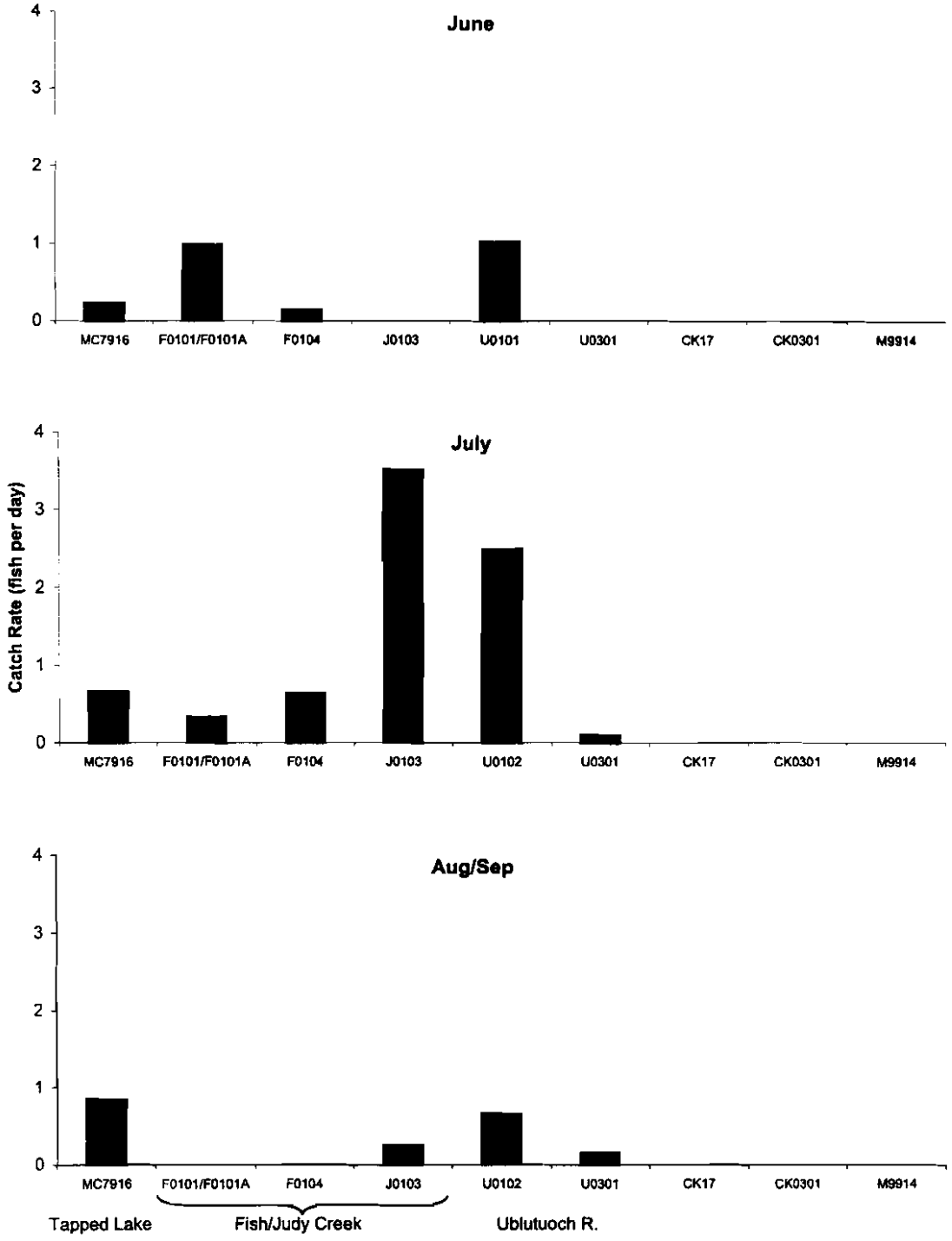


Figure 15. Mean catch rate of round whitefish at fyke net stations in eastern NPR-A, 2001-2003.

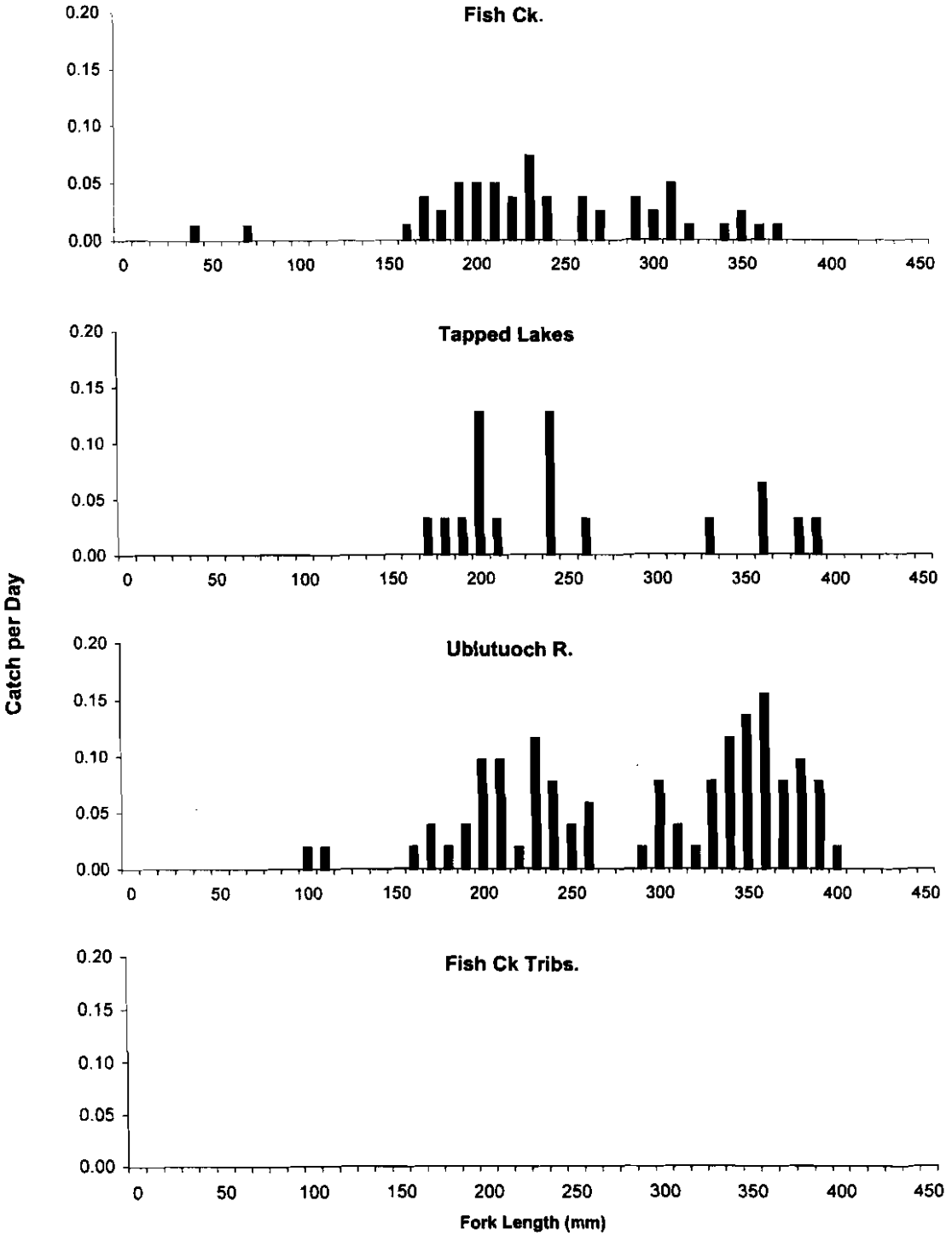


Figure 16. Length frequency of round whitefish caught by fyke net in eastern NPR-A, 2001-2003.

APPENDIX A

Water chemistry from fyke net stations in eastern NPR-A during 2001-2003

Appendix Table A-1. Mean daily discharge measurements from selected cross sections in eastern NPR-A, 2001 (data from Dietzman and Aldrich, 2001).

Date	Fish Ck RM 25.1 (cfs)	Judy Ck RM 7.0 (cfs)	Ublutuoch R. RM 13.7 (cfs)
Jun 07	3,214		
Jun 08	4,668	4,076	1,901
Jun 09	5,578	4,403	2,057
Jun 10	5,438	4,718	1,599
Jun 11	6,098	3,826	1,315
Jun 12	5,223	3,450	1,152
Jun 13	4,646	2,850	1,000
Jun 14	5,350	2,355	854
Jun 15	5,905	2,229	759
Jun 16	5,281	1,954	649
Jun 17	4,708	1,730	519
Jun 18	4,669	1,838	518
Jun 19	4,346	1,768	488
Jun 20	3,955	1,427	409
Jun 21	3,562	1,187	351
Jun 22	2,971	889	264
Jun 23	2,707	804	234
Jun 24	2,474	724	206
Jun 25	2,221	644	183
Jun 26	1,967	579	161
Jun 27	1,790	552	154
Jun 28	1,832	526	149
Jun 29	2,071	447	
Jun 30	1,926	403	
Jul 01	1,830	399	
Jul 02	1,725	389	
Jul 03	1,531	335	
Jul 04	1,266	267	
Jul 05	1,296	293	
Jul 06	1,227	283	
Jul 07	1,172	285	
Jul 08	1,038	263	
Jul 09	976	260	
Jul 10	926	263	
Jul 11	826	252	
Jul 12	762	241	
Jul 13		228	
Jul 14		211	
Jul 15		202	
Jul 16	852	196	
Jul 17	750	175	
Jul 18	675	171	35
Jul 19	642	163	48
Jul 20	587	155	36
Jul 21	528	150	32
Jul 22	585	156	33
Jul 23	526	147	30
Jul 24	496	143	31
Jul 25	507	142	32
Jul 26	513	139	30
Jul 27	546	137	29
Jul 28	495	135	28
Jul 29	473	134	28
Jul 30	476	138	27
Jul 31	489	146	29
Aug 01	482	144	28
Aug 02	477	140	28
Aug 03	483	141	28
Aug 04	480	141	29
Aug 05	478	140	28
Aug 06	491	145	30
Aug 07	487	143	30
Aug 08	485	140	30
Aug 09	480	142	31
Aug 10	474	139	30
Aug 11	473	139	31
Aug 12	473	140	32
Aug 13	474	141	34
Aug 14	489	150	50
Aug 15	495	176	73
Aug 16	492	200	74
Aug 17	756	611	82
Aug 18	1,065	631	70
Aug 19	912	470	68
Aug 20	765	397	64
Aug 21	712	361	60
Aug 22	670	288	55
Aug 23	669	244	50
Aug 24	678	233	51
Aug 25	716	237	57
Aug 26	673	213	58
Aug 27	671	158	57
Aug 28	648	113	64
Aug 29	567	135	57
Aug 30	577	127	59
Aug 31	543	149	54
Sep 01	523	161	50
Sep 02	536	176	47
Sep 03	517	150	45
Sep 04	505	140	43
Sep 05	514	137	42
Sep 06	512	162	42
Sep 07	507	135	40
Sep 08	500	141	40

Appendix Table A-2. Water chemistry measured at NPR-A fyke net sampling sites, 2001

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
M0142	Tapped Lake off Ublutuoch R	6/21/2001	6.6	10.93	89.6	96.1		
		6/22/2001	5.7	11.73	93.5	96.9	8.07	18.3
		6/23/2001	8.0	11.70	100.1	96.4	7.92	16.8
MC7916A	Tapped Lake off Fish Ck	6/22/2001	7.0	12.50	102.7	124.0	8.00	6.3
		6/23/2001	7.5	12.57	105.1	121.4	7.91	4.9
		6/24/2001	8.0	11.61	98.4	123.4	7.96	4.4
MC7916B	Tapped Lake off Fish Ck	6/24/2001	4.2	12.57	97.3	109.8	7.88	3.3
		6/25/2001	5.6	13.30	106.9	111.4	7.97	4.5
		6/26/2001	5.6	12.21	96.8	113.3	7.97	3.3
		6/27/2001	5.3	12.53	99.5	106.8	7.74	4.8
		6/28/2001	5.5	12.13	96.8	106.6	7.93	4.0
MC7916C	Tapped Lake off Fish Ck	6/25/2001	5.6	12.07	102.0	111.8	7.96	3.0
		6/26/2001	4.9	12.80	100.8	109.7	7.85	5.5
		6/27/2001	5.8	12.28	98.3	110.7	7.83	3.2
		6/28/2001	5.4	12.02	95.6	106.0	7.70	4.0
		7/18/2001	13.2	9.50	90.5	116.7	8.07	3.0
		7/20/2001	14.8	8.40	80.4	126.9	8.00	3.0
		7/21/2001	14.8	9.14	89.2	127.1	8.04	16.2
		7/23/2001	16.6	9.78	98.0	128.8	8.09	17.3
		7/24/2001	13.9	9.00	88.9	129.2	8.04	4.2
		7/25/2001	11.9	9.31	87.2	131.9	8.01	6.5
		7/26/2001	11.7	11.68	112.1	130.6	8.08	4.3
		7/27/2001	13.4	10.38	99.1	130.8	8.00	2.9
		7/28/2001	13.2	9.32	89.6	132.6	8.00	3.5
		7/29/2001	11.0	9.80	93.3	131.6	8.00	3.7
		7/30/2001	9.1	10.24	89.0	132.8	7.94	4.8
		8/25/2001	3.6	12.57	95.4	135.8	7.72	2.6
		8/26/2001	4.0				8.05	2.6
		8/27/2001	4.4	11.96	92.6	151.8	7.85	2.0
		8/28/2001	4.5	12.47	96.8	143.3	7.93	1.8
		8/29/2001	5.0	11.81	92.4	134.8	8.06	3.1
		8/30/2001	4.9	12.28	97.7	150.6	8.07	3.2
		8/31/2001	5.2	11.95	94.3	140.6	8.04	1.9
F0101	Fish Ck	6/19/2001	9.1	11.13	97.2	93.6		
		6/20/2001	9.2	10.47	91.3	92.5	7.90	23.2
		6/21/2001	7.4	11.14	92.9	92.6	8.04	23.2
		6/22/2001	7.8	11.81	99.4	92.5	8.06	20.2
		6/23/2001	10.2	11.53	103.1	95.1	8.06	20.1
		6/24/2001	11.8	10.35	96.1	98.4	8.05	18.6

Appendix Table A-2. Water chemistry measured at NPR-A fyke net sampling sites, 2001

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
F0101A	Fish Ck	6/25/2001	14.5	11.44	111.5	105.3	8.10	12.7
		6/26/2001	11.8	11.05	102.8	106.2	8.02	11.6
		6/27/2001	14.7	10.25	101.9	109.4	8.10	10.4
		6/28/2001	9.6	11.02	97.1	109.2	8.12	12.0
F0102	Fish Ck	7/18/2001	15.6	8.76	88.0	124.6	8.19	5.8
		7/19/2001	15.2	NS	NS	125.2	8.06	8.5
		7/20/2001	15.1	8.65	85.5	125.0	8.09	5.3
F0102A	Fish Ck	7/21/2001	15.7	9.19	93.7	127.0	8.21	6.4
		7/23/2001	17.0	8.95	94.4	137.3	8.16	8.9
		7/24/2001	13.5	8.81	87.7	138.5	7.95	3.6
		7/25/2001	11.4	10.11	92.2	139.3	8.16	5.2
		7/26/2001	11.3	10.52	96.6	139.9	8.10	2.8
		7/27/2001	12.5	10.39	97.3	140.3	8.05	5.0
		7/28/2001	12.6	10.42	98.5	140.6	8.08	4.1
		7/29/2001					8.13	5.1
		7/30/2001	7.6	10.57	91.1	142.6	7.99	5.0
		8/25/2001	3.6	12.51	94.7	138.5	7.76	5.8
		8/26/2001	4.5				7.98	5.0
		8/27/2001	4.8	12.82	99.3	139.0	7.85	4.0
		8/28/2001	5.8	12.16	96.6	137.7	7.96	3.2
		8/29/2001	5.5	10.81	86.5	139.9	7.90	4.0
		8/31/2001	5.9	11.01	88.4	140.4	7.92	3.3
		9/1/2001	5.5	10.82	85.8	139.3	7.87	3.8
		9/2/2001	5.2	11.62	91.6	139.3	7.96	3.5
F0103	Fish Ck	7/18/2001	15.8	8.40	86.0	117.7	8.16	7.2
		7/19/2001	15.4	NS	NS	117.4	8.09	6.5
		7/20/2001	15.0	8.00	81.7	118.4	8.10	7.4
		7/21/2001	15.7	9.26	93.7	127.3	8.11	6.2
		7/23/2001	16.5	8.75	89.8	129.8	8.18	8.6
		7/24/2001	13.4	9.00	86.1	130.8	7.99	7.1
		7/25/2001	11.5	9.64	89.1	131.8	8.13	4.8
		7/26/2001	11.4	9.85	92.7	131.8	8.14	4.6
		7/27/2001	13.0	10.58	98.4	131.9	8.05	4.3
		7/28/2001	13.3	10.18	95.6	132.9	8.08	4.5
		7/29/2001	9.3	10.75	94.1	133.3	8.08	4.1
		7/30/2001	7.3	11.04	93.9	134.6	8.08	13.2
		8/25/2001	3.9	12.88	97.5	129.7	7.67	4.0
		8/26/2001	4.5				7.95	3.3
		8/27/2001	5.1	12.61	98.7	129.1	7.83	5.4
		8/28/2001	6.7	11.92	97.3	128.5	7.98	3.1

Appendix Table A-2. Water chemistry measured at NPR-A fyke net sampling sites, 2001

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
F0103	Fish Ck	8/29/2001	5.5	10.98	87.3	129.4	8.01	3.4
		8/30/2001	6.5	10.01	82.0	130.2	7.97	3.2
		8/31/2001	5.9	11.90	95.5	128.8		4.0
		9/1/2001	5.5	11.58	91.6	128.1	7.98	3.6
		9/2/2001	5.1	11.02	86.6	129.7	7.85	3.4
F0104	Fish Ck	6/19/2001	9.2	11.72	102.1	82.6		
		6/20/2001	8.8	11.11	96.0	83.8	8.03	18.2
		6/21/2001	7.5	11.47	96.1	85.0	8.02	17.0
		6/22/2001	8.9	12.11	105.1	89.2	8.06	15.2
		6/23/2001	12.1	11.60	108.8	91.0	8.00	13.2
		6/24/2001	12.9	11.54	109.5	95.2	8.03	14.8
		6/25/2001	12.5	11.12	105.0	99.7	8.02	13.3
		6/26/2001	10.8	10.64	96.7	106.3	8.14	10.2
		6/27/2001	10.9	11.12	101.1	112.2	8.10	9.2
		6/28/2001	10.2	10.87	96.3	105.7	8.10	8.7
J0103	Judy Ck	6/19/2001	9.5	10.46	91.8	98.4		
		6/20/2001	9.2	10.60	92.5	98.2	7.91	23.2
		6/21/2001	7.8	11.22	94.6	97.7	8.00	18.1
		6/22/2001	8.2	11.63	99.1	96.4	8.05	15.3
		6/23/2001	11.3	11.64	106.8	102.8	8.05	15.2
		6/24/2001	13.2	10.27	98.4	105.5	7.61	0.8
		7/19/2001	14.6	NS	NS	145.8	8.14	6.0
		7/20/2001	15.2	8.24	84.3	146.6	8.13	3.1
		7/21/2001	15.9	9.75	99.6	158.7	8.10	3.1
		7/23/2001	17.6	8.49	88.2	162.3	8.25	5.1
		7/24/2001	13.1	9.47	87.3	162.3	8.02	4.8
		7/25/2001	11.6	10.24	94.2	163.3	8.12	2.7
		7/26/2001	12.0	10.41	97.4	166.6	8.22	2.8
		7/27/2001	13.9	10.13	98.2	169.4	8.13	2.9
		7/28/2001	13.3	10.44	99.8	169.1	8.14	5.2
		7/29/2001	9.0	10.48	90.5	170.2	8.16	4.0
		7/30/2001	7.3	11.08	96.2	171.9	8.07	2.7
		8/25/2001	4.1	12.63	97.3	153.1	7.81	6.6
		8/26/2001	5.0				7.95	5.5
		8/27/2001	5.9	12.79	102.8	155.4	7.85	4.5
		8/28/2001	7.3	11.94	99.0	157.6	8.00	4.3
		8/29/2001	5.7	10.97	87.6	159.5	8.00	4.1
		8/30/2001	7.9	12.44	106.4	160.7	7.99	3.8
		8/31/2001	6.3	11.15	90.4	162.1	7.95	3.7
		9/1/2001	5.5	10.71	84.9	162.2	7.90	4.0
		9/2/2001	5.0	11.62	91.1	164.7	7.99	3.5

Appendix Table A-2. Water chemistry measured at NPR-A fyke net sampling sites, 2001

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
J0103A	Judy Ck	6/25/2001	13.0	9.85	93.7	108.2	7.67	1.3
		6/26/2001	11.1	9.81	89.6	111.5	7.66	1.0
		6/27/2001	11.4	10.16	93.2	114.6	7.57	1.5
		6/28/2001	11.1	10.37	94.0	116.5	7.68	2.9
U0101	Ublutuoch R	6/19/2001	9.7	10.55	93.0	82.2		
		6/20/2001	9.1	9.98	86.8	81.4	7.55	1.3
		6/21/2001	7.5	10.50	88.0	80.5	7.63	1.7
		6/22/2001	8.9	11.13	96.2	78.1	7.76	1.3
		6/23/2001	10.9	11.00	99.7	78.3	7.77	1.5
		6/24/2001	12.3	10.24	96.3	79.7	7.62	1.4
		6/25/2001	12.5	9.79	92.3	80.1	7.74	1.3
		6/26/2001	11.8	9.87	91.4	81.6	7.74	1.1
		6/27/2001	12.2	10.00	93.7	83.1	7.67	1.1
		6/28/2001	11.9	10.45	96.9	85.4	7.74	1.1
U0102	Ublutuoch R	7/19/2001	15.9	NS	NS	93.4	7.93	1.0
		7/20/2001	15.4	8.33	81.2	94.9	7.87	0.8
		7/21/2001	16.5	9.05	94.4	101.4	7.99	1.5
		7/23/2001	18.0	10.11	105.8	104.2	7.96	1.0
		7/24/2001	14.6	8.94	88.0	105.3	7.84	0.8
		7/25/2001	12.4	9.42	87.9	105.9	7.87	1.0
		7/26/2001	12.9	10.01	94.3	105.6	7.97	1.4
		7/27/2001	13.6	10.71	103.2	106.4	7.83	1.2
		7/28/2001	13.0	10.17	96.7	106.8	7.81	1.1
		7/29/2001	10.2	9.26	83.4	108.0	7.82	1.4
		7/30/2001	8.8	10.51	90.3	109.3	7.84	1.4
		8/25/2001	4.0	12.38	94.8	120.9	7.44	1.6
		8/26/2001	5.8				7.74	1.2
		8/27/2001	5.7	12.29	98.2	117.4	7.63	1.1
		8/28/2001	5.2	12.39	98.4	115.5	7.66	1.3
		8/29/2001	6.0	11.51	93.3	114.3	7.73	1.4
		8/30/2001	5.4	11.23	89.2	115.4	7.93	1.6
		8/31/2001	6.1	10.55	85.5	115.2	7.74	1.1
		9/1/2001	5.8	10.90	87.0	115.0	7.77	1.2
		9/2/2001	5.6	11.69	93.2	115.8	7.64	1.5

Appendix Table A-3. Water chemistry measured at NPR-A fyke net sampling sites, 2002

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
CK16A	Beaded stream off Fish Creek	6/20/2002	6.6	9.67	78.9	103.8	7.79	1.4
		6/21/2002	4.8	11.16	87.4	103.7	7.75	0.7
		6/22/2002	6.4	11.20	91.1	103.1	7.22	0.5
		6/23/2002	4.7	10.99	86.0	100.1	7.09	0.5
		6/24/2002	7.2	11.56	96.1	101.1	7.13	0.6
		6/25/2002	9.5	10.12	89.2	102.2	7.34	0.4
		6/26/2002	12.7	9.83	93.0	103.8	7.60	0.4
		6/27/2002	8.2	10.15	86.3	102.0	7.33	0.5
		7/20/2002	16.6			125.4	7.42	1.3
		7/21/2002	16.4	9.52	97.5	119.7	7.37	1.3
		7/22/2002	14.9	8.15	80.8	121.2	7.37	1.4
		7/23/2002	11.3	9.96	91.3	122.8	7.21	1.5
		7/24/2002	11.1	10.29	94.0	122.8	7.38	1.6
		7/25/2002	9.0	9.81	85.2	122.5	7.39	1.6
		7/26/2002	8.2	11.01	93.7	122.1	7.47	1.8
		7/27/2002	8.1	11.12	94.2	121.5	7.49	1.3
CK16B	Beaded stream off Fish Creek	6/20/2002	7.1	10.48	88.5	102.9	7.77	1.4
		6/21/2002	5.9	11.58	93.3	102.5	7.71	0.5
		6/22/2002	6.8	11.34	92.6	104.4	7.39	0.5
		6/23/2002	5.3	11.22	89.5	102.6	7.22	0.5
		6/24/2002	7.9	9.92	98.9	98.4	7.22	0.5
		6/25/2002	10.1	10.84	96.4	92.1	7.41	0.4
		6/26/2002	13.5	9.73	93.6	96.2	7.45	0.4
		6/27/2002	9.8	9.86	87.1	99.3	7.39	0.5
		7/20/2002	19.3			133.2		
		7/21/2002	18.7	9.66	98.5	128.3	7.40	1.3
		7/22/2002	16.2	8.27	80.2	131.3	7.38	1.4
		7/23/2002	12.8	9.81	93.2	133.0	7.26	1.5
		7/24/2002	12.0	10.42	97.6	134.5	7.34	1.8
		7/25/2002	9.7	10.12	89.7	134.8	7.42	1.6
		7/26/2002	9.0	11.33	98.2	135.7	7.46	1.8
		7/27/2002	8.9	11.72	101.3	136.3	7.47	1.6
CK17A	Beaded stream off Fish Creek	6/20/2002	6.7	11.40	93.4	92.4	7.34	0.6
		6/21/2002	4.7	11.42	89.3	92.1	7.85	0.8
		6/22/2002	6.2	11.29	91.3	91.5	7.36	0.9
		6/23/2002	4.5	11.23	87.1	90.0	7.18	0.5
		6/24/2002	6.1	12.24	98.9	89.1	7.32	0.5
		6/25/2002	8.7	11.44	98.6	91.0	7.36	0.5
		6/26/2002	11.9	9.53	88.0	93.9	7.26	0.5
		6/27/2002	7.6	10.23	85.5	92.8	7.37	0.6
		7/20/2002	16.4	9.31	95.1	124.9		
		7/21/2002	16.0	9.03	91.3	118.0	7.38	1.4
		7/22/2002	16.0	8.71	88.4	119.7	7.39	1.2

Appendix Table A-3. Water chemistry measured at NPR-A fyke net sampling sites, 2002

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
CK17A	Beaded stream off Fish Creek	7/23/2002	11.5	9.49	88.2	120.8	7.23	1.7
		7/24/2002	11.2	10.58	96.7	119.8	7.37	1.2
		7/25/2002	9.1	10.29	89.0	119.3	7.40	1.3
		7/26/2002	8.1	11.49	97.4	118.7	7.46	1.7
		7/27/2002	8.1	11.84	100.0	116.8	7.50	1.1
		7/28/2002	8.3	11.64	99.2	106.1	7.64	1.0
CK17B	Beaded stream off Fish Creek	6/24/2002	6.9	11.21	92.6	84.5	7.16	0.5
		6/25/2002	8.6	10.18	88.2	85.3	7.11	0.8
		6/26/2002	11.3	7.99	73.1	88.9	7.70	1.0
		6/27/2002	7.0	9.56	79.0	88.5	7.25	0.6
		7/20/2002	16.3	9.06	92.7	117.7	7.48	1.5
		7/21/2002	14.6	8.56	85.6	111.6	7.40	1.3
		7/22/2002	14.4	7.74	78.8	113.2	7.40	1.6
		7/23/2002	10.3	9.16	81.6	113.7	7.24	1.7
		7/24/2002	11.0	10.29	94.1	113.2	7.39	1.7
		7/25/2002	8.1	10.18	85.8	111.2	7.41	1.6
		7/26/2002	7.5	11.06	92.7	109.6	7.42	1.7
		7/27/2002	6.8	10.44	86.1	108.5	7.46	1.4
		7/28/2002	6.8	10.67	87.5	106.6	7.70	1.3
U0102	Ublutuoch R.	6/20/2002	9.2	10.33	89.8	90.5	8.31	3.5
		6/21/2002	8.3	11.23	95.6	92.4	7.72	1.1
		6/22/2002	8.1	11.17	96.4	92.5	7.54	1.0
		6/23/2002	7.0	11.40	94.0	93.3	7.48	0.9
		6/24/2002	8.6	11.72	100.4	95.6	7.43	1.1
		6/25/2002	10.3	10.31	92.1	94.7	7.52	0.9
		6/26/2002	12.7	9.91	93.6	92.5	7.64	0.9
		6/27/2002	10.5	10.09	90.7	91.6	7.58	1.0
		7/20/2002	20.1			108.8	7.65	1.3
		7/21/2002	17.1	9.13	94.7	102.5	7.45	1.3
		7/22/2002	17.0	8.52	88.0	103.9	7.40	1.3
		7/23/2002	13.9	9.68	93.8	104.2	7.30	1.3
		7/24/2002	13.7	10.31	99.6	106.5	7.39	2.4
		7/25/2002	10.9	9.98	90.3	107.9	7.46	1.4
		7/26/2002	10.4	11.02	98.5	110.1	7.51	1.5
		7/27/2002	10.6	11.30	101.7	111.6	7.52	1.4
		7/28/2002	10.4	11.82	105.7	112.7	7.75	1.4
		7/29/2002	11.4	11.37	103.9	113.2	8.09	1.4
		7/30/2002	14.2			113.8	8.28	1.3
		7/31/2002	12.7	11.31	106.2	121.2	8.12	1.4
		8/1/2002	13.6	10.37	98.9	121.3	8.10	1.9
		8/2/2002	15.7	9.28	93.4	121.1	8.19	1.3
		8/3/2002	16.5	9.52	97.4	122.3	8.20	1.3
		8/4/2002	16.3	9.60	98.4	123.4	8.09	1.4

Appendix Table A-3. Water chemistry measured at NPR-A fyke net sampling sites, 2002

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
U0102	Ublutuoch R.	8/5/2002	10.8	10.25	92.5	123.8	7.98	1.1
		8/6/2002	8.1	10.98	92.9	123.6	7.97	1.1
L9807	Tundra Lake	7/30/2002	12.5			136.8	8.26	1.2
		7/31/2002	12.3	10.93	103.3	144.9	8.13	1.3
		8/1/2002	13.2	10.38	97.3	152.3	8.14	1.0
		8/2/2002	14.9	9.32	93.0	151.7	8.16	1.3
		8/3/2002	16.0	9.05	91.8	151.9	8.20	1.7
L9817	Tundra Lake	7/30/2002	12.5			222.0	8.21	1.3
		7/31/2002	12.1	11.27	104.8	236.5	8.10	1.2
		8/1/2002	12.7	10.26	95.5	238.2	8.25	1.3
		8/2/2002	15.2	9.43	94.3	238.6	8.15	1.2
		8/3/2002	15.9	9.72	98.8	240.6	8.26	1.3
		8/4/2002	15.2	9.84	98.1	243.9	8.04	1.5
M0024	Tundra Lake	7/29/2002	9.4	11.32	98.9	104.3	7.92	0.8
		7/30/2002	11.5	11.13	102.5	105.4	8.12	1.0
		7/31/2002	11.2	10.90	99.9	112.5	7.93	0.9
		8/1/2002	12.8	10.81	98.2	112.6	8.17	0.9
		8/2/2002	13.8	10.31	98.4	112.5	8.01	0.8
M0201	Drainage Lake on CK17	6/21/2002	6.2	11.92	97.5	93.0	7.95	4.1
		6/22/2002	6.8	11.90	97.8	93.5	7.58	0.7
		6/23/2002	5.9	11.31	90.60	91.9	7.40	1.0
		6/24/2002	7.4	11.89	99.3	93.2	7.41	1.5
M0254	Drainage Lake	8/3/2002	15.1	9.86	98.4	115.8	8.09	0.8
		8/4/2002	15.1	9.86	98.3	116.9	7.91	1.4
		8/5/2002	12.6	9.89	93.2	117.7	7.58	0.9
		8/6/2002	10.4	10.29	92.4	115.6	7.70	1.2
M0255	Drainage Lake	8/3/2002	15.8	8.99	90.6	103.8	8.11	1.8
		8/4/2002	15.4	9.46	94.6	104.2	7.99	1.3
M0256	Drainage Lake	8/5/2002	13.2	9.53	91.2	89.5	7.92	1.1
		8/6/2002	11.4	10.47	95.6	86.8	7.73	1.4
M9912	Drainage Lake	7/28/2002	9.9	10.53	93.0	89.9	7.83	1.2
		7/29/2002	10.1	10.86	96.2	89.9	8.30	1.2
		7/30/2002	12.7			90.5	8.44	1.7
		7/31/2002	11.8	10.30	94.6	96.6	8.36	1.7
		8/1/2002	12.8	9.78	91.3	97.0	8.09	1.6
		8/2/2002	14.7	10.14	98.1	97.1	7.90	1.4

Appendix Table A-3. Water chemistry measured at NPR-A fyke net sampling sites, 2002

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
M9914	Drainage Lake on CK17	6/20/2002	3.6	12.70	97.7	61.5	7.75	1.9
		6/21/2002	3.5	13.16	99.3	62.1	8.01	1.3
		6/22/2002	4.8	11.36	88.5	62.7	7.54	1.3
		6/23/2002	4.6	12.78	99.8	62.9	7.44	2.3
		6/24/2002	5.7	12.77	102.7	63.1	7.20	1.8
		6/25/2002	8.0	11.77	99.2	64.6	7.56	1.9
		6/26/2002	10.0	10.36	91.7	65.7	7.76	1.3
		6/27/2002	9.6	10.93	96.1	66.0	7.40	1.2
		7/20/2002	18.5	9.21	98.3	91.5	7.67	2.1
		7/21/2002	17.8	9.53	96.3	85.5	7.52	1.1
		7/22/2002	17.4	9.08	95.4	86.5	7.35	1.3
		7/23/2002	14.6	9.24	90.8	87.5	7.33	1.3
		7/24/2002	13.3	10.17	97.4	88.2	7.45	1.1
		7/25/2002	11.6	9.74	90.1	88.0	7.50	1.7
		7/26/2002	10.1	10.97	97.3	88.5	7.38	2.2
		7/27/2002	9.7	10.41	92.0	89.0	7.48	1.8
		7/28/2002	9.1	11.57	101.5	89.7	7.77	1.6
		7/29/2002	10.0	11.12	98.7	90.0	7.94	1.4
M9922	Tundra Lake	7/28/2002	7.3	11.39	94.2	143.9	7.70	1.8
		7/29/2002	9.1	11.27	97.6	144.8	7.85	2.8
		7/30/2002	11.9	11.27	104.9	146.3	8.03	1.7
		7/31/2002	11.2	10.33	94.1	157.6	7.90	2.0
		8/1/2002	13.2	10.12	96.7	158.4	8.02	2.0
		8/2/2002	14.1	9.57	93.2	159.2	7.94	1.8
M9923	Tundra Lake	7/29/2002	9.9	11.67	103.0	243.6	8.04	1.8
		7/30/2002	11.7	11.66	107.7	245.4	8.24	2.7
		7/31/2002	11.7	10.89	101.3	262.4	8.19	2.0
		8/1/2002	13.1			264.4	8.22	1.5
		8/2/2002	13.9	9.83	95.6	264.9	8.19	1.5
M9924	Tundra Lake	8/3/2002	15.9	8.90	90.5	217.8	7.96	4.2
		8/4/2002	15.6	8.85	89.3	222.4	7.78	16.8
		8/5/2002	10.7	9.73	87.8	221.9	7.88	7.4
		8/6/2002	7.7	10.60	89.2	217.2	7.64	6.8
M9925	Tundra Lake	8/3/2002	16.1	8.01	92.3	312.5	8.28	6.2
		8/4/2002	15.2	9.64	96.6	316.0	8.14	11.8
		8/5/2002	8.8	10.82	93.4	317.4	7.82	8.0
		8/6/2002	6.1	11.54	93.3	308.4	7.86	7.8
N7797A	Tundra Lake	7/19/2002	17.9	9.36	99.1	197.9	7.70	1.9
N7797B	(Oil lake)	7/19/2002	18.1	9.51	98.7	199.6	7.92	2.5

Appendix Table A-3. Water chemistry measured at NPR-A fyke net sampling sites, 2003.

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
CK0301	Ublutuoch tributary	6/13/2003	3.0	13.83	101.5	98.7	7.43	1.0
		6/14/2003	1.8	13.14	95.1	101.5	7.32	1.4
		6/15/2003	2.9	13.09	96.8	102.8	7.35	1.0
		6/16/2003	3.3	12.87	96.8	102.0	7.37	0.9
		6/17/2003	6.0	12.12	97.1	102.8	7.53	0.9
		6/18/2003	6.6	11.91	98.2	101.8	7.45	0.7
		6/19/2003	5.5	11.92	95.1	89.6	7.50	1.6
		6/20/2003	6.3	12.28	99.7	107.3	7.51	1.0
		6/21/2003	8.7	11.48	93.9	112.0	7.17	0.4
		6/22/2003	10.5	11.06	99.6	107.9	7.48	0.8
		7/10/2003	13.1	9.97	95.4	128.8	7.42	2.5
		7/11/2003	15.3	9.39	92.4	129.7	7.50	1.7
		7/12/2003	14.9	9.09	88.9	131.6	7.53	2.1
		7/13/2003	12.0	9.90	91.7	133.0	7.50	1.8
		7/14/2003					7.66	1.6
		7/15/2003	8.8	10.37	89.2	133.9	7.65	1.3
		7/16/2003	7.3	11.14	92.9	218.6	7.64	0.8
		7/17/2003	7.4	10.96	91.3	136.0	7.59	1.0
		7/18/2003	9.3			136.5	7.58	1.1
		7/19/2003	11.5	10.14	94.4	137.8	7.57	1.5
		7/20/2003	14.3	9.80	96.0	139.4		
		7/21/2003	17.5	9.02	93.5	141.2	7.59	1.3
		8/15/2003	6.4	12.53	101.9	147.5	7.78	1.3
		8/16/2003	6.5	12.45	102.0	155.4	7.67	1.6
		8/17/2003	6.1	11.94	96.2	149.1	7.60	1.6
		8/18/2003	6.0	11.87	96.2	157.1	7.51	1.5
		8/19/2003	6.0	12.21	98.2	149.9	7.60	1.2
		8/20/2003	5.6	12.67	100.9	150.4	7.61	1.3
		8/21/2003	5.1	12.38	97.7	151.3	7.59	1.3
		8/22/2003	5.5	12.34	98.5	151.9	7.59	1.1
CK0302	Ublutuoch tributary	6/13/2003	6.1	11.92	96.0	136.3	7.41	1.1
		6/14/2003	0.9	13.41	94.3	159.2	7.35	0.9
		6/15/2003	3.5	13.10	98.8	176.8	7.40	0.9
		6/16/2003	4.0	12.78	97.4	196.4	7.48	0.6
		6/17/2003	8.6	11.19	95.9	213.9	7.46	0.6
		6/18/2003	8.7	11.51	99.0	230.2	7.50	0.5
		6/19/2003	5.0	12.26	95.9	239.8	7.58	0.6
		6/20/2003	7.4	11.55	96.2	245.8	7.58	0.6
		6/21/2003	10.7	10.86	98.4	253.7	7.60	0.5
		6/22/2003	13.0	10.35	98.7	256.9	7.57	0.5
		7/10/2003	13.9	10.15	98.8	224.1	7.28	1.4
		7/11/2003	16.8	9.68	100.6	228.2	7.58	0.8
		7/12/2003	14.7	9.58	94.2	224.7	7.56	1.2
		7/13/2003	10.4	11.25	100.9	223.0	7.52	0.9
		7/14/2003	11.1	10.39	94.2	224.5	7.73	1.2
		7/15/2003	7.7	11.18	94.6		7.61	0.8
		7/16/2003	8.3	10.70	91.7	135.2	7.66	1.0

Appendix Table A-3. Water chemistry measured at NPR-A fyke net sampling sites, 2003.

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
CK0302	Ublutuoch tributary	7/17/2003	7.2	11.60	96.7	217.7	7.53	0.8
		7/18/2003	9.1			218.9	7.62	0.7
CK0303	Fish Creek tributary	6/13/2003	8.0	10.94	92.7	79.1	7.34	0.6
		6/14/2003	1.4	12.30	87.8	95.6	7.20	0.6
		6/15/2003	4.1	12.39	94.4	90.2	7.17	0.6
		6/16/2003	3.1	12.44	94.7	97.5	7.07	0.6
		6/17/2003	7.4	11.80	98.3	97.6	7.07	0.4
		6/18/2003	8.3	11.59	98.5	107.2	7.18	0.6
		6/19/2003	4.0	12.50	95.4	106.4	7.12	0.5
		6/20/2003	5.3	12.37	97.6	111.7	7.13	0.5
		6/21/2003	6.9	11.27	93.0	112.9	7.51	0.9
		6/22/2003	11.6	10.71	98.0	124.7	7.23	0.5
		7/10/2003	11.9	9.98	93.9	153.6	7.20	0.6
		7/11/2003	15.8	9.53	96.5	162.6	7.39	0.5
		7/12/2003	13.5	9.67	94.5	162.6	7.47	1.2
		7/13/2003	9.7	10.96	95.1	162.5	7.39	0.9
F0303A	Lake M0352	7/14/2003	12.5	10.55	98.8	85.8	7.98	1.6
		7/15/2003	10.8	10.51	94.8	86.9	7.85	1.0
		7/16/2003	9.1	10.50	91.4	92.2	7.58	1.4
		7/17/2003	8.1	11.15	94.2	89.5	7.72	1.1
		7/18/2003	10.5			87.5	7.88	2.3
		7/19/2003	10.8	10.62	94.2	88.1	7.72	2.0
		7/20/2003	13.0	10.78	103.7	88.0	7.83	1.7
		7/21/2003	16.3	10.32	105.7	88.9	8.14	1.1
		7/18/2003	11.1			110.4	7.76	1.1
CK16C	Fish Creek tributary	6/14/2003	3.2	12.31	92.2	98.7	7.17	1.0
		6/15/2003	3.1	12.36	94.6	101.1	7.17	0.6
		6/16/2003	3.7	12.13	91.6	103.5	7.13	0.8
		6/17/2003	6.2	10.60	88.0	106.3	7.07	0.5
		6/18/2003	6.8	11.25	92.2	108.4	7.13	0.8
		6/19/2003	5.0	11.62	91.2	109.7	7.15	0.6
		6/20/2003	6.1	11.16	90.6	110.5	7.17	0.5
		6/21/2003	8.2	10.67	91.2	112.5	7.17	0.4
		6/22/2003	10.5	9.44	85.2	116.6	7.11	0.5
		7/10/2003	12.7	9.44	89.0	112.4	7.21	0.6
		7/11/2003	15.4	8.66	87.4	114.5	7.19	0.7
		7/12/2003	14.9	8.59	85.3	116.7	7.19	0.9
		7/13/2003	12.3	9.46	87.8	119.2	7.28	1.0
		7/14/2003					7.50	0.8
		7/15/2003	9.0	9.83	87.8	116.8	7.36	0.7
		7/16/2003	8.9	10.57	92.4	117.5	7.38	0.8
		7/17/2003	7.5	11.14	94.6	118.4	7.38	1.1
		7/18/2003	9.0			117.2	7.42	0.6
CK0306	Ublutuoch tributary	6/14/2003	3.8	12.60	96.4	81.2	7.26	0.7
		6/15/2003	2.6	12.91	94.5	84.1	7.12	0.5

Appendix Table A-3. Water chemistry measured at NPR-A fyke net sampling sites, 2003.

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
CK0306	Ublutuoch tributary	6/16/2003	3.6	12.89	95.8	84.1	7.09	0.5
		6/17/2003	7.5	11.46	95.2	82.6	7.06	0.7
		6/18/2003	7.9	11.58	100.7	83.0	7.14	0.5
		6/19/2003	5.1	12.24	96.2	85.8	7.13	0.5
		6/20/2003	7.2	11.30	93.4	88.8	7.14	0.7
		6/21/2003	10.3	10.72	96.7	90.0	7.10	0.5
		6/22/2003	12.4	9.67	90.4	91.8	7.11	0.4
F0306A	Lake L9824	7/10/2003	14.2	10.45	102.4	66.9	7.56	0.8
		7/11/2003	15.8	10.49	104.6	66.5	7.64	0.8
		7/12/2003	13.8	9.94	98.0	70.2	7.28	1.0
		7/13/2003	13.8	10.55	102.0	68.9	7.47	0.7
		7/14/2003	13.0	10.09	96.5	71.6	7.62	0.9
		7/15/2003	11.4	10.27	93.7	72.0	7.44	0.7
		7/16/2003	9.9	10.07	89.3	76.7	7.50	0.7
		7/17/2003	10.4	10.82	96.6	72.0	7.62	1.0
		7/18/2003	10.1			71.7	7.62	0.8
CK0307	Fish Creek tributary	6/17/2003	5.1	10.74	85.8	88.9	6.75	1.2
		6/18/2003	5.7	11.98	95.8	90.6	6.73	1.0
		6/19/2003	4.1	12.28	95.3	92.9	6.80	0.6
		6/20/2003	5.4	11.50	92.5	93.8	6.78	0.5
		6/21/2003	7.1	10.27	85.5	92.4	6.71	0.4
		6/22/2003	9.2	9.72	84.9	95.8	6.71	0.3
		7/10/2003	12.0	8.84	82.4	111.6	6.86	0.6
		7/11/2003	14.4	7.86	76.6	114.6	6.92	0.6
		7/12/2003	13.5	8.70	84.7	115.1	6.96	0.9
		7/13/2003	10.6	9.50	85.5	117.2	6.97	0.7
		7/14/2003					7.09	0.7
		7/15/2003	7.8	11.47	96.6	115.3	6.97	0.7
		7/16/2003	8.0	11.50	97.2	113.9	6.99	0.5
		7/17/2003	6.4	11.19	91.2	115.1	6.99	0.5
		7/18/2003	8.0	10.32	88.1	115.2	7.04	0.5
F0308	Lake MB0301	7/19/2003	12.3	11.23	103.6	194.1	8.04	0.5
		7/20/2003	14.5	10.50	106.2	195.1	8.05	1.3
		7/21/2003	16.6	10.12	105.2	198.3	8.24	0.6
		7/22/2003	15.6	9.49	95.6	194.3	8.09	0.9
F0309	Lake M0353	7/19/2003	12.3	10.78	101.9	217.0	8.21	0.7
		7/20/2003	14.7	11.25	111.1	216.0	8.27	1.0
		7/21/2003	16.7	10.28	106.7	218.2	8.51	0.9
		7/22/2003	16.1	9.78	99.8	220.6	8.45	0.8
F0310	backwater off Nigliq Channel	7/19/2003	12.5	10.83	101.9	464.4	8.06	11.9
		7/20/2003	16.0	11.03	108.2	474.2	8.11	15.1
		7/21/2003	17.2	10.26	104.2	474.7	8.22	13.8
		7/22/2003	16.1	9.25	92.6	414.6	8.21	18.2

Appendix Table A-3. Water chemistry measured at NPR-A fyke net sampling sites, 2003.

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
F0311	Lake M0354	7/19/2003	12.0	10.30	100.2	332.2	7.89	0.7
		7/20/2003	14.6	10.75	105.6	332.2	8.09	0.9
		7/21/2003	14.5	10.14	99.3	333.0	7.87	1.0
		7/22/2003	14.4	9.07	94.1	335.3	8.02	1.5
F0312	Lake M0355	7/23/2003	14.6	10.05	97.9	196.7	8.05	3.9
		7/24/2003	12.7	10.02	95.1	202.3	8.30	0.8
F0313	Lake L9306	7/23/2003	14.9	10.34	102.0	164.4	7.88	1.3
		7/24/2003	14.2	9.68	94.1	163.9	7.93	1.7
		7/25/2003	12.5	9.99	93.7	164.7	7.66	1.4
		7/26/2003	10.6	11.01	99.7	163.6	7.72	1.7
		7/27/2003	9.8	11.00	97.7	163.5	7.66	3.6
F0314	Lake M0356	7/24/2003	13.4	10.11	97.1	205.3	8.23	9.5
		7/25/2003	11.5	10.03	92.0	191.6	8.15	9.7
		7/26/2003	8.2	11.18	94.8	220.0	8.25	7.5
		7/27/2003	8.4	11.20	96.2	192.8	8.19	9.6
F0315	Nigliq Side Channel	7/24/2003	13.9	9.96	96.9	174.5	8.25	9.4
		7/25/2003	12.4	9.95	93.3	174.6	8.20	8.1
		7/26/2003	10.1	10.36	92.2	170.4	8.21	10.8
		7/27/2003	9.5	10.86	95.6	171.3	8.20	11.4
F0316	Lake L9305	7/25/2003	12.8	9.45	88.7	94.4	7.28	1.8
		7/26/2003	11.2	9.95	90.5	94.0	7.30	1.9
		7/27/2003	10.2	10.27	91.1	94.0	7.33	2.5
F0317	Lake L9304	8/1/2003	8.5	11.88	100.4	208.4	7.88	0.8
		8/1/2003	8.5	11.88	100.4	208.4	7.88	0.8
		8/1/2003	8.5	11.88	100.4	208.4	7.88	0.8
F0318	Lake M9932	8/1/2003	8.4	11.46	98.1	431.5	7.81	0.9
		8/2/2003	8.8	11.62	99.2	432.0	7.84	1.4
		8/3/2003	8.8	11.56	99.5	432.5	7.72	2.1
U0301	Ublutuoch River	6/13/2003	3.7	13.42	100.8	100.0	7.52	2.1
		6/14/2003	3.8	13.02	99.8	99.7	7.43	2.2
		6/15/2003	4.2	12.38	94.4	101.7	7.41	2.5
		6/16/2003	4.4	12.03	93.1	103.5	7.37	1.6
		6/17/2003	6.7	11.79	97.1	101.6	7.36	1.8
		6/18/2003	7.8	11.87	100.0	102.6	7.43	1.4
		6/19/2003	7.2	11.15	93.2	103.2	7.47	1.4
		6/20/2003	8.0	11.42	97.0	104.5	7.50	1.4
		6/21/2003	9.6	11.33	99.7	105.7	7.51	1.2
		6/22/2003	11.5	10.85	99.8	107.4	7.52	1.3
		7/10/2003	13.3	10.15	96.2	106.2	7.52	1.1
		7/11/2003	15.7	9.92	99.5	107.5	7.64	1.0
		7/12/2003	14.9	9.32	91.8	109.5	7.51	1.4
		7/13/2003	13.3	10.16	97.1	111.9	7.60	1.0
		7/14/2003	12.9	10.17	96.6	111.5	7.81	1.4

Appendix Table A-3. Water chemistry measured at NPR-A fyke net sampling sites, 2003.

Station	Location	Date	Temp (°C)	Dissolved Oxygen (mg/l)	Dissolved Oxygen (%)	Specific Conductance (microS/cm)	pH	Turbidity (NTU)
U0301	Ublutuoch River	7/15/2003	11.0	10.14	91.5	111.7	7.68	1.1
		7/16/2003	10.0	10.41	92.4	111.3	7.68	1.0
		7/17/2003	9.4	11.24	98.2	110.8	7.51	1.0
		7/19/2003	12.1	10.80	101.2	109.7	7.71	1.0
		7/20/2003	14.1	10.74	102.2	108.9	7.64	1.3
		7/21/2003	17.5	9.84	102.9	110.0	7.86	1.2
		8/15/2003	7.7	12.10	102.2	116.6	7.74	1.5
		8/16/2003	7.4	12.01	100.3	107.1	7.63	1.6
		8/17/2003	7.0	11.82	97.1	117.6	7.63	1.6
		8/18/2003	6.9	12.38	101.6	125.0	7.53	1.3
		8/19/2003	6.8	12.21	100.7	119.6	7.64	1.3
		8/20/2003	6.1	12.15	98.1	120.3	7.59	1.3
		8/21/2003	5.5	12.19	96.8	120.6	7.57	1.4
		8/22/2003	6.1	12.26	98.6	120.3	7.55	1.4

APPENDIX B

Fish caught by fyke net
in eastern NPR-A during 2001-2003

Appendix Table B-1. Fish catches in NPR-A fyke net sampling during June 2001.

Station F0101/F0101A (Fish Ck)

Species	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
Broad whitefish				3					4
Humpback whitefish									
Arctic cisco			1	1					
Least cisco	10	16	21	9			6		9
Round whitefish	4		2	1					
Dolly Varden char									
Arctic grayling	5	6	8	5			9		13
Burbot									
Alaska blackfish									1
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin		4	1						
Ninespine stickleback		10		4			2	2	2
Effort (hrs)	23.2	24.5	27.2	24.9			23.1	24.6	17.2

Station F0101A (Fish Ck)

Species	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
Broad whitefish									4
Humpback whitefish									
Arctic cisco									
Least cisco							6		9
Round whitefish									
Dolly Varden char									
Arctic grayling							9		13
Burbot									
Alaska blackfish									1
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin									
Ninespine stickleback							2	2	2
Effort (hrs)							23.1	24.6	17.2

Appendix Table B-1. Fish catches in NPR-A fyke net sampling during June 2001.

Station F0104 (Fish Ck)

Species	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
Broad whitefish			1			4			
Humpback whitefish									
Arctic cisco				2					
Least cisco	1		5	12	11	8	15	6	4
Round whitefish								1	
Dolly Varden char									
Arctic grayling	5		7	32	34	27	9	6	4
Burbot									
Alaska blackfish									
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin									
Ninespine stickleback			7	3	4	7	3	6	
Effort (hrs)	19.0	30.1	22.6	25.2	23.1	26.8	27.9	18.3	21.3

Station J0103 (Judy Ck)

Species	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
Broad whitefish									
Humpback whitefish									
Arctic cisco									
Least cisco				14					
Round whitefish									
Dolly Varden char									
Arctic grayling		1	1	3					
Burbot									
Alaska blackfish									
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin									
Ninespine stickleback				1					
Effort (hrs)	20.8	29.8	21.2	24.6					

Appendix Table B-1. Fish catches in NPR-A fyke net sampling during June 2001.

Station J0103A (mouth of clear creek off Judy Ck)

Species	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
Broad whitefish									
Humpback whitefish									
Arctic cisco									
Least cisco					3				
Round whitefish									
Dolly Varden char									
Arctic grayling					18	16	11	3	8
Burbot								1	
Alaska blackfish									
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin									
Ninespine stickleback									
Effort (hrs)					22.2	26.8	26.7	19.5	22.4

Station U0101 (Ublutuoch R upstream of ice road crossing))

Species	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
Chum Salmon									
Broad whitefish							1	1	
Humpback whitefish							1	1	
Arctic cisco									
Least cisco									
Round whitefish	1	2	3		3		1	2	2
Dolly Varden char									
Arctic grayling	193	28	10	27	2	93	43	13	6
Burbot									
Alaska blackfish									
Arctic flounder									
Fourhorn sculpin									
Slimy sculpin			2	2		2		1	
Ninespine stickleback		33	3	9	5				1
Effort (hrs)	20.3	22.5	29.1	25.3	22.0	26.2	23.8	23.8	20.6

Appendix Table B-1. Fish catches in NPR-A fyke net sampling during June 2001.

Station M0142 (Tapped lake off Ublutuoch River)

Species	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
Broad whitefish			62	42					
Humpback whitefish			6	7					
Arctic cisco			25	12					
Least cisco			198	149					
Round whitefish			1						
Dolly Varden char									
Arctic grayling			8	18					
Burbot									
Alaska blackfish									
Rainbow smelt									
Fourhorn sculpin			4						
Slimy sculpin			1						
Ninespine stickleback			1	5					
Effort (hrs)			22.7	24.6					

Station MC7916A (Tapped lake off Fish Ck)

Species	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
Broad whitefish				1					
Humpback whitefish				1					
Arctic cisco									
Least cisco									
Round whitefish									
Dolly Varden char									
Arctic grayling				1	2				
Burbot									
Alaska blackfish									
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin									
Ninespine stickleback					6				
Effort (hrs)				23.2	24.1				

Appendix Table B-1. Fish catches in NPR-A fyke net sampling during June 2001.

Station MC7916B (Tapped lake off Fish Ck)

Species	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
Broad whitefish					3	2	2		1
Humpback whitefish					27	8	1	1	1
Arctic cisco									
Least cisco					4	4			7
Round whitefish					1	1	1		
Dolly Varden char									
Arctic grayling					1	1	6	2	
Burbot									
Alaska blackfish							1		1
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin									
Ninespine stickleback									5
Effort (hrs)					21.2	24.2	28.0	22.3	20.6

Station MC7916C (Tapped lake off Fish Ck)

Species	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28
Broad whitefish						5		1	
Humpback whitefish						8			
Arctic cisco									
Least cisco						5	6	5	2
Round whitefish							1		
Dolly Varden char									
Arctic grayling						3	1	4	2
Burbot									
Alaska blackfish						2	1		
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin									
Ninespine stickleback						2		5	1
Effort (hrs)						24.0	25.4	23.5	19.0

Appendix Table B-2. Fish catches in NPR-A fyke net sampling during July 2001.

Station F0102A (Fish Ck)

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29	Jul 30
Broad whitefish						1			1			
Humpback whitefish						2						
Arctic cisco								1				
Least cisco								1				
Round whitefish							3					
Dolly Varden char												
Arctic grayling					3	1	3	1	1	1	1	2
Burbot									1			
Alaska blackfish												
Rainbow smelt												
Fourhorn sculpin												
Slimy sculpin												
Ninespine stickleback							2		1	3		
Effort (hrs)			25.8	--	53.2	19.8	24.0	26.3	22.1	23.0	23.5	23.5

Station F0103 (Fish Ck)

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29	Jul 30
Broad whitefish	5						2	1				
Humpback whitefish												
Arctic cisco												
Least cisco												
Round whitefish			2					1	1	2		1
Dolly Varden char												
Arctic grayling	2	1	1		1	2	6	2	4	4	4	1
Burbot											1	
Alaska blackfish												
Rainbow smelt												
Fourhorn sculpin												
Slimy sculpin												
Ninespine stickleback	1											
Effort (hrs)	25.2	24.2	25.5	--	53.5	20.1	23.2	25.4	21.8	22.9	23.3	24.8

Appendix Table B-2. Fish catches in NPR-A fyke net sampling during July 2001.

Station J0103 (Judy Ck)

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29	Jul 30
Broad whitefish			2								2	1
Humpback whitefish						1						
Arctic cisco												
Least cisco			1								10	3
Round whitefish					2	3		2			5	24
Dolly Varden char												
Arctic grayling		2	1		1	2		5	6		2	3
Burbot												
Alaska blackfish												
Rainbow smelt												
Fourhorn sculpin												
Slimy sculpin		1										
Ninespine stickleback							1					
Effort (hrs)		21.9	25.2	--	53.1	20.1	23.4	26.5	24.8	20.9	23.6	24.3

Station U0102 (Ublutuoch R upstream of ice road crossing))

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29	Jul 30
Broad whitefish		4	2		26	6	4	33	17	20	2	
Humpback whitefish		1	1		13	3	2	61	58	48	1	1
Arctic cisco												
Least cisco		14	2		8	3	1	6	2	1		
Round whitefish		3			6	3		11	14	8	1	1
Dolly Varden char												
Arctic grayling		2	8		27	28	23	29	24	25	24	1
Burbot												
Alaska blackfish												
Rainbow smelt												
Fourhorn sculpin												
Slimy sculpin												
Ninespine stickleback								1				
Effort (hrs)		23.8	23.0	--	46.3	26.9	22.1	18.7	24.1	23.6	24.1	24.2

Appendix Table B-2. Fish catches in NPR-A fyke net sampling during July 2001.

Station MC7916C (Tapped lake off Fish Ck)

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29	Jul 30
Broad whitefish			21		71	2	49	413	19	3	28	61
Humpback whitefish			4		4			1	1	1		
Arctic cisco										3		
Least cisco		3	14		10	11	2	11		38	1	3
Round whitefish			3		2		1	1				1
Dolly Varden char												
Arctic grayling		38	26		18	23	3	8	11	7	8	10
Burbot												
Alaska blackfish												
Rainbow smelt		1										
Fourhorn sculpin												
Slimy sculpin												1
Ninespine stickleback			8				1	5	5			
Effort (hrs)		43.3	25.2	--	53.0	24.8	23.4	26.7	25.0	23.5	23.5	24.5

Appendix Table B-3. Fish catches in NPR-A fyke net sampling during August-September 2001.

Station F0102A (Fish Ck)

Species	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29	Aug 30	Aug 31	Sep 01	Sep 02
Broad whitefish				1	3	1			1
Humpback whitefish									
Arctic cisco									
Least cisco		1					2		
Round whitefish									
Dolly Varden char							1		
Arctic grayling		1			5		2		2
Burbot		1							
Alaska blackfish									
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin									
Ninespine stickleback		1			2	5	5	7	1
Effort (hrs)	18.7	22.2	--	24.1	28.2	19.7	22.6	22.0	23.8

Station F0103 (Fish Ck)

Species	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29	Aug 30	Aug 31	Sep 01	Sep 02
Broad whitefish			1	1	3	1	2	8	
Humpback whitefish		1							
Arctic cisco									
Least cisco					2			2	
Round whitefish									
Dolly Varden char									
Arctic grayling	3	2	5	1	1			3	2
Burbot						1	1		
Alaska blackfish									
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin	1								2
Ninespine stickleback									2
Effort (hrs)	20.3	22.5	25.5	25.1	27.2	24.0	22.5	22.0	23.5

Appendix Table B-3. Fish catches in NPR-A fyke net sampling during August-September 2001.

Station J0103 (Judy Ck)

Species	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29	Aug 30	Aug 31	Sep 01	Sep 02
Broad whitefish					1	1			
Humpback whitefish									
Arctic cisco									
Least cisco	1			2				1	
Round whitefish				1					1
Dolly Varden char									
Arctic grayling		2		1	8	2	2	5	2
Burbot									
Alaska blackfish									
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin									
Ninespine stickleback							2		1
Effort (hrs)	22.3	22.2	--	24.3	26.7	21.5	21.5	21.0	24.0

Station U0102 (Ublutuoch R upstream of ice road crossing))

Species	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29	Aug 30	Aug 31	Sep 01	Sep 02
Chum Salmon		1							
Broad whitefish		1			1		2		1
Humpback whitefish					1				
Arctic cisco									
Least cisco									
Round whitefish	1	8							
Dolly Varden char									
Arctic grayling	5	8		5	4	9	1	11	11
Burbot									
Alaska blackfish									
Rainbow smelt									
Fourhorn sculpin									
Slimy sculpin									
Ninespine stickleback									
Effort (hrs)	14.2	30.3	--	16.4	30.3	17.5	24.5	23.3	27.0

Appendix Table B-3. Fish catches in NPR-A fyke net sampling during August-September 2001.

Station MC7916C (Tapped lake off Fish Ck)

Species	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29	Aug 30	Aug 31
Broad whitefish	90	169	157	120	209	62	51
Humpback whitefish	6						
Arctic cisco							
Least cisco	46	35	32	16	20	24	18
Round whitefish	1	1	1			2	
Dolly Varden char							
Arctic grayling	4	3	2	3	6		4
Burbot			1	1			
Alaska blackfish	3		3	6	1	3	5
Rainbow smelt			1				
Fourhorn sculpin							
Slimy sculpin	2			1		4	
Ninespine stickleback	13	16	12	29	15	26	36
Effort (hrs)	17.1	21.2	26.7	23.3	29.4	19.1	23.0

Appendix Table B-4. Fish catches in NPR-A fyke net sampling at potential water-source lakes, 2001.

Station M9909A

Species	Jul 27	Jul 28	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02	Aug 03
Broad whitefish								
Humpback whitefish								
Arctic cisco								
Least cisco				27	9	42		3
Round whitefish								
Dolly Varden char								
Arctic grayling								
Burbot							1	
Alaska blackfish				1				
Rainbow smelt								
Fourhorn sculpin								
Slimy sculpin				1	1			1
Ninespine stickleback				9	26	10	1	3
Effort (hrs)				23.5	21.7	23.5	28.5	23.4

Station M9909B

Species	Jul 27	Jul 28	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02	Aug 03
Broad whitefish							1	
Humpback whitefish								
Arctic cisco								
Least cisco				30	12	27	34	
Round whitefish								
Dolly Varden char								
Arctic grayling								
Burbot				1				1
Alaska blackfish								
Rainbow smelt								
Fourhorn sculpin								
Slimy sculpin								
Ninespine stickleback				4	9	5	4	
Effort (hrs)				24.2	19.2	25.3	26.8	25.0

Appendix Table B-4. Fish catches in NPR-A fyke net sampling at potential water-source lakes, 2001.

Station M9910A

Species	Jul 27	Jul 28	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02	Aug 03
Broad whitefish								
Humpback whitefish	3	1						
Arctic cisco								
Least cisco						1		
Round whitefish								
Dolly Varden char								
Arctic grayling	19	5	10	9	4		6	3
Burbot								
Alaska blackfish								1
Rainbow smelt								
Fourhorn sculpin								
Slimy sculpin								
Ninespine stickleback	1	22	45	16	4	58	28	19
Effort (hrs)	19.9	23.1	24.3	23.6	25.2	21.2	29.4	22.2

Station M9910B

Species	Jul 27	Jul 28	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02	Aug 03
Broad whitefish								
Humpback whitefish								
Arctic cisco								
Least cisco								
Round whitefish								
Dolly Varden char								
Arctic grayling	30	3	3	1	1	2	3	1
Burbot								
Alaska blackfish								
Rainbow smelt								
Fourhorn sculpin								
Slimy sculpin								
Ninespine stickleback	1	2	6	11	8	16	10	
Effort (hrs)	22.1	20.2	26.4	21.5	27.5	19.9	30.5	19.0

Appendix Table B-4. Fish catches in NPR-A fyke net sampling at potential water-source lakes, 2001

Station M9911A

Species	Jul 27	Jul 28	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02	Aug 03
Broad whitefish								
Humpback whitefish								
Arctic cisco								
Least cisco	1		1					
Round whitefish								
Dolly Varden char								
Arctic grayling								
Burbot								
Alaska blackfish	1							
Rainbow smelt								
Fourhorn sculpin								
Slimy sculpin								
Ninespine stickleback	15	9						
Effort (hrs)	20.2	26.3	21.5					

Station M9911B

Species	Jul 27	Jul 28	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02	Aug 03
Broad whitefish								
Humpback whitefish								
Arctic cisco								
Least cisco								
Round whitefish								
Dolly Varden char								
Arctic grayling								
Burbot								
Alaska blackfish		1						
Rainbow smelt								
Fourhorn sculpin								
Slimy sculpin								
Ninespine stickleback	24	20	7					
Effort (hrs)	20.5	25.0	22.2					

Appendix Table B-5. Fish catches in NPR-A fyke net sampling during June 2002.

Station CK16A (Tributary of Fish Ck)

Species	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27
Arctic grayling	1	3			1		3
Alaska blackfish	3	1		2	3	18	
Ninespine stickleback	4	3	2	1	8	8	5
Effort (hrs)	19.7	24.2	24.1	25.2	22.8	24.3	24.2

Station CK16B (Tributary of Fish Ck)

Species	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27
Arctic grayling							
Alaska blackfish				2	1	5	
Ninespine stickleback	1	12	12	54	17	43	6
Effort (hrs)	20.8	24.2	24.1	25.3	22.9	24.2	24.2

Station CK17A (Tributary of Fish Ck)

Species	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27
Arctic grayling		13	10	6	16	76	129
Alaska blackfish							
Ninespine stickleback					3	5	1
Effort (hrs)	18.2	23.7	24.2	24.8	23.3	24.2	24.0

Station CK17B (Tributary of Fish Ck)

Species	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27
Arctic grayling					22	55	50
Alaska blackfish							
Ninespine stickleback					23	19	7
Effort (hrs)					21.9	24.0	24.3

Station M0201A (Drainage Lake on CK17)

Species	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27
Arctic grayling		24	10	8			
Alaska blackfish							
Ninespine stickleback		16	17	25			
Effort (hrs)		23.8	24.4	24.5			

Appendix Table B-5. Fish catches in NPR-A fyke net sampling during June 2002.

Station M9914A (Drainage Lake on CK17)

Species	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27
Arctic grayling					1		1
Alaska blackfish	1					1	
Ninespine stickleback	3	2	5	7	10	10	12
Effort (hrs)	18.3	22.8	24.6	24.4	23.3	24.0	24.4

Station U0102 (Ublutuoch R.)

Species	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27
Broad whitefish						2	2
Humpback whitefish	1			1			2
Arctic cisco							
Least cisco						2	
Round whitefish			1		1		
Dolly Varden char							
Arctic grayling	46	46	14	10	42	79	126
Burbot							
Alaska blackfish							
Rainbow smelt							
Fourhorn sculpin				1	2		
Slimy sculpin							
Ninespine stickleback		1					
Effort (hrs)	18.8	24.3	23.6	25.4	23.0	24.3	24.0

Appendix Table B-6. Fish catches in NPR-A fyke net sampling during July-August, 2002.

Station CK16A (Tributary of Fish Ck)

Species	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27
Arctic grayling	1							
Alaska blackfish	4	10	12	1	7	1	1	2
Ninespine stickleback	2100	2493	2000	1700	5		4	7
Effort (hrs)	20.7	24.0	20.4	28.1	27.5	16.7	29.1	22.0

Station CK16B (Tributary of Fish Ck)

Species	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27
Arctic grayling				1				
Alaska blackfish	1			1				1
Ninespine stickleback	22	44	63	5	16	3		5
Effort (hrs)	22.1	24.0	19.8	28.0	27.4	16.7	29.1	22.4

Station CK17A (Tributary of Fish Ck)

Species	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28
Arctic grayling	48	22	76	21	15	7	14	9	13
Alaska blackfish									
Ninespine stickleback		2	1	1					
Effort (hrs)	20.8	23.3	20.6	28.3	27.6	16.7	28.9	22.0	23.1

Station CK17B (Tributary of Fish Ck)

Species	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28
Arctic grayling	43	36	15	7	5	2	14	28	4
Alaska blackfish									
Ninespine stickleback	24	24	38	16		3	3		2
Effort (hrs)	20.4	23.3	21.0	28.2	27.7	16.8	28.6	22.2	23.3

Station M9914A (Drainage Lake on CK17)

Species	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29
Arctic grayling		1			1			1		
Alaska blackfish				3			1			
Ninespine stickleback	134	87	197	68	3	1	7	2	5	3
Effort (hrs)	20.6	23.3	21.2	28.1	27.8	16.9	28.4	21.4	21.8	25.7

Appendix Table B-6. Fish catches in NPR-A fyke net sampling during July-August, 2002.

Station L9807 (Tundra Lake)

Species	Jul 30	Jul 31	Aug 01	Aug 02	Aug 03
Arctic grayling					
Alaska blackfish					
Ninespine stickleback	25	33	50	31	44
Effort (hrs)	24.3	19.8	22.7	25.0	22.9

Station L9817 (Tundra Lake)

Species	Jul 30	Jul 31	Aug 01	Aug 02	Aug 03	Aug 04
Arctic grayling						
Alaska blackfish						
Ninespine stickleback	100	154	6,000	3,000	15,000	7,500
Effort (hrs)	25.1	19.5	22.5	25.2	22.7	25.6

Station M0024 (Tundra Lake)

Species	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02
Arctic grayling					
Alaska blackfish					
Ninespine stickleback	63	43	70	102	500
Effort (hrs)	20.3	25.4	22.1	23.1	24.2

Station M0254 (Tundra Lake)

Species	Aug 03	Aug 04	Aug 05	Aug 06
Arctic grayling				
Alaska blackfish	26	18	13	1
Ninespine stickleback	1000	263	53	84
Effort (hrs)	19.7	25.6	22.4	24.6

Station M0255 (Tundra Lake)

Species	Aug 03	Aug 04
Arctic grayling		
Alaska blackfish		
Ninespine stickleback	83	59
Effort (hrs)	18.5	25.8

Station M0256 (Tundra Lake)

Species	Aug 05	Aug 06
Arctic grayling		
Alaska blackfish		1
Ninespine stickleback	500	54
Effort (hrs)	22.4	24.7

Appendix Table B-6. Fish catches in NPR-A fyke net sampling during July-August, 2002.

Station M9912 (Tundra Lake)

Species	Jul 28	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02
Arctic grayling						
Alaska blackfish	4	6	6	7	23	7
Ninespine stickleback	9	10			14	43
Effort (hrs)	18.2	24.4	27.2	19.6	22.8	24.4

Station M9922 (Tundra Lake)

Species	Jul 28	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02
Arctic grayling						
Alaska blackfish						
Ninespine stickleback	3	11	5		93	87
Effort (hrs)	15.8	25.7	25.7	21.4	22.9	24.3

Station M9923 (Tundra Lake)

Species	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02
Arctic grayling					
Alaska blackfish					
Ninespine stickleback		3	18	500	111
Effort (hrs)	20.8	25.8	21.2	23.6	24.7

Station M9924 (Tundra Lake)

Species	Aug 03	Aug 04	Aug 05	Aug 06
Arctic grayling				
Alaska blackfish				
Ninespine stickleback	188	363	2500	82
Effort (hrs)	18.7	25.6	23.8	23.8

Station M9925 (Tundra Lake)

Species	Aug 03	Aug 04	Aug 05	Aug 06
Arctic grayling				
Alaska blackfish				
Ninespine stickleback	1000	408	750	85
Effort (hrs)	19.2	25.7	22.6	24.7

Station N7797 (Oil Lake)

Species	A Jul 19	B Jul 19
Arctic grayling		
Alaska blackfish		
Ninespine stickleback	5400	2000
Effort (hrs)	21.5	21.6

Appendix Table B-6. Fish catches in NPR-A fyke net sampling during July-August, 2002.

Station U0102 (Ublutuoch R.

Species	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29	Jul 30
Broad whitefish	4	1	3	1	11	16					
Humpback whitefish	1										
Arctic cisco											
Least cisco		1				1					
Round whitefish	4	2	1		1						
Dolly Varden char											
Arctic grayling	132	22	20	3	16	1	2	2	2	1	2
Burbot											
Alaska blackfish											
Rainbow smelt											
Fourhorn sculpin											
Slimy sculpin										1	1
Ninespine stickleback		7	3			2		1			
Effort (hrs)	23.8	18.8	24.1	25.1	28.3	18.7	29.3	22.8	21.8	24.1	27.2

Station U0102 (Ublutuoch R.) - continued

Species	Jul 31	Aug 01	Aug 02	Aug 03	Aug 04	Aug 05	Aug 06
Broad whitefish		4	1	54	1	48	7
Humpback whitefish							
Arctic cisco							
Least cisco		18	2	39			1
Round whitefish	1						
Dolly Varden char							
Arctic grayling	4	14	9	16	19	1	1
Burbot							
Alaska blackfish							
Rainbow smelt							
Fourhorn sculpin							
Slimy sculpin			1				
Ninespine stickleback					9		
Effort (hrs)	19.6	23.6	25.3	22.3	25.8	22.4	24.0

Appendix Table B-7. Daily fish catches from sampling with fyke nets in NPR-A streams during June 2003.

Station CK0301

Species	Jun 14	Jun 15	Jun 16	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	June Total
Broad whitefish										0
Humpback whitefish										0
Least cisco										0
Round whitefish										0
Arctic grayling	7	1	5	7	13	7	8	26	31	105
Burbot										0
Alaska blackfish	1								1	2
Slimy sculpin										0
Ninespine stickleback	56	62	32	56	20	15	22	57	49	369
Effort (hrs)	20.2	25.2	23.3	25.3	25.0	21.8	23.9	24.5	24.1	213.3

Station CK0302

Species	Jun 14	Jun 15	Jun 16	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	June Total
Broad whitefish						1				1
Humpback whitefish										0
Least cisco										0
Round whitefish										0
Arctic grayling				1	1	2		4	2	10
Burbot										0
Alaska blackfish										0
Slimy sculpin										0
Ninespine stickleback			7	12	1	8		4	3	35
Effort (hrs)	20.3	25.3	23.9	25.3	25.2	21.7	24.1	25.3	23.8	214.7

Station CK0303

Species	Jun 14	Jun 15	Jun 16	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	June Total
Broad whitefish										0
Humpback whitefish										0
Least cisco										0
Round whitefish										0
Arctic grayling										0
Burbot										0
Alaska blackfish	2	1	1	2	5	2	4	6	9	32
Slimy sculpin										0
Ninespine stickleback	45	7	16	46	12	10	26	10	69	241
Effort (hrs)	20.1	24.4	22.6	25.4	24.8	22.0	23.8	24.5	23.9	211.6

Station U0301

Species	Jun 14	Jun 15	Jun 16	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	June Total
Broad whitefish								1	1	2
Humpback whitefish								1		1
Least cisco										0
Round whitefish										0
Arctic grayling	15	2		10	13	1	6	49	61	157
Burbot										0
Alaska blackfish										0
Slimy sculpin								1		1
Ninespine stickleback	5	20	11	24	37	117	62	2	3	281
Effort (hrs)	20.1	25.7	24.6	25.5	25.2	21.8	23.8	24.5	24.4	215.5

Appendix Table B-7. Daily fish catches from sampling with fyke nets in NPR-A streams during June 2003.

Station CK16C

Species	Jun 14	Jun 15	Jun 16	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	June Total
Broad whitefish										0
Humpback whitefish										0
Least cisco										0
Round whitefish										0
Arctic grayling					1				1	2
Burbot										0
Alaska blackfish		2	1			1	2	4	7	17
Slimy sculpin										0
Ninespine stickleback		457	733	2890	235	190	175	1100	3030	8810
Effort (hrs)		19.4	23.8	25.3	25.3	21.8	23.9	24.4	23.8	187.8

Station CK0306

Species	Jun 14	Jun 15	Jun 16	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	June Total
Broad whitefish										0
Humpback whitefish										0
Least cisco										0
Round whitefish										0
Arctic grayling										0
Burbot										0
Alaska blackfish		1	2	1	1	2	1	5	19	32
Slimy sculpin										0
Ninespine stickleback		9	44	88	33	20	12	57	82	345
Effort (hrs)		19.3	25.3	25.0	25.0	21.8	23.8	24.6	24.0	188.8

Station CK0307

Species	Jun 14	Jun 15	Jun 16	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	June Total
Broad whitefish										0
Humpback whitefish										0
Least cisco										0
Round whitefish										0
Arctic grayling										0
Burbot										0
Alaska blackfish						1	2	2	3	8
Slimy sculpin										0
Ninespine stickleback					27	58	51	165	165	466
Effort (hrs)					25.5	21.8	23.8	24.5	23.8	119.4

Appendix Table B-8. Daily fish catches from sampling with fyke nets in NPR-A streams during July 2003.

Station CK0301

Species	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	July Total
Broad whitefish	1								1		1	3
Humpback whitefish												0
Least cisco			1	2								3
Round whitefish												0
Arctic grayling	245	195	108	109	37	39	48	30	144	153	158	1266
Burbot												0
Alaska blackfish												0
Slimy sculpin	1				1	1			1	11		15
Ninespine stickleback			4				8		1		1	14
Effort (hrs)	24.2	22.1	23.2	25.1	22.6	24.1	22.3	26.3	21.0	23.6	25.9	260.3

Station CK0302

Species	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	July Total
Broad whitefish		1										1
Humpback whitefish												0
Least cisco												0
Round whitefish												0
Arctic grayling	25	10	21	23	7		4	3				93
Burbot												0
Alaska blackfish				1								1
Slimy sculpin	1	1		2	1	1	6	1				13
Ninespine stickleback	17	3	1	7	1	1	3	3				36
Effort (hrs)	27.2	22.9	23.4	28.8	19.6	21.8	25.3	22.0				191.1

Station CK0303/F0303A

	CK0303			M0352								July
Species	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	Total
Broad whitefish				5		2		14		27	97	145
Humpback whitefish									2	1	1	4
Least cisco				24		3	1	3	1	6	10	48
Round whitefish				1		1				1		3
Arctic grayling				13	5	15	6	3	1	15	66	124
Burbot										1		1
Alaska blackfish	1		1		2			2		1	4	11
Slimy sculpin												0
Ninespine stickleback	65	41	43	26	8	29	9	67	76	46	32	442
Effort (hrs)	24.9	24.0	23.9	24.8	18.4	27.1	19.4	26.3	20.9	23.1	29.3	262.2

Station U0301

Species	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	July Total
Broad whitefish										1	3	4
Humpback whitefish												0
Least cisco	1		1									2
Round whitefish										1		1
Arctic grayling	1	1	9	14	2	3	5	5	1	2	1	44
Burbot												0
Alaska blackfish												0
Slimy sculpin					8							8
Ninespine stickleback	10	8		2		1					3	24
Effort (hrs)	27.4	23.8	24.9	27.8	19.7	23.8	22.6	25.5	22.2	23.5	27.8	269.2

Appendix Table B-8. Daily fish catches from sampling with fyke nets in NPR-A streams during July 2003.

Station CK16C

Species	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	July Total
Broad whitefish												0
Humpback whitefish												0
Least cisco												0
Round whitefish												0
Arctic grayling												0
Burbot												0
Alaska blackfish			1		1							2
Slimy sculpin												0
Ninespine stickleback		2	33		18	6	2	8				69
Effort (hrs)	24.0	22.2	17.7		48.1	24.2	22.4	23.9				182.5

Station F0306A

Species	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	July Total
Broad whitefish												0
Humpback whitefish												0
Least cisco												0
Round whitefish												0
Arctic grayling			1	1								2
Burbot												0
Alaska blackfish				2	2							4
Slimy sculpin												0
Ninespine stickleback	1226	22	58	224	107	18	12	20				1687
Effort (hrs)	27.0	22.9	24.6	26.9	19.6	23.6	23.5	21.2				189.3

Station CK0307

Species	Jul 11	Jul 12	Jul 13	Jul 14	Jul 15	Jul 16	Jul 17	Jul 18	Jul 19	Jul 20	Jul 21	July Total
Broad whitefish												0
Humpback whitefish												0
Least cisco												0
Round whitefish												0
Arctic grayling												0
Burbot												0
Alaska blackfish	4			1	1	1	1	1				9
Slimy sculpin												0
Ninespine stickleback	300	171	183	139	55	30	7	5				890
Effort (hrs)	23.9	25.3	23.3	28.0	20.1	24.3	22.2	24.2				191.3

Appendix Table B-9. Daily fish catches from sampling with fyke nets in NPR-A streams during August 2003.

Station CK0301

Species	Aug 16	Aug 17	Aug 18	Aug 19	Aug 20	Aug 21	Aug 22	August Total
Broad whitefish								0
Humpback whitefish								0
Least cisco								0
Round whitefish								0
Arctic grayling	6	4	1		3	5	4	23
Burbot						1		1
Alaska blackfish								0
Slimy sculpin								0
Ninespine stickleback							8	8
Effort (hrs)	22.7	23.5	22.8	23.0	22.3	21.5	25.3	161.2

Station U0301

Species	Aug 16	Aug 17	Aug 18	Aug 19	Aug 20	Aug 21	Aug 22	August Total
Broad whitefish								0
Humpback whitefish								0
Least cisco								0
Round whitefish							1	1
Arctic grayling	3	2		5	8	2	1	21
Burbot								0
Alaska blackfish								0
Slimy sculpin								0
Ninespine stickleback								0
Effort (hrs)	22.3	23.6	21.8	24.4	22.1	21.4	25.4	161.0

Appendix Table B-10. Fish caught by fyke net in the Alpine West region of eastern NPR-A during 2003.

Station F0308

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Total
Broad whitefish										0
Humpback whitefish										0
Least cisco										0
Round whitefish										0
Arctic grayling										0
Burbot										0
Rainbow smelt										0
Longnose sucker										0
Alaska blackfish										0
Fourhorn sculpin										0
Slimy sculpin										0
Ninespine stickleback	1	32	203	68						304
Effort (hrs)	24.4	23.3	23.8	29.3						100.7

Station F0309

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Total
Broad whitefish										0
Humpback whitefish										0
Least cisco										0
Round whitefish										0
Arctic grayling										0
Burbot										0
Rainbow smelt										0
Longnose sucker										0
Alaska blackfish										0
Fourhorn sculpin										0
Slimy sculpin										0
Ninespine stickleback	112	460	201	165						938
Effort (hrs)	23.4	23.8	22.7	28.0						98.0

Station F0310

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Total
Broad whitefish		5	10	22						37
Humpback whitefish		2								2
Least cisco	2	3		8						13
Round whitefish		2	1	1						4
Arctic grayling	2	13								15
Burbot			2	1						3
Rainbow smelt										0
Longnose sucker	129	34	43	206						412
Alaska blackfish										0
Fourhorn sculpin			1							1
Slimy sculpin										0
Ninespine stickleback		11	19							30
Effort (hrs)	23.7	23.6	21.6	31.6						100.4

Appendix Table B-10. Fish caught by fyke net in the Alpine West region of eastern NPR-A during 2003.

Station F0311

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Total
Broad whitefish										0
Humpback whitefish										0
Least cisco	1			2						3
Round whitefish										0
Arctic grayling										0
Burbot										0
Rainbow smelt										0
Longnose sucker										0
Alaska blackfish		9	9	12						30
Fourhorn sculpin										0
Slimy sculpin				1						1
Ninespine stickleback	14	304	160	598						1076
Effort (hrs)	23.1	24.1	20.4	33.6						101.2

Station F0312

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Total
Broad whitefish										0
Humpback whitefish										0
Least cisco										0
Round whitefish										0
Arctic grayling										0
Burbot										0
Rainbow smelt										0
Longnose sucker										0
Alaska blackfish										0
Fourhorn sculpin										0
Slimy sculpin										0
Ninespine stickleback				6	23					29
Effort (hrs)				19.0	22.2					41.2

Station F0313

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Total
Broad whitefish					4	4	3	4		15
Humpback whitefish										0
Least cisco					15	8	3		4	30
Round whitefish										0
Arctic grayling										0
Burbot						1				1
Rainbow smelt										0
Longnose sucker										0
Alaska blackfish										0
Fourhorn sculpin										0
Slimy sculpin										0
Ninespine stickleback					6	3	17	12	60	98
Effort (hrs)					16.8	24.1	22.3	24.0	25.0	112.1

Appendix Table B-10. Fish caught by fyke net in the Alpine West region of eastern NPR-A during 2003.

Station F0314

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Total
Broad whitefish						4	7	46	7	64
Humpback whitefish										0
Least cisco						2			1	3
Round whitefish						4	3	4	1	12
Arctic grayling						4	1		1	6
Burbot						1	1			2
Rainbow smelt										0
Longnose sucker						2	4	18	2	26
Alaska blackfish										0
Fourhorn sculpin										0
Slimy sculpin										0
Ninespine stickleback						1		3	1	5
Effort (hrs)						26.8	22.9	24.4	25.4	99.5

Station F0315

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Total
Broad whitefish						21	15	6	4	46
Humpback whitefish							1	1		2
Least cisco						5	2		2	9
Round whitefish						16	11	1		28
Arctic grayling						2				2
Burbot										0
Rainbow smelt								1		1
Longnose sucker						8				8
Alaska blackfish										0
Fourhorn sculpin										0
Slimy sculpin										0
Ninespine stickleback						1			1	2
Effort (hrs)						24.9	22.3	24.2	25.2	96.7

Station F0316

Species	Jul 19	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Total
Broad whitefish										0
Humpback whitefish										0
Least cisco										0
Round whitefish										0
Arctic grayling										0
Burbot										0
Rainbow smelt										0
Longnose sucker										0
Alaska blackfish										0
Fourhorn sculpin										0
Slimy sculpin										0
Ninespine stickleback							250	2900	0	3150
Effort (hrs)							24.0	24.9	24.9	73.8

Appendix Table B-10. Fish caught by fyke net in the Alpine West region of eastern NPR-A during 2003.

Station F0317

Species	Aug 01	Aug 02	Aug 03	Total
Broad whitefish				0
Humpback whitefish				0
Least cisco	1	1	1	3
Round whitefish				0
Arctic grayling				0
Burbot				0
Rainbow smelt				0
Longnose sucker				0
Alaska blackfish				0
Fourhorn sculpin				0
Slimy sculpin		3	1	4
Ninespine stickleback	7	151	37	195
Effort (hrs)	20.6	23.1	24.3	67.9

Station F0318

Species	Aug 01	Aug 02	Aug 03	Total
Broad whitefish		2		2
Humpback whitefish				0
Least cisco		2		2
Round whitefish				0
Arctic grayling				0
Burbot				0
Rainbow smelt				0
Longnose sucker				0
Alaska blackfish				0
Fourhorn sculpin				0
Slimy sculpin				0
Ninespine stickleback	8	13		21
Effort (hrs)	20.8	23.4	24.2	68.5

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
F0101	6/20/2001	GRAY	270	MJM010001				
F0101	6/20/2001	RDWF	255	MJM010002				
F0101	6/20/2001	GRAY	323	MJM010003				
U0101	6/20/2001	GRAY	311	MJM010004				
U0101	6/20/2001	RDWF	370	MJM010005				
F0101	6/21/2001	GRAY	345	MJM010007				
U0101	6/21/2001	RDWF	382	MJM010006				
M0142	6/22/2001	LSCS	320	MJM010008				
M0142	6/22/2001	LSCS	308	MJM010009				
M0142	6/22/2001	HBWF	355	MJM010010				
M0142	6/22/2001	GRAY	342	MJM010013				
M0142	6/22/2001	LSCS	286	MJM010015				
F0101	6/22/2001	GRAY	349	MJM010017				
F0104	6/22/2001	LSCS	294	MJM010016				
U0101	6/22/2001	RDWF	265	MJM010018				
U0101	6/22/2001	GRAY	330	MJM010019				
U0101	6/22/2001	GRAY	331	MJM010021				
U0101	6/22/2001	RDWF	358	MJM010023				
U0101	6/22/2001	RDWF	373	MJM010024				
MC7916A	6/23/2001	GRAY	348	MJM010025				
MC7916A	6/23/2001	HBWF	369	MJM010026				
F0104	6/23/2001	LSCS	251	MJM010028				
F0104	6/23/2001	LSCS	268	MJM010029				
F0104	6/23/2001	GRAY	295	MJM010030				
J0103	6/23/2001	LSCS	271	MJM010031				
J0103	6/23/2001	LSCS	261	MJM010032				
J0103	6/23/2001	LSCS	304	MJM010033				
U0101	6/23/2001	GRAY	274	MJM010034				
U0101	6/23/2001	GRAY	250	MJM010035				
U0101	6/23/2001	GRAY	318	MJM010036				
U0101	6/23/2001	GRAY	315	MJM010037				
MC7916B	6/24/2001	HBWF	345	MJM010038				
MC7916B	6/24/2001	HBWF	364	MJM010039				
MC7916B	6/24/2001	HBWF	382	MJM010040				
MC7916B	6/24/2001	HBWF	376	MJM010041				
MC7916B	6/24/2001	HBWF	344	MJM010042				
MC7916B	6/24/2001	HBWF	362	MJM010043				
MC7916B	6/24/2001	HBWF	356	MJM010044				
MC7916B	6/24/2001	HBWF	365	MJM010046				
MC7916B	6/24/2001	HBWF	394	MJM010047				
MC7916B	6/24/2001	HBWF	320	MJM010048				
MC7916B	6/24/2001	HBWF	383	MJM010049				
MC7916B	6/24/2001	HBWF	351	MJM010050				
MC7916B	6/24/2001	LSCS	324	MJM010051				
MC7916B	6/24/2001	HBWF	360	MJM010052				
MC7916B	6/24/2001	HBWF	385	MJM010053				
MC7916B	6/24/2001	HBWF	344	MJM010054				
MC7916B	6/24/2001	HBWF	368	MJM010055				
MC7916B	6/24/2001	RDWF	338	MJM010056				
MC7916B	6/24/2001	HBWF	394	MJM010057				
MC7916B	6/24/2001	HBWF	358	MJM010058				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
MC7916B	6/24/2001	HBWF	382	MJM010059				
MC7916B	6/24/2001	LSCS	319	MJM010060				
MC7916B	6/24/2001	HBWF	435	MJM010061				
MC7916B	6/24/2001	BDWF	376	MJM010062				
MC7916B	6/24/2001	LSCS	343	MJM010063				
MC7916B	6/24/2001	HBWF	421	MJM010064				
MC7916B	6/24/2001	BDWF	333	MJM010065				
MC7916B	6/24/2001	LSCS	280	MJM010066	Nanuk	10/30/2001	282	RECAP
MC7916B	6/24/2001	HBWF	353	MJM010067				
MC7916B	6/24/2001	HBWF	379	MJM010068				
MC7916B	6/24/2001	HBWF	373	MJM010069				
MC7916B	6/24/2001	HBWF	348	MJM010070				
MC7916B	6/24/2001	GRAY	343	MJM010071				
MC7916B	6/24/2001	HBWF	391	MJM010072				
MC7916B	6/24/2001	HBWF	390	MJM010073				
F0104	6/24/2001	LSCS	294	MJM010034				
J0103A	6/24/2001	GRAY	380	MJM010075				
J0103A	6/24/2001	GRAY	390	MJM010076	J0103	8/26/2001	388	RADIO,RECAP
U0101	6/24/2001	GRAY	350	MJM010077				
MC7916B	6/25/2001	HBWF	406	MJM010078				
MC7916B	6/25/2001	BDWF	319	MJM010079				
MC7916B	6/25/2001	RDWF	392	MJM010080				
MC7916B	6/25/2001	LSCS	393	MJM010081				
MC7916B	6/25/2001	HBWF	387	MJM010082				
MC7916B	6/25/2001	HBWF	334	MJM010083				
MC7916B	6/25/2001	HBWF	406	MJM010084				
MC7916B	6/25/2001	HBWF	371	MJM010085				
MC7916B	6/25/2001	LSCS	342	MJM010086				
MC7916B	6/25/2001	HBWF	367	MJM010087				
MC7916B	6/25/2001	HBWF	370	MJM010088				
MC7916B	6/25/2001	LSCS	358	MJM010089				
MC7916B	6/25/2001	HBWF	421	MJM010090				
MC7916B	6/25/2001	BDWF	405	MJM010091				RADIO
MC7916C	6/25/2001	LSCS	316	MJM010092				
MC7916C	6/25/2001	HBWF	352	MJM010093				
MC7916C	6/25/2001	HBWF	410	MJM010094				
MC7916C	6/25/2001	BDWF	334	MJM010095				
MC7916C	6/25/2001	HBWF	365	MJM010096				
MC7916C	6/25/2001	HBWF	421	MJM010097				
MC7916C	6/25/2001	HBWF	387	MJM010098				
MC7916C	6/25/2001	HBWF	366	MJM010099				
MC7916C	6/25/2001	HBWF	363	MJM010100				
MC7916C	6/25/2001	HBWF	343	MJM010101				
MC7916C	6/25/2001	BDWF	492	MJM010102				RADIO
MC7916C	6/25/2001	BDWF	458	MJM010103				RADIO
MC7916C	6/25/2001	BDWF	440	MJM010104				RADIO
MC7916C	6/25/2001	BDWF	587	MJM010105				RADIO
F0104	6/25/2001	LSCS	304	MJM010106				
F0104	6/25/2001	LSCS	270	MJM010107				
F0104	6/25/2001	LSCS	299	MJM010108				
J0103A	6/25/2001	GRAY	334	MJM010109				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
J0103A	6/25/2001	GRAY	400	MJM010110				
J0103A	6/25/2001	GRAY	386	MJM010111				
U0101	6/25/2001	GRAY	316	MJM010112				
U0101	6/25/2001	GRAY	267	MJM010113				
U0101	6/25/2001	GRAY	358	MJM010114				
U0101	6/25/2001	GRAY	382	MJM010115				
U0101	6/25/2001	GRAY	271	MJM010116				
U0101	6/25/2001	GRAY	408	MJM010117				
U0101	6/25/2001	GRAY	309	MJM010118	U0301	7/16/2003	337	RECAP
U0101	6/25/2001	GRAY	359	MJM010119				
U0101	6/25/2001	GRAY	310	MJM010120				
U0101	6/25/2001	GRAY	260	MJM010121				
U0101	6/25/2001	GRAY	330	MJM010122				
U0101	6/25/2001	GRAY	371	MJM010123				
U0101	6/25/2001	GRAY	346	MJM010124				
U0101	6/25/2001	GRAY	314	MJM010125				
U0101	6/25/2001	GRAY	300	MJM010126				
U0101	6/25/2001	GRAY	261	MJM010127				
U0101	6/25/2001	GRAY	350	MJM010128				
U0101	6/25/2001	GRAY	339	MJM010129				
U0101	6/25/2001	GRAY	347	MJM010130				
U0101	6/25/2001	GRAY	355	MJM010131				
U0101	6/25/2001	GRAY	363	MJM010132				
U0101	6/25/2001	GRAY	334	MJM010133	U0102	9/1/2001	345	RECAP
U0101	6/25/2001	GRAY	323	MJM010134				
U0101	6/25/2001	GRAY	368	MJM010135				
U0101	6/25/2001	GRAY	308	MJM010136				
U0101	6/25/2001	GRAY	335	MJM010137				
U0101	6/25/2001	GRAY	326	MJM010138				
U0101	6/25/2001	GRAY	390	MJM010139				
U0101	6/25/2001	GRAY	366	MJM010140				
U0101	6/25/2001	GRAY	404	MJM010141				
MC7916B	6/26/2001	HBWF	395	MJM010147				
MC7916B	6/26/2001	RDWF	382	MJM010148				
MC7916B	6/26/2001	GRAY	344	MJM010149				
MC7916B	6/26/2001	GRAY	360	MJM010150				
MC7916B	6/26/2001	GRAY	313	MJM010151				
MC7916B	6/26/2001	GRAY	387	MJM010152				
MC7916B	6/26/2001	GRAY	372	MJM010153				
MC7916B	6/26/2001	BDWF	573	MJM010154				RADIO
MC7916C	6/26/2001	LSCS	284	MJM010142				
MC7916C	6/26/2001	LSCS	286	MJM010143				
MC7916C	6/26/2001	GRAY	411	MJM010144				
MC7916C	6/26/2001	LSCS	378	MJM010145				
MC7916C	6/26/2001	RDWF	367	MJM010146				
J0103A	6/26/2001	GRAY	355	MJM010167				
J0103A	6/26/2001	GRAY	350	MJM010168	F0103	7/28/2001	350	RECAP
U0101	6/26/2001	GRAY	256	MJM010155				
U0101	6/26/2001	HBWF	361	MJM010156				
U0101	6/26/2001	RDWF	354	MJM010157				
U0101	6/26/2001	BDWF	329	MJM010158				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0101	6/26/2001	GRAY	256	MJM010159				
U0101	6/26/2001	GRAY	275	MJM010160				
U0101	6/26/2001	GRAY	263	MJM010161				
U0101	6/26/2001	GRAY	350	MJM010162				
U0101	6/26/2001	GRAY	377	MJM010163				
U0101	6/26/2001	GRAY	351	MJM010164				
U0101	6/26/2001	GRAY	326	MJM010165				
U0101	6/26/2001	GRAY	400	MJM010166				
MC7916B	6/27/2001	HBWF	374	MJM010169				
MC7916B	6/27/2001	GRAY	346	MJM010170				
MC7916B	6/27/2001	GRAY	387	MJM010171				
MC7916C	6/27/2001	LSCS	252	MJM010172				
MC7916C	6/27/2001	LSCS	251	MJM010173				
J0103A	6/27/2001	GRAY	310	MJM010174				
J0103A	6/27/2001	GRAY	332	MJM010175				
J0103A	6/27/2001	BURB	710	MJM010176				RADIO
U0101	6/27/2001	GRAY	262	MJM010177				
U0101	6/27/2001	GRAY	340	MJM010178				
U0101	6/27/2001	GRAY	294	MJM010179				
U0101	6/27/2001	GRAY	337	MJM010180	U0102	7/27/2001	338	RECAP
U0101	6/27/2001	HBWF	382	MJM010181				
U0101	6/27/2001	GRAY	358	MJM010182				
U0101	6/27/2001	RDWF	378	MJM010183				
U0101	6/27/2001	BDWF	523	MJM010184				RADIO
MC7916B	6/28/2001	LSCS	349	MJM010185				
MC7916B	6/28/2001	LSCS	369	MJM010186				
MC7916B	6/28/2001	HBWF	420	MJM010187				
F0104	6/28/2001	GRAY	253	MJM010188				
U0101	6/28/2001	GRAY	350	MJM010189				
U0101	6/28/2001	GRAY	337	MJM010191				
U0101	6/28/2001	GRAY	337	MJM010192				
U0101	6/28/2001	RDWF	397	MJM010193				
U0101	6/28/2001	RDWF	390	MJM010194				
M0101	7/14/2001	LSCS	398	MJM010401				
M0101	7/14/2001	LSCS	355	MJM010403				
M0101	7/14/2001	LSCS	377	MJM010405				
F0103	7/20/2001	GRAY	313	MJM010517				
U0102	7/20/2001	LSCS	272	MJM010195				
U0102	7/20/2001	RDWF	347	MJM010196				
U0102	7/20/2001	GRAY	297	MJM010197				
U0102	7/20/2001	HBWF	435	MJM010198				
U0102	7/20/2001	RDWF	256	MJM010199				
U0102	7/20/2001	BDWF	540	MJM010200				RADIO
U0102	7/20/2001	BDWF	505	MJM010518				RADIO
U0102	7/20/2001	BDWF	431	MJM010519				RADIO
U0102	7/20/2001	BDWF	459	MJM010520				RADIO
MC7916C	7/21/2001	GRAY	329	MJM010526				
MC7916C	7/21/2001	LSCS	337	MJM010527				
MC7916C	7/21/2001	HBWF	414	MJM010528				
MC7916C	7/21/2001	LSCS	317	MJM010529				
MC7916C	7/21/2001	LSCS	346	MJM010530				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
MC7916C	7/21/2001	LSCS	277	MJM010531				
MC7916C	7/21/2001	HBWF	334	MJM010532				
MC7916C	7/21/2001	LSCS	314	MJM010533				
MC7916C	7/21/2001	RDWF	264	MJM010534				
MC7916C	7/21/2001	HBWF	375	MJM010535				
MC7916C	7/21/2001	GRAY	394	MJM010536				
MC7916C	7/21/2001	GRAY	346	MJM010537				
MC7916C	7/21/2001	HBWF	357	MJM010538				
F0103	7/21/2001	RDWF	311	MJM010539				
F0103	7/21/2001	GRAY	366	MJM010540				
U0102	7/21/2001	HBWF	397	MJM010541				
U0102	7/21/2001	LSCS	259	MJM010542				
U0102	7/21/2001	BDWF	357	MJM010546				
U0102	7/21/2001	GRAY	354	MJM010547				
U0102	7/21/2001	BDWF	434	MJM010548				RADIO
MC7916C	7/23/2001	HBWF	384	MJM010523				
MC7916C	7/23/2001	GRAY	356	MJM010524	MC7916C	7/24/2001	358	RECAP
MC7916C	7/23/2001	GRAY	309	MJM010525				
MC7916C	7/23/2001	GRAY	369	MJM010568				
MC7916C	7/23/2001	HBWF	305	MJM010593				
MC7916C	7/23/2001	LSCS	296	MJM010594				
MC7916C	7/23/2001	LSCS	324	MJM010595				
MC7916C	7/23/2001	HBWF	367	MJM010596				
MC7916C	7/23/2001	LSCS	282	MJM010597				
MC7916C	7/23/2001	LSCS	330	MJM010598				
MC7916C	7/23/2001	HBWF	396	MJM010599				
MC7916C	7/23/2001	LSCS	354	MJM010600				
U0102	7/23/2001	HBWF	362	MJM010549				
U0102	7/23/2001	BDWF	327	MJM010550				
U0102	7/23/2001	BDWF	354	MJM010551				
U0102	7/23/2001	GRAY	358	MJM010552				
U0102	7/23/2001	HBWF	368	MJM010553				
U0102	7/23/2001	BDWF	337	MJM010554				
U0102	7/23/2001	BDWF	391	MJM010555				
U0102	7/23/2001	BDWF	366	MJM010556				
U0102	7/23/2001	BDWF	362	MJM010557				
U0102	7/23/2001	BDWF	381	MJM010558				
U0102	7/23/2001	LSCS	296	MJM010561				
U0102	7/23/2001	BDWF	310	MJM010562				
U0102	7/23/2001	GRAY	301	MJM010564				
U0102	7/23/2001	BDWF	350	MJM010567				
U0102	7/23/2001	GRAY	338	MJM010569				
U0102	7/23/2001	BDWF	317	MJM010570				
U0102	7/23/2001	GRAY	285	MJM010571	U0102	7/24/2001	294	RECAP
U0102	7/23/2001	GRAY	284	MJM010574				
U0102	7/23/2001	RDWF	332	MJM010575				
U0102	7/23/2001	GRAY	270	MJM010576	U0102	8/28/2001	279	RECAP
U0102	7/23/2001	GRAY	360	MJM010577				
U0102	7/23/2001	RDWF	335	MJM010578				
U0102	7/23/2001	HBWF	386	MJM010580				
U0102	7/23/2001	GRAY	369	MJM010581	U0102	8/25/2001	371	RADIO,RECAP

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0102	7/23/2001	GRAY	343	MJM010582				
U0102	7/23/2001	BDWF	373	MJM010583				
U0102	7/23/2001	BDWF	342	MJM010584				
U0102	7/23/2001	HBWF	420	MJM010585				
U0102	7/23/2001	RDWF	310	MJM010586				
U0102	7/23/2001	GRAY	312	MJM010587	U0102	7/24/2001	316	RECAP
U0102	7/23/2001	GRAY	415	MJM010589				
U0102	7/23/2001	GRAY	357	MJM010590				
U0102	7/23/2001	HBWF	396	MJM010591				
U0102	7/23/2001	HBWF	430	MJM010592				
MC7916C	7/24/2001	LSCS	257	MJM010728				
MC7916C	7/24/2001	LSCS	266	MJM010729				
MC7916C	7/24/2001	LSCS	291	MJM010731				
MC7916C	7/24/2001	LSCS	254	MJM010733				
MC7916C	7/24/2001	GRAY	389	MJM010735				
MC7916C	7/24/2001	GRAY	332	MJM010736				
MC7916C	7/24/2001	GRAY	328	MJM010737				
MC7916C	7/24/2001	LSCS	288	MJM010738				
MC7916C	7/24/2001	LSCS	316	MJM010739				
MC7916C	7/24/2001	GRAY	273	MJM010742	F0102A	9/2/2001	276	RECAP
F0102A	7/24/2001	GRAY	273	MJM010743				
F0102A	7/24/2001	HBWF	406	MJM010744				
F0102A	7/24/2001	HBWF	347	MJM010745				
F0103	7/24/2001	GRAY	318	MJM010747				
J0103	7/24/2001	HBWF	339	MJM010748				
J0103	7/24/2001	RDWF	272	MJM010749				
J0103	7/24/2001	RDWF	291	MJM010826				
J0103	7/24/2001	GRAY	278	MJM010827				
J0103	7/24/2001	GRAY	346	MJM010831				
U0102	7/24/2001	HBWF	415	MJM010701				
U0102	7/24/2001	GRAY	341	MJM010702				
U0102	7/24/2001	GRAY	307	MJM010703				
U0102	7/24/2001	GRAY	273	MJM010704				
U0102	7/24/2001	GRAY	365	MJM010705				
U0102	7/24/2001	LSCS	251	MJM010706				
U0102	7/24/2001	GRAY	380	MJM010707				
U0102	7/24/2001	GRAY	326	MJM010708				
U0102	7/24/2001	GRAY	285	MJM010709				
U0102	7/24/2001	GRAY	281	MJM010710				
U0102	7/24/2001	GRAY	289	MJM010711				
U0102	7/24/2001	RDWF	362	MJM010712				
U0102	7/24/2001	GRAY	281	MJM010713				
U0102	7/24/2001	GRAY	279	MJM010714				
U0102	7/24/2001	GRAY	342	MJM010715				
U0102	7/24/2001	GRAY	341	MJM010716				
U0102	7/24/2001	GRAY	312	MJM010717				
U0102	7/24/2001	HBWF	404	MJM010718				
U0102	7/24/2001	GRAY	367	MJM010719				
U0102	7/24/2001	GRAY	358	MJM010720				
U0102	7/24/2001	BDWF	370	MJM010721				
U0102	7/24/2001	GRAY	395	MJM010722				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0102	7/24/2001	GRAY	333	MJM010723				
U0102	7/24/2001	GRAY	400	MJM010724				
U0102	7/24/2001	BDWF	414	MJM010725				RADIO
U0102	7/24/2001	BDWF	392	MJM010726				RADIO
U0102	7/24/2001	BDWF	451	MJM010727				RADIO
MC7916C	7/25/2001	GRAY	332	MJM010835	MC7916C	7/28/2001	332	RECAP
MC7916C	7/25/2001	GRAY	275	MJM010837				
MC7916C	7/25/2001	RDWF	364	MJM010839				
F0102A	7/25/2001	GRAY	332	MJM010842				
F0102A	7/25/2001	GRAY	336	MJM010843				
F0103	7/25/2001	GRAY	298	MJM010844				
F0103	7/25/2001	GRAY	376	MJM010845				
F0103	7/25/2001	GRAY	355	MJM010848				
F0103	7/25/2001	GRAY	363	MJM010849				
F0103	7/25/2001	GRAY	405	MJM010850				
U0102	7/25/2001	BDWF	475	MJM010776				RADIO
U0102	7/25/2001	BDWF	402	MJM010777				RADIO
U0102	7/25/2001	BDWF	485	MJM010778				RADIO
U0102	7/25/2001	HBWF	406	MJM010779				
U0102	7/25/2001	HBWF	406	MJM010780	U0102	7/26/2001	407	RECAP
U0102	7/25/2001	GRAY	334	MJM010782				
U0102	7/25/2001	GRAY	365	MJM010783				
U0102	7/25/2001	GRAY	342	MJM010785				
U0102	7/25/2001	GRAY	295	MJM010832				
U0102	7/25/2001	GRAY	323	MJM010833	CK0301	7/11/2003	335	RECAP
U0102	7/25/2001	LSCS	262	MJM010834				
U0102	7/25/2001	BDWF	497	MJM010847				RADIO
MC7916C	7/26/2001	GRAY	356	MJM011051	MC7916C	7/29/2001	356	RECAP
MC7916C	7/26/2001	GRAY	361	MJM011052				
MC7916C	7/26/2001	HBWF	351	MJM011053				
MC7916C	7/26/2001	LSCS	287	MJM011054				
F0102A	7/26/2001	LSCS	294	MJM011055				
J0103	7/26/2001	GRAY	339	MJM011057				
J0103	7/26/2001	RDWF	354	MJM011058				
U0102	7/26/2001	HBWF	379	MJM010746				
U0102	7/26/2001	HBWF	446	MJM010751				
U0102	7/26/2001	HBWF	368	MJM010752				
U0102	7/26/2001	BDWF	371	MJM010753				
U0102	7/26/2001	HBWF	407	MJM010754				
U0102	7/26/2001	HBWF	426	MJM010755				
U0102	7/26/2001	GRAY	366	MJM010756				
U0102	7/26/2001	HBWF	412	MJM010757				
U0102	7/26/2001	BDWF	328	MJM010758				
U0102	7/26/2001	HBWF	417	MJM010759				
U0102	7/26/2001	HBWF	419	MJM010760				
U0102	7/26/2001	HBWF	450	MJM010761	Upper Nigliq	10/31/2001		RECAP
U0102	7/26/2001	RDWF	360	MJM010762				
U0102	7/26/2001	RDWF	362	MJM010763				
U0102	7/26/2001	HBWF	422	MJM010764				
U0102	7/26/2001	BDWF	317	MJM010765				
U0102	7/26/2001	GRAY	388	MJM010766				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0102	7/26/2001	HBWF	425	MJM010767				
U0102	7/26/2001	BDWF	406	MJM010768				
U0102	7/26/2001	HBWF	389	MJM010769				
U0102	7/26/2001	BDWF	338	MJM010770				
U0102	7/26/2001	HBWF	404	MJM010771				
U0102	7/26/2001	HBWF	421	MJM010772				
U0102	7/26/2001	HBWF	393	MJM010773				
U0102	7/26/2001	HBWF	383	MJM010774				
U0102	7/26/2001	BDWF	324	MJM010775				
U0102	7/26/2001	HBWF	415	MJM010786				
U0102	7/26/2001	HBWF	437	MJM010787				
U0102	7/26/2001	RDWF	345	MJM010788				
U0102	7/26/2001	HBWF	411	MJM010789				
U0102	7/26/2001	GRAY	339	MJM010790				
U0102	7/26/2001	HBWF	421	MJM010791				
U0102	7/26/2001	HBWF	400	MJM010792				
U0102	7/26/2001	HBWF	409	MJM010793				
U0102	7/26/2001	BDWF	371	MJM010794				
U0102	7/26/2001	HBWF	374	MJM010795				
U0102	7/26/2001	HBWF	413	MJM010796				
U0102	7/26/2001	BDWF	389	MJM010797				
U0102	7/26/2001	HBWF	376	MJM010798				
U0102	7/26/2001	BDWF	297	MJM010799				
U0102	7/26/2001	HBWF	407	MJM010800				
U0102	7/26/2001	HBWF	431	MJM010801				
U0102	7/26/2001	GRAY	350	MJM010802				
U0102	7/26/2001	HBWF	429	MJM010803				
U0102	7/26/2001	BDWF	436	MJM010804				
U0102	7/26/2001	HBWF	416	MJM010805				
U0102	7/26/2001	HBWF	404	MJM010806				
U0102	7/26/2001	HBWF	390	MJM010807				
U0102	7/26/2001	BDWF	412	MJM010808				
U0102	7/26/2001	HBWF	417	MJM010809				
U0102	7/26/2001	GRAY	349	MJM010810				
U0102	7/26/2001	HBWF	413	MJM010811				
U0102	7/26/2001	HBWF	384	MJM010812				
U0102	7/26/2001	HBWF	424	MJM010813				
U0102	7/26/2001	HBWF	427	MJM010814				
U0102	7/26/2001	HBWF	395	MJM010815				
U0102	7/26/2001	RDWF	351	MJM010816				
U0102	7/26/2001	GRAY	347	MJM010817				
U0102	7/26/2001	HBWF	443	MJM010818				
U0102	7/26/2001	BDWF	368	MJM010819				
U0102	7/26/2001	GRAY	421	MJM010820				
U0102	7/26/2001	HBWF	414	MJM010821				
U0102	7/26/2001	BDWF	366	MJM010822				
U0102	7/26/2001	GRAY	350	MJM010823				
U0102	7/26/2001	HBWF	422	MJM010824				
U0102	7/26/2001	BDWF	427	MJM010825				
U0102	7/26/2001	GRAY	347	MJM010851				
U0102	7/26/2001	HBWF	417	MJM010852				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0102	7/26/2001	BDWF	360	MJM010853				
U0102	7/26/2001	HBWF	394	MJM010854				
U0102	7/26/2001	BDWF	354	MJM010855				
U0102	7/26/2001	BDWF	326	MJM010856				
U0102	7/26/2001	HBWF	374	MJM010857				
U0102	7/26/2001	HBWF	409	MJM010858				
U0102	7/26/2001	BDWF	491	MJM010859				
U0102	7/26/2001	BDWF	291	MJM010860				
U0102	7/26/2001	GRAY	358	MJM010861				
U0102	7/26/2001	GRAY	268	MJM010862				
U0102	7/26/2001	GRAY	298	MJM010863				
U0102	7/26/2001	BDWF	325	MJM010864				
U0102	7/26/2001	GRAY	351	MJM010865				
U0102	7/26/2001	GRAY	342	MJM010866				
U0102	7/26/2001	BDWF	422	MJM010867				
U0102	7/26/2001	HBWF	395	MJM010868				
U0102	7/26/2001	BDWF	483	MJM010869				
U0102	7/26/2001	HBWF	428	MJM010870				
U0102	7/26/2001	BDWF	346	MJM010871	Upper Nigliq	10/20/2001	348	RECAP
U0102	7/26/2001	GRAY	287	MJM010872				
U0102	7/26/2001	BDWF	354	MJM010873				
U0102	7/26/2001	GRAY	371	MJM010874				
U0102	7/26/2001	HBWF	413	MJM010875				
U0102	7/26/2001	BDWF	390	MJM010876				
U0102	7/26/2001	GRAY	350	MJM010877	U0102	9/2/2001	355	RECAP
U0102	7/26/2001	HBWF	429	MJM010878				
U0102	7/26/2001	HBWF	432	MJM010879				
U0102	7/26/2001	GRAY	287	MJM010880				
U0102	7/26/2001	HBWF	399	MJM010881				
U0102	7/26/2001	HBWF	422	MJM010882				
U0102	7/26/2001	HBWF	419	MJM010883				
U0102	7/26/2001	GRAY	378	MJM010884				
U0102	7/26/2001	BDWF	370	MJM010885				
U0102	7/26/2001	BDWF	349	MJM010886				
U0102	7/26/2001	BDWF	336	MJM010887				
U0102	7/26/2001	HBWF	398	MJM010888				
U0102	7/26/2001	RDWF	305	MJM010889	U0102	7/27/2001	303	RECAP
U0102	7/26/2001	BDWF	351	MJM010890				
U0102	7/26/2001	HBWF	401	MJM010891				
U0102	7/26/2001	RDWF	386	MJM010892				
U0102	7/26/2001	BDWF	346	MJM010893				
U0102	7/26/2001	HBWF	461	MJM010894				
U0102	7/26/2001	BDWF	353	MJM010895				
U0102	7/26/2001	BDWF	337	MJM010896				
U0102	7/26/2001	BDWF	334	MJM010897				
U0102	7/26/2001	LSCS	344	MJM010898				
U0102	7/26/2001	HBWF	433	MJM010899				
U0102	7/26/2001	LSCS	330	MJM010900				
MC7916C	7/27/2001	BDWF	359	MJM011044				
MC7916C	7/27/2001	HBWF	386	MJM011045				
MC7916C	7/27/2001	GRAY	392	MJM011046				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
F0102A	7/27/2001	GRAY	271	MJM011038				
F0102A	7/27/2001	BDWF	404	MJM011039				
F0103	7/27/2001	GRAY	290	MJM011040	F0103	8/27/2001	293	RECAP
F0103	7/27/2001	GRAY	308	MJM011041				
F0103	7/27/2001	GRAY	362	MJM011042				
F0103	7/27/2001	GRAY	349	MJM011043	F0103	7/28/2001	349	RECAP
J0103	7/27/2001	GRAY	310	MJM011047				
J0103	7/27/2001	GRAY	336	MJM011048				
M9910A	7/27/2001	HBWF	309	MJM010435				
M9910A	7/27/2001	HBWF	300	MJM010436				
M9910A	7/27/2001	GRAY	301	MJM010437	M9910A	7/29/2001	302	RECAP
M9910A	7/27/2001	GRAY	344	MJM010438	M9910A	8/3/2001	346	RECAP
M9910A	7/27/2001	GRAY	370	MJM010439	M9910A	8/2/2001	369	RECAP
M9910A	7/27/2001	GRAY	253	MJM010441				
M9910A	7/27/2001	GRAY	304	MJM010442	M9910A	7/30/2001	305	RECAP
M9910A	7/27/2001	GRAY	277	MJM010443				
M9910A	7/27/2001	GRAY	284	MJM010444				
M9910A	7/27/2001	GRAY	308	MJM010445				
M9910A	7/27/2001	GRAY	398	MJM010446				
M9910A	7/27/2001	GRAY	279	MJM010447				
M9910A	7/27/2001	GRAY	328	MJM010448	M9910A	7/28/2001	328	RECAP
M9910A	7/27/2001	HBWF	308	MJM010449				
M9910A	7/27/2001	GRAY	335	MJM010450	M9910B	8/3/2001	338	RECAP
M9910A	7/27/2001	GRAY	350	MJM010451	M9910B	7/31/2001	349	RECAP
M9910B	7/27/2001	GRAY	264	MJM010452				
M9910B	7/27/2001	GRAY	357	MJM010453				
M9910B	7/27/2001	GRAY	395	MJM010454				
M9910B	7/27/2001	GRAY	279	MJM010455				
M9910B	7/27/2001	GRAY	277	MJM010457				
M9910B	7/27/2001	GRAY	256	MJM010458	M9910A	7/29/2001	256	RECAP
M9910B	7/27/2001	GRAY	254	MJM010459				
M9910B	7/27/2001	GRAY	265	MJM010460				
M9910B	7/27/2001	GRAY	268	MJM010461				
M9910B	7/27/2001	GRAY	270	MJM010462				
M9910B	7/27/2001	GRAY	294	MJM010463				
M9910B	7/27/2001	GRAY	318	MJM010464				
M9910B	7/27/2001	GRAY	320	MJM010465	M9910A	7/30/2001	320	RECAP
M9910B	7/27/2001	GRAY	375	MJM010466	M9910A	7/29/2001	371	RECAP
U0102	7/27/2001	HBWF	381	MJM010601				
U0102	7/27/2001	HBWF	389	MJM010603				
U0102	7/27/2001	GRAY	386	MJM010604				
U0102	7/27/2001	BDWF	490	MJM010605				
U0102	7/27/2001	RDWF	358	MJM010606				
U0102	7/27/2001	HBWF	388	MJM010607				
U0102	7/27/2001	HBWF	413	MJM010608				
U0102	7/27/2001	HBWF	435	MJM010609				
U0102	7/27/2001	GRAY	355	MJM010610				
U0102	7/27/2001	HBWF	452	MJM010611				
U0102	7/27/2001	HBWF	418	MJM010612				
U0102	7/27/2001	HBWF	430	MJM010613				
U0102	7/27/2001	GRAY	340	MJM010614				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0102	7/27/2001	GRAY	339	MJM010615				
U0102	7/27/2001	GRAY	371	MJM010616				
U0102	7/27/2001	BDWF	398	MJM010617				
U0102	7/27/2001	HBWF	441	MJM010618				
U0102	7/27/2001	HBWF	403	MJM010619				
U0102	7/27/2001	BDWF	366	MJM010620				
U0102	7/27/2001	HBWF	369	MJM010621				
U0102	7/27/2001	RDWF	407	MJM010623				
U0102	7/27/2001	BDWF	339	MJM010624				
U0102	7/27/2001	BDWF	326	MJM010625				
U0102	7/27/2001	GRAY	350	MJM010626				
U0102	7/27/2001	HBWF	406	MJM010627				
U0102	7/27/2001	BDWF	370	MJM010628				
U0102	7/27/2001	HBWF	398	MJM010630				
U0102	7/27/2001	BDWF	361	MJM010631				
U0102	7/27/2001	RDWF	395	MJM010632				
U0102	7/27/2001	BDWF	501	MJM010633				
U0102	7/27/2001	HBWF	413	MJM010634				
U0102	7/27/2001	HBWF	402	MJM010635				
U0102	7/27/2001	RDWF	346	MJM010636				
U0102	7/27/2001	HBWF	382	MJM010638				
U0102	7/27/2001	HBWF	396	MJM010639				
U0102	7/27/2001	LSCS	270	MJM010640				
U0102	7/27/2001	HBWF	414	MJM010641				
U0102	7/27/2001	HBWF	441	MJM010642				
U0102	7/27/2001	HBWF	368	MJM010643				
U0102	7/27/2001	HBWF	411	MJM010644				
U0102	7/27/2001	HBWF	366	MJM010645				
U0102	7/27/2001	HBWF	400	MJM010646				
U0102	7/27/2001	GRAY	356	MJM010647				
U0102	7/27/2001	HBWF	387	MJM010648				
U0102	7/27/2001	HBWF	431	MJM010649				
U0102	7/27/2001	BDWF	410	MJM010650				
U0102	7/27/2001	HBWF	408	MJM011001				
U0102	7/27/2001	HBWF	385	MJM011002				
U0102	7/27/2001	BDWF	407	MJM011003				
U0102	7/27/2001	HBWF	455	MJM011004				
U0102	7/27/2001	HBWF	427	MJM011005				
U0102	7/27/2001	BDWF	393	MJM011006				
U0102	7/27/2001	RDWF	383	MJM011007				
U0102	7/27/2001	HBWF	366	MJM011008				
U0102	7/27/2001	HBWF	397	MJM011009				
U0102	7/27/2001	HBWF	449	MJM011010				
U0102	7/27/2001	BDWF	495	MJM011011				
U0102	7/27/2001	HBWF	409	MJM011012				
U0102	7/27/2001	HBWF	407	MJM011013				
U0102	7/27/2001	RDWF	395	MJM011014				
U0102	7/27/2001	RDWF	366	MJM011015				
U0102	7/27/2001	RDWF	359	MJM011016				
U0102	7/27/2001	BDWF	352	MJM011017				
U0102	7/27/2001	HBWF	400	MJM011018				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0102	7/27/2001	GRAY	329	MJM011019				
U0102	7/27/2001	HBWF	426	MJM011020				
U0102	7/27/2001	HBWF	438	MJM011021				
U0102	7/27/2001	HBWF	403	MJM011022				
U0102	7/27/2001	HBWF	374	MJM011023				
U0102	7/27/2001	RDWF	369	MJM011024				
U0102	7/27/2001	HBWF	399	MJM011025				
U0102	7/27/2001	HBWF	384	MJM011026				
U0102	7/27/2001	HBWF	398	MJM011027				
U0102	7/27/2001	HBWF	404	MJM011028				
U0102	7/27/2001	BDWF	427	MJM011029				
U0102	7/27/2001	HBWF	431	MJM011030				
U0102	7/27/2001	HBWF	409	MJM011031				
U0102	7/27/2001	GRAY	302	MJM011032				
U0102	7/27/2001	HBWF	417	MJM011033				
U0102	7/27/2001	HBWF	458	MJM011034				
U0102	7/27/2001	HBWF	405	MJM011035				
U0102	7/27/2001	HBWF	381	MJM011036				
U0102	7/27/2001	HBWF	418	MJM011037				
U0102	7/27/2001	LSCS	279	MJM011059				
U0102	7/27/2001	GRAY	338	MJM011061				
U0102	7/27/2001	BDWF	361	MJM011062				
U0102	7/27/2001	HBWF	416	MJM011063				
U0102	7/27/2001	RDWF	369	MJM011064				
U0102	7/27/2001	BDWF	359	MJM011065				
U0102	7/27/2001	HBWF	372	MJM011066				
U0102	7/27/2001	HBWF	406	MJM011067				
U0102	7/27/2001	HBWF	335	MJM011069				
U0102	7/27/2001	GRAY	343	MJM011070				
U0102	7/27/2001	HBWF	384	MJM011071				
U0102	7/27/2001	HBWF	428	MJM011072				
U0102	7/27/2001	BDWF	429	MJM011073				
U0102	7/27/2001	GRAY	436	MJM011074				
U0102	7/27/2001	HBWF	411	MJM011075				
MC7916C	7/28/2001	HBWF	372	MJM011401				
MC7916C	7/28/2001	LSCS	286	MJM011402				
MC7916C	7/28/2001	LSCS	265	MJM011403				
MC7916C	7/28/2001	LSCS	256	MJM011404				
MC7916C	7/28/2001	GRAY	373	MJM011405				
F0102A	7/28/2001	GRAY	264	MJM011112				
F0103	7/28/2001	GRAY	251	MJM011113				
F0103	7/28/2001	GRAY	369	MJM011115				
M9910A	7/28/2001	GRAY	273	MJM010467				
M9910A	7/28/2001	HBWF	316	MJM010468				
U0102	7/28/2001	HBWF	384	MJM010651				
U0102	7/28/2001	HBWF	393	MJM010652				
U0102	7/28/2001	GRAY	269	MJM010653				
U0102	7/28/2001	HBWF	386	MJM010654				
U0102	7/28/2001	HBWF	419	MJM010655				
U0102	7/28/2001	RDWF	383	MJM010656				
U0102	7/28/2001	RDWF	355	MJM010658				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0102	7/28/2001	HBWF	406	MJM010659				
U0102	7/28/2001	GRAY	271	MJM010660				
U0102	7/28/2001	GRAY	266	MJM010661				
U0102	7/28/2001	BDWF	366	MJM010662				
U0102	7/28/2001	HBWF	446	MJM010663				
U0102	7/28/2001	HBWF	394	MJM010664				
U0102	7/28/2001	GRAY	339	MJM010665				
U0102	7/28/2001	HBWF	402	MJM010666	Nanuk	10/30/2001		RECAP
U0102	7/28/2001	GRAY	443	MJM010667	U0102	7/29/2001	443	RECAP
U0102	7/28/2001	BDWF	439	MJM010669				
U0102	7/28/2001	BDWF	491	MJM010670				
U0102	7/28/2001	HBWF	411	MJM010671				
U0102	7/28/2001	GRAY	313	MJM010672				
U0102	7/28/2001	GRAY	343	MJM010673				
U0102	7/28/2001	HBWF	418	MJM010674				
U0102	7/28/2001	BDWF	451	MJM010675				
U0102	7/28/2001	HBWF	414	MJM010676				
U0102	7/28/2001	HBWF	415	MJM010678				
U0102	7/28/2001	HBWF	422	MJM010679				
U0102	7/28/2001	GRAY	339	MJM010680				
U0102	7/28/2001	HBWF	438	MJM010681				
U0102	7/28/2001	BDWF	485	MJM010682				
U0102	7/28/2001	HBWF	428	MJM010683				
U0102	7/28/2001	BDWF	394	MJM010684				
U0102	7/28/2001	HBWF	423	MJM010685				
U0102	7/28/2001	HBWF	429	MJM010686				
U0102	7/28/2001	HBWF	461	MJM010687				
U0102	7/28/2001	HBWF	374	MJM010688				
U0102	7/28/2001	HBWF	410	MJM010689				
U0102	7/28/2001	HBWF	441	MJM010690				
U0102	7/28/2001	BDWF	464	MJM010691				
U0102	7/28/2001	BDWF	463	MJM010692				
U0102	7/28/2001	BDWF	483	MJM010693				
U0102	7/28/2001	RDWF	389	MJM010694				
U0102	7/28/2001	BDWF	630	MJM010695				
U0102	7/28/2001	HBWF	432	MJM010696				
U0102	7/28/2001	HBWF	441	MJM010697				
U0102	7/28/2001	HBWF	477	MJM010698				
U0102	7/28/2001	HBWF	422	MJM010699				
U0102	7/28/2001	BDWF	481	MJM011049				
U0102	7/28/2001	HBWF	404	MJM011050				
U0102	7/28/2001	HBWF	395	MJM011076				
U0102	7/28/2001	BDWF	407	MJM011079				
U0102	7/28/2001	HBWF	409	MJM011080				
U0102	7/28/2001	BDWF	399	MJM011081				
U0102	7/28/2001	HBWF	424	MJM011082				
U0102	7/28/2001	HBWF	392	MJM011083				
U0102	7/28/2001	HBWF	372	MJM011084				
U0102	7/28/2001	GRAY	355	MJM011085				
U0102	7/28/2001	HBWF	393	MJM011086				
U0102	7/28/2001	HBWF	392	MJM011087				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0102	7/28/2001	HBWF	379	MJM011089				
U0102	7/28/2001	BDWF	401	MJM011090				
U0102	7/28/2001	BDWF	406	MJM011091				
U0102	7/28/2001	BDWF	498	MJM011092				
U0102	7/28/2001	BDWF	452	MJM011093				
U0102	7/28/2001	HBWF	429	MJM011094				
U0102	7/28/2001	HBWF	400	MJM011095				
U0102	7/28/2001	HBWF	404	MJM011096				
U0102	7/28/2001	HBWF	398	MJM011097				
U0102	7/28/2001	HBWF	441	MJM011099				
U0102	7/28/2001	HBWF	424	MJM011100				
U0102	7/28/2001	BDWF	519	MJM011101				
U0102	7/28/2001	BDWF	419	MJM011102				
U0102	7/28/2001	RDWF	359	MJM011104				
U0102	7/28/2001	HBWF	390	MJM011105				
U0102	7/28/2001	HBWF	389	MJM011106				
U0102	7/28/2001	HBWF	371	MJM011107				
U0102	7/28/2001	HBWF	412	MJM011108				
U0102	7/28/2001	HBWF	392	MJM011109				
U0102	7/28/2001	HBWF	428	MJM011110				
U0102	7/28/2001	HBWF	432	MJM011111				
MC7916C	7/29/2001	GRAY	329	MJM011420				
MC7916C	7/29/2001	GRAY	317	MJM011422				
MC7916C	7/29/2001	GRAY	351	MJM011423				
MC7916C	7/29/2001	BDWF	336	MJM011425				
J0103	7/29/2001	RDWF	273	MJM011415				
J0103	7/29/2001	GRAY	274	MJM011416				
J0103	7/29/2001	GRAY	356	MJM011418				
J0103	7/29/2001	RDWF	264	MJM011419				
M9910A	7/29/2001	GRAY	279	MJM010469				
M9910A	7/29/2001	GRAY	260	MJM010470				
M9910A	7/29/2001	GRAY	271	MJM010471				
M9910B	7/29/2001	GRAY	381	MJM010472	M9910A	7/31/2001	382	RECAP
M9910B	7/29/2001	GRAY	407	MJM010473				
U0102	7/29/2001	BDWF	460	MJM011406				
U0102	7/29/2001	HBWF	400	MJM011407				
U0102	7/29/2001	GRAY	390	MJM011408				
U0102	7/29/2001	BDWF	455	MJM011409				
U0102	7/29/2001	GRAY	364	MJM011410				
U0102	7/29/2001	GRAY	343	MJM011411				
U0102	7/29/2001	RDWF	361	MJM011412				
U0102	7/29/2001	GRAY	281	MJM011413				
U0102	7/29/2001	GRAY	280	MJM011414				
MC7916C	7/30/2001	BDWF	342	MJM011224				
F0102A	7/30/2001	GRAY	321	MJM011204				
J0103	7/30/2001	RDWF	291	MJM011205				
J0103	7/30/2001	RDWF	341	MJM011206				
J0103	7/30/2001	RDWF	308	MJM011207				
J0103	7/30/2001	RDWF	314	MJM011209				
J0103	7/30/2001	LSCS	362	MJM011211				
J0103	7/30/2001	GRAY	320	MJM011213				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
J0103	7/30/2001	RDWF	351	MJM011214				
J0103	7/30/2001	RDWF	360	MJM011215				
J0103	7/30/2001	RDWF	315	MJM011216				
J0103	7/30/2001	RDWF	303	MJM011218				
J0103	7/30/2001	RDWF	315	MJM011219				
J0103	7/30/2001	RDWF	263	MJM011220				
J0103	7/30/2001	RDWF	290	MJM011222				
J0103	7/30/2001	RDWF	370	MJM011223				
M9909A	7/30/2001	LSCS	305	MJM010470				
M9909B	7/30/2001	LSCS	382	MJM010479				
M9909B	7/30/2001	LSCS	312	MJM010480				
M9909B	7/30/2001	LSCS	402	MJM010481				
M9909B	7/30/2001	LSCS	373	MJM010482				
M9909B	7/30/2001	LSCS	370	MJM010483				
M9909B	7/30/2001	BURB	730	MJM010484				
M9910A	7/30/2001	GRAY	253	MJM010441				
M9910A	7/30/2001	GRAY	268	MJM010475				
M9910A	7/30/2001	GRAY	267	MJM010477				
U0102	7/30/2001	HBWF	371	MJM011201				
U0102	7/30/2001	GRAY	375	MJM011202				
U0102	7/30/2001	RDWF	371	MJM011203				
M9909B	7/31/2001	LSCS	331	MJM010485				
M9909B	7/31/2001	LSCS	349	MJM010486				
M9909B	7/31/2001	LSCS	395	MJM010487				
M9909B	7/31/2001	LSCS	391	MJM010488				
M9910A	7/31/2001	GRAY	282	MJM010489				
M9909A	8/1/2001	LSCS	265	MJM010492				
M9909B	8/1/2001	LSCS	369	MJM010493				
M9909B	8/1/2001	LSCS	380	MJM010494				
M9910A	8/1/2001	LSCS	298	MJM010491				
M9909A	8/2/2001	BURB	690	MJM010496				
M9909B	8/2/2001	BDWF	560	MJM010495				
M9910A	8/2/2001	GRAY	275	MJM010497				
M9909B	8/3/2001	BURB	820	MJM010499				
M9910A	8/3/2001	GRAY	305	MJM010305				
U0102	8/25/2001	GRAY	365	MJM011329				RADIO
U0102	8/25/2001	GRAY	334	MJM011330				RADIO
U0102	8/25/2001	GRAY	338	MJM011331				RADIO
MC7916C	8/26/2001	LSCS	254	MJM011327				
MC7916C	8/26/2001	BDWF	326	MJM011328				
F0102B	8/26/2001	BURB	462	MJM011326				RADIO
J0103	8/26/2001	BURB	640	MJM011301				RADIO
J0103	8/26/2001	GRAY	374	MJM011302				RADIO
J0103	8/26/2001	GRAY	330	MJM011304				
J0103	8/26/2001	GRAY	425	MJM011305				
J0103	8/26/2001	GRAY	401	MJM011306				RADIO
J0103	8/26/2001	GRAY	325	MJM011307				
U0102	8/26/2001	GRAY	341	MJM011308				
U0102	8/26/2001	GRAY	359	MJM011309				
U0102	8/26/2001	GRAY	370	MJM011310				
U0102	8/26/2001	GRAY	385	MJM011311				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0102	8/26/2001	GRAY	335	MJM011312				
U0102	8/26/2001	GRAY	331	MJM011313				
U0102	8/26/2001	GRAY	347	MJM011314				
U0102	8/26/2001	BDWF	555	MJM011315				RADIO
F0102A	8/27/2001	GRAY	308	MJM011316				
F0103	8/27/2001	GRAY	375	MJM011317				RADIO
F0103	8/27/2001	GRAY	368	MJM011318				RADIO
F0103	8/27/2001	GRAY	307	MJM011319				
MC7916C	8/28/2001	BDWF	356	MJM011323				
F0102A	8/28/2001	BURB	455	MJM011324				RADIO
F0103	8/28/2001	GRAY	319	MJM011325				
F0103	8/28/2001	BDWF	456	MJM011351				
F0103	8/28/2001	BURB	555	MJM011352				RADIO
J0103	8/28/2001	GRAY	368	MJM011353				
J0103	8/28/2001	GRAY	324	MJM011354				
J0103	8/28/2001	GRAY	379	MJM011355				
U0102	8/28/2001	GRAY	343	MJM011320				
U0102	8/28/2001	GRAY	369	MJM011321				
U0102	8/28/2001	GRAY	355	MJM011322				
F0102A	8/29/2001	GRAY	265	MJM011361				
F0102A	8/29/2001	GRAY	355	MJM011362				
F0102A	8/29/2001	GRAY	290	MJM011363				
F0103	8/29/2001	BDWF	514	MJM011364				
F0103	8/29/2001	BDWF	532	MJM011365				
J0103	8/29/2001	GRAY	365	MJM011366				
J0103	8/29/2001	GRAY	345	MJM011367				
J0103	8/29/2001	GRAY	340	MJM011368				
J0103	8/29/2001	BURB	600	MJM011370				RADIO
U0102	8/29/2001	GRAY	270	MJM011356				
U0102	8/29/2001	GRAY	272	MJM011357				
U0102	8/29/2001	GRAY	320	MJM011358				
U0102	8/29/2001	HBWF	434	MJM011359				
U0102	8/29/2001	BDWF	481	MJM011360				
F0103	8/30/2001	BURB	598	MJM011380				RADIO
J0103	8/30/2001	GRAY	310	MJM011381				
J0103	8/30/2001	GRAY	357	MJM011382				
U0102	8/30/2001	GRAY	337	MJM011371				
U0102	8/30/2001	GRAY	357	MJM011372				
U0102	8/30/2001	GRAY	372	MJM011373				
U0102	8/30/2001	GRAY	339	MJM011374				
U0102	8/30/2001	GRAY	385	MJM011375				
U0102	8/30/2001	GRAY	345	MJM011376				
U0102	8/30/2001	GRAY	325	MJM011377				
U0102	8/30/2001	GRAY	317	MJM011378				
U0102	8/30/2001	GRAY	262	MJM011379				
F0103	8/31/2001	BURB	500	MJM011386				RADIO
J0103	8/31/2001	GRAY	433	MJM011387				
U0102	8/31/2001	GRAY	303	MJM011383	CK0301	7/18/2003	361	RECAP
U0102	8/31/2001	BDWF	438	MJM011384				
U0102	8/31/2001	BDWF	495	MJM011385				
J0103	9/1/2001	GRAY	365	MJM011397				

Appendix Table B-11. Tagged fish released in eastern NPR-A during 2001.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes[3]
U0102	9/1/2001	GRAY	345	MJM011388				
U0102	9/1/2001	GRAY	374	MJM011389				
U0102	9/1/2001	GRAY	369	MJM011390				
U0102	9/1/2001	GRAY	366	MJM011391				
U0102	9/1/2001	GRAY	356	MJM011392				
U0102	9/1/2001	GRAY	352	MJM011393				
U0102	9/1/2001	GRAY	381	MJM011394				
U0102	9/1/2001	GRAY	350	MJM011395				
U0102	9/1/2001	GRAY	393	MJM011396	U0102	9/2/2001	393	RECAP
U0102	9/2/2001	GRAY	352	MJM011398				
U0102	9/2/2001	GRAY	338	MJM011399				
U0102	9/2/2001	GRAY	357	MJM011400				
U0102	9/2/2001	GRAY	336	MJM011501				
U0102	9/2/2001	GRAY	292	MJM011502				
U0102	9/2/2001	GRAY	297	MJM011503				
U0102	9/2/2001	GRAY	269	MJM011504				
U0102	9/2/2001	GRAY	360	MJM011505				RADIO
U0102	9/2/2001	BDWF	432	MJM011506				RADIO

[1] Species Codes:
BDWF = broad whitefish
HBWF = humpback whitefish
LSCS = least cisco
RDWF = round whitefish
GRAY = arctic grayling
BURB = burbot

[2] Capture Station:
Nanuk - Nechelik Channel near outlet of Nanuk Lake
Upper Nigliq - Nechleik Channel near Nuiqsut

[3] Notes:
RECAP = tag recapture
RADIO = radio tag applied

Appendix Table B-12. Tagged fish released in eastern NPR-A during 2002.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes
U0101	6/25/2001	GRAY	309	MJM010118	U0102	6/25/2002	319	Recapture
MC7916C	7/25/2001	GRAY	332	MJM010835	CK17A	6/23/2002	341	Recapture
F0102A	7/27/2001	GRAY	271	MJM011038	U0102	7/22/2002	302	Recapture
F0102A	8/27/2001	GRAY	308	MJM011316	U0102	6/24/2002	315	Recapture
U0102	6/21/2002	GRAY	200	MJM020002				
U0102	6/21/2002	GRAY	225	MJM020003				
U0102	6/21/2002	GRAY	225	MJM020003	U0102	6/22/2002	275	Recapture
U0102	6/21/2002	GRAY	217	MJM020004				
U0102	6/21/2002	GRAY	202	MJM020005				
U0102	6/21/2002	GRAY	218	MJM020006				
U0102	6/21/2002	GRAY	213	MJM020007				
U0102	6/21/2002	GRAY	215	MJM020008				
U0102	6/21/2002	GRAY	208	MJM020009				
U0102	6/21/2002	GRAY	232	MJM020010				
U0102	6/21/2002	GRAY	218	MJM020011				
U0102	6/21/2002	GRAY	226	MJM020012				
U0102	6/21/2002	GRAY	203	MJM020013				
U0102	6/21/2002	HBWF	309	MJM020015				
U0102	6/21/2002	GRAY	285	MJM020016				
U0102	6/21/2002	GRAY	226	MJM020019				
U0102	6/21/2002	GRAY	260	MJM020020				
U0102	6/21/2002	GRAY	195	MJM020021				
U0102	6/21/2002	GRAY	296	MJM020022				
U0102	6/21/2002	GRAY	273	MJM020023				
U0102	6/21/2002	GRAY	202	MJM020024				
U0102	6/21/2002	GRAY	237	MJM020025				
U0102	6/21/2002	GRAY	206	MJM020026				
U0102	6/21/2002	GRAY	211	MJM020027				
U0102	6/21/2002	GRAY	230	MJM020028				
U0102	6/21/2002	GRAY	218	MJM020029				
U0102	6/21/2002	GRAY	212	MJM020030				
U0102	6/21/2002	GRAY	191	MJM020031				
U0102	6/21/2002	GRAY	253	MJM020032				
U0102	6/21/2002	GRAY	215	MJM020033				
U0102	6/21/2002	GRAY	205	MJM020034				
U0102	6/21/2002	GRAY	188	MJM020034				
U0102	6/21/2002	GRAY	235	MJM020035				
U0102	6/21/2002	GRAY	335	MJM020036				
M0201A	6/22/2002	GRAY	332	MJM020038				
M0201A	6/22/2002	GRAY	279	MJM020039				
CK17B	6/25/2002	GRAY	278	MJM020039				
CK17A	6/22/2002	GRAY	322	MJM020040				
CK17A	6/22/2002	GRAY	319	MJM020041				
U0102	6/22/2002	GRAY	329	MJM020042				
U0102	6/22/2002	GRAY	327	MJM020043				
U0102	6/22/2002	GRAY	225	MJM020044				
U0102	6/22/2002	GRAY	227	MJM020045				
U0102	6/22/2002	GRAY	377	MJM020046				
U0102	6/22/2002	GRAY	305	MJM020047				
U0102	6/22/2002	GRAY	370	MJM020048				
U0102	6/22/2002	GRAY	190	MJM020049				

Appendix Table B-12. Tagged fish released in eastern NPR-A during 2002.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes
U0102	6/22/2002	GRAY	335	MJM020050				
U0102	6/22/2002	GRAY	285	MJM020051				
U0102	6/22/2002	GRAY	355	MJM020052				
CK17A	6/23/2002	GRAY	294	MJM020053				
CK17A	6/23/2002	GRAY	294	MJM020053	CK17B	6/26/2002	295	Recapture
CK17A	6/23/2002	GRAY	277	MJM020054				
CK17A	6/23/2002	GRAY	269	MJM020055				
U0102	6/23/2002	GRAY	366	MJM020057				
U0102	6/23/2002	RDWF	332	MJM020058				
U0102	6/23/2002	GRAY	361	MJM020059				
U0102	6/23/2002	GRAY	376	MJM020060				
M0201A	6/24/2002	GRAY	296	MJM020061				
U0102	6/24/2002	GRAY	277	MJM020062				
U0102	6/24/2002	GRAY	273	MJM020063				
U0102	6/24/2002	HBWF	396	MJM020066				
CK17A	6/25/2002	GRAY	240	MJM020068				
U0102	6/25/2002	RDWF	201	MJM020069				
U0102	6/25/2002	GRAY	322	MJM020070				
U0102	6/25/2002	GRAY	345	MJM020073				TAG SCAR
CK17B	6/26/2002	GRAY	239	MJM020074				
CK17B	6/26/2002	GRAY	315	MJM020076				
CK17B	6/26/2002	GRAY	316	MJM020077				
CK17A	6/26/2002	GRAY	215	MJM020092				
CK17A	6/26/2002	GRAY	252	MJM020093				
U0102	6/26/2002	LSCS	272	MJM020094				
U0102	6/26/2002	LSCS	312	MJM020098				
CK17A	6/27/2002	GRAY	197	MJM020099				
CK17A	6/27/2002	GRAY	225	MJM020100				
CK17A	6/27/2002	GRAY	356	MJM020101				
U0102	6/27/2002	HBWF	393	MJM020102				
U0102	6/27/2002	HBWF	420	MJM020104				
U0102	6/27/2002	GRAY	245	MJM020105				
U0102	6/27/2002	GRAY	181	MJM020107				
U0102	6/27/2002	GRAY	236	MJM020108				
U0102	6/27/2002	GRAY	347	MJM020109				
U0102	6/27/2002	GRAY	340	MJM020110				
U0102	6/27/2002	GRAY	386	MJM020111				
U0102	7/20/2002	BDWF	344	MJM020445				
U0102	7/20/2002	BDWF	331	MJM020446				
U0102	7/20/2002	GRAY	238	MJM020447				
U0102	7/20/2002	HBWF	424	MJM020448				
U0102	7/20/2002	GRAY	360	MJM020450				
U0102	7/20/2002	GRAY	297	MJM020451				
U0102	7/20/2002	GRAY	300	MJM020453				
U0102	7/20/2002	GRAY	225	MJM020454				
U0102	7/20/2002	RDWF	234	MJM020455				
U0102	7/20/2002	GRAY	270	MJM020456				
U0102	7/20/2002	GRAY	235	MJM020457				
U0102	7/21/2002	RDWF	256	MJM020458				
U0102	7/21/2002	GRAY	290	MJM020459				
CK17B	7/22/2002	GRAY	190	MJM020460				

Appendix Table B-12. Tagged fish released in eastern NPR-A during 2002.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes
CK17B	7/22/2002	GRAY	190	MJM020460	CK17B	7/24/2002	192	Recapture
U0102	7/22/2002	LSCS	307	MJM020461				
U0102	7/22/2002	GRAY	235	MJM020462				
U0102	7/22/2002	RDWF	268	MJM020463				
U0102	7/22/2002	BDWF	380	MJM020464				
U0102	7/22/2002	BDWF	347	MJM020466				
U0102	7/22/2002	GRAY	268	MJM020467				
U0102	7/22/2002	GRAY	185	MJM020468				
CK17A	7/23/2002	GRAY	210	MJM020478				
U0102	7/27/2002	GRAY	278	MJM020484				
U0102	7/28/2002	GRAY	189	MJM020485				
U0102	7/28/2002	GRAY	384	MJM020486				
U0102	7/31/2002	RDWF	308	MJM020488				
U0102	7/31/2002	GRAY	295	MJM020490				
U0102	8/1/2002	BDWF	437	MJM020492				Net Scars
U0102	8/1/2002	GRAY	418	MJM020493				
U0102	8/1/2002	GRAY	333	MJM020495				
U0102	8/1/2002	GRAY	280	MJM020496				
U0102	8/1/2002	GRAY	272	MJM020497				
U0102	8/1/2002	GRAY	269	MJM020498				
U0102	8/1/2002	GRAY	330	MJM020499				
U0102	8/3/2002	GRAY	216	MJM020500				
U0102	8/3/2002	GRAY	233	MJM020551				
U0102	8/3/2002	GRAY	227	MJM020552				
U0102	8/3/2002	GRAY	257	MJM020553				
U0102	8/3/2002	GRAY	251	MJM020554				
U0102	8/3/2002	GRAY	281	MJM020555				
U0102	8/3/2002	GRAY	377	MJM020556				
U0102	8/4/2002	GRAY	183	MJM020557				

[1] Species Codes:
BDWF = broad whitefish
HBWF = humpback whitefish
LSCS = least cisco
RDWF = round whitefish
GRAY = arctic grayling
BURB = burbot

[2] Capture Station:
Nanuk - Nechelik Channel near outlet of Nanuk Lake
Upper Nigliq - Nechleik Channel near Nuiqsut

Appendix Table B-13. Tagged fish released in eastern NPR-A during 2003.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes
CK0301	6/14/2003	GRAY	290	MJM020593				
U0301	6/14/2003	GRAY	368	MJM020576				
U0301	6/14/2003	GRAY	320	MJM020577				
U0301	6/14/2003	GRAY	320	MJM020578				
U0301	6/14/2003	GRAY	318	MJM020579				
U0301	6/14/2003	GRAY	320	MJM020582				
U0301	6/14/2003	GRAY	228	MJM020583				
U0301	6/14/2003	GRAY	296	MJM020584				
U0301	6/14/2003	GRAY	294	MJM020585				
U0301	6/14/2003	GRAY	327	MJM020586				
U0301	6/14/2003	GRAY	288	MJM020588				
U0301	6/14/2003	GRAY	308	MJM020589				
U0301	6/14/2003	GRAY	308	MJM020591				
U0301	6/14/2003	GRAY	195	MJM020592				
U0301	6/15/2003	GRAY	314	MJM020627				
CK0301	6/16/2003	GRAY	370	MJM020628				
CK0301	6/16/2003	GRAY	346	MJM020629				
CK0301	6/16/2003	GRAY	318	MJM020630				
CK0301	6/16/2003	GRAY	309	MJM020632				
CK0301	6/17/2003	GRAY	261	MJM020634				
CK0301	6/17/2003	GRAY	327	MJM020726	CK0301	7/11/2003	332	Recapture
CK0301	6/18/2003	GRAY	245	MJM020728				
CK0301	6/18/2003	GRAY	254	MJM020729				
CK0301	6/18/2003	GRAY	218	MJM020730				
CK0301	6/18/2003	GRAY	300	MJM020731				
CK0301	6/18/2003	GRAY	222	MJM020732				
CK0301	6/18/2003	GRAY	381	MJM020733				
CK0301	6/18/2003	GRAY	294	MJM020734				
CK16C	6/18/2003	GRAY	269	MJM020727				
U0301	6/18/2003	GRAY	258	MJM020735				
CK0301	6/19/2003	GRAY	261	MJM020736				
CK0301	6/19/2003	GRAY	278	MJM020737				
CK0301	6/20/2003	GRAY	223	MJM020738				
CK0301	6/20/2003	GRAY	285	MJM020739				
CK0301	6/20/2003	GRAY	182	MJM020740	CK0301	6/21/2003	180	Recapture
CK0301	6/20/2003	GRAY	273	MJM020741				
CK0301	6/21/2003	GRAY	189	MJM020742				
CK0301	6/21/2003	GRAY	182	MJM020743				
CK0301	6/21/2003	GRAY	210	MJM020744				
U0301	6/21/2003	GRAY	312	MJM020567				
U0301	6/21/2003	GRAY	243	MJM020568				
U0301	6/21/2003	GRAY	265	MJM020569				
U0301	6/21/2003	GRAY	289	MJM020571	CK0301	7/12/2003	294	Recapture
U0301	6/21/2003	GRAY	256	MJM020574				
U0301	6/21/2003	GRAY	259	MJM020575				
U0301	6/21/2003	HBWF	378	MJM020746				
U0301	6/21/2003	GRAY	330	MJM020747				
U0301	6/21/2003	GRAY	277	MJM020748				
U0301	6/21/2003	GRAY	275	MJM020749				
U0301	6/21/2003	GRAY	288	MJM020750				
U0301	6/21/2003	GRAY	248	MJM020976				

Appendix Table B-13. Tagged fish released in eastern NPR-A during 2003.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes
U0301	6/21/2003	GRAY	208	MJM020978				
U0301	6/21/2003	GRAY	183	MJM020980				
CK0301	6/22/2003	GRAY	190	MJM020981				
U0301	6/22/2003	GRAY	342	MJM020982				
U0301	6/22/2003	GRAY	250	MJM020983				
U0301	6/22/2003	GRAY	259	MJM020984				
U0301	6/22/2003	GRAY	265	MJM020985				
U0301	6/22/2003	GRAY	263	MJM020987				
U0301	6/22/2003	GRAY	269	MJM020988				
U0301	6/22/2003	GRAY	270	MJM020989				
U0301	6/22/2003	GRAY	231	MJM020990				
U0301	6/22/2003	GRAY	240	MJM020991				
U0301	6/22/2003	GRAY	208	MJM020992				
U0301	6/22/2003	GRAY	229	MJM020994				
U0301	6/22/2003	GRAY	238	MJM020995				
CK0301	7/11/2003	GRAY	365	MJM020826				
CK0301	7/11/2003	GRAY	343	MJM020827				
CK0301	7/11/2003	GRAY	342	MJM020828				
CK0301	7/11/2003	GRAY	312	MJM020829				
CK0301	7/11/2003	GRAY	278	MJM020830				
CK0301	7/11/2003	GRAY	288	MJM020831				
CK0301	7/11/2003	GRAY	319	MJM020832				
CK0301	7/11/2003	GRAY	190	MJM020833				
CK0301	7/11/2003	GRAY	302	MJM020834				
CK0301	7/11/2003	GRAY	245	MJM020835				
CK0301	7/11/2003	GRAY	370	MJM020836				
CK0301	7/11/2003	GRAY	183	MJM020837				
CK0301	7/11/2003	GRAY	185	MJM020838	CK0301	7/20/2003	189	Recapture
CK0301	7/11/2003	GRAY	257	MJM020839				
CK0301	7/11/2003	GRAY	320	MJM020840				
CK0301	7/11/2003	BDWF	522	MJM020997				
CK0301	7/11/2003	GRAY	266	MJM020998				
CK0301	7/11/2003	GRAY	355	MJM020999				
CK0301	7/11/2003	GRAY	268	MJM021000				
U0301	7/11/2003	GRAY	212	MJM020841	U0301	7/13/2003	212	Recapture
CK0301	7/12/2003	GRAY	365	MJM021477				
CK0301	7/12/2003	GRAY	340	MJM021478				
CK0301	7/12/2003	GRAY	370	MJM021479				
CK0301	7/12/2003	GRAY	198	MJM021480				
CK0301	7/12/2003	GRAY	198	MJM021481				
CK0301	7/12/2003	GRAY	192	MJM021482				
CK0301	7/12/2003	GRAY	277	MJM021483				
CK0301	7/12/2003	GRAY	410	MJM021484				
CK0301	7/12/2003	GRAY	205	MJM021485				
CK0301	7/12/2003	GRAY	223	MJM021486				
CK0301	7/12/2003	GRAY	215	MJM021487				
CK0301	7/12/2003	GRAY	236	MJM021488				
CK0301	7/12/2003	GRAY	235	MJM021489				
CK0301	7/12/2003	GRAY	288	MJM021490				
CK0301	7/12/2003	GRAY	380	MJM021491				
CK0301	7/13/2003	GRAY	226	MJM020901				

Appendix Table B-13. Tagged fish released in eastern NPR-A during 2003.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes
CK0301	7/13/2003	LSCS	235	MJM020902				
CK0301	7/13/2003	GRAY	329	MJM020903				
CK0301	7/13/2003	GRAY	336	MJM020904				
CK0301	7/13/2003	GRAY	237	MJM020905				
CK0301	7/13/2003	GRAY	338	MJM020906				
CK0301	7/13/2003	GRAY	260	MJM021494				
CK0301	7/13/2003	GRAY	214	MJM021495				
CK0301	7/13/2003	GRAY	359	MJM021496				
F0303A	7/14/2003	LSCS	235	MJM020776				
F0303A	7/14/2003	LSCS	294	MJM020777				
F0303A	7/14/2003	RDWF	364	MJM020779	F0303A	7/16/2003	362	Recapture
F0303A	7/14/2003	LSCS	382	MJM020780				
F0303A	7/14/2003	LSCS	207	MJM020781	F0303A	7/21/2003	210	Recapture
F0303A	7/14/2003	LSCS	196	MJM020782				
F0303A	7/14/2003	LSCS	207	MJM020784				
F0303A	7/14/2003	LSCS	401	MJM020784				
F0303A	7/14/2003	LSCS	336	MJM020787	F0303A	7/20/2003	335	Recapture
F0303A	7/14/2003	LSCS	398	MJM020788				
F0303A	7/14/2003	LSCS	375	MJM020789				
F0303A	7/14/2003	LSCS	348	MJM020790				
F0303A	7/14/2003	LSCS	237	MJM020914				
F0303A	7/14/2003	LSCS	221	MJM020915				
F0303A	7/14/2003	LSCS	205	MJM020916				
F0303A	7/14/2003	BDWF	185	MJM020917				
F0303A	7/14/2003	LSCS	183	MJM020918				
F0303A	7/14/2003	LSCS	196	MJM020919	F0303A	7/21/2003	198	Recapture
F0303A	7/14/2003	LSCS	188	MJM020920				
F0303A	7/14/2003	LSCS	372	MJM020921				
F0303A	7/14/2003	LSCS	182	MJM020922				
F0303A	7/14/2003	LSCS	210	MJM020923				
F0303A	7/14/2003	LSCS	263	MJM020924				
F0303A	7/14/2003	GRAY	185	MJM020925	F0303A	7/21/2003	190	Recapture
CK0301	7/15/2003	GRAY	230	MJM020607				
CK0301	7/15/2003	GRAY	200	MJM021499				
CK0301	7/16/2003	GRAY	294	MJM020618				
CK0301	7/16/2003	GRAY	271	MJM020619				
CK0301	7/16/2003	GRAY	373	MJM020620				
F0303A	7/16/2003	BDWF	449	MJM020613				
CK0301	7/17/2003	GRAY	187	MJM020623				
F0303A	7/17/2003	LSCS	378	MJM020622				
CK0301	7/18/2003	GRAY	355	MJM021655	CK0301	8/17/2003	335	Recapture
CK0301	7/18/2003	GRAY	259	MJM021656				
U0301	7/18/2003	GRAY	416	MJM021666				
U0301	7/18/2003	GRAY	404	MJM021668				
U0301	7/18/2003	GRAY	380	MJM021670				
U0301	7/18/2003	GRAY	260	MJM021671				
U0301	7/18/2003	GRAY	351	MJM021672				
CK0301	7/19/2003	GRAY	312	MJM020855				
CK0301	7/19/2003	GRAY	318	MJM020856				
CK0301	7/19/2003	GRAY	315	MJM020857				
CK0301	7/19/2003	GRAY	232	MJM020858				

Appendix Table B-13. Tagged fish released in eastern NPR-A during 2003.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes
CK0301	7/19/2003	GRAY	233	MJM020859				
CK0301	7/19/2003	GRAY	189	MJM020860				
CK0301	7/19/2003	GRAY	232	MJM020862				
F0303A	7/19/2003	HBWF	449	MJM020851				
F0303A	7/19/2003	HBWF	407	MJM020852				
F0303A	7/19/2003	LSCS	400	MJM020854				
F0310	7/19/2003	LSCS	279	MJM020864				
F0310	7/19/2003	LSCS	274	MJM020865				
F0310	7/19/2003	GRAY	257	MJM020866				
F0310	7/19/2003	GRAY	314	MJM020867				
U0301	7/19/2003	GRAY	368	MJM020863				
F0303A	7/20/2003	HBWF	375	MJM020868				
F0303A	7/20/2003	LSCS	330	MJM020869				
F0303A	7/20/2003	LSCS	273	MJM020870				
F0303A	7/20/2003	RDWF	360	MJM020871				
F0303A	7/20/2003	LSCS	356	MJM020872				
F0310	7/20/2003	RDWF	186	MJM020751				
F0310	7/20/2003	GRAY	205	MJM020752				
F0310	7/20/2003	LSCS	185	MJM020753				
F0310	7/20/2003	GRAY	200	MJM020754				
F0310	7/20/2003	LSCS	196	MJM020755				
F0310	7/20/2003	RDWF	190	MJM020757				
F0310	7/20/2003	LSCS	217	MJM020758				
F0310	7/20/2003	GRAY	226	MJM020759				
F0310	7/20/2003	GRAY	210	MJM020760				
F0310	7/20/2003	GRAY	245	MJM020761				
U0301	7/20/2003	GRAY	221	MJM020873				
U0301	7/20/2003	GRAY	289	MJM020874				
CK0301	7/21/2003	GRAY	232	MJM020764				
CK0301	7/21/2003	GRAY	208	MJM020766				
CK0301	7/21/2003	GRAY	195	MJM020768				
CK0301	7/21/2003	GRAY	181	MJM020769				
CK0301	7/21/2003	GRAY	258	MJM020770				
CK0301	7/21/2003	GRAY	295	MJM020771				
CK0301	7/21/2003	GRAY	210	MJM020772				
F0303A	7/21/2003	LSCS	211	MJM020773				
F0303A	7/21/2003	LSCS	274	MJM020774				
F0303A	7/21/2003	GRAY	186	MJM020802				
F0303A	7/21/2003	GRAY	182	MJM020803				
F0303A	7/21/2003	LSCS	380	MJM020804				
F0303A	7/21/2003	LSCS	308	MJM020805				
F0303A	7/21/2003	GRAY	188	MJM020806				
F0303A	7/21/2003	LSCS	184	MJM020808				
F0303A	7/21/2003	LSCS	375	MJM020811				
F0303A	7/21/2003	BDWF	525	MJM020813				
F0310	7/21/2003	BDWF	290	MJM020763				
F0313	7/23/2003	LSCS	291	MJM020659				
F0313	7/23/2003	BDWF	222	MJM020660				
F0313	7/23/2003	LSCS	309	MJM020661				
F0313	7/23/2003	LSCS	260	MJM020662	F0313	7/27/2003	262	Recapture
F0313	7/23/2003	LSCS	275	MJM020663				

Appendix Table B-13. Tagged fish released in eastern NPR-A during 2003.

Release Station	Release Date	Species[1]	Fork Length (mm)	Tag Number	Capture Station[2]	Capture Date	Capture Length	Notes
F0313	7/23/2003	LSCS	301	MJM020664				
F0313	7/23/2003	BDWF	476	MJM020665				
F0313	7/24/2003	LSCS	334	MJM021042				
F0313	7/24/2003	BDWF	387	MJM021044				
F0314	7/24/2003	RDWF	193	MJM021049				
F0314	7/24/2003	GRAY	237	MJM021074				
F0314	7/24/2003	GRAY	215	MJM021075	F0314	7/25/2003	219	Recapture
F0315	7/24/2003	BDWF	382	MJM021045				
F0315	7/24/2003	BDWF	259	MJM021046				
F0315	7/24/2003	RDWF	256	MJM021047				
F0315	7/24/2003	RDWF	202	MJM021048				
F0313	7/25/2003	BDWF	389	MJM021062				
F0313	7/25/2003	BDWF	340	MJM021063				
F0313	7/25/2003	LSCS	328	MJM021064				
F0313	7/25/2003	LSCS	301	MJM021065				
F0314	7/25/2003	RDWF	219	MJM021058				
F0315	7/25/2003	BDWF	195	MJM021059				
F0315	7/25/2003	LSCS	205	MJM021060				
F0315	7/25/2003	HBWF	351	MJM021061				
F0313	7/26/2003	BDWF	350	MJM021100				
F0314	7/26/2003	RDWF	196	MJM021098				
F0315	7/26/2003	HBWF	270	MJM021099				
F0313	7/27/2003	LSCS	300	MJM021094				
F0313	7/27/2003	LSCS	315	MJM021095				
F0313	7/27/2003	LSCS	300	MJM021096				
F0314	7/27/2003	BDWF	211	MJM021090				
F0314	7/27/2003	GRAY	320	MJM021091				
F0315	7/27/2003	BDWF	253	MJM021092				
F0318	8/2/2003	LSCS	293	MJM021079				
F0318	8/2/2003	LSCS	267	MJM021080				
F0318	8/2/2003	BDWF	526	MJM021081				
F0317	8/3/2003	LSCS	294	MJM021076				
U0301	8/16/2003	GRAY	286	MJM021204				
U0301	8/16/2003	GRAY	264	MJM021205				
CK0301	8/17/2003	GRAY	188	MJM021211				
CK0301	8/17/2003	GRAY	248	MJM021215				
U0301	8/17/2003	GRAY	357	MJM021214				

[1] Species Codes:
BDWF = broad whitefish
HBWF = humpback whitefish
LSCS = least cisco
RDWF = round whitefish
GRAY = arctic grayling
BURB = burbot

[2] Capture Station:
Nanuk - Nechelik Channel near outlet of Nanuk Lake
Upper Nigliq - Nechleik Channel near Nuiqsut

APPENDIX C

Length frequencies of fish caught by fyke net in eastern NPR-A, 2001-2003

Appendix Table C-1. Length frequencies of arctic grayling caught by fyke net in eastern NPR-A, 2001.

Fork Length	Station F0101					Station F0101A		Station F0102A							
(mm)	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 26	Jun 28	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29	Jul 30
0															
10															
20															
30															
40															
50	1				1		8								
60			3	3	1	4	4								
70	1	3				5	1	2		1					
80											1			1	1
90															
100															
110			1												
120		1													
130	1														
140															
150															
160			1												
170															
180															
190															
200								1							
210															
220			1												
230				1											
240															
250		1	1												
260													1		
270	1								1			1			
280															
290															
300															
310															
320															1
330	1									2					
340															
350		1	1												
360															
370															
380															
390															
400															
410															
420															
430															
440															
450															
460															
470															
480															
490															
500															
Total:	5	6	8	5	1	9	13	3	1	3	1	1	1	1	2

Appendix Table C-1. Length frequencies of arctic grayling caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station F0102A				F0102B	Station F0103								
	Aug 27	Aug 29	Aug 31	Sep 02	Aug 26	Jul 19	Jul 20	Jul 21	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28
0														
10														
20														
30														
40														
50														
60														
70		1				1								
80			1		1				1	1	1	2		
90		1												
100			1											
110														
120														
130														
140														
150														
160														
170														
180														
190														
200														
210														
220														
230														
240														
250						1								1
260		1												
270				1										
280														
290		1									1		1	
300	1												1	
310							1			1				
320														
330														
340													1	1
350		1									1			1
360								1			1		1	1
370											1			
380														
390														
400											1			
410														
420														
430														
440														
450														
460														
470														
480														
490														
500														
Total:	1	5	2	1	1	2	1	1	1	2	6	2	4	4

Appendix Table C-1. Length frequencies of arctic grayling caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station F0103									Station F0104					
	Jul 29	Jul 30	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29	Sep 01	Sep 02	Jun 20	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26
0															
10															
20															
30															
40				1				2	2	1			3	2	
50			2				1	1				5	9	10	1
60					1					2	4	15	14	9	3
70	2	1		1						1	1	4	3		1
80	1		1												
90	1											1			
100												2		1	
110													1	2	
120										1	1		2	2	1
130														1	1
140															
150															
160															
170												1	1		
180															1
190													1		
200															1
210											1				
220												1			
230												1			
240															
250															
260												1			
270															
280															
290					1							1			
300					1										
310						1									
320															
330															
340															
350															
360					1										
370					1										
380															
390															
400															
410															
420															
430															
440															
450															
460															
470															
480															
490															
500															
Total:	4	1	3	2	5	1	1	3	2	5	7	32	34	27	9

Appendix Table C-1. Length frequencies of arctic grayling caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station F0104		Station J0103												
	Jun 27	Jun 28	Jun 21	Jun 22	Jun 23	Jul 20	Jul 21	Jul 23	Jul 24	Jul 26	Jul 27	Jul 29	Jul 30	Aug 26	Aug 28
0															
10															
20															
30															
40															
50	2	1													
60	2	1			1						1				
70	1	1				1	1	1		2	1		1		
80										2	2		1		
90															
100															
110															
120															
130															
140			1												
150															
160						1									
170					2										
180															
190															
200															
210	1														
220															
230				1											
240															
250		1													
260															
270									1			1			
280															
290															
300															
310											1				
320													1	1	1
330										1	1			2	
340									1						
350												1			
360															1
370														1	1
380														1	
390															
400														1	
410															
420														1	
430															
440															
450															
460															
470															
480															
490															
500															
Total:	6	4	1	1	3	2	1	1	2	5	6	2	3	7	3

Appendix Table C-1. Length frequencies of arctic grayling caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station J0103					Station J0103A					Station M0142		MC7916A
	Aug 29	Aug 30	Aug 31	Sep 01	Sep 02	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28	Jun 22	Jun 23	Jun 23
0													
10													
20													
30													
40	1			2	5								
50	2				1		1	3		5	1	8	
60						6	3	2		2	3	4	
70						1	1	1	1	1		1	
80					1			1					
90	1					1	2					1	
100						3	2						
110	1					2	2	2					
120						3							
130													
140													
150												1	
160													
170			1								1	1	
180	1						1					1	
190											1		
200											1	1	
210							1						
220											1		
230													
240													
250													
260													
270													
280													
290													
300													
310			1							1			
320													
330							1			1			
340	2										1		1
350			1					2					
360	1				1								
370													
380						1	1						
390						1							
400							1						
410													
420													
430				1									
440													
450													
460													
470													
480													
490													
500													
Total:	9	3	3	6	2	18	16	11	3	8	9	18	1

Appendix Table C-1. Length frequencies of arctic grayling caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station MC7916B				Station MC7916C											
	Jun 24	Jun 25	Jun 26	Jun 27	Jun 25	Jun 26	Jun 27	Jun 28	Jul 20	Jul 21	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28
0																
10																
20																
30																
40																
50																
60							1		11	4	1				1	
70									23	15	5	12	1	3	5	2
80									4	4	7	4		3	4	1
90																
100					2											
110					1		1	1								
120							1	1								
130							1									
140																
150																
160												1				
170																
180																
190							1									
200																
210				1												
220																
230												1				
240		1														
250																
260																
270												1	1			
280																
290																
300											2					
310				1												
320										1		1				
330												1	1			1
340	1			1	1					1						1
350											1	1		1		
360				1							2			1		1
370				1												1
380				1	1							1				
390										1					1	
400																
410						1										
420																
430																
440																
450																
460																
470																
480																
490																
500																
Total:	1	1	6	2	3	1	5	2	38	26	18	23	3	8	11	7

Appendix Table C-1. Length frequencies of arctic grayling caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station MC7916C									Station U0101				
	Jul 29	Jul 30	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29	Aug 30	Aug 31	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24
0														
10														
20														
30														
40														
50									1					
60														
70		4												
80	3	3					1							
90		2	2	1	2	3	3			1				
100				1			1	1	2	19	1	2	4	
110										28	1		4	
120										10			1	
130										2		1		
140										3			1	
150		1								12	3			
160			1							19	8	3	2	
170				1				1		37	8	1	5	
180										35	4	1	4	
190										9				1
200			1				1			4	1			
210										8	2			
220										5			1	
230	1							1	1					
240													1	
250													1	
260														
270													1	
280														
290														
300														
310	1									1			2	
320	1													
330												2		
340														
350	2													1
360														
370														
380														
390														
400														
410														
420														
430														
440														
450														
460														
470														
480														
490														
500														
Total:	8	10	4	3	2	3	6	3	4	193	28	10	27	2

Appendix Table C-1. Length frequencies of arctic grayling caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station U0101				Station U0102										
	Jun 25	Jun 26	Jun 27	Jun 28	Jul 20	Jul 21	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29	Jul 30	Aug 25
0															
10															
20															
30															
40															
50															
60						1									
70					1	4	2		4		3	3	4		
80						1	6	2	8	3	6	6	9		
90	1										1		2		
100	14	2	2					1							
110	17	4	1	1											
120	6	1	1							1					
130		1							2	1			1		
140	1						1	1	1	2		2			
150	1	1					1	1				1			
160	2	2													
170	3	3	2						1						
180	5	2		1				1		1		1			
190	1	3	1					1		1					
200	3	3				1	1				1	1	1		
210	2	6									1	1	1		1
220	3	4	1						1						
230												1			
240	4	1		1					1						
250		2													
260	3	1	1							1		2			
270	1	1					1	2				1			
280							2	4		2			2		
290			1		1			1	1	1					
300	3						1	1			1				
310	3						2	2				1			
320	2	2						1	1		1				
330	4		1	2			2	1	1	1	3	2			2
340	2		1				1	3	1	4	2	1	1		
350	4	2	1	1		1	3	1		5	3	1			
360	3						3	2	1	1			1		1
370	1	1								2	1			1	1
380	1							1		2	1				
390	1							1					1		
400	2	1						1							
410							1								
420										1					
430															
440												1	1		
450															
460															
470															
480															
490															
500															
Total:	93	43	13	6	2	8	27	28	23	29	24	25	24	1	5

Appendix Table C-1. Length frequencies of arctic grayling caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station U0102						
	Aug 26	Aug 28	Aug 29	Aug 30	Aug 31	Sep 01	Sep 02
0							
10							
20							
30							
40							
50							
60							
70							
80							
90							
100							
110							
120							
130							
140	1						
150							
160							
170							
180							
190							
200			1				
210				1		1	
220							
230							1
240							
250							
260					1		1
270		1		2			
280							
290							2
300					1		
310					1		
320				1	1		
330	2				2		2
340	2	1			1	2	
350	1	1			1	3	3
360		1				2	1
370	1				1	1	
380	1				1	1	
390						1	1
400							
410							
420							
430							
440							
450							
460							
470							
480							
490							
500							
Total:	8	5	4	9	1	11	11

Appendix Table C-2. Length frequencies of Arctic grayling caught by fyke net during 2002.

Fork Length (mm)	CK16A					CK16B	CK17A							
	Jun 21	Jun 22	Jun 25	Jun 27	Jul 20	Jul 23	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jul 20	Jul 21
0														
10														
20														
30														
40														
50								1		3	1	3		
60	1	1					6	1		5	22	44	4	3
70							2		1		15	43	28	15
80				1	1				1	1	2	3	6	
90							1			4	9	7	4	1
100		1	1	1			1	1	3		10	17	1	
110		1				1		2	1	1	14	5	2	2
120								1		1	2	3	3	
130				1			1					1		1
140											1			
150														
160														
170											3			
180														
190												1		
200														
210											1			
220												1		
230										1				
240														
250											1			
260								1						
270								1						
280														
290								1						
300														
310							1							
320							1							
330														
340								1						
350												1		
360														
370														
380														
390														
400														
410														
420														
430														
440														
450														
Total:	1	3	1	3	1	1	13	10	6	16	81	129	48	22

Appendix Table C-2. Length frequencies of Arctic grayling caught by fyke net during 2002.

Fork Length (mm)	CK17A							CK17B						
	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jun 25	Jun 26	Jun 27	Jul 20	Jul 21	Jul 22	Jul 23
0														
10														
20														
30				1		1								
40														
50														
60	5							1	3	5	1		1	
70	36	6	5	2	4	1	3	5	10	4	18	5	5	2
80	22	8	5	2	4	1	3	1		5	4	5	2	2
90	5	1			1	4	1		3	2	1	2		1
100								7	20	18	3	3		
110	5	2						3	8	13	2	3		1
120	2	2	4	1	2		4	3	6	3	6	6	1	1
130	1	1	1	1	3	2	2		1		8	11	4	
140												1	1	
150														
160														
170								1						
180														
190													1	
200														
210		1												
220														
230									1					
240														
250														
260														
270								1						
280								1						
290									1					
300														
310									2					
320														
330														
340														
350														
360														
370														
380														
390														
400														
410														
420														
430														
440														
450														
Total:	76	21	15	7	14	9	13	23	55	50	43	36	15	7

Appendix Table C-2. Length frequencies of Arctic grayling caught by fyke net during 2002.

Fork Length (mm)	CK17B					M0201A			M9914A				
	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jun 22	Jun 23	Jun 24	Jun 25	Jun 27	Jul 21	Jul 24	Jul 27
0													
10													
20													
30													
40													
50							1						
60						1	2	3					
70	1	1		4	1	4	2						
80	2	1	2	14	1	1			1	1			1
90			1	3		2	2	1					
100					1	6	2	1					
110			2	1		5		1					
120			2	2		2		1					
130	1		5	3	1								
140			2			1					1	1	
150				1									
160													
170							1						
180													
190	1												
200													
210													
220													
230													
240													
250													
260													
270						1							
280													
290								1					
300													
310													
320													
330						1							
340													
350													
360													
370													
380													
390													
400													
410													
420													
430													
440													
450													
Total:	5	2	14	28	4	24	10	8	1	1	1	1	1

Appendix Table C-2. Length frequencies of Arctic grayling caught by fyke net during 2002.

Fork Length (mm)	Station U0102													
	Jun 21	Jun 22	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26
0														
10														
20														
30														
40														1
50	4			4	2	8	33	43						
60	2	2		6	2	22	42	56	27	4	1		1	
70						2	2	4	68	8	11	1	7	1	1
80	1							1	20	3	2	1	7		
90	1	4				1		3	2	1		1			
100	3	11				4	1	8							
110	1	7	1			2		5		2	1				
120		3							4	2			1		
130		1													
140		1					1		2	1	1				
150	1	2		1											
160	1	1		1			1	1							
170		2					1		2						
180	1							1			1				
190	2	1					1								
200	7														
210	9														
220	3	2							1						
230	4						1	1	2		1				
240								1							
250	1														
260	1										1				
270	1	1		2					1						
280	1	1													
290	1			1			1		1	1					
300		1							1		1				
310				1	1										
320		2			1										
330	1	1													
340					1			2							
350		1													
360			2						1						
370		2	1												
380								1							
390															
400															
410															
420															
430															
440															
450															
Total:	46	46	14	10	42	84	127	132	22	20	3	16	1	2

Appendix Table C-2. Length frequencies of Arctic grayling caught by fyke net during 2002.

Fork Length (mm)	Station U0102									
	Jul 27	Jul 28	Jul 29	Jul 30	Jul 31	Aug 01	Aug 02	Aug 03	Aug 04	Aug 06
0										
10										
20										
30	1						2			
40						1			1	1
50										
60				1			1		1	
70				1	1	3	1	4	6	
80			1		2	2	5	2	6	
90									1	
100										
110						1		1		
120						1			2	
130										
140								1	1	
150										
160										
170								1		
180		1							1	
190										
200										
210								1		
220								1		
230								1		
240										
250								2		
260						1				
270	1					1				
280						1		1		
290					1					
300										
310										
320										
330						2				
340										
350										
360										
370								1		
380		1								
390										
400										
410						1				
420										
430										
440										
450										
Total:	2	2	1	2	4	14	9	16	19	1

Appendix Table C-3. Length frequencies of Arctic grayling caught by fyke net during 2003.

Fork Length (mm)	CK0301			CK0302		F0303A	U0301			CK16C	F0306A	F0310	F0314	F0315
	June	July	Aug	June	July	July	June	July	Aug	July	July	July	July	July
0														
10														
20														
30			1						5					
40									6					
50		1					9							
60		150		1	14	11	5	5				1		
70		529	2		33	18	1	7	1		1			1
80		207	5	1	10	13	19	2	4					1
90	12	20	7	1	3	4	40		1					
100	22	32	2	3		2	19			1		1		
110	11	86			3	7	6						1	
120	7	55	1	2	3	19	4	1				3		
130	8	15	1		2	19	5							
140	2	14			2	9	4	1						
150	7	6	1			3	1					2	1	
160	3	9				6	2							
170	8	17				9		2				1		
180	4	7	1			4	1							
190	1	6				1	1							
200		3					2					2		
210	2	3						2				1	2	
220	2	2					2	1				1		
230		8					2						1	
240	1	1	1				3					1		
250	1	3					5					1		
260	2	3					4	1	1	1				
270	2	3					3							
280	1	2				1	3	1	1					
290	2	3					2							
300	2	1					2							
310	1	5					3					1		
320	1	2					4						1	
330		4	1				2	2						
340	1	3					1							
350		3						1	1					
360		3					1	1						
370	1	3												
380	1	1						1						
390														
400								1						
410		1						1						
420														
430														
440														
450														
Total:	105	1211	23	8	70	126	156	30	20	2	1	15	6	2
Effort (hrs):	213.3	260.3	161.2	214.7	191.1	189.4	215.5	269.2	161.0	182.5	189.3	100.4	99.5	96.7

Appendix Table C-4. Length frequencies of broad whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station F0101		F0101A	Station F0102A						Station F0103			
	Jun 22	Jun 23	Jun 28	Jul 24	Jul 27	Aug 28	Aug 29	Aug 30	Sep 02	Jul 19	Jul 25	Jul 26	Aug 27
0													
10													
20													
30										4			
40				1						1	2	1	
50						1	1	1					
60	1						2		1				1
70			3										
80		2											
90			1										
100													
110													
120													
130													
140													
150													
160													
170	1												
180		1											
190													
200													
210													
220													
230													
240													
250													
260													
270													
280													
290													
300													
310													
320													
330													
340													
350													
360													
370													
380													
390													
400					1								
410													
420													
430													
440													
450													
460													
470													
480													
490													
500													
510													
520							3						
530													
540													
550													
560													
570													
580													
590													
600													
610													
620													
630													
640													
650													
Total:	2	3	4	1	1	1	6	1	1	5	2	1	1

Appendix Table C-4. Length frequencies of broad whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station F0103					Station J0103					MC7916A		
	Aug 28	Aug 29	Aug 30	Aug 31	Sep 01	Jul 21	Jul 29	Jul 30	Aug 29	Aug 30	Jun 22	Jun 23	Jun 23
0													
10													
20													
30						2							
40							1						
50					3		1		1			1	
60		1		2	5					1	4	10	
70			1					1			24	19	1
80											15	5	
90											1	2	
100													
110													
120											6		
130											14	3	
140											3	1	
150												1	
160											1		
170													
180											1		
190													
200													
210													
220													
230													
240													
250													
260													
270													
280													
290													
300													
310													
320													
330													
340													
350													
360													
370													
380													
390													
400													
410													
420													
430													
440													
450	1												
460													
470													
480													
490													
500													
510			1										
520										1			
530			1										
540													
550													
560													
570													
580													
590													
600										1			
610													
620													
630													
640										1			
650													
Total:	1	3	1	2	8	2	2	1	4	1	69	42	1

Appendix Table C-4. Length frequencies of broad whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station MC7916B				Station MC7916C								
	Jun 24	Jun 25	Jun 26	Jun 28	Jun 25	Jun 27	Jul 21	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28
0													
10													
20													
30							8	13		4	1	1	
40							10	57	2	43	40	11	2
50										2	8	6	1
60													
70													
80				1		1	1						
90								1					
100													
110													
120													
130													
140	1		1				2						
150													
160													
170													
180													
190													
200													
210													
220													
230													
240													
250													
260													
270													
280													
290													
300													
310		1											
320													
330	1				1								
340													
350												1	
360													
370	1												
380													
390													
400		1											
410													
420													
430													
440					1								
450					1								
460													
470													
480													
490					1								
500													
510													
520													
530													
540													
550													
560													
570				1									
580					1								
590													
600													
610													
620													
630													
640													
650													
Total:	3	2	2	1	5	1	21	71	2	49	49	19	3

Appendix Table C-4. Length frequencies of broad whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station MC7916C									Station U0101		Station U0102	
	Jul 29	Jul 30	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29	Aug 30	Aug 31	Jun 26	Jun 27	Jul 20	Jul 21
0													
10													
20													
30													
40	6	16											
50	7	44	9	21	3	8	7	10	1				
60			64	114	42	72	48	43	32				
70			17	32	9	39	20	8	18				
80													
90													
100													
110					1								
120				1	3			1					
130					1								
140													
150													
160													
170													
180													
190													
200													
210													
220													
230													
240					1								
250													
260													
270													
280													
290													
300													
310													
320				1							1		
330	1												
340		1											
350						1							1
360													
370													
380													
390													
400													
410													
420													
430												1	1
440													
450												1	
460													
470													
480													
490													
500												1	
510													
520											1		
530													
540												1	
550													
560													
570													
580													
590													
600													
610													
620													
630													
640													
650													
Total:	14	61	90	169	60	120	75	62	51	1	1	4	2

Appendix Table C-4. Length frequencies of broad whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station U0102										
	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29	Aug 26	Aug 29	Aug 31	Sep 02
0											
10											
20											
30											
40											
50											
60											
70											
80											
90											
100		2				1					
110											
120											
130											
140											
150											
160											
170											
180											
190											
200											
210											
220											
230											
240											
250											
260											
270											
280											
290				2							
300											
310	2			1							
320	1			4	1						
330	2			4	1						
340	1			3							
350	4			4	2						
360	2			3	3	1					
370	2	1		3	1						
380	3			1							
390	2	1		1	2	2					
400	2		1	1	1	3					
410	2	1		1	1	1					
420				2	1						
430				1	1	1				1	1
440											
450		1				2	1				
460	1					2	1				
470			1								
480	1		1	1		3			1		
490			1	1	2	2				1	
500					1						
510						1					
520											
530											
540	1										
550								1			
560											
570											
580											
590											
600											
610											
620											
630						1					
640											
650											
Total:	26	6	4	33	17	20	2	1	1	2	1

Appendix Table C-5. Length frequencies of broad whitefish caught by fyke net during 2002.

Fork Length (mm)	Station U0102												
	Jun 26	Jun 27	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Aug 01	Aug 02	Aug 03	Aug 04	Aug 06
0													
10													
20													
30													
40													
50											16	3	
60											26	5	5
70	1	1											
80	1				1								
90			1	1			5	3	2		2		
100			1				6	11	1	1	8		2
110								1			2	1	
120								1					
130													
140													
150													
160													
170													
180													
190													
200													
210													
220													
230													
240													
250													
260													
270													
280													
290													
300													
310													
320													
330			1										
340			1			1							
350													
360													
370													
380						1							
390													
400													
410													
420													
430									1				
440													
450													
460													
470													
480													
490													
500							1						
Total:	2	1	4	1	3	1	11	16	4	1	54	9	7

Appendix Table C-6. Length frequencies of broad whitefish caught by fyke net during 2003.

Fork Length	CK0301	CK0302		F0303A	U0301		F0310	F0313	F0314	F0315	F0318
(mm)	July	June	July	July	June	July	July	July	July	July	July
0											
10											
20											
30							16		3	3	
40							5		18	7	
50							2	1	1	4	
60											
70					1		1				
80				4			2	2	4	4	
90			1	14	1	2		3	12	3	
100				45		2	2		12		
110	2			32			1	2	4	2	1
120		1		7			1	1	1	3	
130				5			2		1	6	
140				5			1		5	6	
150				8			1		2		
160				6			2			2	
170				13			1			2	
180				2							
190										1	
200											
210									1		
220								1			
230											
240											
250										2	
260											
270											
280											
290							1				
300											
310											
320											
330											
340								1			
350								1			
360											
370											
380								2		1	
390											
400											
410											
420											
430											
440				1							
450											
460											
470								1			
480											
490											
500											
510											
520	1			1							1
530											
540											
550											
Total:	3	1	1	143	2	4	38	15	64	46	2
Effort (hrs):	260.3	214.7	191.1	189.4	215.5	269.2	100.4	112.1	99.5	96.7	68.5

Appendix Table C-7. Length frequencies of humpback whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length	F0102A	F0103	J0103	Station M0142		MC7916A	Station MC7916B					Sta. MC7916C	
(mm)	Jul 24	Aug 26	Jul 24	Jun 22	Jun 23	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28	Jun 25	Jul 21
0													
10													
20													
30													
40													
50		1		1	3								
60				1	3								
70													
80													
90					1								
100													
110				2									
120													
130													
140													
150													
160													
170													
180													
190				1									
200													
210													
220													
230													
240													
250													
260													
270													
280													
290													
300													
310													
320							1						
330			1					1					1
340	1						4					1	
350				1			4					1	1
360						1	5	1				3	
370							3	2		1			1
380							4	1				1	
390							4		1				
400	1							2					
410												1	1
420							1	1			1	1	
430							1						
440													
450													
460													
470													
480													
490													
500													
Total:	2	1	1	6	7	1	27	8	1	1	1	8	4

Appendix Table C-7. Length frequencies of humpback whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station MC7916C					Station U0101		Station U0102								
	Jul 23	Jul 26	Jul 27	Jul 28	Aug 25	Jun 26	Jun 27	Jul 20	Jul 21	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jul 28	Jul 29
0																
10																
20																
30																
40																
50					2											
60					4											
70																
80																
90																
100																
110																
120																
130																
140																
150																
160																
170																
180																
190																
200																
210																
220																
230																
240																
250																
260																
270																
280																
290																
300	1															
310																
320																
330														1		
340																
350		1														
360	1					1				3			1	4		
370				1									4	2	4	
380	1		1				1			1			3	9	3	
390	1								1	1			8	5	9	
400											1	2	9	13	7	1
410										2	1		14	9	7	
420										3	1		13	4	9	
430								1		2			5	5	3	
440										1			2	3	4	
450													1	3		
460													1		1	
470															1	
480																
490																
500																
Total:	4	1	1	1	6	1	1	1	1	13	3	2	61	58	48	1

Appendix Table C-7. Length frequencies of humpback whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station U2	
	Jul 30	Aug 29
0		
10		
20		
30		
40		
50		
60		
70		
80		
90		
100		
110		
120		
130		
140		
150		
160		
170		
180		
190		
200		
210		
220		
230		
240		
250		
260		
270		
280		
290		
300		
310		
320		
330		
340		
350		
360		
370	1	
380		
390		
400		
410		
420		
430		1
440		
450		
460		
470		
480		
490		
500		
Total:	1	1

Appendix Table C-10. Length frequencies of round whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length	Station F0101		F0102A	Station F0103					F0104	Station J0103					M0142
(mm)	Jun 20	Jun 23	Jul 25	Jul 21	Jul 26	Jul 27	Jul 28	Jul 30	Jun 27	Jul 23	Jul 24	Jul 26	Jul 29	Jul 30	Jun 22
0															
10															
20															
30															
40							1								
50															
60															
70												1			
80															
90															
100															
110															
120															
130															
140															
150															
160		1													
170								1		1				1	
180			1											1	
190	1		1											2	
200							1				1			2	1
210	1			1						1				1	
220						1							1	1	
230	1		1										1	3	
240					1								1	1	
250															
260	1												1	1	
270											1		1		
280															
290											1			2	
300														2	
310				1										3	
320									1						
330															
340														1	
350												1		1	
360														1	
370														1	
380															
390															
400															
410															
420															
430															
440															
450															
460															
470															
480															
490															
500															
Total:	4	1	3	2	1	1	2	1	1	2	3	2	5	24	1

Appendix Table C-10. Length frequencies of round whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station MC7916A			Station MC7916C										Station U0101	
	Jun 24	Jun 25	Jun 26	Jun 26	Jul 21	Jul 23	Jul 25	Jul 26	Jul 30	Aug 25	Aug 26	Aug 27	Aug 30	Jun 20	Jun 21
0															
10															
20															
30															
40															
50															
60															
70															
80															
90															
100															
110															
120															
130															
140															
150															
160															
170											1				
180					1										
190						1									
200					1					1			1		
210												1			
220															
230															1
240						1		1	1				1		
250															
260					1										
270															
280															
290															
300															
310															
320															
330	1														
340															
350															
360				1			1								
370														1	
380			1												1
390		1													
400															
410															
420															
430															
440															
450															
460															
470															
480															
490															
500															
Total:	1	1	1	1	3	2	1	1	1	1	1	1	2	1	2

Appendix Table C-10. Length frequencies of round whitefish caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station U0101					Station U0102									
	Jun 22	Jun 24	Jun 26	Jun 27	Jun 28	Jul 20	Jul 23	Jul 24	Jul 26	Jul 27	Jul 28	Jul 29	Jul 30	Aug 25	Aug 26
0															
10															
20															
30															
40															
50															
60															
70															
80															
90															
100											1				
110											1				
120															
130															
140															
150															
160															
170									1						
180								1							
190		1													
200		1				1			1		1				
210									2	1					
220										1					
230		1		1			1	1							
240									1	1	1				1
250						1									
260	1														1
270															
280															
290															1
300									1	1					1
310							1								1
320															1
330							2								1
340						1	2		1	1					1
350	1		1						1	2	2				
360								1	2	3		1		1	
370	1			1									1		
380									1	1	2				
390					2					2					
400										1					
410															
420															
430															
440															
450															
460															
470															
480															
490															
500															
Total:	3	3	1	2	2	3	6	3	11	14	8	1	1	1	8

Appendix Table C-11. Length frequencies of round whitefish caught by fyke net during 2002.

Fork Length (mm)	Station U0102						
	Jun 23	Jun 25	Jul 20	Jul 21	Jul 22	Jul 24	Jul 31
0							
10							
20							
30							
40							
50							
60							
70							
80							
90							
100							
110							
120							
130							
140							
150							
160			1				
170			1				
180							
190				1			
200		1					
210			1			1	
220							
230			1				
240							
250				1			
260					1		
270							
280							
290							
300							1
310							
320							
330	1						
340							
350							
360							
370							
380							
390							
400							
410							
420							
430							
440							
450							
460							
470							
480							
490							
500							
Total:	1	1	4	2	1	1	1

Appendix Table C-12. Length frequencies of round whitefish caught by fyke net during 2003.

Fork Length (mm)	F0303A	U0301		F0310	F0314	F0315
	July	July	August	July	July	July
0						
10						
20						
30						
40					1	4
50					1	2
60						
70				1	1	
80					4	9
90					1	5
100						2
110						2
120				1		2
130						1
140						
150		1				
160			1			
170					1	
180				1		
190				1	2	
200						1
210					1	
220						
230						
240						
250						1
260						
270						
280						
290						
300						
310						
320						
330						
340						
350						
360	3					
370						
380						
390						
400						
410						
420						
430						
440						
450						
460						
470						
480						
490						
500						
Total:	3	1	1	4	12	29
Effort (hrs):	189.4	269.2	161.0	100.4	99.5	96.7

Appendix Table C-13. Length frequencies of least cisco caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station F0101					Station F0101A		Station F0102A		F0102B	Station F0103		Station F0104	
	Jun 20	Jun 21	Jun 22	Jun 23	Jun 24	Jun 26	Jun 28	Jul 26	Aug 31	Aug 26	Aug 29	Sep 01	Jun 20	Jun 22
0														
10														
20														
30														
40												1		
50						2	1			1			1	
60						6	3							
70														
80														
90									2					
100					1									
110	2	2	4	2		1	1							
120		1	1	1		1	1							
130						1	1							
140		2		2		3	1							
150	2	2	1	1		1	1				2	1	1	
160		1	4											
170		3	1	2										
180	2		2											
190	1	1	3		1									
200		1	1		1								2	
210	2		3											
220	1	1											1	
230		1	1											
240		1												
250														
260														
270														
280														
290									1				1	
300														
310														
320														
330														
340														
350														
360														
370														
380														
390														
400														
Total:	10	16	21	9	2	15	9	0	3	1	2	2	1	5

Appendix Table C-13. Length frequencies of least cisco caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station F0104						Station J0103							J0103A
	Jun 23	Jun 24	Jun 25	Jun 26	Jun 27	Jun 28	Jun 23	Jul 21	Jul 29	Jul 30	Aug 25	Aug 28	Sep 01	Jun 24
0														
10														
20														
30														
40		2			1				1			1		
50			1		2									
60		2	1	1										
70									6					
80			1						3					
90								1						
100	3					1								
110	2				1		2			1				
120	2	1		3	1	1								
130	1	1			1		2			1				
140		1		1			1							
150	1	1		2		1	1							
160	1		1											
170				2										
180				2							1		1	
190				1		1	3							
200		1		2			2					1		
210		1	1	1										1
220														2
230														
240														
250	1													
260	1						1							
270			1				1							
280														
290		1	1											
300			1				1							
310														
320														
330														
340														
350														
360										1				
370														
380														
390														
400														
Total:	12	11	8	15	6	4	14	1	10	3	1	2	1	3

Appendix Table C-13. Length frequencies of least cisco caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station M0142		Station MC7916B			Station MC7916C									
	Jun 22	Jun 23	Jun 24	Jun 25	Jun 28	Jun 25	Jun 26	Jun 27	Jun 28	Jul 20	Jul 21	Jul 23	Jul 24	Jul 25	Jul 26
0															
10															
20															
30															
40	1	2													
50	46	36													
60	55	69				2			2	1	1				
70	16	14				1									
80	3	4									2				2
90	3	3													2
100	11	7													1
110	10	3													
120	10	1									2				
130	16	8		1				1		1					1
140	8	1			1						1	1			1
150	3	1						1		1	1		1	1	
160	4						1						1		1
170	3											1			
180	1						1				1	1		1	
190	3				1										
200	1				1		1								
210	1				1										
220					1							1			2
230						1									
240											1		1		
250								2					3		
260													1		
270											1		1		
280	1		1				2					1	1		1
290												1	1		
300	1														
310			1			1					2		1		
320	1		1									1			
330											1	1			
340			1	1	1						1	1			
350				1								1			
360					1										
370							1								
380															
390				1											
400															
Total:	198	149	4	4	7	5	6	4	2	3	14	10	11	2	11

Appendix Table C-13. Length frequencies of least cisco caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station MC7916C										Station U0102				
	Jul 28	Jul 29	Jul 30	Aug 25	Aug 26	Aug 27	Aug 28	Aug 29	Aug 30	Aug 31	Jul 20	Jul 21	Jul 23	Jul 24	Jul 25
0															
10															
20															
30															
40										1					
50				28	21	11	10	11	10	10					
60				8	4	11	4	6	13	5					
70						1									
80									1						
90				2		1									
100				2	1	1									
110															
120															
130	1														
140	1						1				1				
150	2		2		3	1				1	3				
160	1					1		1			3		1		
170	4			2	1		1				1		2		
180	4		1	1	1	1		1		1	2	1	1		
190	5			1		2					1				
200		1		1	3	2								1	
210	2							1					2		
220	4			1							1		1		
230	3													1	
240	3										1				
250	2				1							1		1	
260	1														1
270	2										1				
280	3														
290													1		
300															
310															
320															
330															
340															
350															
360															
370															
380															
390															
400															
Total:	38	1	3	46	35	32	16	20	24	18	14	2	8	3	1

Appendix Table C-13. Length frequencies of least cisco caught by fyke net in eastern NPR-A, 2001.

Fork Length (mm)	Station U0102		
	Jul 26	Jul 27	Jul 28
0			
10			
20			
30			
40			
50			
60			
70			
80			
90			
100			
110			
120			
130			
140			
150			
160	1		
170			
180	1		
190			
200			
210			
220	1		
230			1
240	1		
250			
260			
270		2	
280			
290			
300			
310			
320			
330	1		
340	1		
350			
360			
370			
380			
390			
400			
Total:	6	2	1

Appendix Table C-14. Length frequencies of least cisco caught by fyke net during 2002.

Fork Length (mm)	Station U0102							
	Jun 26	Jul 21	Jul 22	Jul 25	Aug 01	Aug 02	Aug 03	Aug 06
0								
10								
20								
30								
40								
50								
60							1	
70					1		5	
80				2	2	1	19	1
90				1	11	1	13	
100					3			
110					1		1	
120								
130								
140								
150								
160								
170		1						
180								
190								
200								
210								
220								
230								
240								
250								
260								
270	1							
280								
290								
300			1					
310	1							
320								
330								
340								
350								
360								
370								
380								
390								
400								
410								
420								
430								
440								
450								
460								
470								
480								
490								
500								
Total:	2	1	1	3	18	2	39	1

Appendix Table C-15. Length frequencies of least cisco caught by fyke net during 2003.

Fork Length (mm)	CK0301 July	F0303A July	U0301 July	F0310 July	F0311 July	F0313 July	F0314 July	F0315 July	F0317 July	F0318 July
0										
10										
20										
30										
40										
50										
60					2					
70		3		1	1					
80		3		3		4		1	1	
90		4		1		5	1	2		
100		2				5		1		
110		4				1	1		1	
120										
130		10								
140		2		1		2		2		
150		2								
160		4	1	1		1	1	1		
170		2		1				1		
180		4		1						
190		3		1						
200		3		1				1		
210		3		1						
220		1								
230	1	2								
240										
250										
260		1				2				1
270		2		2		1				
280										
290		1				1			1	1
300		1				5				
310						1				
320						1				
330		3				1				
340		1								
350		1								
360										
370		4								
380		3								
390		1								
400		2								
410										
420										
430										
440										
450										
Total:	1	72	1	14	3	30	3	9	3	2
Effort (hrs):	260.3	189.4	269.2	100.4	101.2	112.1	99.5	96.7	67.9	68.5

Appendix Table C-16. Length frequencies of burbot caught by fyke net during 2003.

Fork Length (mm)	CK0301	F0303A	F0310	F0313	F0314
	Aug	July	July	July	July
0					
10					
20					
30					
40					
50					
60					
70					
80					
90			1		
100			1	1	
110		1			
120			1		
130	1				1
140					
150					
160					
170					
180					1
190					
200					
210					
220					
230					
240					
250					
Total:	1	1	3	1	2
Effort (hrs):	161.2	189.4	100.4	112.1	99.5

Appendix Table C-17. Length frequencies of longnose sucker caught by fyke net during 2003.

Fork Length (mm)	F0310 July	F0314 July	F0315 July
0			
10			
20			
30			
40			
50			
60			
70		1	
80			
90			
100	5		
110	14	2	1
120	11		1
130	15	1	
140	13	1	1
150	10		
160	15		
170	8		
180	6		
190	6		
200	5		
210	2		
220	4		
230			
240	2		
250	1		
260	3		
270	6	1	
280	5		
290	4		
300	11		
310	12		
320	13		
330	15	1	
340	16		1
350	25	1	
360	18		1
370	19	1	
380	20	1	
390	29	1	1
400	24	4	1
410	19	1	
420	15	4	1
430	11	1	
440	7	3	
450	8		
460	8	1	
470	3		
480	1	1	
490	1		
500			
510			
520			
530			
540			
550			
Total:	410	26	8
Effort (hrs):	100.4	99.5	96.7

Appendix Table C-18. Length frequencies of Alaska blackfish caught by fyke net during 2002.

Fork Length (mm)	CK16A													CK16B	
	Jun 21	Jun 22	Jun 24	Jun 25	Jun 26	Jul 20	Jul 21	Jul 22	Jul 23	Jul 24	Jul 25	Jul 26	Jul 27	Jun 24	Jun 25
0															
10															
20															
30															
40															
50										1					
60	1			1	2			1							1
70		1	1		8			1		1	1				1
80	2			1	2	1	5	5	1	3		1			
90				1	3			2		1			1		
100			1				3	1						1	
110					1	1		2							
120					1	2	1			1			1		
130															
140					1										
150							1								
160															
170															
180															
190															
200															
210															
220															
230															
240															
250															
260															
270															
280															
290															
300															
Total:	3	1	2	3	18	4	10	12	1	7	1	1	2	2	1

Appendix Table C-18. Length frequencies of Alaska blackfish caught by fyke net during 2002.

Fork Length	CK16B				M0254				M0256	M9912		
(mm)	Jun 26	Jul 20	Jul 23	Jul 27	Aug 03	Aug 04	Aug 05	Aug 06	Aug 06	Jul 28	Jul 29	Jul 30
0												
10												
20												
30												
40											1	
50												
60									1	1	3	1
70	2			1		1				1	1	
80	2											2
90	1				3	1						1
100					4	1				1	1	1
110					8	9		1				1
120					6	4						
130					4	2						
140			1	1	1							
150												
160												
170												
180												
190												
200												
210												
220												
230												
240												
250												
260												
270												
280												
290												
300												
Total:	5	1	1	1	26	18	0	1	1	3	6	6

Appendix Table C-18. Length frequencies of Alaska blackfish caught by fyke net during 2002.

Fork Length (mm)	M9912			M9914A		
	Jul 31	Aug 01	Aug 02	Jun 21	Jun 26	Jul 23
0						
10						
20						
30						
40	1					1
50		2				
60	3	3				
70	2	10	4			
80	1	2				
90		4	2			
100		1				
110		1	1			
120						
130					1	1
140						
150				1		1
160						
170						
180						
190						
200						
210						
220						
230						
240						
250						
260						
270						
280						
290						
300						
Total:	7	23	7	1	1	3

Appendix Table C-19. Length frequencies of Alaska blackfish caught by fyke net during 2003.

Fork Length (mm)	CK0301	CK0302	CK0303		F0303A	CK16C		CK0306	F0306A	CK0307		F0311
	June	June	June	July	July	June	July	June	July	June	July	July
0												
10												
20						1						
30									1		1	
40			7			1		6		4	3	
50			3		1	2		6	2		2	1
60		1	3			5	1	5			1	2
70	1		3		1	2		2		1	1	4
80			4	1	1	1	1	1		2		12
90			5		2			3				11
100		1	5		2			2		1		
110			2		4	2		2				
120					1	3						
130				1				1				
140	1							2				
150								2				
160												
170												
180												
190												
200												
210												
220												
230												
240												
250												
260												
270												
280												
290												
300												
Total:	2	2	32	2	12	17	2	32	3	8	8	30
Effort (hrs):	213.3	214.7	211.6	72.8	189.4	187.8	182.5	188.8	189.3	119.4	191.3	101.2

Appendix Table C-20. Length frequencies of slimy sculpin caught by fyke net during 2002.

Fork Length (mm)	Station U0102				
	Jun 22	Jun 24	Jun 25	Jul 30	Aug 02
0					
10					
20					
30					
40	1		1	1	1
50		1	1		
60					
70					
80					
90					
100					
110					
120					
130					
140					
150					
160					
170					
180					
190					
200					
210					
220					
230					
240					
250					
	1	1	2	1	1

Appendix Table C-21. Length frequencies of slimy sculpin caught by fyke net during 2003.

Fork Length (mm)	CK0301	CK0302	U0301		F0311	F0317
	July	July	June	July	July	July
0						
10						
20				8		
30		1		1		
40		3				3
50		5				
60	3	2			1	1
70	2					
80			1			
90						
100						
110						
120						
130						
140						
150						
160						
170						
180						
190						
200						
210						
220						
230						
240						
250						
Total:	5	11	1	9	1	4
Effort (hrs):	260.3	191.1	215.5	269.2	101.2	67.9

APPENDIX D
Results of Bathymetric Surveys in eastern NPR-A Lakes, 2002

Appendix Table D-1. Volume calculation for lakes surveyed during 2002 in eastern NPR-A.

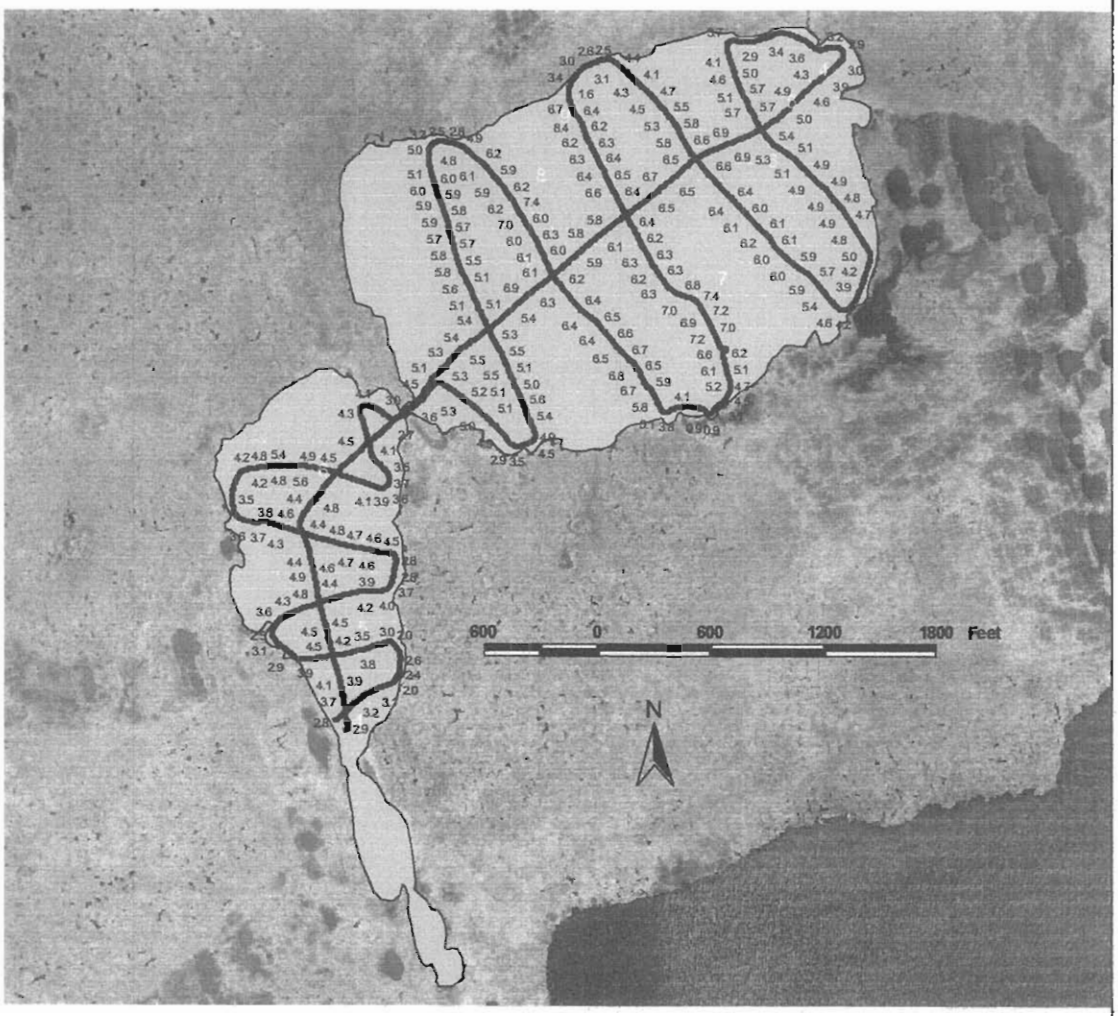
Lake	Depth Contour (feet)	Contour Area (acres)	Contour Volume (acre-ft)	Contour Volume (mill. gals)	Total Volume (mill. gals)	Volume deeper than 4 ft (mill. gals)	Volume deeper than 5 ft (mill. gals)	30% of Vol. deeper than 5 ft (mill. gals)	Volume deeper than 7 ft (mill. gals)	15% of Vol. deeper than 7 ft (mill. gals)
L9807	0	140.6	136.7	44.5	223.78	57.20	27.38	8.21	0.95	0.14
	1	132.8	131.3	42.8						
	2	129.8	126.9	41.4						
	3	124.1	116.3	37.9						
	4	108.7	91.5	29.8						
	5	75.3	59.7	19.4						
	6	45.3	21.4	7.0						
	7	4.6	2.5	0.8						
	8	0.9	0.4	0.1						
	9	0.1	0.03	0.01						
L9817	0	65.4	61.0	19.9	101.09	29.58	16.15	4.85	2.85	0.43
	1	56.8	55.4	18.1						
	2	54.1	52.9	17.2						
	3	51.7	50.0	16.3						
	4	48.4	41.2	13.4						
	5	34.4	26.2	8.5						
	6	18.7	14.6	4.8						
	7	10.9	7.3	2.4						
	8	4.3	1.4	0.5						
L9823	0	5.7	10.9	3.6	12.73	6.07	4.00	1.20	2.16	0.32
	2	5.2	9.5	3.1						
	4	4.3	7.3	2.4						
	6	3.0	5.3	1.7						
	8	2.3	4.0	1.3						
	10	1.7	1.8	0.6						
	12	0.3	0.2	0.1						
L9911	0	559.1	1,047.9	341.5	1,585.78	426.81	196.93	59.08	1.12	0.17
	1	489.6	910.9	296.8						
	2	422.1	821.3	267.6						
	3	399.3	776.4	253.0						
	4	377.3	705.5	229.9						
	5	328.7	474.4	154.6						
	6	156.2	126.5	41.2						
	7	5.2	3.4	1.1						
M9912	0	34.8	34.1	11.1	61.93	20.13	11.22	3.36	0.82	0.12
	1	33.4	32.9	10.7						
	2	32.4	31.4	10.2						
	3	30.5	29.8	9.7						
	4	29.2	27.3	8.9						
	5	25.5	22.2	7.2						
	6	19.0	9.7	3.2						
	7	2.8	2.1	0.7						
	8	1.4	0.5	0.1						

Appendix Table D-1. Volume calculation for lakes surveyed during 2002 in eastern NPR-A.

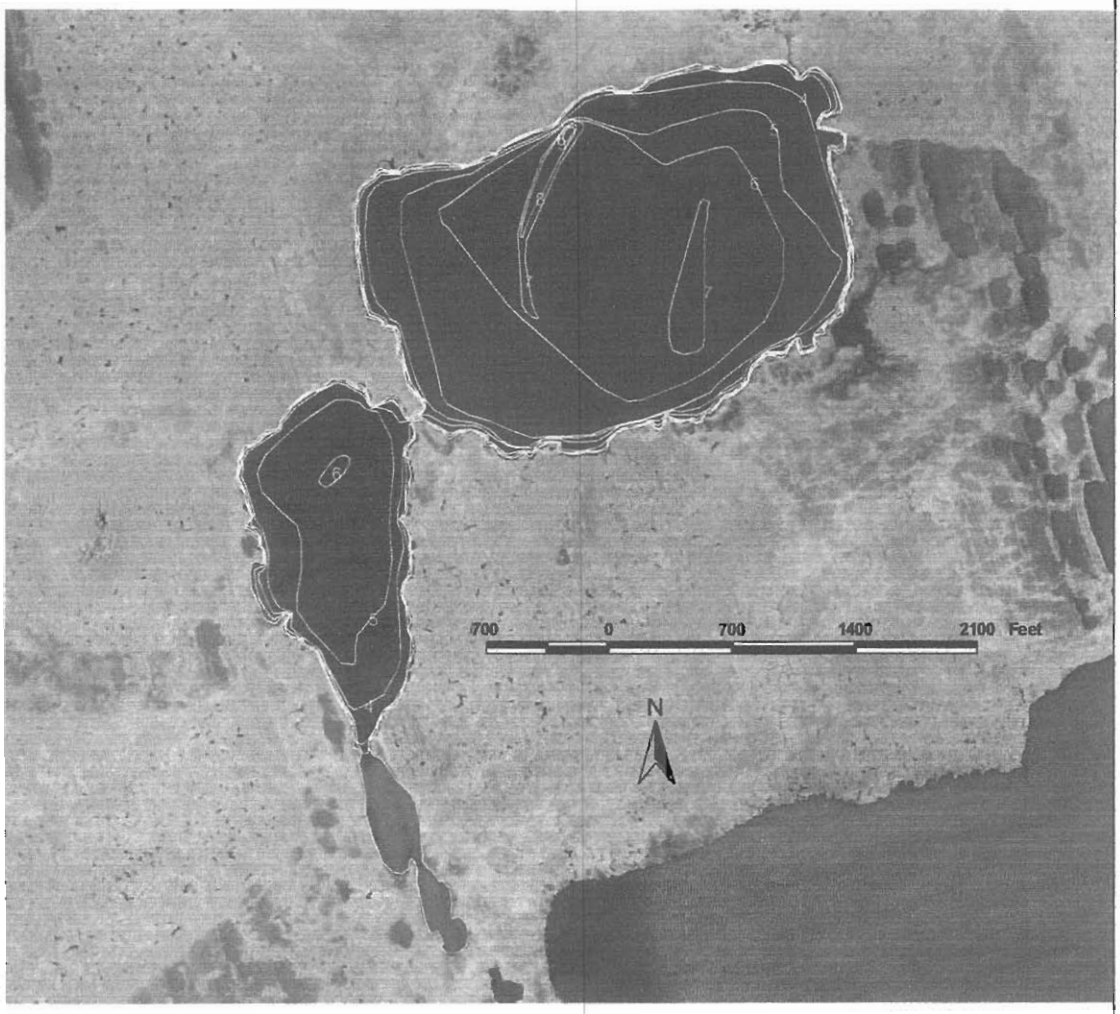
Lake	Depth Contour (feet)	Contour Area (acres)	Contour Volume (acre-ft)	Contour Volume (mill. gals)	Total Volume (mill. gals)	Volume deeper than 4 ft (mill. gals)	Volume deeper than 5 ft (mill. gals)	30% of Vol. deeper than 5 ft (mill. gals)	Volume deeper than 7 ft (mill. gals)	15% of Vol. deeper than 7 ft (mill. gals)
M9914	0	151.1	147.3	48.0	205.08	39.29	11.48	3.44	0.00	0.00
	1	143.4	135.7	44.2						
	2	128.2	119.8	39.0						
	3	111.5	106.0	34.5						
	4	100.6	85.3	27.8						
	5	70.9	33.0	10.8						
	6	6.6	2.2	0.7						
M9922	0	195.9	188.2	61.3	246.94	31.15	4.39	1.32	0.00	0.00
	1	180.5	172.7	56.3						
	2	165.0	158.7	51.7						
	3	152.6	142.6	46.5						
	4	132.8	82.1	26.8						
	5	40.4	13.5	4.4						
M9923	0	255.0	226.7	73.9	289.60	52.82	15.63	4.69	0.00	0.00
	1	199.5	188.4	61.4						
	2	177.5	166.0	54.1						
	3	154.8	145.4	47.4						
	4	136.3	114.1	37.2						
	5	93.3	44.6	14.5						
	6	10.0	3.3	1.1						
M0024	0	148.2	141.1	46.0	236.93	72.85	37.82	11.35	0.29	0.04
	1	134.2	128.3	41.8						
	2	122.6	119.6	39.0						
	3	116.6	114.5	37.3						
	4	112.4	107.5	35.0						
	5	102.6	86.4	28.1						
	6	71.1	28.8	9.4						
	7	2.4	0.9	0.3						
	8	0.03	0.01	0.00						
M0254	0	30.1	55.0	17.9	59.40	26.45	15.61	4.68	7.32	1.10
	2	25.0	46.1	15.0						
	4	21.2	38.0	12.4						
	6	16.9	28.6	9.3						
	8	11.8	12.8	4.2						
	10	2.3	1.7	0.6						
	12	0.04	0.03	0.01						
M0256	0	30.1	27.9	9.1	48.00	16.12	9.72	2.91	1.14	0.17
	1	25.8	24.9	8.1						
	2	24.0	23.3	7.6						
	3	22.6	21.7	7.1						
	4	20.8	19.7	6.4						
	5	18.5	16.6	5.4						
	6	14.7	9.8	3.2						
	7	5.6	3.1	1.0						
	8	1.2	0.4	0.1						

Appendix Table D-1. Volume calculation for lakes surveyed during 2002 in eastern NPR-A.

Lake	Depth Contour (feet)	Contour Area (acres)	Contour Volume (acre-ft)	Contour Volume (mill. gals)	Total Volume (mill. gals)	Volume deeper than 4 ft (mill. gals)	Volume deeper than 5 ft (mill. gals)	30% of Vol. deeper than 5 ft (mill. gals)	Volume deeper than 7 ft (mill. gals)	15% of Vol. deeper than 7 ft (mill. gals)
MC7916	0	419.6	399.1	130.1	605.37	197.06	125.58	37.67	15.50	2.33
	1	378.9	335.2	109.2						
	2	293.4	275.8	89.9						
	3	258.6	242.8	79.1						
	4	227.4	219.4	71.5						
	5	211.5	191.8	62.5						
	6	172.7	146.0	47.6						
	7	120.8	46.8	15.2						
	8	2.4	0.8	0.3						
MC7917	0	312.5	294.9	96.1	605.92	255.25	201.93	60.58	82.46	12.37
	1	277.7	262.5	85.5						
	2	247.5	240.3	78.3						
	3	233.1	228.0	74.3						
	4	222.9	214.1	69.8						
	5	205.4	194.7	63.5						
	6	184.3	171.9	56.0						
	7	159.7	127.0	41.4						
	8	96.8	75.7	24.7						
	9	56.4	35.6	11.6						
	10	18.3	11.5	3.8						
	11	5.9	3.0	1.0						
	12	0.9	0.3	0.1						

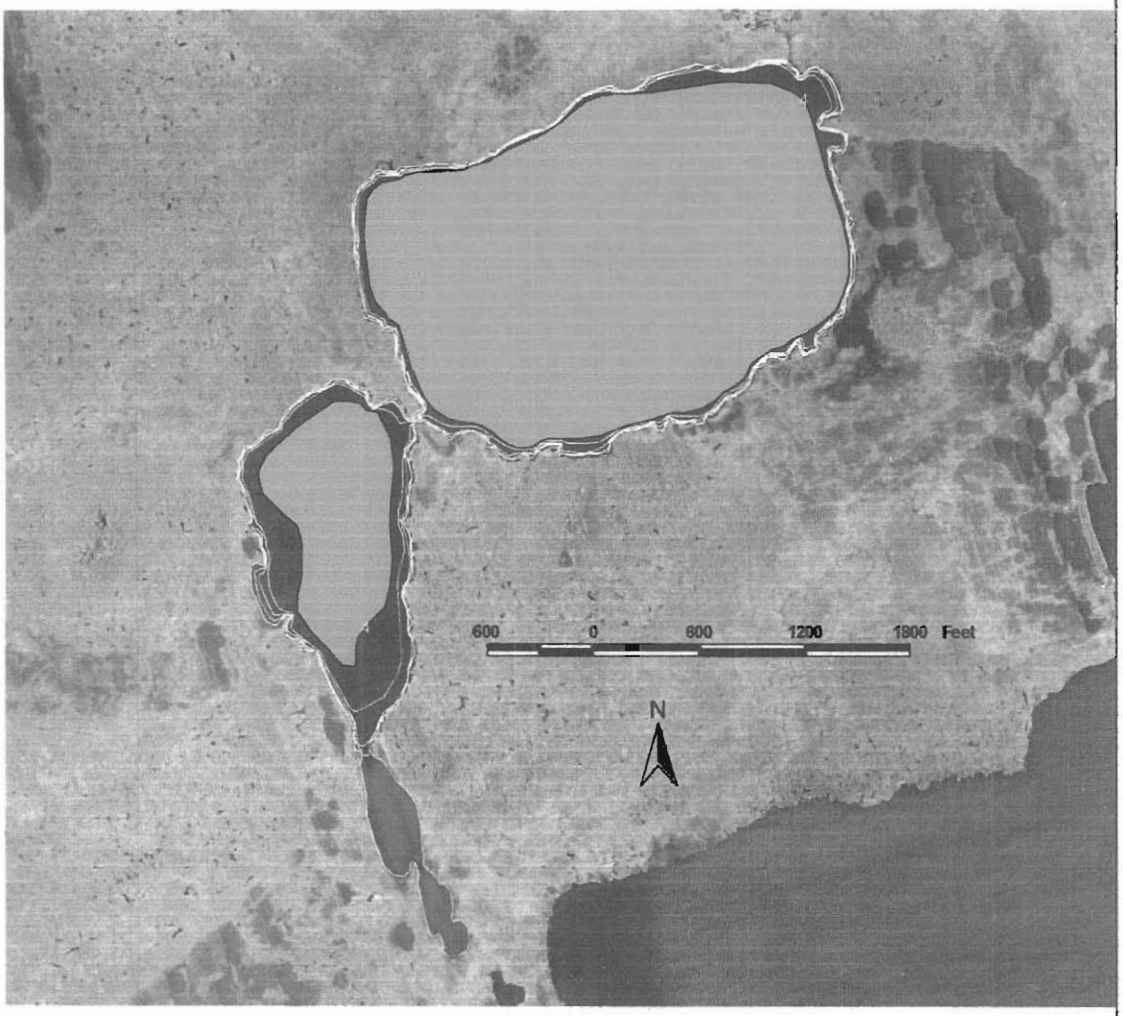


Depth transects surveyed on lake L98907, Sep 4, 2002
(depths in feet)



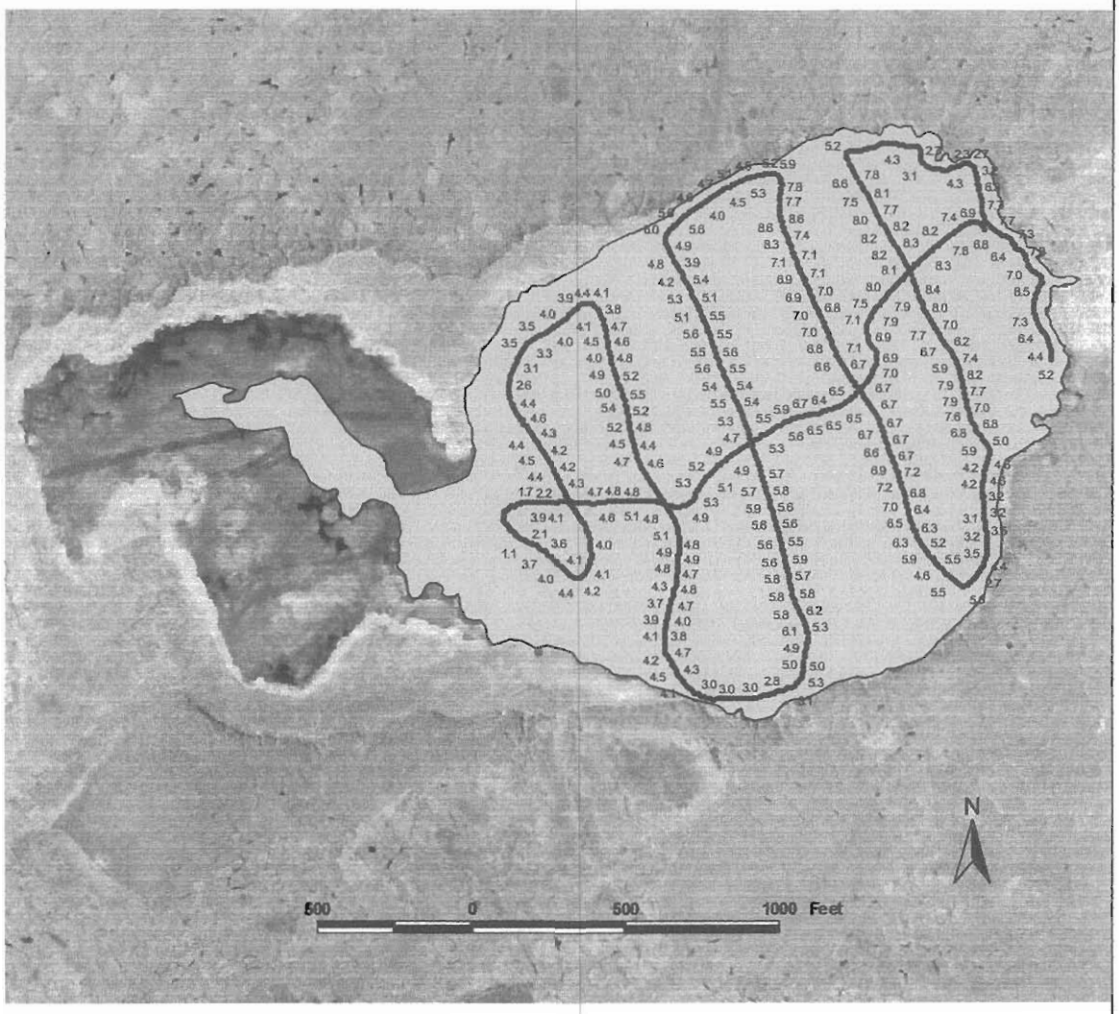
Depth contours of lake L9807, based on transects surveyed on Sep 4, 2002
(contours in 1 foot increments).

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

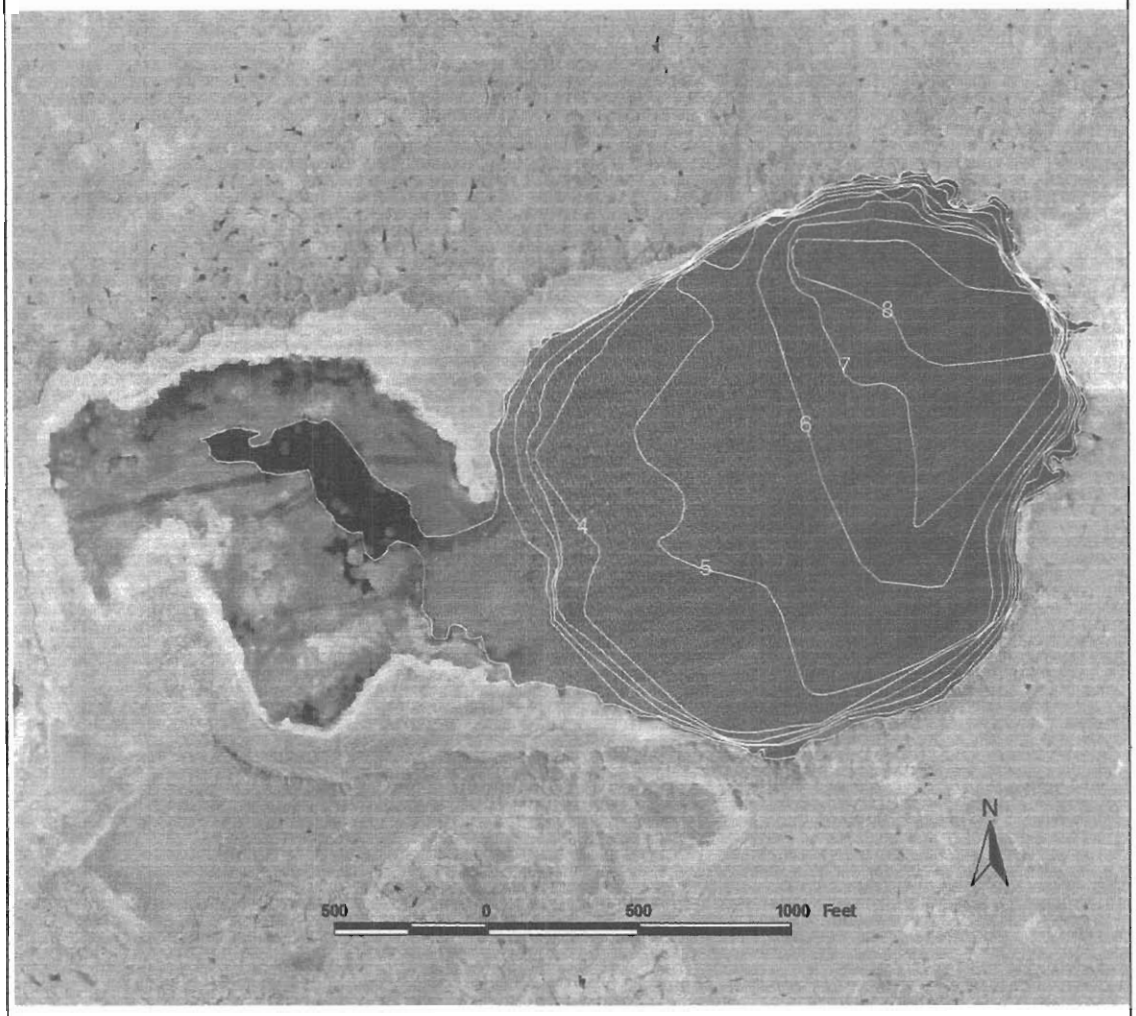


Shaded region of lake L9807 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep 4, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

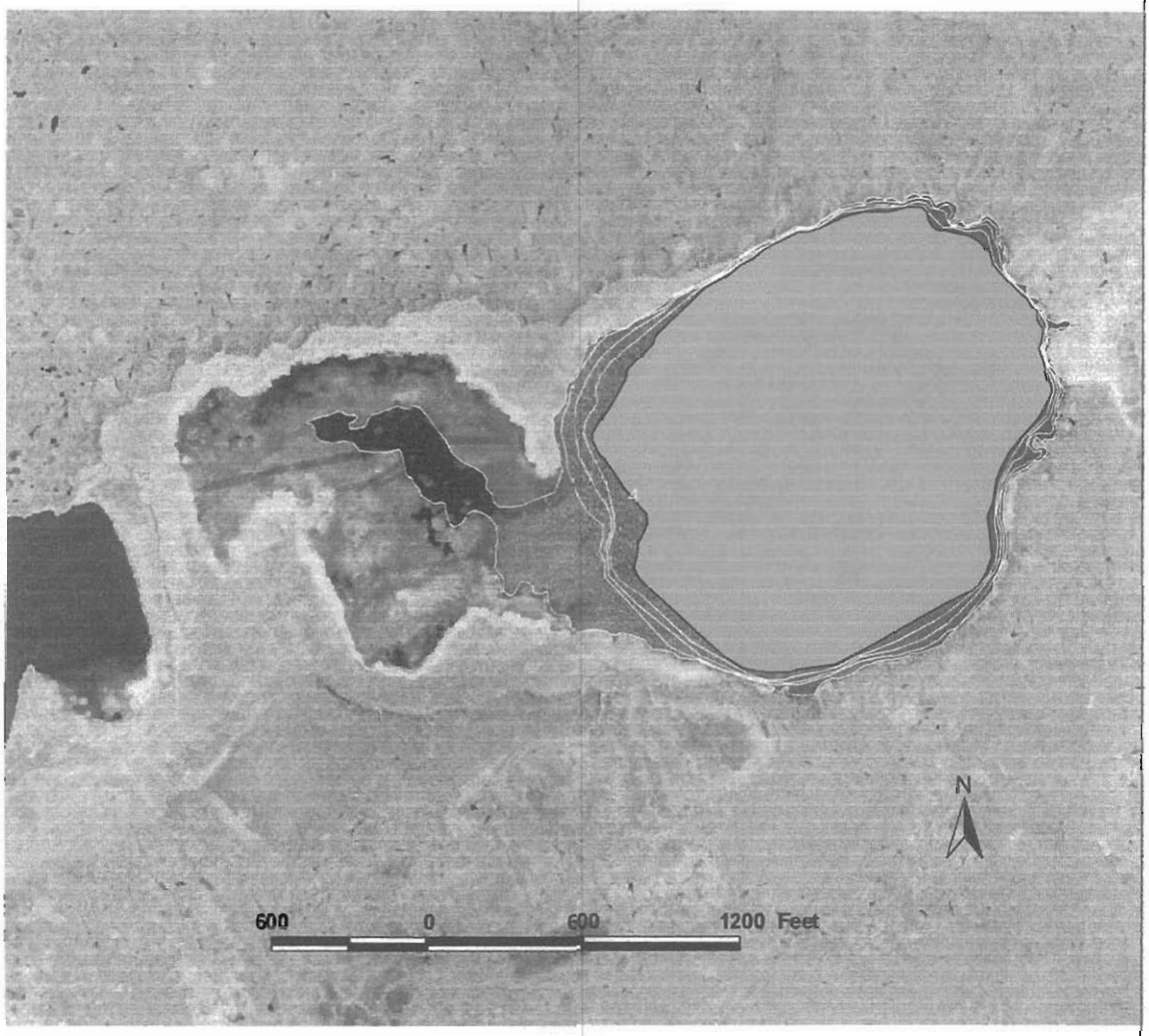


Depth transects surveyed on lake L9817, Sep 3, 2002.
(depths in feet)



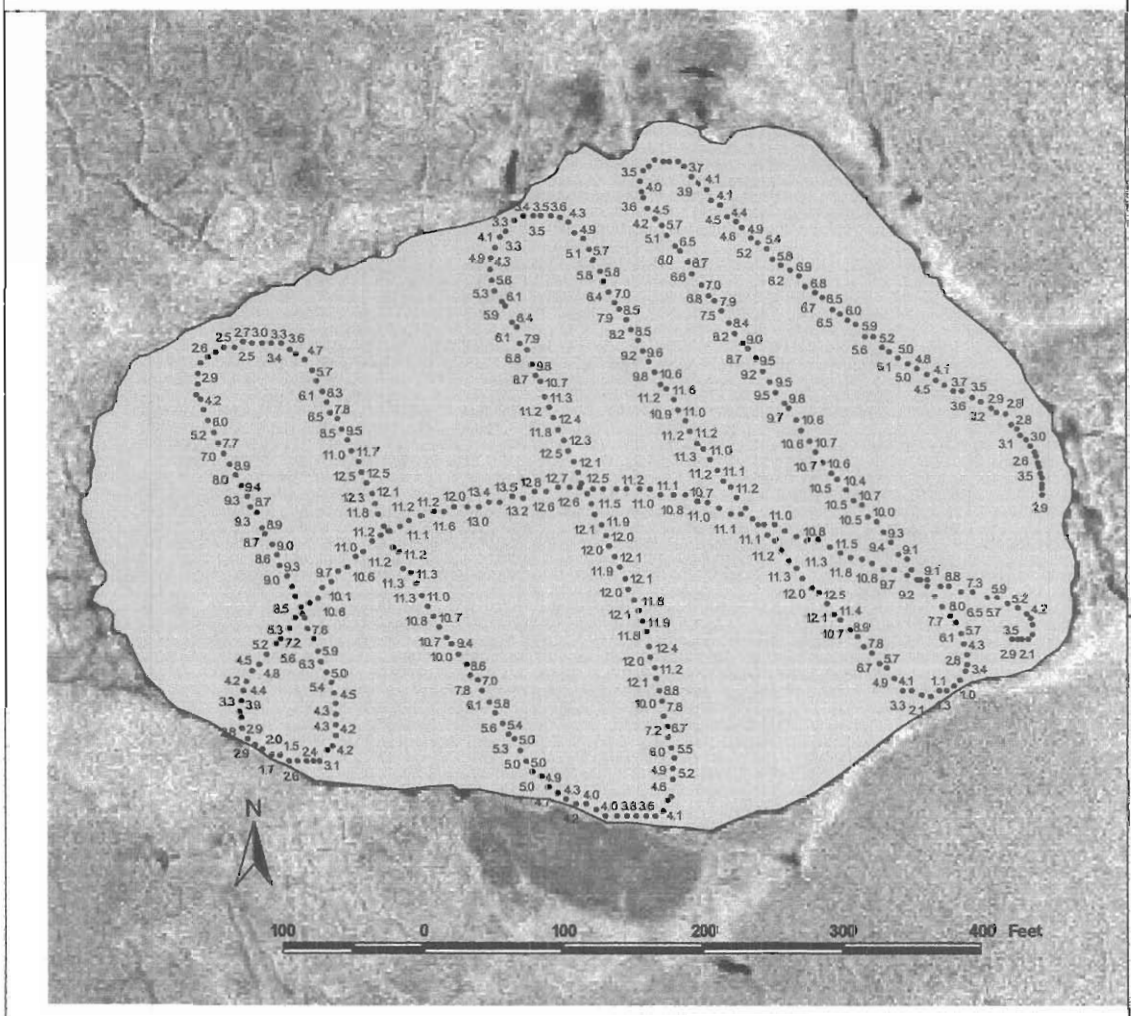
Depth contours of lake L9817, based on transects surveyed on Sep 3, 2002
(contours in 1 foot increments).

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

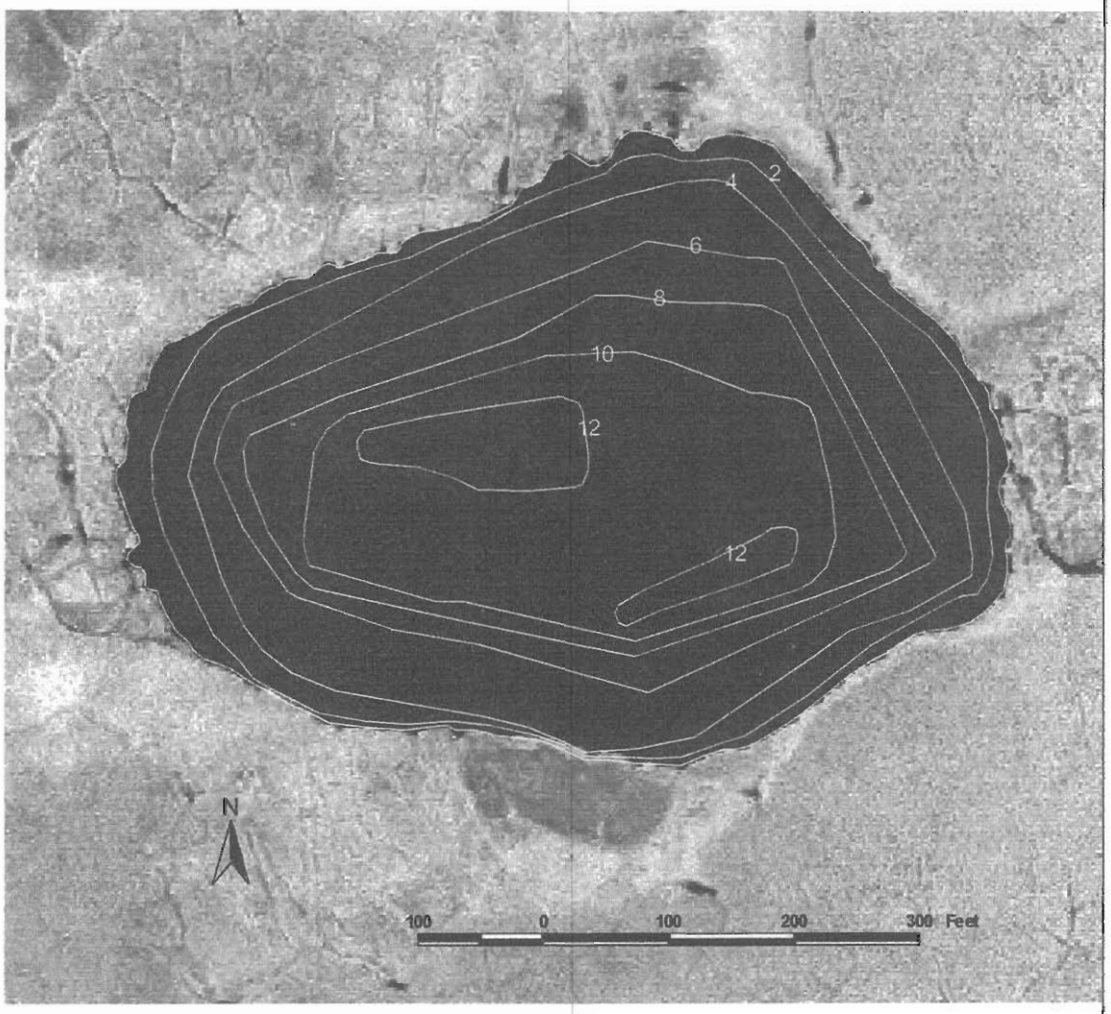


Shaded region of lake L9817 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep 3, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

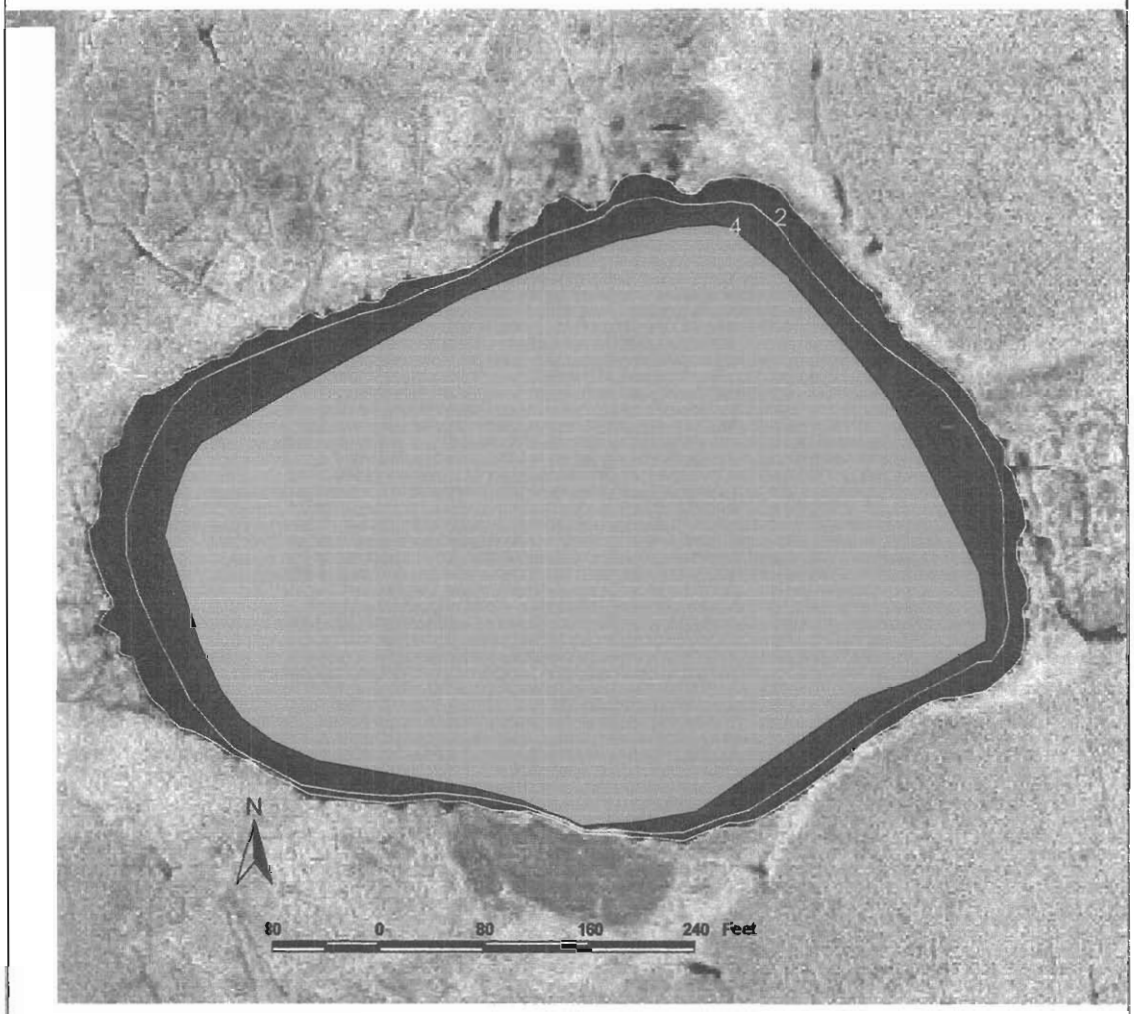


Depth transects surveyed on lake L9823, Sep 4, 2002.
(depths in feet)



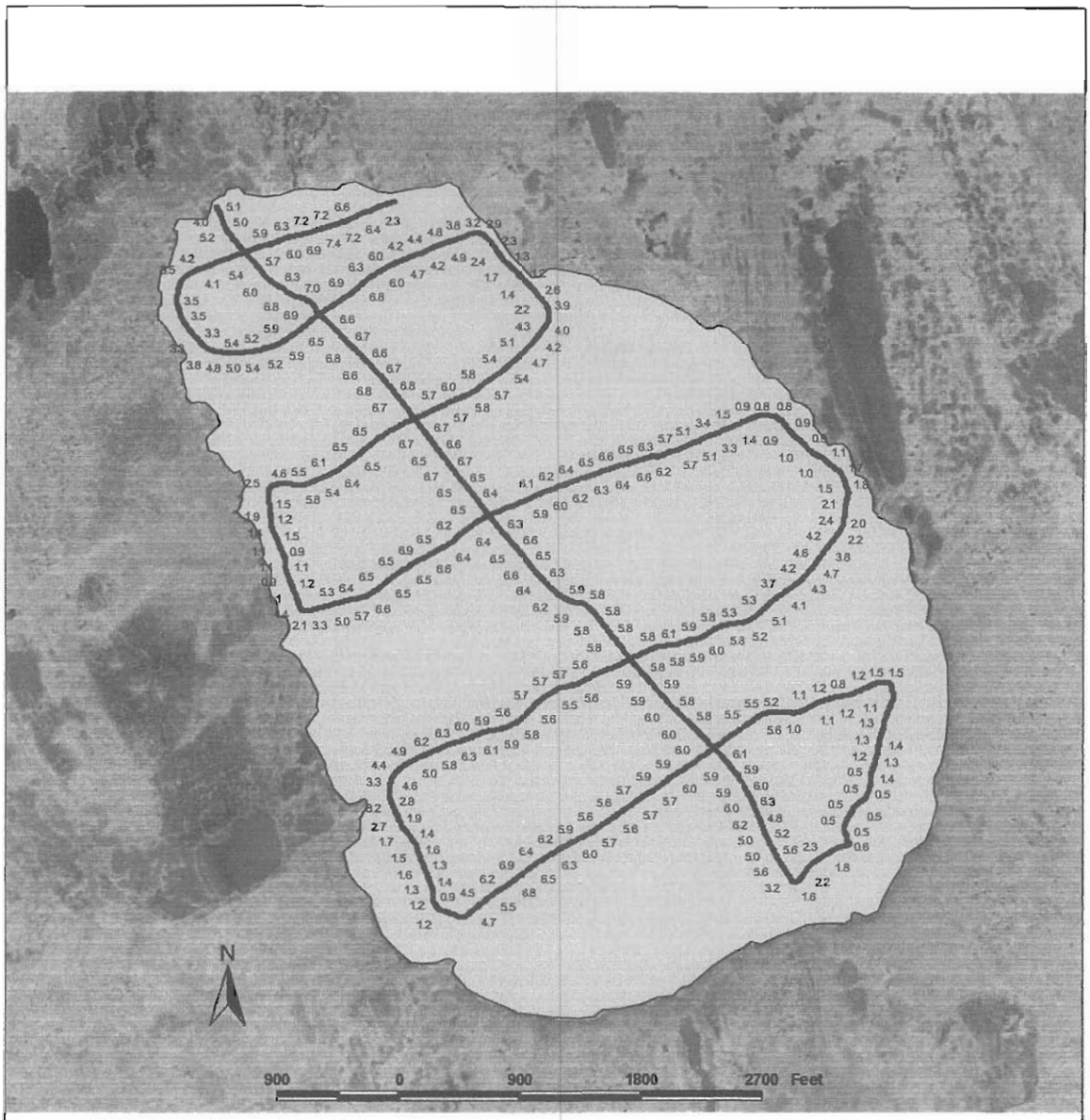
Depth contours of lake L9823, based on transects surveyed on Sep 4, 2002
(contours in 2 foot increments).

Note: depth Information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.



Shaded region of lake L9823 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep. 4, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.



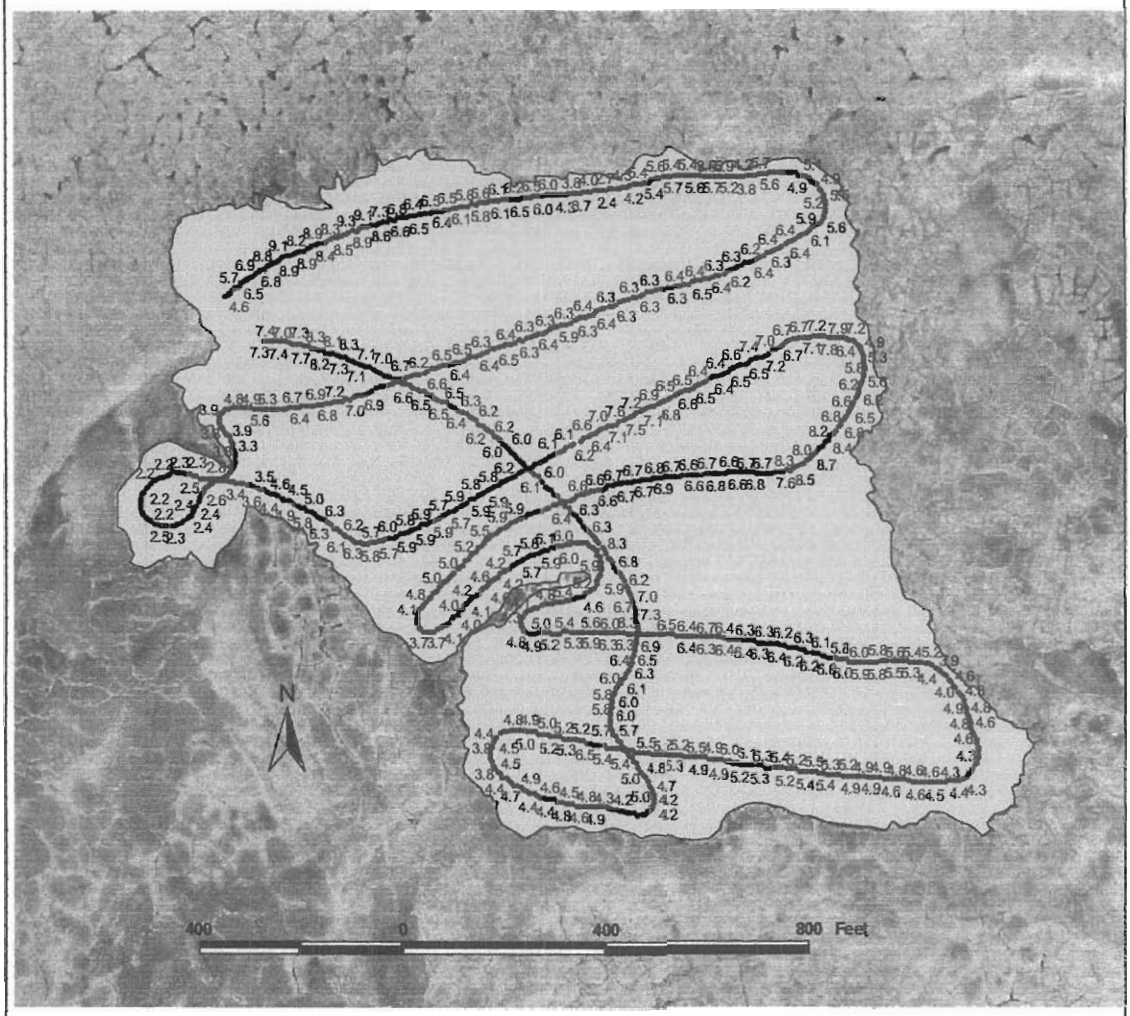
Depth transects surveyed on lake L9911, Aug 31, 2002
(depths in feet)

Depth contours of lake L9911, based on transects surveyed on Aug 31, 2002
(contours in 1 foot increments).

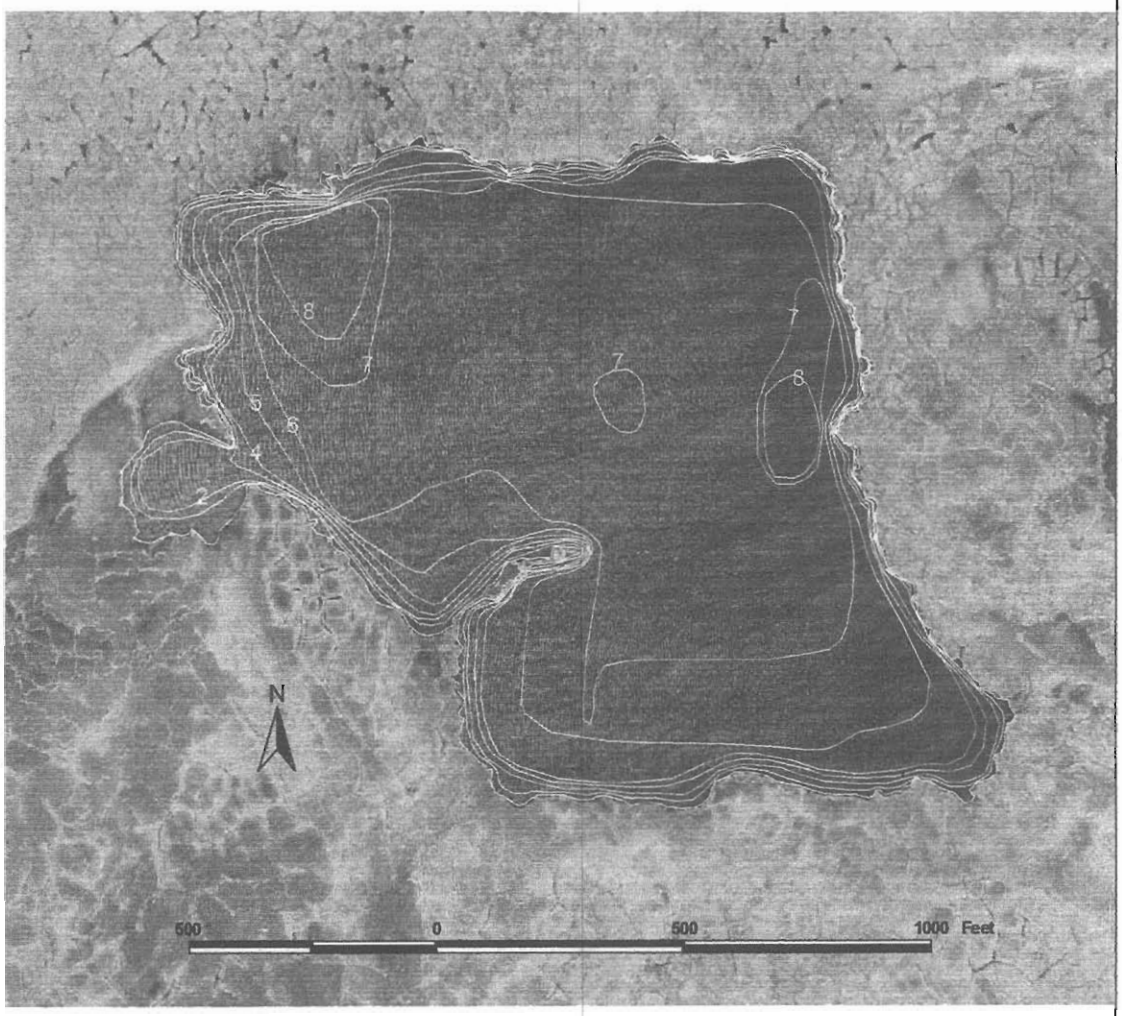
Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

Shaded region of lake L9911 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Aug 31, 2002.

Note: depth Information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

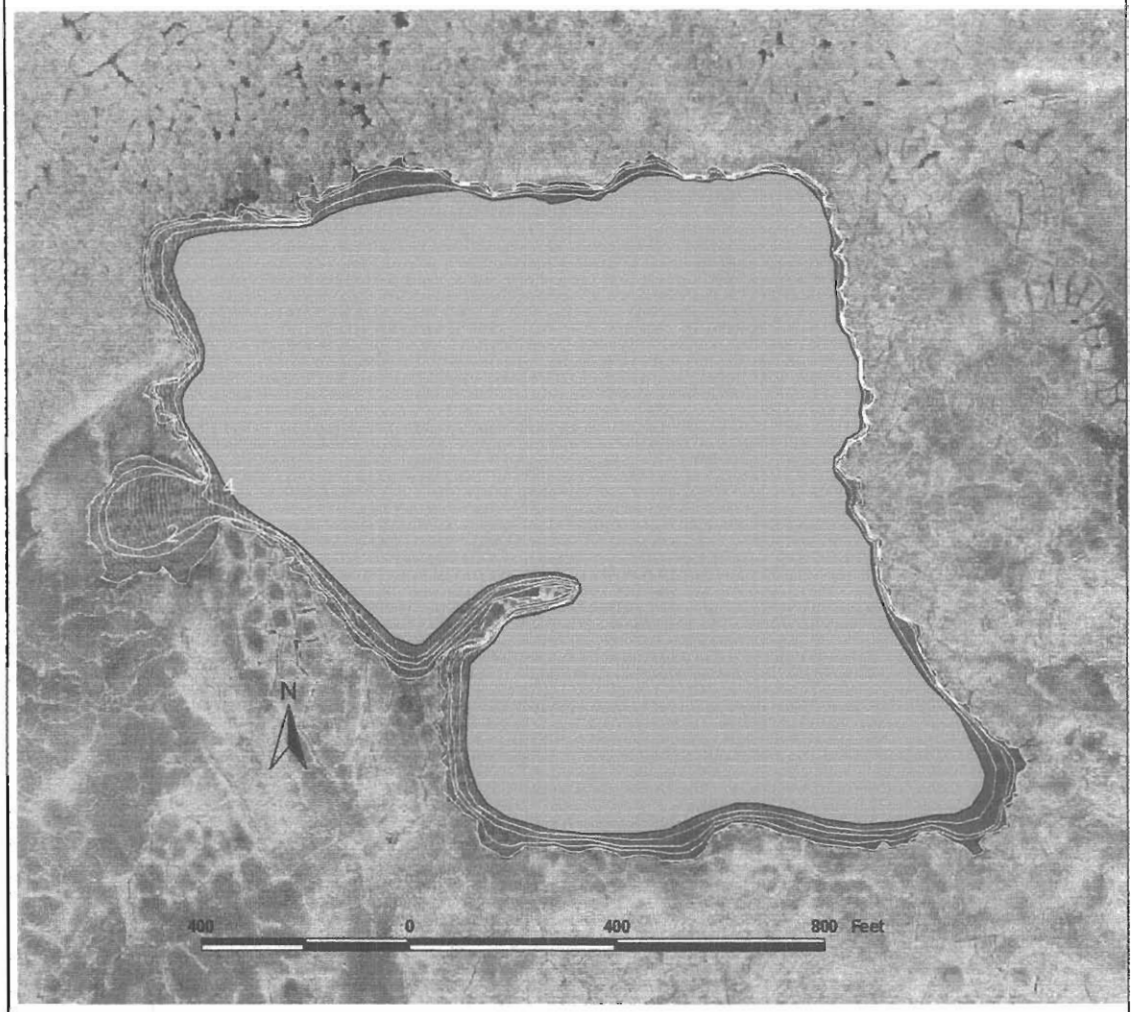


Depth transects surveyed on lake M9912, Sep 3, 2002
(depths in feet)



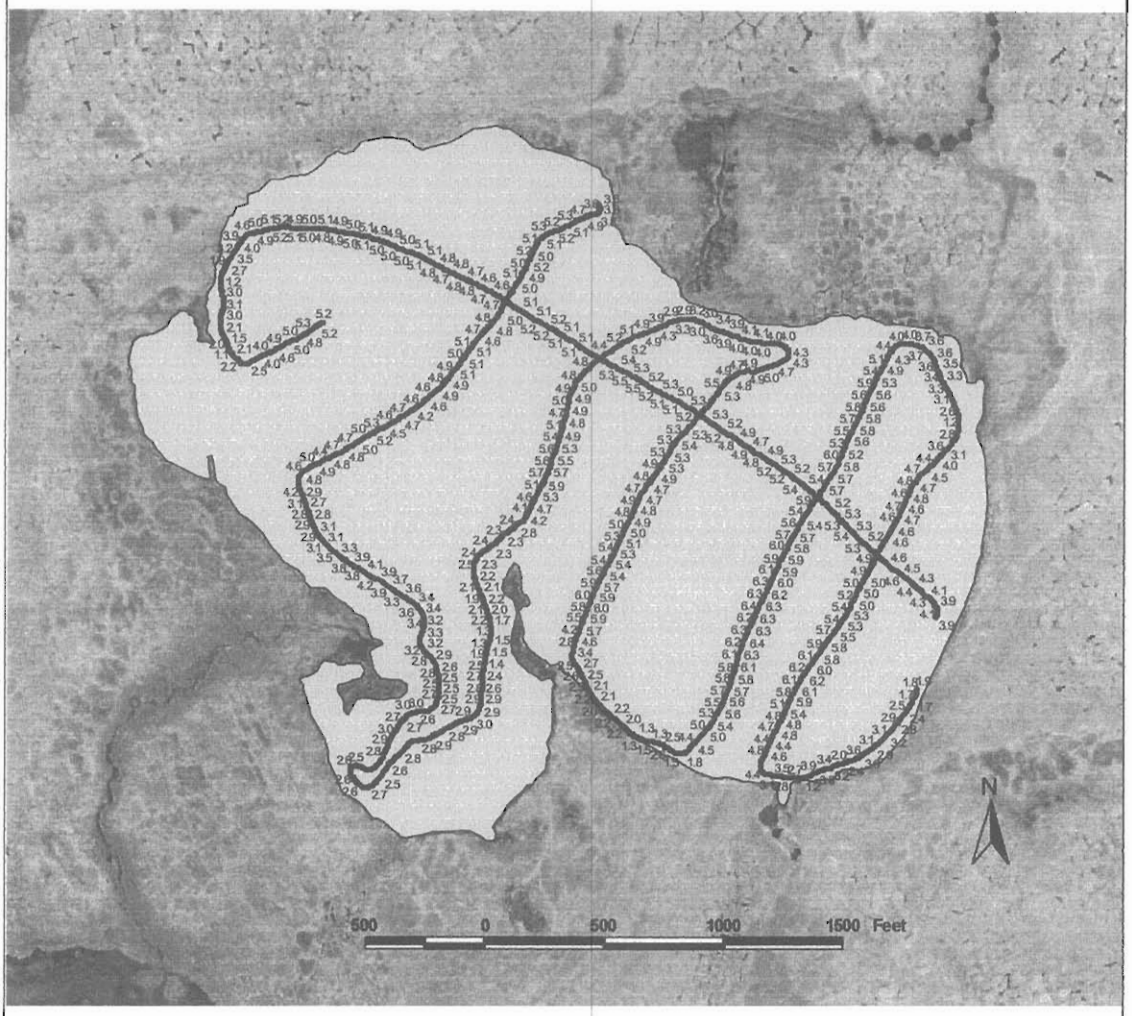
Depth contours of lake M9912, based on transects surveyed on Sep 3, 2002
(contours in 1 foot increments).

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

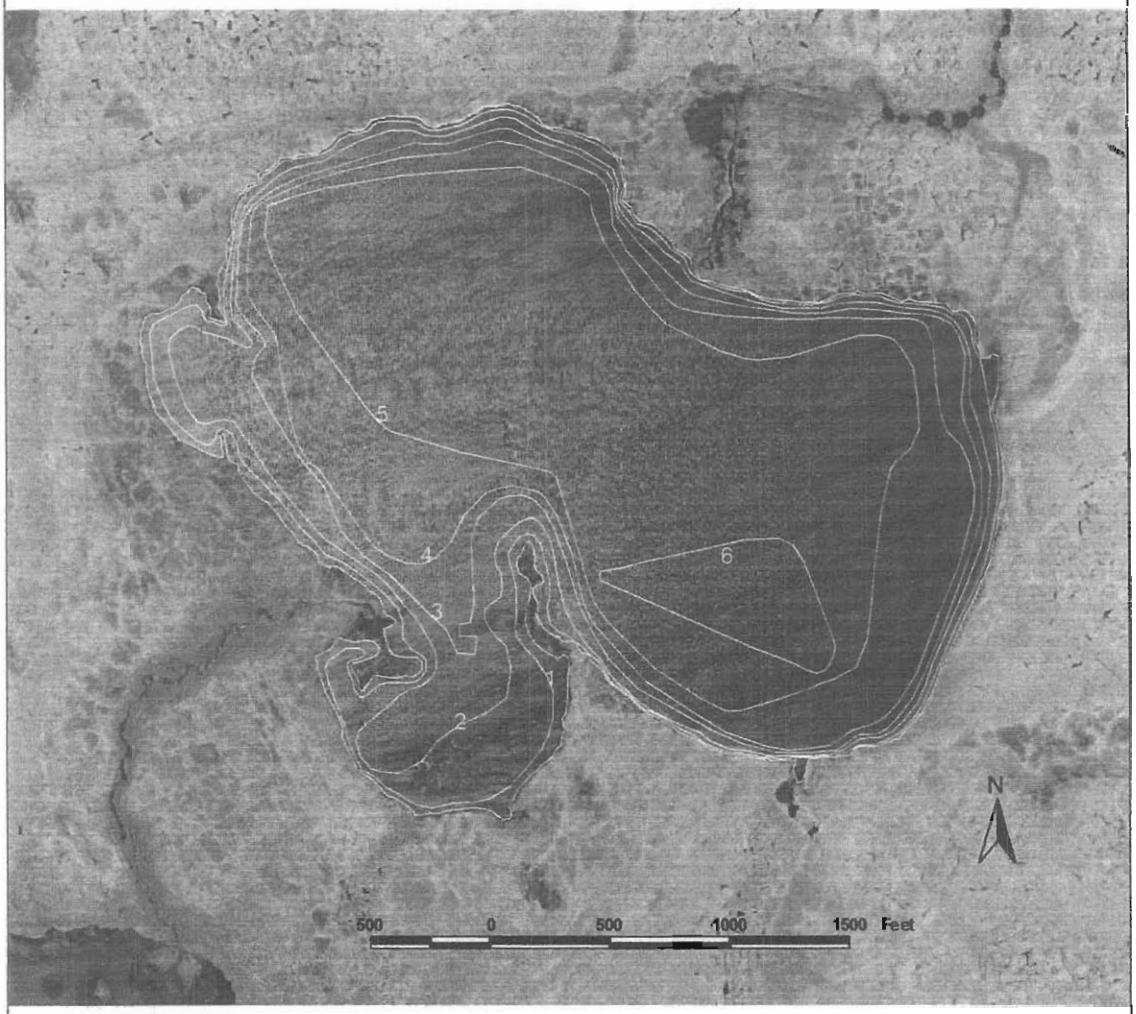


Shaded region of lake M9912 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep. 3, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

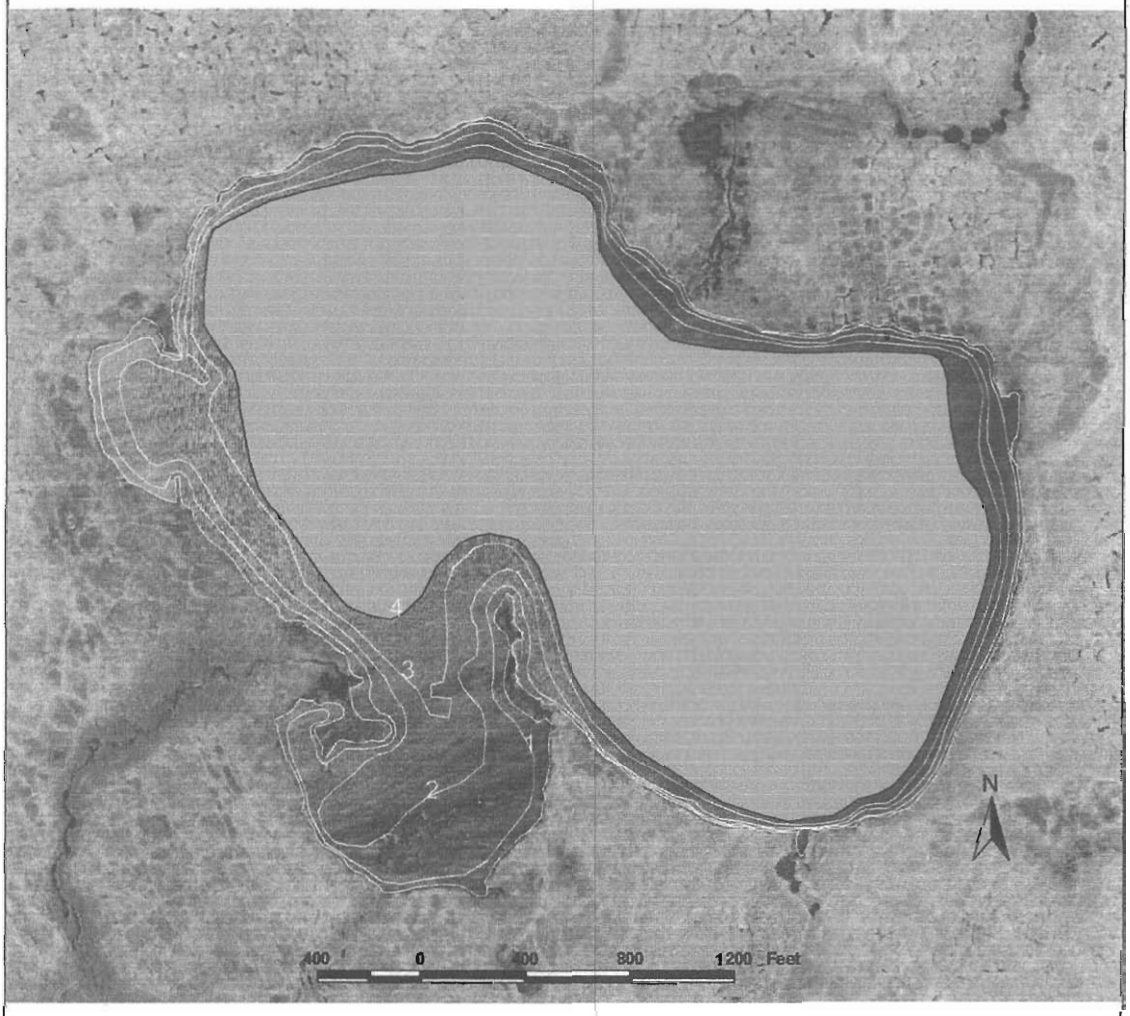


Depth transects surveyed on lake M9914,Sep 2, 2002
(depths in feet)



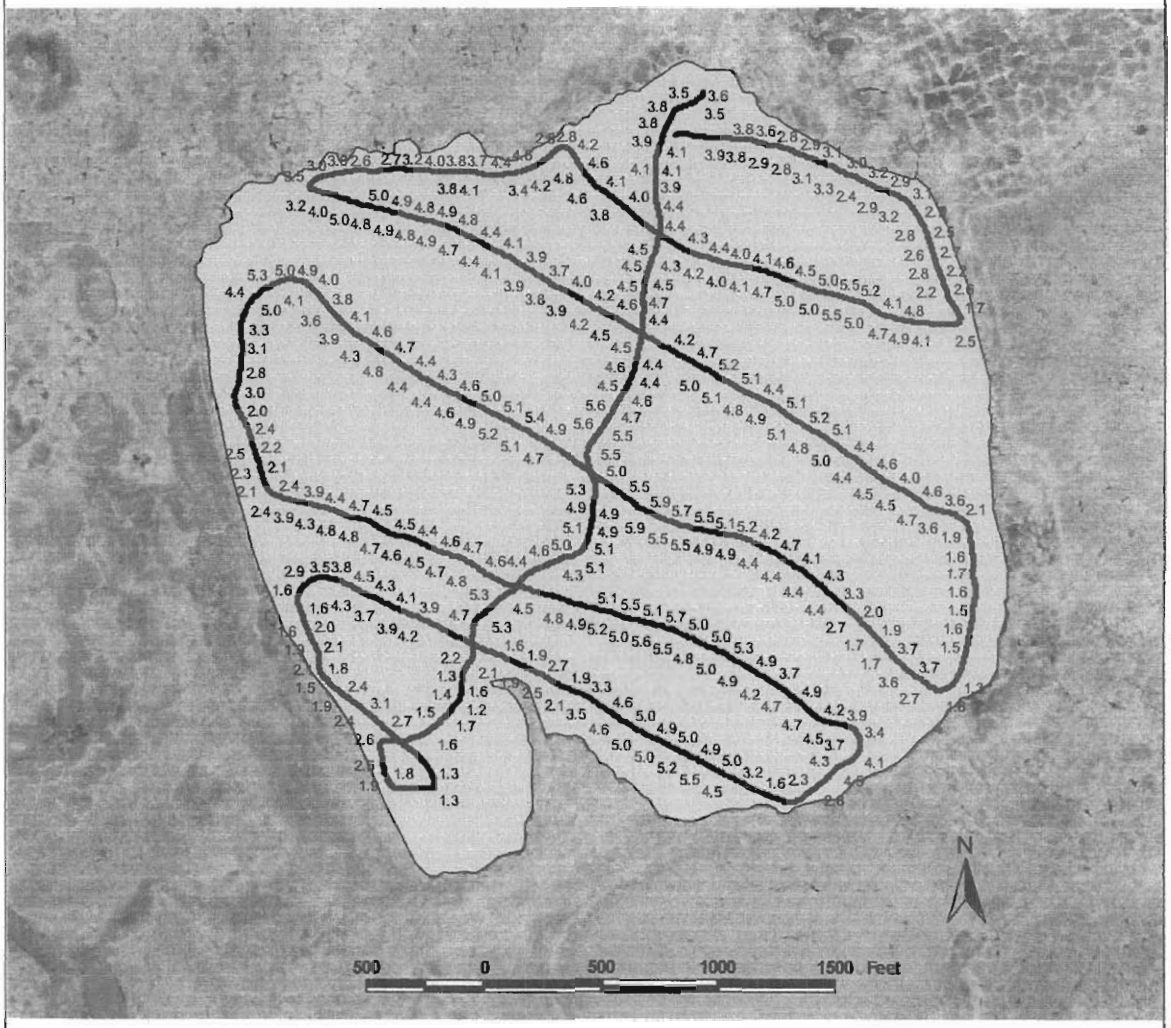
Depth contours of lake M9914, based on transects surveyed on Sep 2, 2002
(contours in 1 foot increments).

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

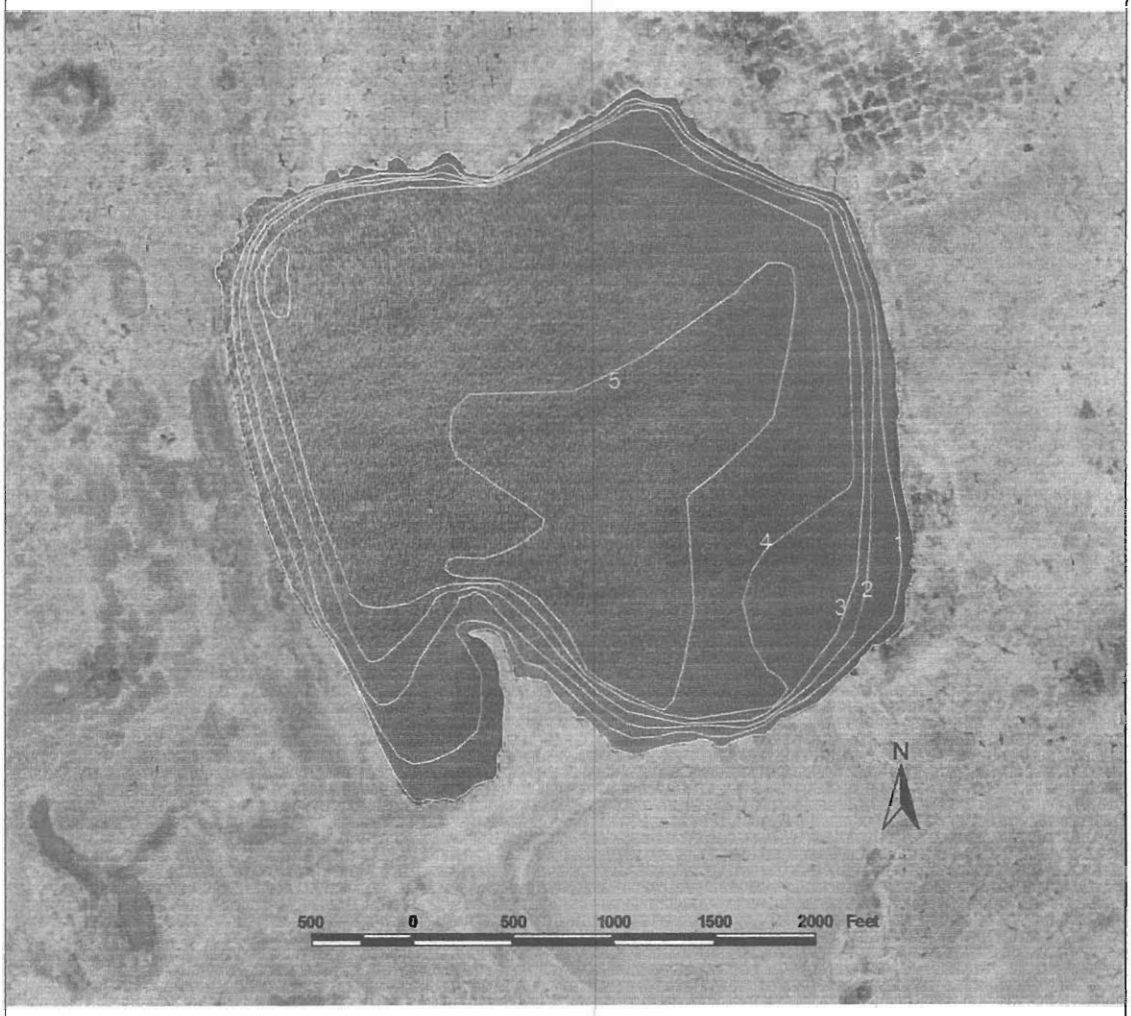


Shaded region of lake M9914 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep. 2, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

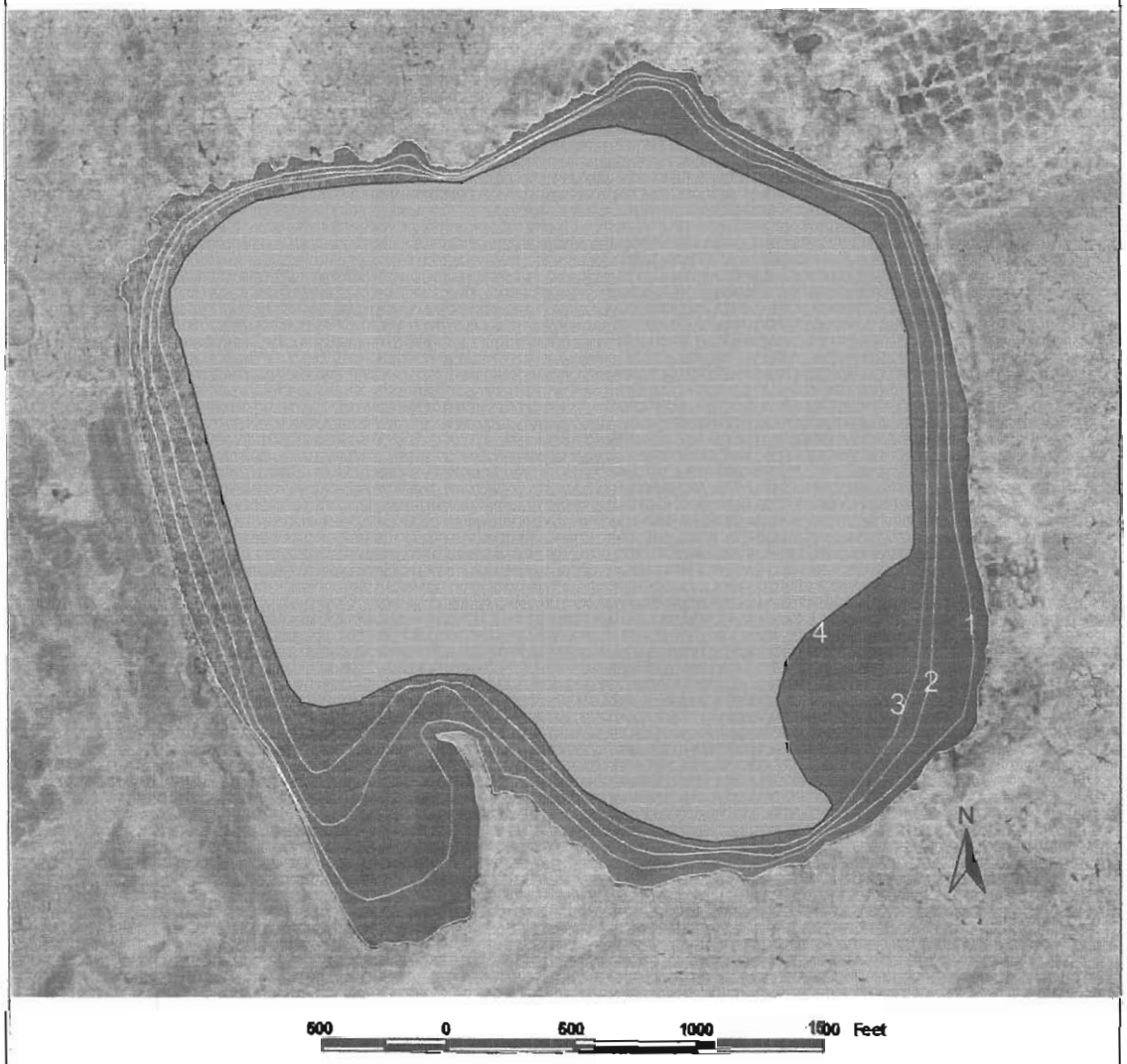


Depth transects surveyed on lake M9922, Sep 2, 2002
(depths in feet)



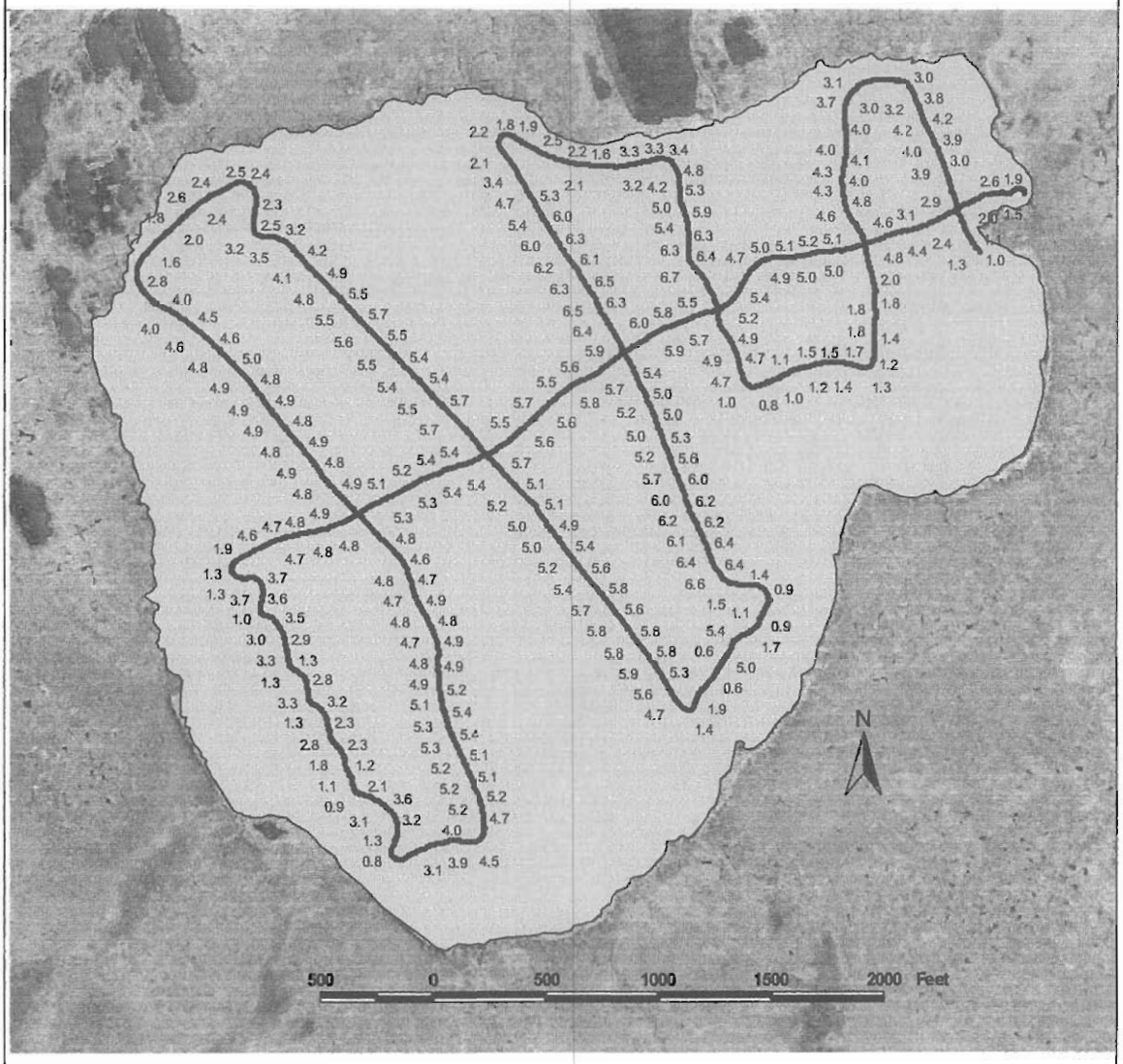
Depth contours of lake M9922, based on transects surveyed on Sep 2, 2002
(contours in 1 foot increments).

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

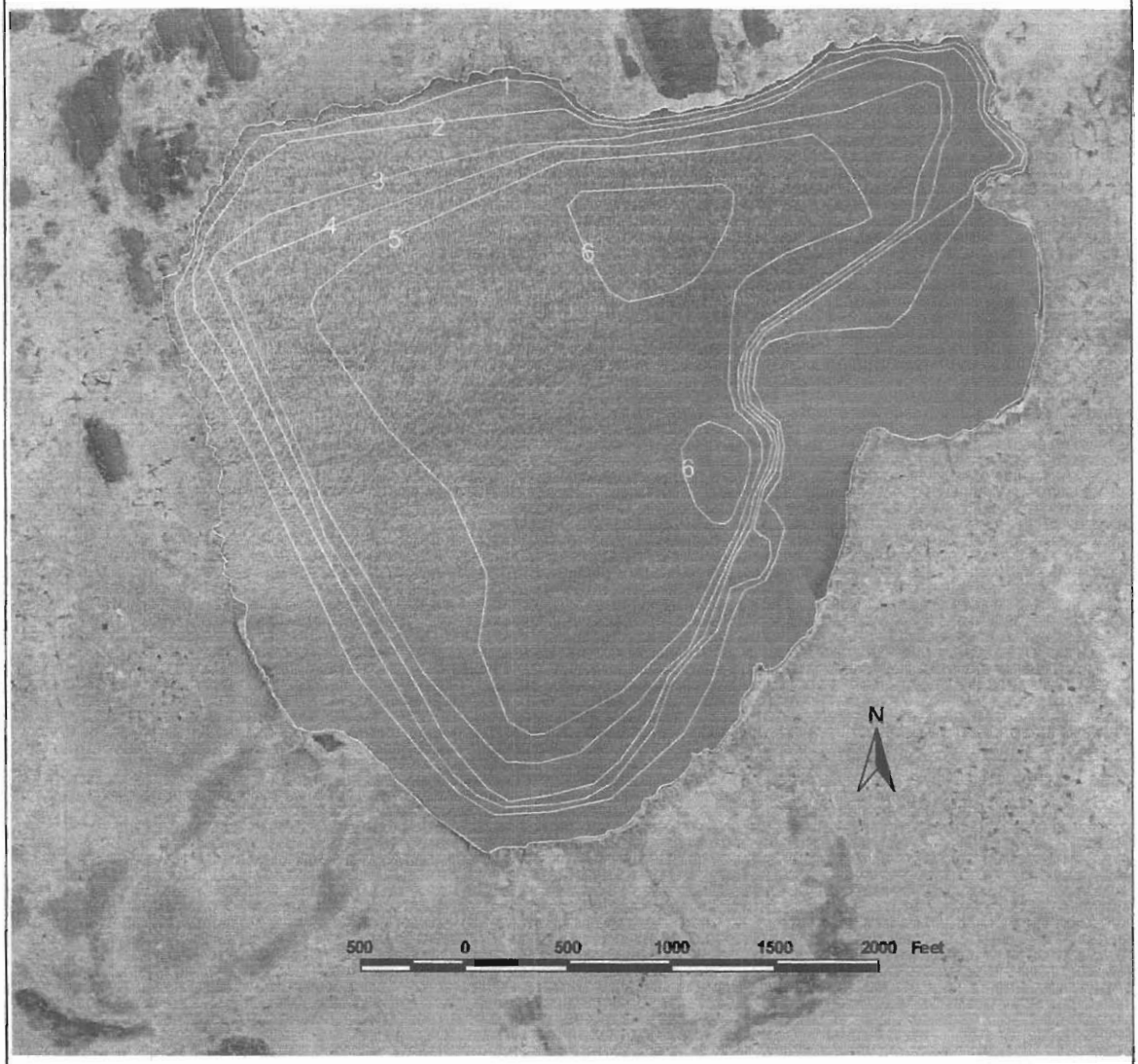


Shaded region of lake M9922 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep. 2, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.



Depth transects surveyed on lake M9923, Sep 3, 2002
(depths in feet)

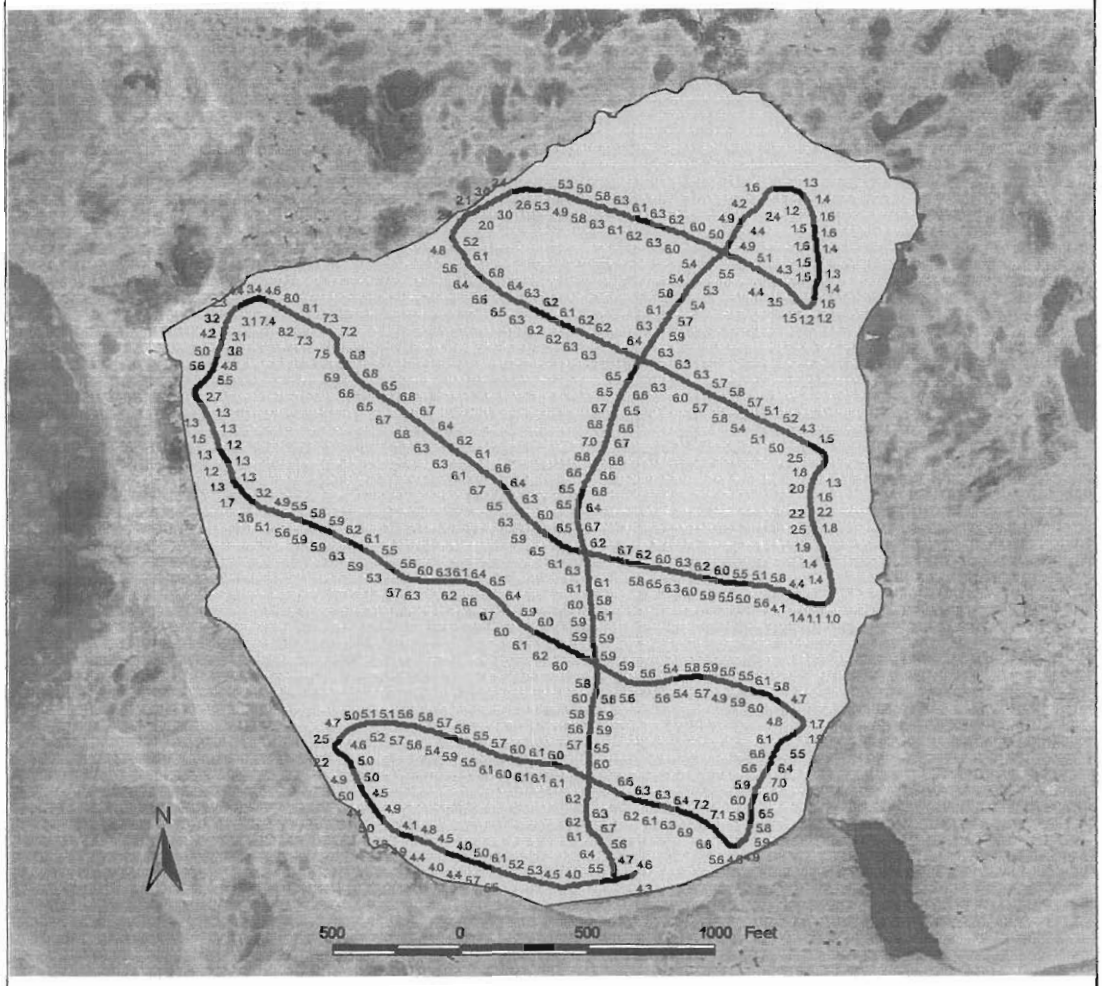


Depth contours of lake M9923, based on transects surveyed on Sep 3, 2002
(contours in 1 foot increments).

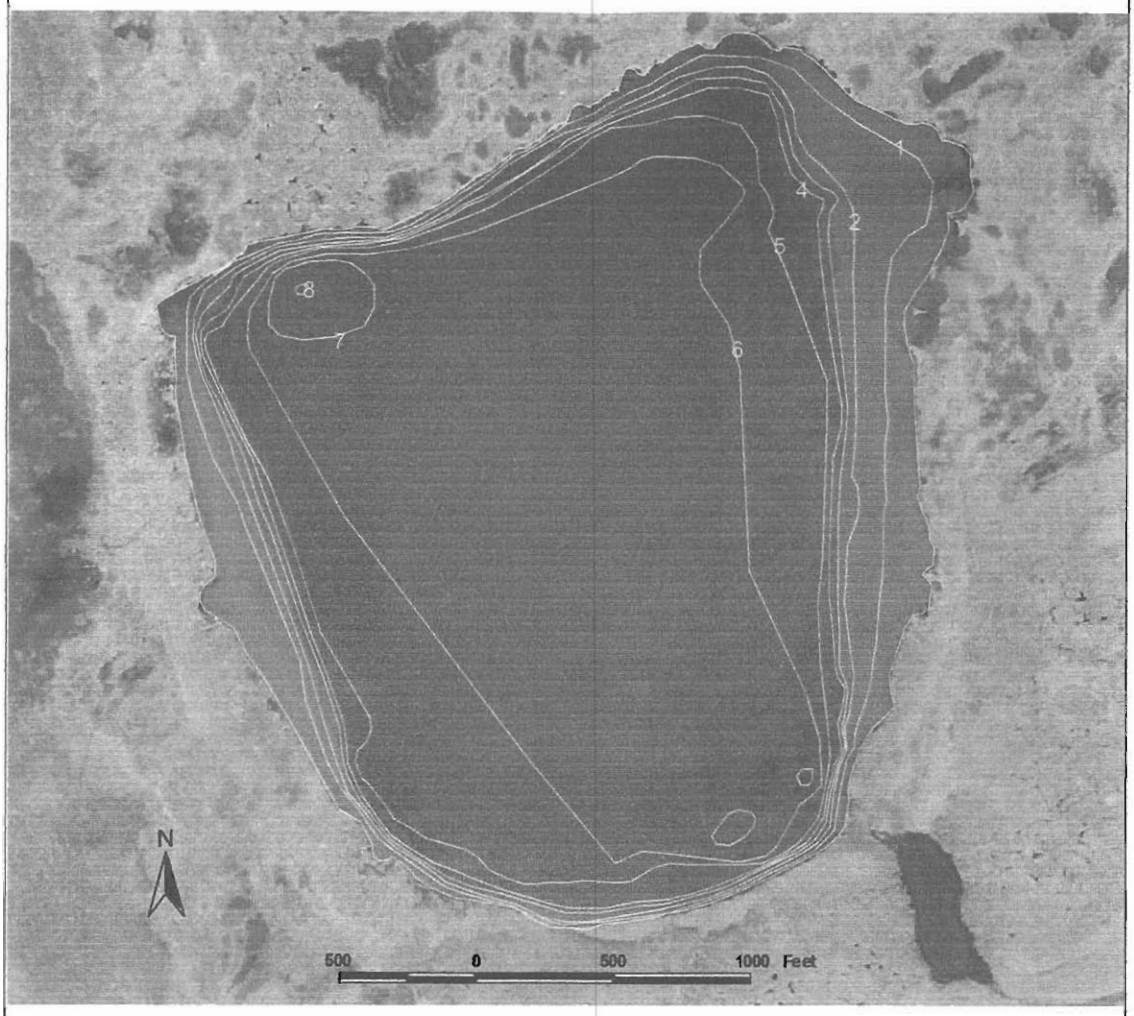
Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

Shaded region of lake M9923 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep. 3, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.



Depth transects surveyed on lake M0024, Sep 2, 2002
(depths in feet)

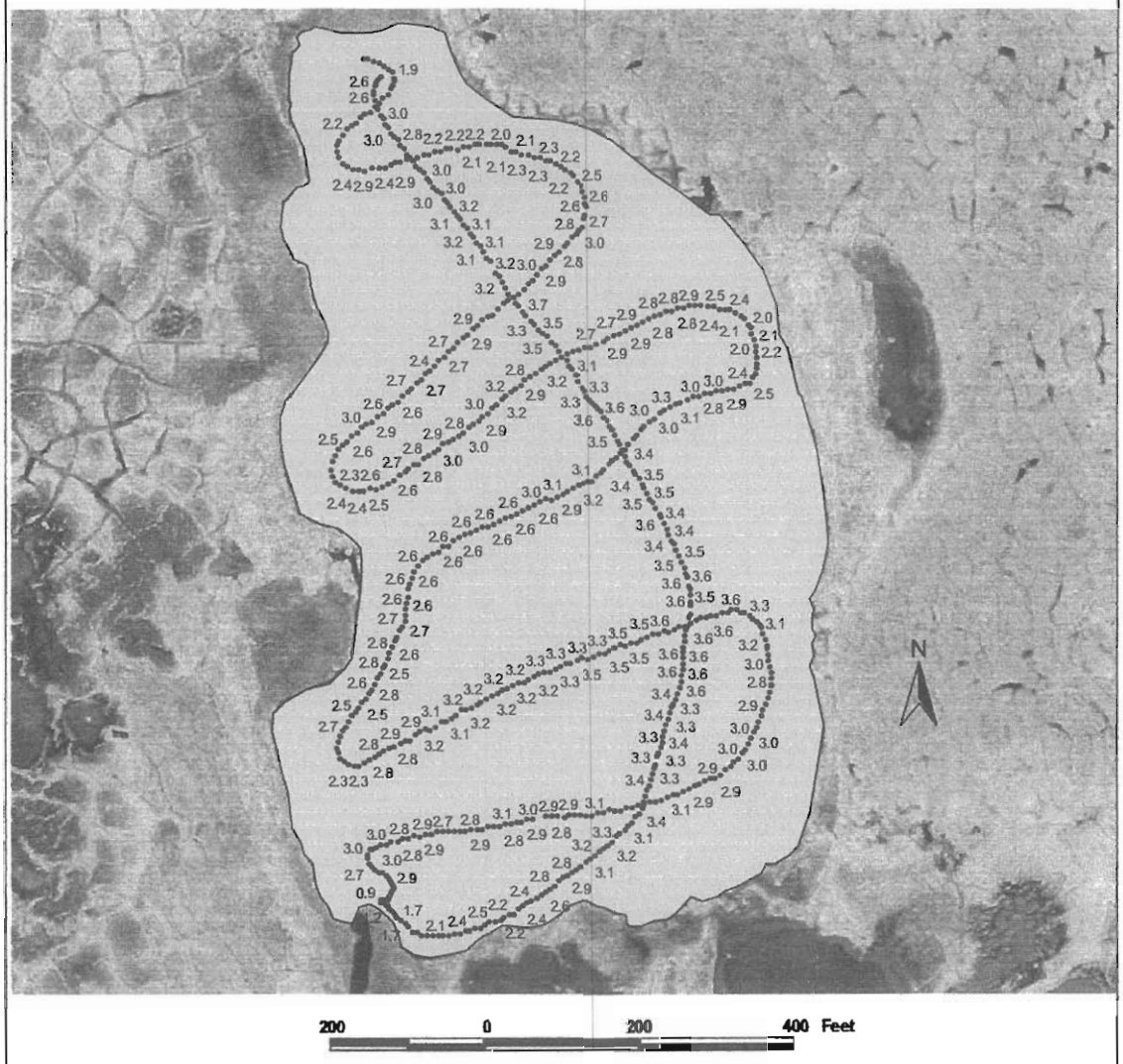


Depth contours of lake M0024, based on transects surveyed on Sep 2, 2002
(contours in 1 foot increments).

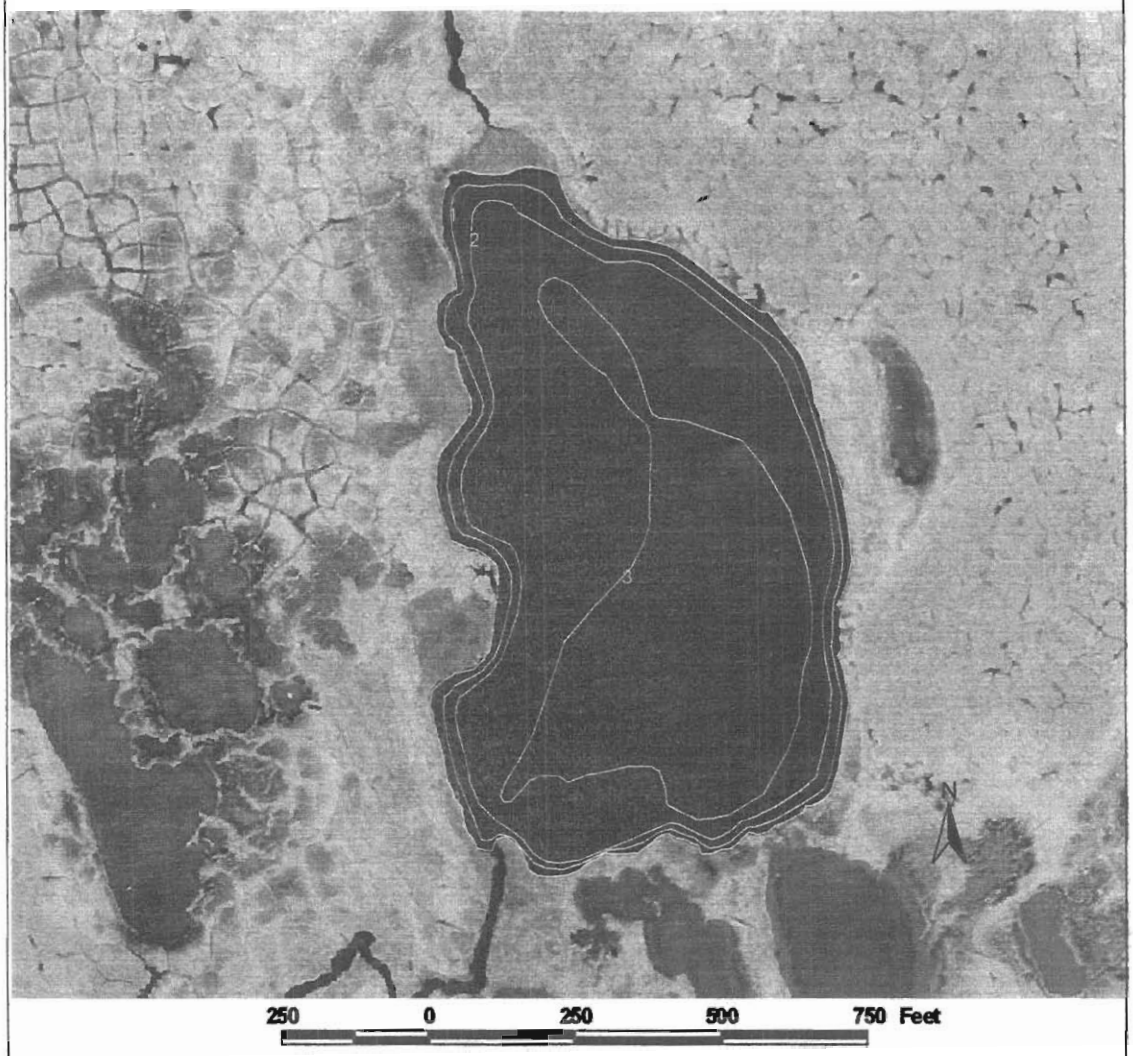
Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

Shaded region of lake M0024 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep. 2, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

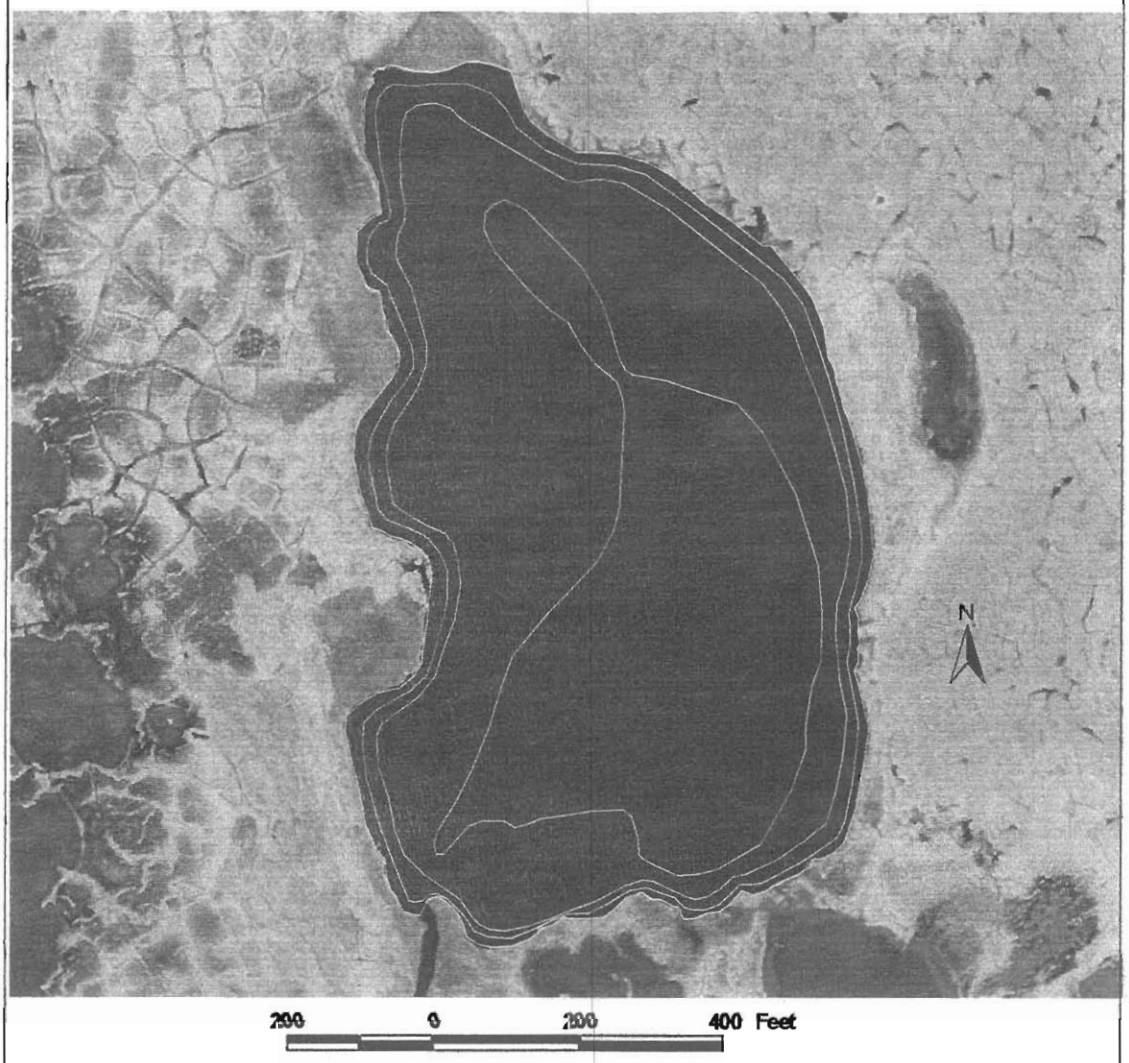


Depth transects surveyed on lake M0201, Sep 5, 2002.
(depths in feet)



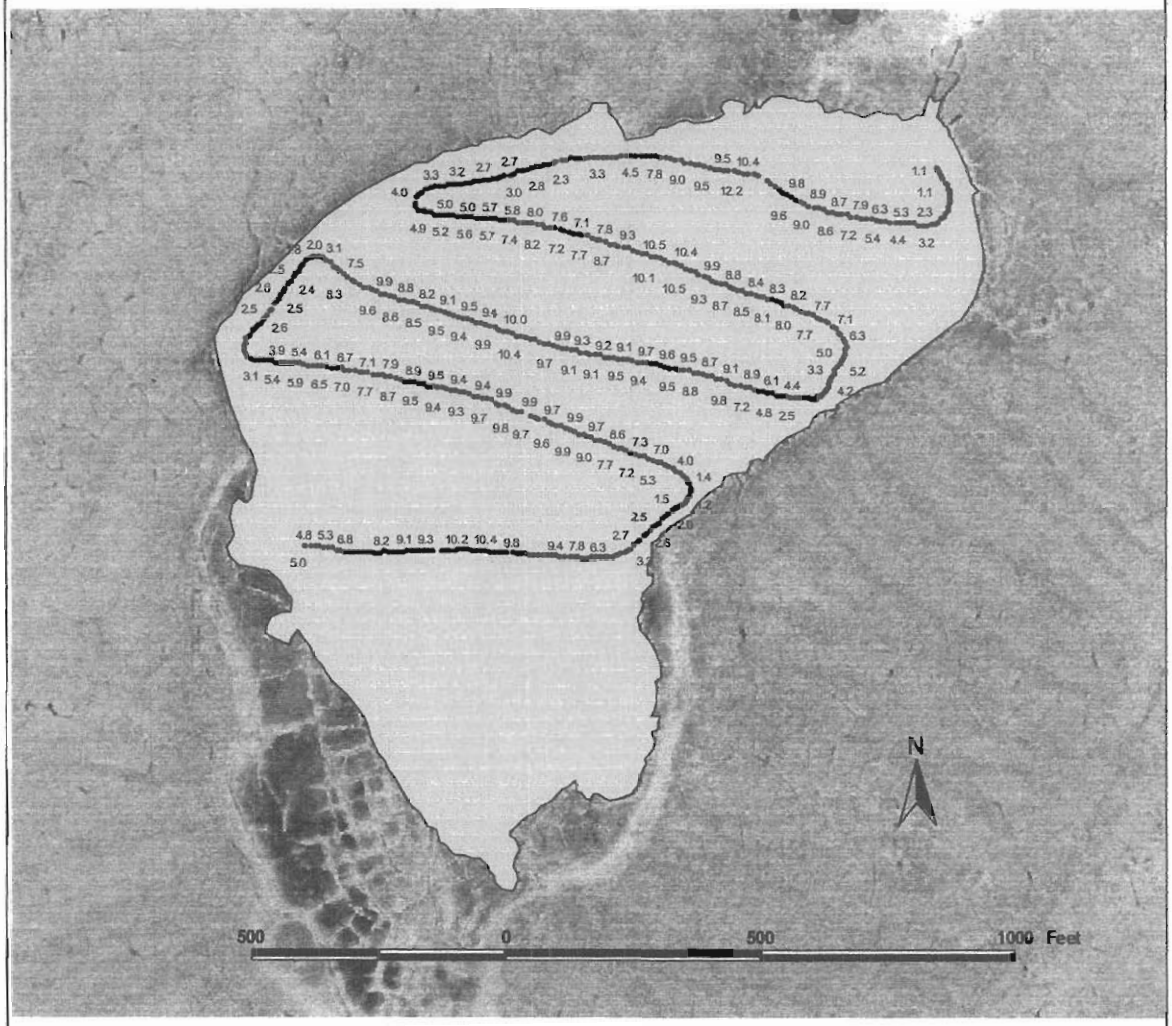
Depth contours of lake M0201, based on transects surveyed on Sep 5, 2002
(depth contours in 1 foot intervals).

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

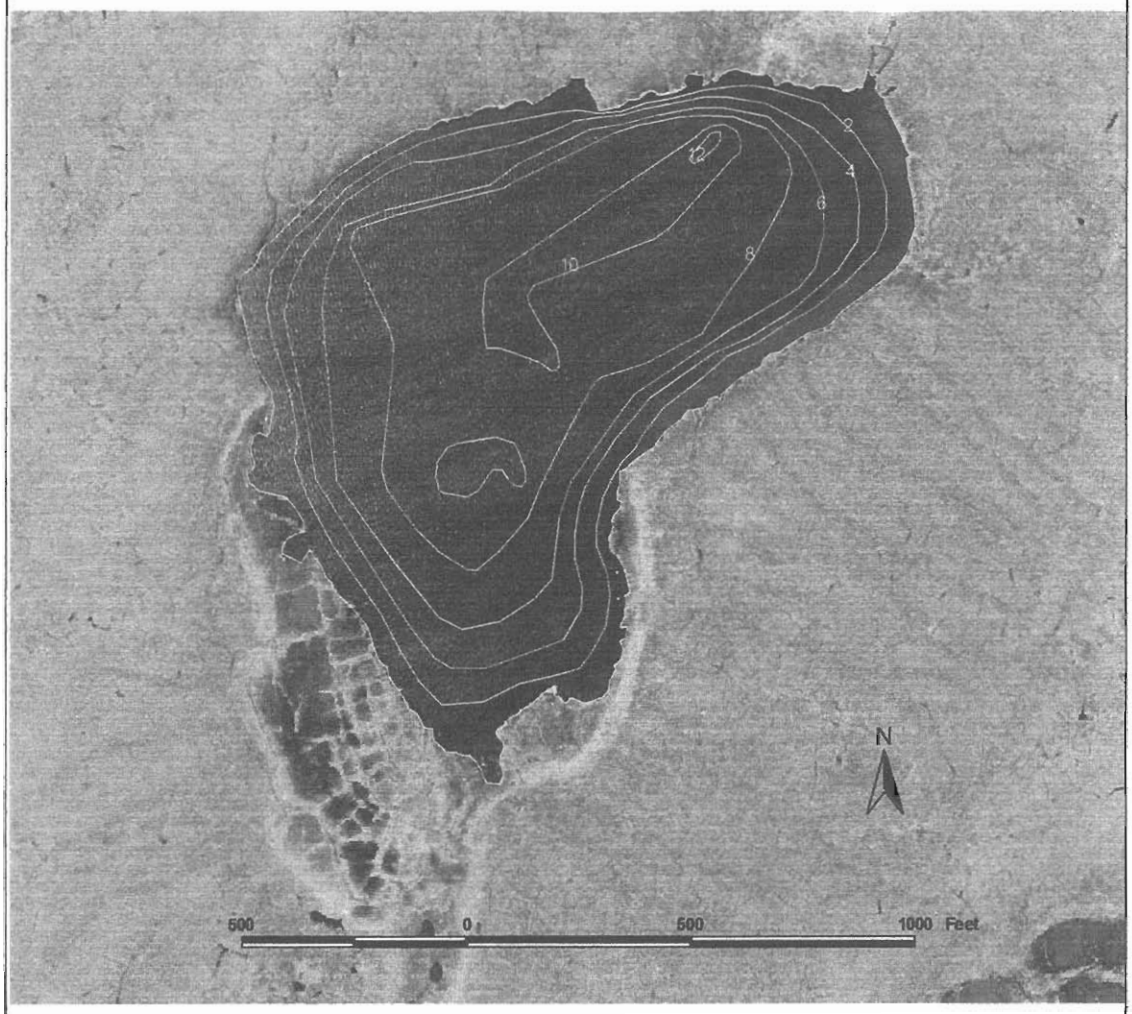


Lake M0201 had a maximum depth of less than 4 ft, thus is likely to be available for ice chips, based on transects surveyed on Sep. 5, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

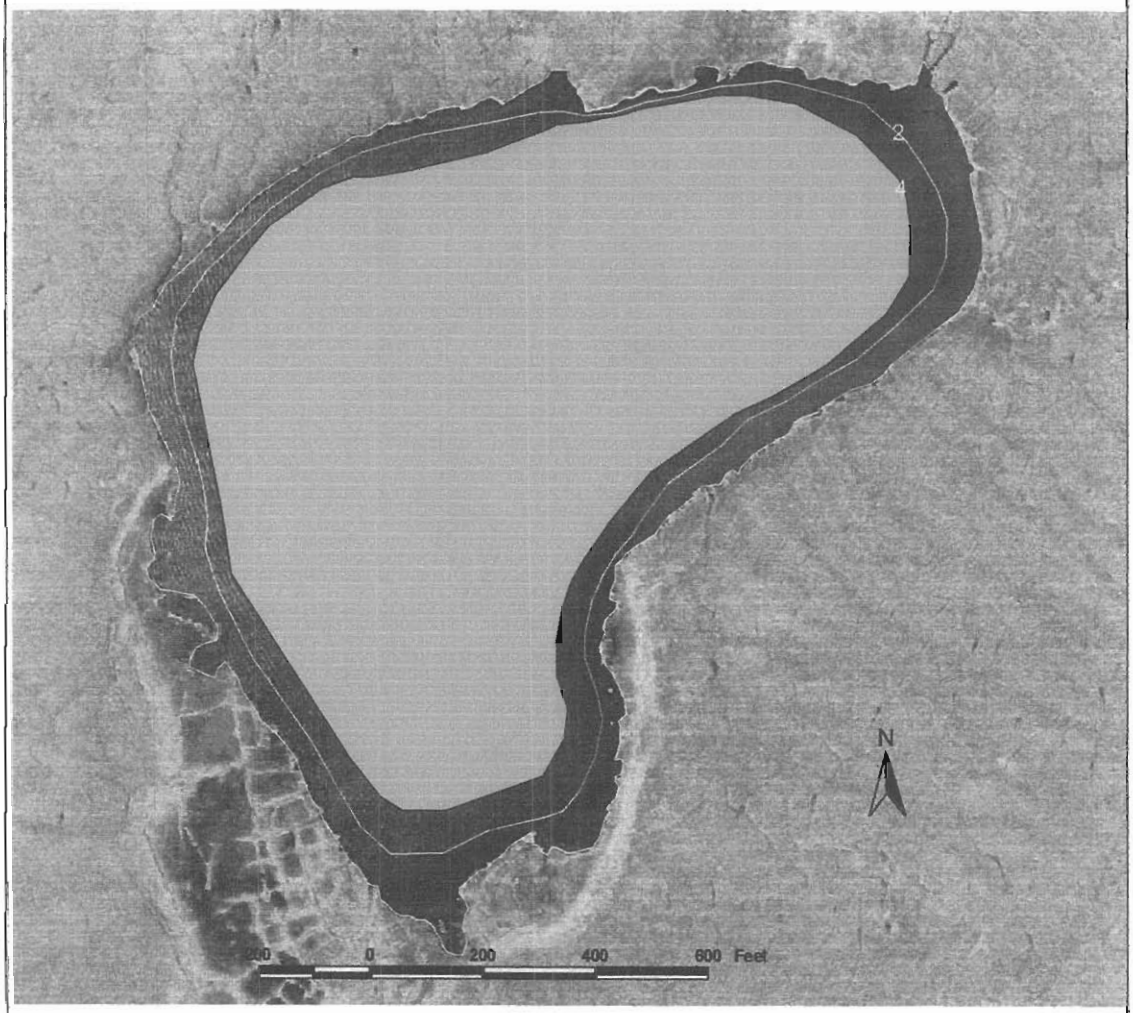


Depth transects surveyed on lake M0254, Sep 5, 2002.
(depths in feet)



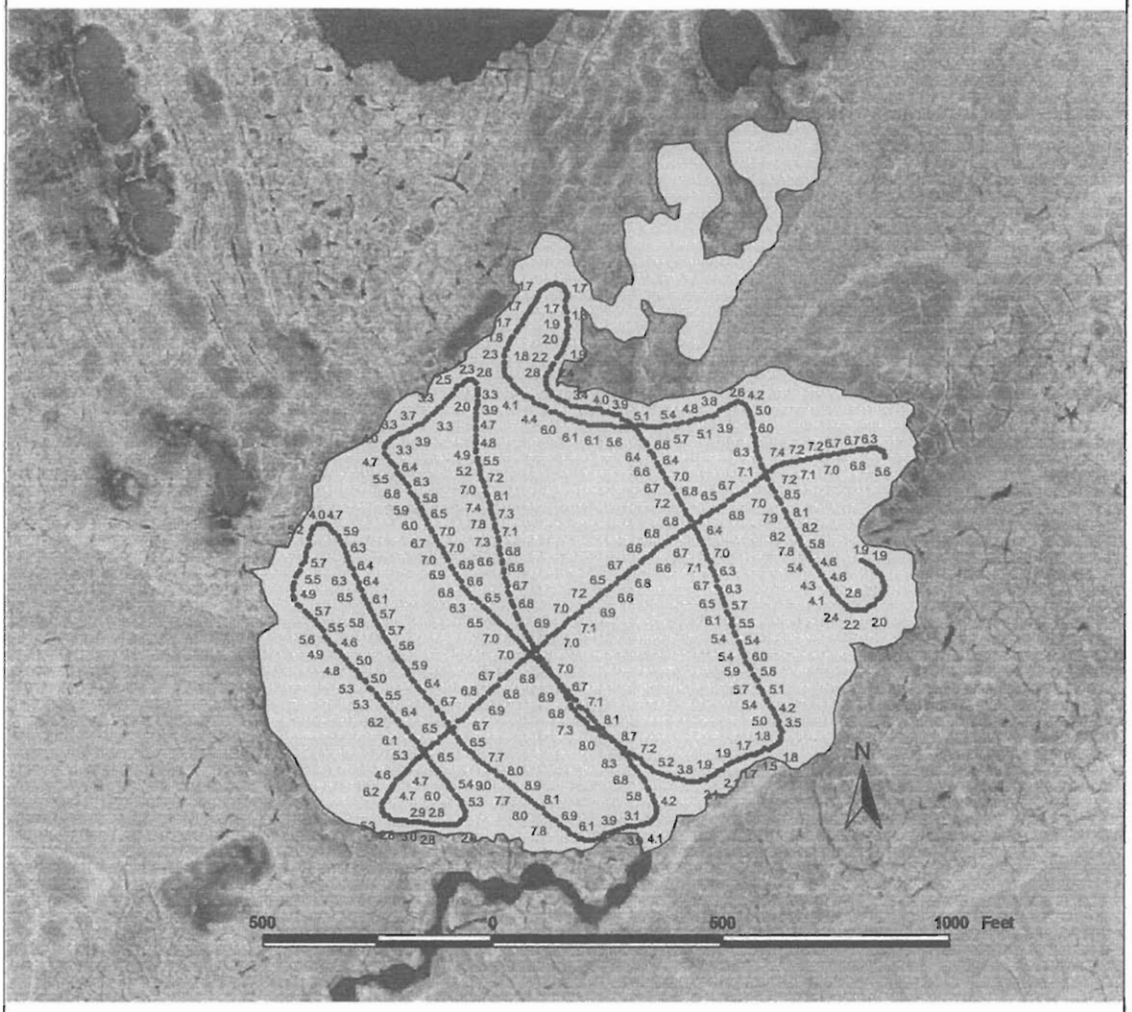
Depth contours of lake M0254, based on transects surveyed on Sep 5, 2002
(contours in 2 foot increments).

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

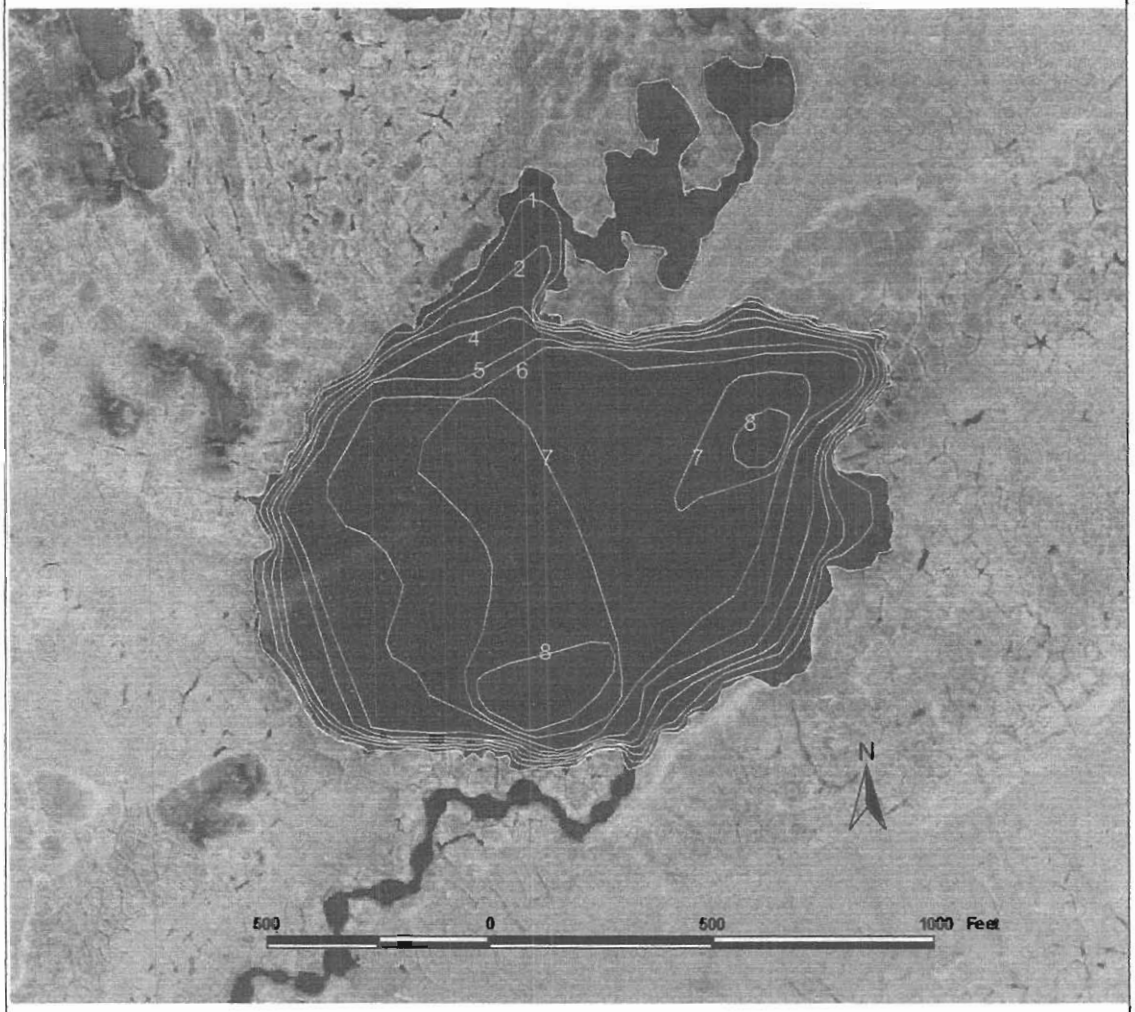


Shaded region of lake M0254 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep. 5, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

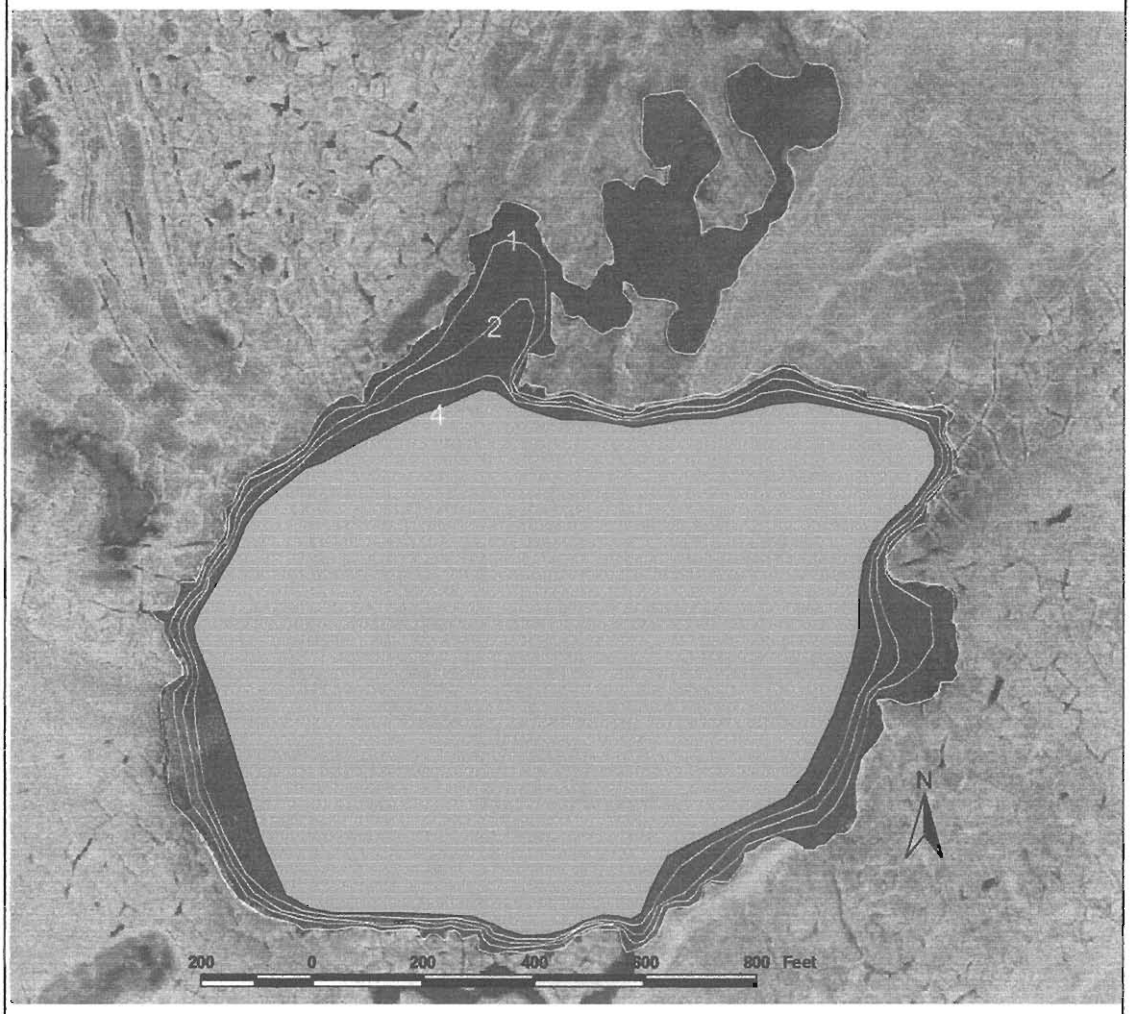


Depth transects surveyed on lake M0256, Sep 5, 2002
(depths in feet)



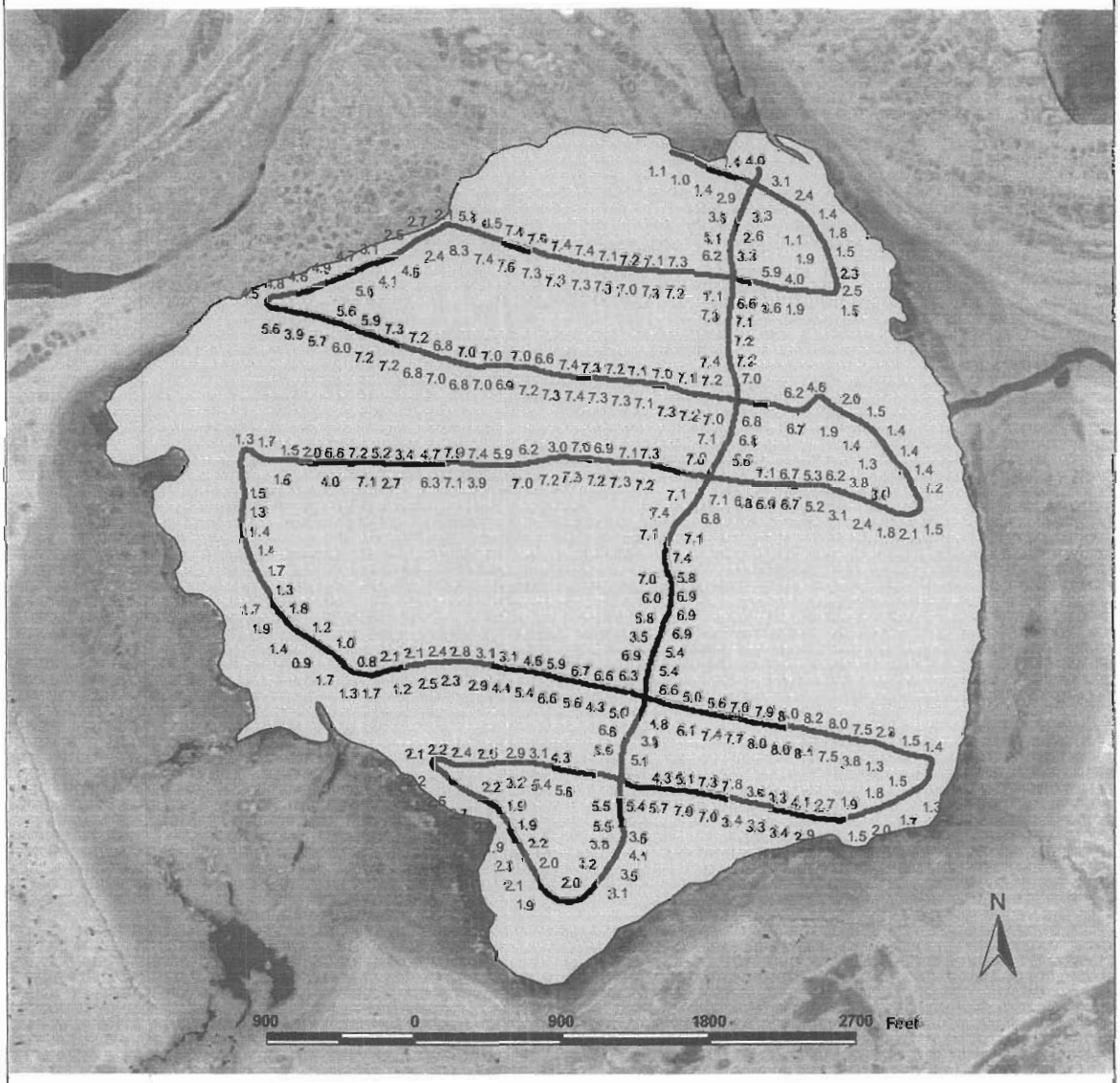
Depth contours of lake M0256, based on transects surveyed on Sep 5, 2002
(contours in 1 foot increments).

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.



Shaded region of lake M0256 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep. 5, 2002.

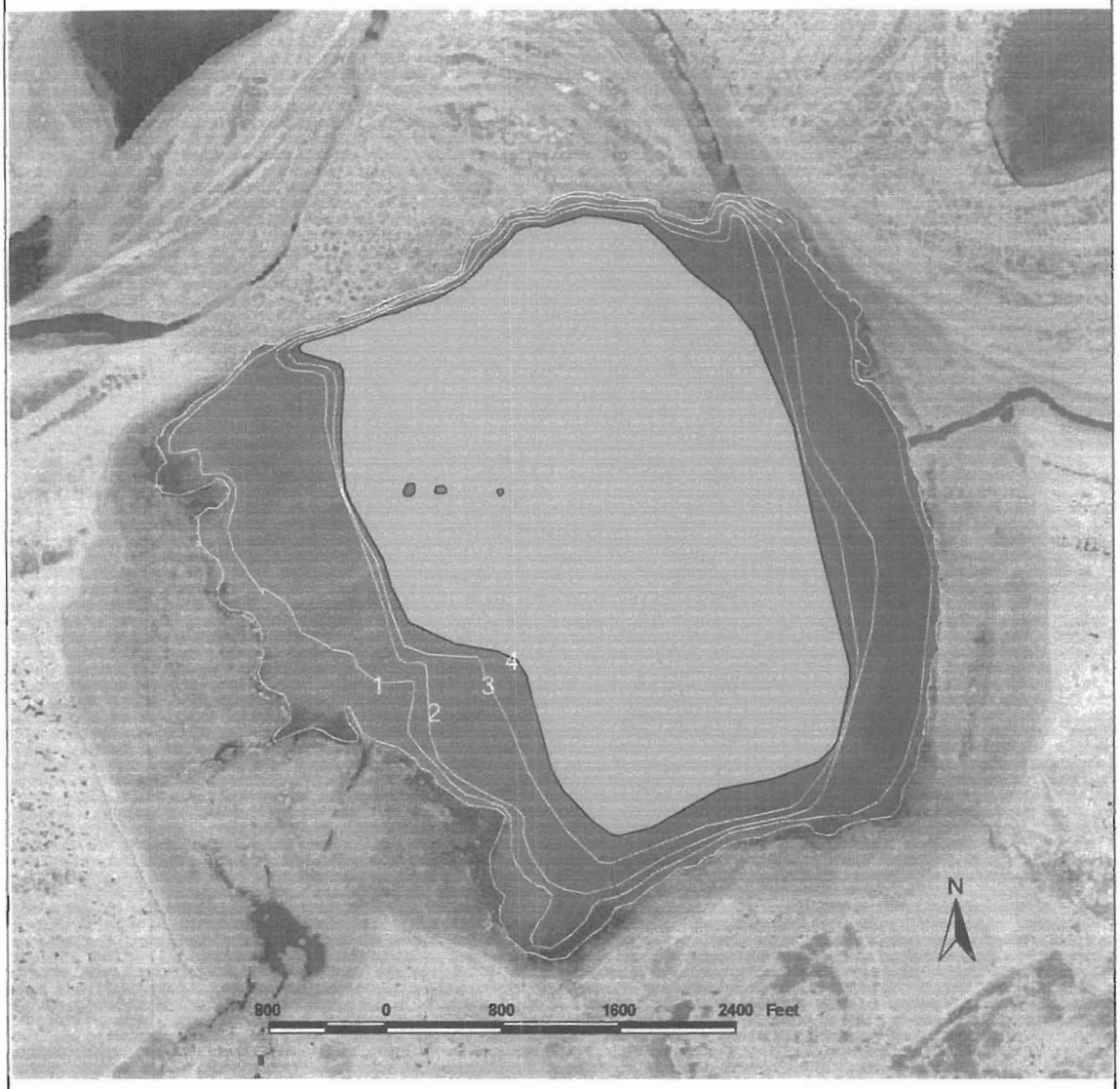
Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.



Depth transects surveyed on lake MC7916, Aug 31, 2002
(depths in feet)

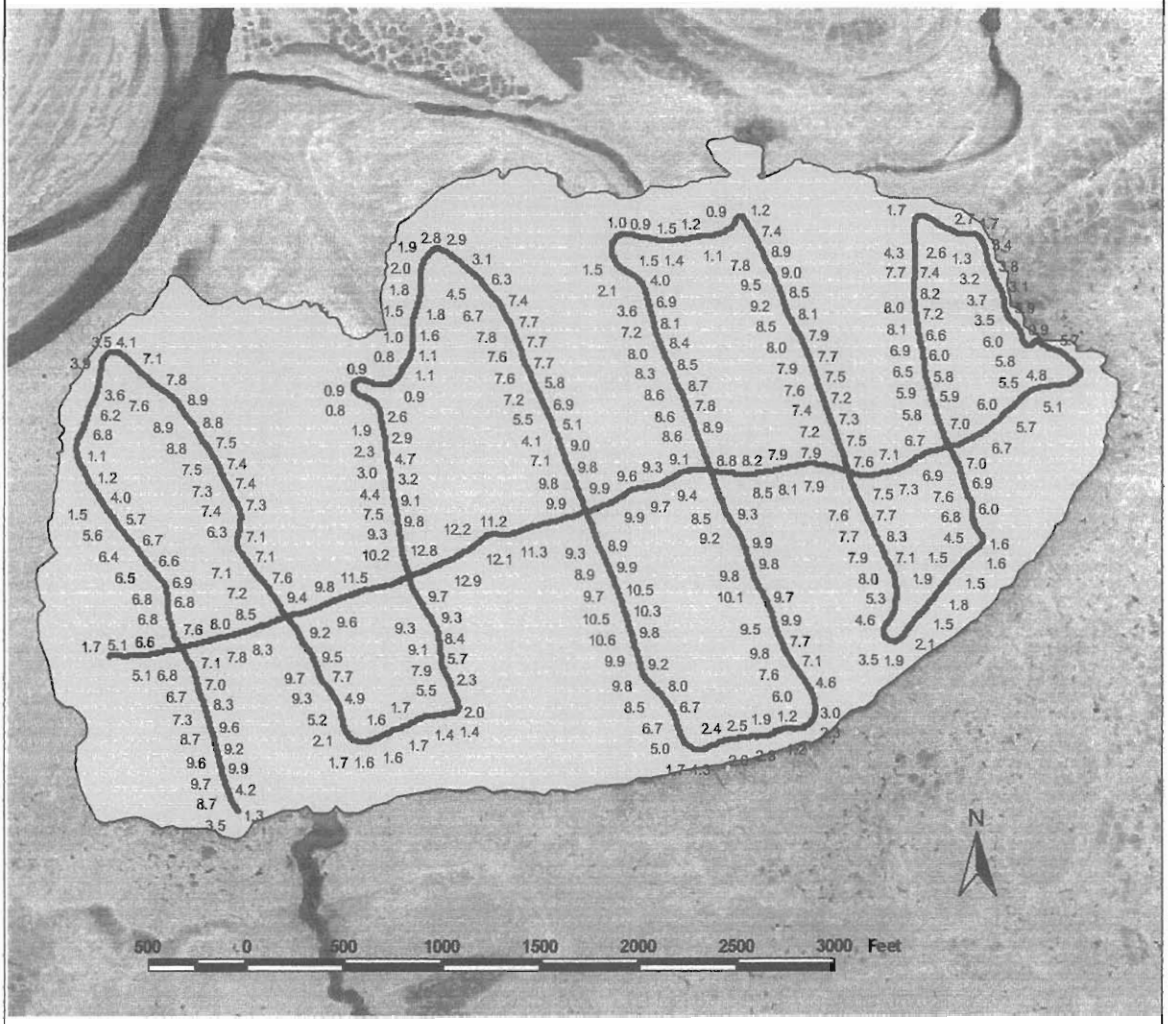
Depth contours of lake MC7916, based on transects surveyed on Aug 31, 2002
(contours in 1 foot increments).

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

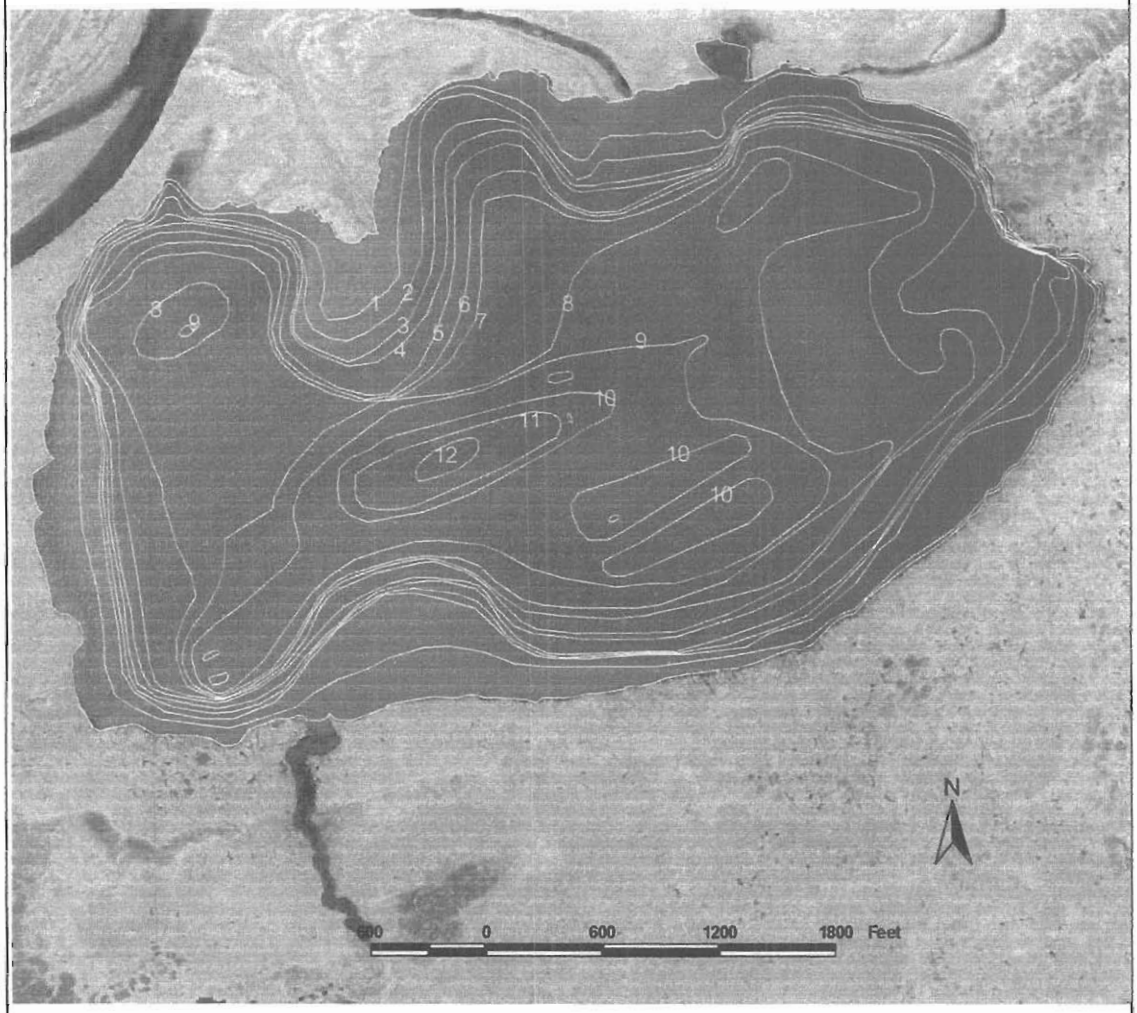


Shaded region of lake MC7916 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Aug 31, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.

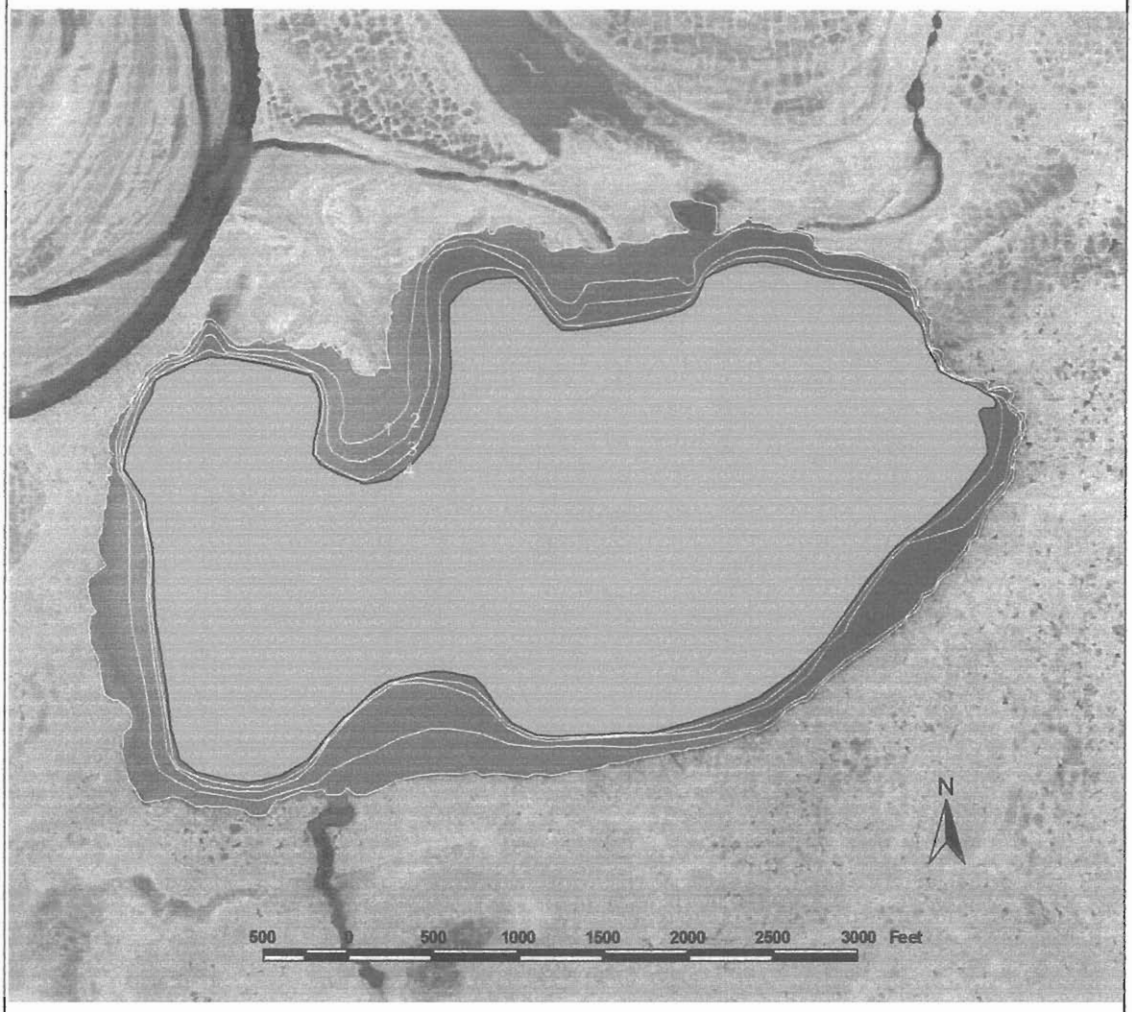


Depth transects surveyed on lake MC7917, Sep 1, 2002
(depths in feet)



Depth contours of lake MC7917, based on transects surveyed on Sep 1, 2002
(contours in 1 foot increments).

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.



Shaded region of lake MC7917 deeper than 4 ft (shaded), remainder of lake likely to be available for ice chips, based on transects surveyed on Sep. 1, 2002.

Note: depth information is intended to support permitting.
This map should not be used for navigation or operation of heavy equipment.