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Northern River Basins Study

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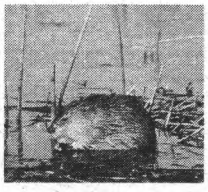
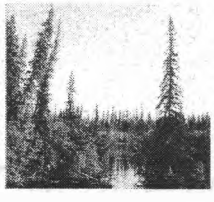
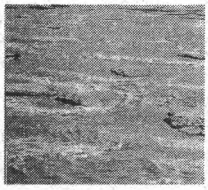



NORTHERN RIVER BASINS STUDY PROJECT REPORT NO. 41

FISH TAGGING ALONG THE ATHABASCA RIVER NEAR WHITECOURT, OCTOBER, 1993



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PREFACE:

The Northern River Basins Study was initiated through the "Canada-Alberta-Northwest Territories Agreement Respecting the Peace-Athabasca-Slave River Basin Study, Phase II - Technical Studies" which was signed September 27, 1991. The purpose of the Study is to understand and characterize the cumulative effects of development on the water and aquatic environment of the Study Area by coordinating with existing programs and undertaking appropriate new technical studies.

This publication reports the method and findings of particular work conducted as part of the Northern River Basins Study. As such, the work was governed by a specific terms of reference and is expected to contribute information about the Study Area within the context of the overall study as described by the Study Final Report. This report has been reviewed by the Study Science Advisory Committee in regards to scientific content and has been approved by the Study Board of Directors for public release.

It is explicit in the objectives of the Study to report the results of technical work regularly to the public. This objective is served by distributing project reports to an extensive network of libraries, agencies, organizations and interested individuals and by granting universal permission to reproduce the material.

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Whereas the above publication is the result of a project conducted under the Northern River Basins Study and the terms of reference for that project are deemed to be fulfilled,
IT IS THEREFORE REQUESTED BY THE STUDY OFFICE THAT;
this publication be subjected to proper and responsible review and be considered for release to the public.

(Dr. F.J. Wrona, Ph.D., Science Director) (Date) 26 July 94

Whereas it is an explicit term of reference of the Science Advisory Committee "to review, for scientific content, material for publication by the Board",
IT IS HERE ADVISED BY THE SCIENCE ADVISORY COMMITTEE THAT;
this publication has been reviewed for scientific content and that the scientific practices represented in the report are acceptable given the specific purposes of the project and subject to the field conditions encountered.
SUPPLEMENTAL COMMENTARY HAS BEEN ADDED TO THIS PUBLICATION: [ ] Yes [ ] No

(Dr. P. A. Larkin, Ph.D., Chair) (Date) 19 Sept 94

Whereas the Study Board is satisfied that this publication has been reviewed for scientific content and for immediate health implications,
IT IS HERE APPROVED BY THE BOARD OF DIRECTORS THAT;
this publication be released to the public, and that this publication be designated for: **[ ] STANDARD AVAILABILITY [ ] EXPANDED AVAILABILITY**

(Lucille Partington, Co-chair) (Date) Sept. 15, 1994

(Robert McLeod, Co-chair) (Date) Sept. 15, 1994

FISH TAGGING ALONG THE ATHABASCA RIVER NEAR WHITECOURT, OCTOBER, 1993

STUDY PERSPECTIVE

Fish community composition and its seasonal use of riverine habitats for spawning, growth, overwintering and feeding, can be important indicators for assessing the health of the Peace, Athabasca and Slave rivers aquatic ecosystem. The extent to which these are affected by existing development is a major area of interest to the Northern River Basins Study (NRBS). This project resulted in an expanded knowledge base for a stretch of the Athabasca River that had not been subjected to any significant amount of earlier investigative work prior to NRBS.

Related Study Questions

6) *What is the distribution and movement of fish species in the watersheds of the Peace, Athabasca and Slave rivers? Where and when are they most likely to be exposed to changes in water quality and where are their important habitats?*

12) *What native traditional knowledge exists to enhance the physical science studies in all areas of enquiry?*

13b) *What are the cumulative effects of man made discharges on the water and aquatic environment?*

14) *What long term monitoring programs and predictive models are required to provide an ongoing assessment of the state of the aquatic ecosystems?*

Prior NRBS work on the Athabasca River had focused on obtaining a basic description of the fish community and their habitat association in the early spring. Information for the fall period was lacking. This report describes a field study undertaken in the fall of 1993 to characterize the composition and size of the fish community. At best, work of this kind only provides a snap shot of the aquatic ecosystem but it is a precursor of more focused work. Subsequent field and laboratory investigations of behavioural and physiological change within fish near Hinton suggested the need for additional work on fish populations exposed to pulp mill effluent. This report describes an effort mounted in the fall of 1993 to characterize the composition and size of fish aggregations, inclusive of small forage fish, in a 40 km. stretch of the Athabasca River centered on Whitecourt, Alberta. This stretch of the Athabasca river was chosen because it was influenced by the oldest and two of the newest pulp mills in Alberta. It was also chosen because fall spawning mountain whitefish were known to readily bioaccumulate contaminants associated with pulp mill effluent. This species was also known from local knowledge to congregate in this stretch of river.

Researchers endeavored to individually tag as many fish as possible within a 40 kilometer stretch of river above and below Whitecourt to determine the compositon and relative abundance of all fish species as well as facilitate subsequent field sampling and monitoring. Estimates of fish population sizes within these large mainstem rivers are difficult to obtain and rarely made because of the effort required to obtain the data. However, this was considered strategic information to understanding the relationship of the fish community with the mainstem and a major tributary in a stretch of river reputed to be significant to fish, people and industry. Gathered data would assist researchers investigating the effects of contaminant bioaccumualtion on the fish community. Researchers were successful in tagging 2415 fish and developed estimates of population sizes for 3 different fish species. Low tag recovery and movements observed during the period of study suggest any population estimates are conservative. This project confirmed the accumulation of large numbers of spawning mountain whitefish in the mainstem river. Groundwork was laid for more detailed field investigations into the influence of altered dissolved oxygen levels on whitefish egg embryo development and the bioaccumulation of contaminants within a recreationally consumed yet transitory fish population that readily bioaccumulates contaminants.

REPORT SUMMARY

A conventional fish tagging study of the Athabasca River in the vicinity of the town of Whitecourt was initiated by the Northern River Basins Study (NRBS) during the fall of 1993. A 20 km Study Area was established centered around Whitecourt, a section of river that receives effluent discharge from two different pulp mills. The fish sampling and tagging program was conducted over a continuous 10 day sampling period in which the entire 20 km study area was sampled three times.

Seven target species were established for this study. They included mountain whitefish (*Prosopium williamsoni*), longnose sucker (*Catostomus catostomus*), walleye (*Stizostedion vitreum*), burbot (*Lota lota*), Arctic grayling (*Thymallus arcticus*) and northern pike (*Esox lucius*). One forage species, flathead chub (*Platygobio gracilis*) was also included. In total, 2559 fish were captured during the boat electrofishing sampling period, of which 1385 were Floy tagged and 1030 were tagged using Visual Implant (VI) tags. In total, mountain whitefish, longnose sucker, northern pike and burbot comprised 96% of the total catch.

Population estimates were developed for the 20 km Study Area for species that sufficient numbers of captures and recaptures were available. This included mountain whitefish at 15776 individuals, northern pike at 750 individuals and longnose sucker at 8057 individuals. Population estimates were stratified according to three size classes for mountain whitefish and northern pike. The population estimate for longnose sucker could only be calculated for one size class and for all fish combined. There were no recaptures of burbot; therefore, a population estimate could not be developed.

Forage species captured for marking were not very abundant and included pearl dace (*Margariscus margarita*), spottail shiner (*Notropis hudsonius*) and trout-perch (*Percopsis omiscomaycus*). Other species captured within the study area include white sucker (*Catostomus commersoni*), lake whitefish (*Coregonus clupeaformis*), and rainbow trout (*Oncorhynchus mykiss*).

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1.0 INTRODUCTION

The Athabasca River is a large river originating in the Rocky Mountains. From its headwaters in Jasper National Park, it flows northeast through Hinton, Whitecourt, Athabasca and Fort McMurray before joining the Peace River at the Peace-Athabasca Delta. The river is composed of a variety of habitats and supports a diverse fish fauna.

The Athabasca River basin contains a growing urban and industrial sector, with several pulp mills currently operating in the basin and others proposed. The newly legislated requirements for Environmental Effects Monitoring (EEM) below effluent discharges in watercourses (Environment Canada 1992) are applicable to the Athabasca River Basin due to the presence of these mills. The Northern River Basins Study (NRBS) is currently evaluating methods for conducting exposure assessment projects for resident fish populations, including devising methods for determining that the fish captured for analysis were exposed to specific effluents, as well as their exposure period.

During the fall of 1993, the NRBS initiated a conventional fish tagging study for the Athabasca River in the vicinity of the town of Whitecourt (Figure 1), which is a section of the river that receives effluent discharge from two different mills. The sampling program was undertaken to provide some preliminary data on fish population sizes to assist in identifying potential target species, and to provide preliminary information on fish movements from the recapture data and tag returns. The objectives for this study were: 1) to tag as many fish as possible for future recapture efforts; and, 2) to develop an estimate of population sizes of target species as permitted by recaptures. This report describes the results of the tagging study. It is the intention of the NRBS to use these data to evaluate the potential for radio tagging and exposure assessment projects.

2.0 METHODS

2.1 Study Area

The Athabasca River Study Area extended from the effluent outfall of the Alberta Newsprint Company (ANC) pulp mill downstream for a distance of 20 river km (Figure 2). The Study Area falls within the vicinity of Whitecourt and also includes the Millar-Western Pulp Company effluent outfall, which is located 10 river km downstream of the ANC mill. The 20 km Study Area was divided into two subreaches of 10 km each. Subreach A consisted of the upper 10 km, extending from the ANC mill 10 km downstream to the Millar-Western mill at Whitecourt. Subreach B consisted of the lower 10 km, extending from the Millar-Western mill 10 km downstream. The Study Area was also divided into 20 individual, 1 km segments (Figure 2) to facilitate locating sampling sites and areas of fish concentrations. The km posts which appear on Figure 2 indicate the distance from the mouth of the Athabasca River, as provided by the NRBS. References to locations within the Study Area in this report are made in relation to these km posts.

Immediately below the effluent diffuser at the ANC mill the Athabasca River channel divides into a north and south channel for a distance of approximately four km (Figure 2). The majority of the river discharge flows down the north channel, and, as a consequence, the majority of the plant effluent is carried down the north channel as well (B. Steinbeck, personal communication). During this study, fish sampling was restricted to the north channel where effluent exposure would be highest. In addition, due to the low flows in the river at the time of sampling it was not considered wise to attempt entry to or exit from the south channel with the electrofishing boat. Sampling techniques other than boat electrofishing were not considered efficient enough to provide sufficiently intensive sampling of the south channel. Time spent sampling this channel with these techniques would likely have provided too few captures and recaptures to justify the effort. It was felt that the available time would be better utilized in intensive sampling of the larger north channel.

2.2 Fish Sampling and Tagging Techniques

Seven target species were established for this study by the NRBS. They included five sport and one rough species; mountain whitefish (*Prosopium williamsoni*), walleye (*Stizostedion vitreum*), burbot (*Lota lota*), Arctic grayling (*Thymallus arcticus*), northern pike (*Esox lucius*) and longnose sucker (*Catostomus catostomus*). One forage species, flathead chub (*Platygobio gracilis*) was also included. Several sampling techniques were used to maximize the capture rates of the different target species.

The fish sampling and tagging program was conducted over a continuous 10 day sampling period, from 10-19 October, 1993.

2.2.1 Sport and Rough Species

The primary capture technique for the larger (non-forage) fish was boat electrofishing. The complete 20 km Study Area was sampled using a Smith-Root SR-18 electrofishing unit. This unit consists of a 5.5-m aluminum river boat equipped with an integral 5.0 GPP electrofishing unit, work station and live well. The boat is powered by a 90 hp outboard jet motor. The entire 20 km Study Area was sampled 3 times during the study period, with the 3 passes being categorized as Run 1, Run 2 and Run 3. Each 1 km subsection was sampled independently with the sampling date and time, electrofishing effort, and catch being recorded separately for each subsection.

Small-mesh (fin-tangle) gill nets were used to sample for walleye and other target species in deep pool areas where electrofishing efficiency was reduced. Gill nets were set for short durations and checked at regular intervals in order to avoid mortalities. Each gill net consisted of a single panel. Gill net panels used were 15.2-m long by 2.4-m deep, with a mesh size of either 3.8 cm or 6.3 cm. Baited set (trot) lines were used to sample for burbot. Set lines consisted of a 30 m central lead line to which twelve 0.5 m leaders were attached at 2 m intervals, with each leader terminating with a single barbed hook. All gill net and set line sampling locations were identified on detailed 1:20 000 aerial photographs (Figures 3-8) to

ensure sampling locations can be replicated during subsequent sampling programs. Sampling effort for these techniques was recorded as the number of gill net-hours or set line-hours. One gill net-hour refers to one hour of set for one 15.2-m panel, while one set line-hour refers to one hour of set for one 30 m set line.

All individuals of the target species that were captured were processed in the following manner. The fish were enumerated by species and each individual was assigned a fish identification number. They were then measured for fork length (mm) and weight (g) and, when discernible from external examination, identified to life history stage (fry, juvenile, adult), sex, and state of sexual maturity (immature, green, gravid, ripe, spent). Fish size (fork length) was the primary criteria for assigning a life history stage classification. Individuals which could not be readily assigned to one of the life stage categories based on size were classified as unknown. For each fish, sex and state of sexual maturity was assigned based on life history stage, known spawning season for the species in relation to the sampling period and whether or not any sex product could be expressed from the fish. This fish capture information was recorded by capture method, location (Subreach A or B, kilometre segment) and time (date, hour).

All individuals equal to or larger than 300 g in weight were marked with yellow Floy tags supplied by the NRBS. The Floy tags were marked as follows: NRBS F&W 690-10405 Jasper Av. Ed. T5J 3N4. The tags used were from the number series 010001 to 011392. The tags were applied to the left of the dorsal fin. Individuals less than 300 g were marked with standard sized visual implant (VI) tags (Northwest Marine Technology, Inc.), which are individually marked, three-digit alpha-numerically coded implant tags. These tags were injected into transparent tissues so as to be externally readable. For mountain whitefish, longnose sucker, Arctic grayling and flathead chub, the VI tags were injected into the clear membranous tissue behind the posterior orbit of the left eye. For northern pike, the tags were injected into the base of the anal fin. For all marked fish recaptured during subsequent sampling, the tag number and the location and date of recapture was recorded. Other information recorded during the sampling activities included water temperature, atmospheric conditions and turbidity.

Some mountain whitefish and white sucker, particularly young-of-the-year fish that were captured in Subreach A, were too small (<18 g) to allow VI tagging. These fish were batch marked using an adipose fin clip (mountain whitefish) or an anal fin clip (longnose sucker).

All fish were examined externally for any abnormalities or deformations before being released. All observed abnormalities were recorded on Fish Autopsy Data Sheets (Appendix III). Fish were released to the river at one or two km intervals, in low velocity backwater or snye areas (if available), in order to minimize fish movements due to transport and stress. In order to reduce the likelihood of downstream fish movement out of the Study Area, fish captured in the downstream-most subsection of the study area (km 1015.5 - 1016.5) were transported upstream into the middle of this subsection for release.

A selected subsample of fish was held, after sampling, in a portable instream holding pen to check for delayed mortality effects. These fish were held for short durations (1 to 3 hours) before being released. Fish observed to be in poor condition during sampling were held for observation. If the fish did not die during this holding period but was still considered to be in poor condition, it was released without being tagged.

All incidental mortalities were documented and their capture location recorded on aerial photographs and referenced to their assigned fish number (Figures 3-8, Appendix II). Incidental mortalities were sampled as described previously. Following sampling, mortalities were placed in NRBS-approved contaminant free plastic bags, frozen and stored on dry ice and delivered to the NRBS in Edmonton immediately following the sampling period. The sample bags were labelled with the individual fish number assigned to the fish. The exact location of capture was recorded on the 1:20 000 scale reach maps and referenced to habitat type (as described by Barton and Bjornson 1993), legal land description and UTM Grid coordinates for Zone 11 and recorded on aerial photographs (Figures 3-8).

During sampling, all areas where significant concentrations of fish were observed were assigned a Fish Concentration Area Number and recorded on 1:20 000 scale aerial photographs (Figures 3-8) and 1:50 000 National Topographic Series (NTS) maps and

referenced to habitat type, legal land description and UTM Grid coordinates for Zone 11. The number, species, and life stages of fish present in these concentrations were recorded and the area photographed. The number of fish included fish captured as well as an estimate of the number which were observed but not captured.

2.2.2 Forage Species

Within each of the two subreaches, one site was selected that was both suitable for cyprinids and suitable for sampling. These habitats were areas of complex braided channels or shallow shoals which contained both shallow, swift flowing areas and slow backwater areas that could be effectively sampled. The two selected sites are illustrated on Figures 3 and 6 and were located at km posts 1034.0 (Subreach A) and 1020.0 (Subreach B).

Sampling for forage species was conducted using a Smith-Root Type VII backpack electrofisher and by seine netting. The seine net dimensions were 7.6-m long by 1.5-m deep and the netting was composed of 0.5 cm Ace minnow netting. Three sampling runs were conducted at each of the two sites. Due to the small number of flathead chub that were captured, additional forage species were included in the sampling program.

Captured forage fish were enumerated by subreach and species and then batch marked. The method employed for marking was colour marking, using a product called Elastomer (Northwest Marine Technology, Inc). Elastomer is a liquid plastic polymer which solidifies when injected into a transparent tissue to become a permanent mark. All captured forage fish were injected with fluorescent orange Elastomer along the ventral surface of the caudal peduncle. Species captured for batch marking included; pearl dace (*Margariscus margarita*), spottail shiner (*Notropis hudsonius*) and trout-perch (*Percopsis omiscomaycus*).

2.3 Population Estimates

Capture and recapture records for each subreach and sampling day were maintained on specifically designed data entry sheets. For the sport and rough fish which were large enough (i.e., ≥18 g) to be marked with individually coded Floy or VI tags, the data were entered onto a Quattro-version spreadsheet and analyzed using the CAPTURE software program (Otis et al. 1978; White et al. 1982) to provide a population estimate for each target species. The protocol for the CAPTURE program requires that the unique capture-recapture history of each fish be determined throughout the period of the study, which allows the program to compile the recapture data continuously throughout the sampling program to increase the accuracy of the population estimate. Therefore, population estimates for the young-of-the-year mountain whitefish and longnose sucker and the forage fish that were batch marked were not calculated with the CAPTURE software.

The CAPTURE method is based on a set of four basic assumptions, which are:

1) the population is closed (no recruitment or losses);
2) the marking method is permanent for the duration of the study;
3) all marks are correctly noted and recorded; and,
4) each fish has a constant and equal probability of capture for each run.

The CAPTURE program (Otis et al. 1978) allows for all recapture information to be used to calculate population estimates. It is a multiple mark-recapture methodology and, unlike single mark-recapture methods, it is not necessary to get the recapture percentage to any predetermined level (Courtney and Fernet 1990). The CAPTURE software tracks the capture/recapture history for each individual fish, over each individual run and calculates the population estimate based on these results. Single mark-recapture methods (e.g. Peterson method) use only the final pass as a recapture run. Courtney and Fernet (1990) found the single mark-recapture methods to be less accurate, as the CAPTURE method resulted in lower confidence intervals when applied to the same data. The multiple mark-recapture

method also reduced biases due to fish movements which may occur during the initial marking runs.

Input to the CAPTURE model consists of a matrix that indicates for each individual fish which run or runs it was captured on. The population estimate input matrix for this study is presented with the fish capture and tagging data in Appendix II.

For batch-marked fish, mark-recapture population estimates were calculated using the Chapman modification of the Peterson method (Ricker 1975) as follows:

$$N = \frac{(M+1)\,(C+1)}{R+1}$$

where;

N = population estimate

M = number of fish marked

C = sample taken for census

R = number of recaptured marks in the census sample

3.0 RESULTS

3.1 Sampling Results

A complete capture summary is presented in Table 1 for all the sport, rough and target species captured in the Study Area. The total number captured for each species presented in Table 1 includes all tagged fish as well as all fish that were too small (<18 g) or in too poor condition to tag. A complete data listing (fish capture record) is located in Appendix II.

Mountain whitefish, longnose sucker, and northern pike were the most abundant species in the Study Area and composed 67%, 23%, and 6%, respectively, of the total number of all species captured. The other four target species combined (burbot, Arctic grayling, walleye and flathead chub) comprised only 1% of the total catch. Mountain whitefish and northern pike were most common in Subreach A, whereas longnose sucker were most common in Subreach B (Table 1). Overall, Subreach B had about twice as many fish ≥500 g than Subreach A. However, for both mountain whitefish and northern pike, the number of individuals captured that were ≥500 g were higher in Subreach A. Other sport and rough species encountered include white sucker, lake whitefish and rainbow trout (Table 1).

Table 2 presents the capture and recapture results by run and by size category for the three species for which recaptures were recorded.

A total of 1385 Floy tags and 1030 VI tags were used over the course of the study (Table 1), providing a tagged population of 2415 fish. Table 3 presents the relative abundance of each species by 1 km subsection, using catch-per-unit-effort (CPUE) values. The CPUE values present the number of fish captured for each 100 seconds of active electrofishing and is the standard method for presenting sampling effort. The CPUE values indicate the relative abundance for each species in each subsection and subreach.

All of the fish summarized in Table 1 were captured by boat electrofishing. The sampling effort for each 1 km subsection is presented in Table 3 as the total sampling effort (seconds of active electrofishing). It is not possible to present an accurate account of the proportion of the channel that was sampled during the boat electrofishing survey as the high flow conditions shown in the aerial photographs (Figures 3-8) were not representative of the conditions encountered during the October survey. The actual channel size was much smaller and many of the side channel areas were dry at the time of the survey. The principle route that was followed while boat electrofishing is presented on Figures 3-8 in order to provide a better account of the area covered. Selection of the route was based on the habitat types available and which strategy was considered best for capture of the target species. For example, high quality run areas were sampled for mountain whitefish and longnose sucker, snye and backwater areas were selectively sampled for northern pike and longnose suckers, and areas with abundant boulders providing instream cover were typically good locations to sample for burbot.

In total, five gill net sets equalling 33.8 gill-net hours and three set line sets equalling 16.3 set-line hours resulted in no fish captured.

There were 12 areas where notable concentrations of fish were observed. These areas are described in Table 4 according to their location, the habitat type present, and the species and life stages concentrated at the site. The fish concentration areas are also presented on Figures 3-8, and photographs of each area are presented in Plates 1-12.

There were six incidental mortalities that were collected and delivered to NRBS in Edmonton, of which five were mountain whitefish and one was a longnose sucker. Table 5 presents the information recorded for each mortality.

Table 6 shows the results of the forage species mark and recapture efforts. Although one flathead chub was captured during boat electrofishing of the main Study Area, no flathead chub were observed during the forage fish investigations. Previous sampling results from the same Study Area (Barton et al. 1993a; Maire Luoma - Sentar Consultants, personal

communication) indicate that this species is rare in this location. Therefore, the capture results from this study were used to select an alternative target forage fish species.

One of the reasons for selecting a forage species for inclusion in this study was to have a target species which is considered to be less mobile/migratory than the non-forage species, and for which capture location could more reliably be related to effluent exposure. One of the objectives of this study was to test the applicability of marking and recapturing forage fish. During sampling activities, several forage fish species were captured, but none was present in significant abundance. In order to maximize the number of fish marked, all forage fish species that were captured were marked.

Pearl dace were the most abundant species found during the forage fish survey (Table 6). Trout-perch and spottail shiner were also captured during this survey, but only at the sampling site in Subreach B.

3.2 Population Estimates

Results of the population estimates for sport and rough species derived from the CAPTURE program are reported in Table 7. Population estimates and the associated 95% confidence intervals were developed for mountain whitefish, northern pike and longnose sucker. Capture rates for Arctic grayling, walleye and flathead chub were much too low to allow population estimation. Although a number of burbot were tagged, none of these fish was recaptured and consequently no population estimate could be calculated.

In order to provide a more accurate evaluation of the fish populations in the Study Area and to reduce biases resulting from size selectivity inherent in the sampling technique (boat electrofishing), the population estimates were stratified by size classes. Three size classes were selected which correspond in part to the size classes used during the tagging program. These three size classes are: fish 18-299 g (fish VI tagged); fish 300-499 g; and, fish ≥500 g. A population estimate was prepared separately for fish greater than 500 g for the purpose of assessing the feasibility of future radio tagging studies. The number of recaptured fish is not

large enough to support further dividing the population estimate into smaller size classes or stratification by subreach or subsections. Therefore, the population estimates presented in Table 7 were calculated for the entire 20 km Study Area.

The CAPTURE program includes a number of models and estimators that provide for unequal probabilities of recapture, which have been developed to relax the critical assumption of equal catchability (Otis et al. 1978). The software program conducts a model selection procedure, based on the input data, and provides model selection criteria. For most of the population estimates calculated for this study, the most appropriate model was determined to be the M(o) model with the null estimator. This model is selected for use when capture probability is constant. For the population estimate for mountain whitefish in the 18-299 g size class, the most appropriate model selected for use was the M(t) model with the Darroch estimator (Otis et al. 1978). The population estimate for mountain whitefish in the 300-499 g size class is the interpolated population estimate from the jacknife computations, as the appropriate model for this data was determined to be the M(tbh) model which does not provide an estimator.

For mountain whitefish, a total of 1067 individuals (all size classes) was tagged during electrofishing runs 1 and 2, of which 42 were recaptured. The total tagged population of northern pike after run 1 and 2 was 111 fish, with a total of 12 recaptures. Mountain whitefish and northern pike were the only species for which individuals were tagged and recaptured in all three of the size categories. The total population estimate (all size classes combined) (Table 7) for each of these two species was derived by summing the population estimates for the individual size classes. For the northern pike 18-299 g and 300-499 g size class population estimates, the lower limits for the calculated 95% confidence intervals were negative. These lower limits were adjusted to be equal to the number of fish that were actually captured in the Study Area (Table 2).

A total of 390 longnose suckers was tagged during runs 1 and 2, with 10 individuals being recaptured. As none of the longnose suckers <500 g that were tagged were recaptured, only

two population estimates could be prepared for this species. One for fish >500 g and one for all fish combined. Both of these estimates were calculated using the CAPTURE program.

With respect to the sport and rough fish that were batch marked (i.e. <18 g), none of the fin clipped fish were recaptured and no population estimate could be prepared. The population estimates that could be calculated for batch marked fish were limited to pearl dace from Subreach A and B, and trout-perch from Subreach B. The population estimates for the forage species that could be calculated are included in Table 6.

3.3 Fish Movements

An analysis was made of fish movements from tag and recapture information to provide some preliminary movement data and to test the degree of closure encountered during the population estimates. Additional movement information was provided by the recapture of fish within the Study Area which had been tagged by other agencies during previous studies in the Athabasca River basin, and the recovery of fish tagged in this study during other NRBS investigations.

Recapture information is available for three species: mountain whitefish; northern pike; and, longnose sucker (Table 1). Movements between the 1 km subsections of the Study Area were noted, with the extent of movements differing for each of the three species. The largest movements were recorded for mountain whitefish.

Of the 42 mountain whitefish recaptured, 39% were recaptured in the same subsection in which they were tagged. An additional 23% had moved to the next downstream subsection, a movement of ≤1 km. However, as the fish were generally released at the bottom of each subsection, these movements are considered artifacts of sampling and release. A total of 5% of the recaptured fish was recaptured a short distance (1-2 km) upstream of their original capture point. The remaining 33% of the recaptured mountain whitefish had moved downstream. These downstream movements ranged from 2 to 14 km, with the average distance being 5.8 km. In addition, one adult mountain whitefish that was tagged and

released during this study at km 1018.5 was recovered the following day by R.L.& L. Environmental Services Ltd. at the Highway 658 crossing, approximately 15 km downstream of its release point.

For northern pike, 70% of the 12 recaptured fish were recorded from the same or next subsection downstream from which they were tagged. The remaining 30% had moved downstream, with the distances ranging from 4 to 7 km and averaging 5.3 km.

Movements of longnose sucker were more restricted than for the other two species. Of the 10 recaptures, 70% had shown no movement from the subsection of original capture while the remaining 30% had moved to the next upstream subsection.

Therefore, fish movement did occur during the population estimate sampling period. Mountain whitefish and northern pike movements were significant enough to indicate that tagged fish were moving out of the 20 km Study Area. The practice of releasing captured fish from the downstream-most subsection (km 1015.5-1016.5) in the middle of the subsection instead of the bottom of the subsection would have been insufficient to compensate for the degree of downstream movement exhibited by these two species. There is therefore additional error in the population estimates, as the loss of tagged fish from the study area would result in an overestimate of the population size.

More extensive movements of mountain whitefish over longer periods of time are evident from the recovery within the Whitecourt Study Area of two previously tagged adult fish. One of these mountain whitefish (Floy tag # F&W00264) had originally been tagged by Fish and Wildlife in October of 1991 in Willow Creek, which is a tributary of the Wildhay River which drains to the Athabasca River via the Berland River. The other fish (NRBS Floy tag # 2250) was initially tagged by R.L.& L. Environmental Services Ltd. in the Snake Indian River, at the Athabasca River confluence.

4.0 DISCUSSION

There was an abundance of mountain whitefish, longnose sucker, and northern pike suitable for radio tagging (i.e. >500 g) within the Study Area during the sampling period. More specialized and intensive effort would be required to collect significant numbers of burbot. Burbot were observed to be primarily distributed in isolated patches of habitat where suitable instream cover was abundant. It may be possible to increase the number of captures for this species by concentrating the sampling effort in these specific locations. The abundances of the remaining three target species during the study period were low. The large number of Floy and VI tags implanted during the study should allow a significant number of recaptures for future research.

The population estimates and the associated 95% confidence intervals that were prepared for the sport and rough species using the CAPTURE program were based on the four critical assumptions presented in Section 2.3. With respect to this study, the assumptions of population closure and equal catchability are the most likely sources of error.

Closure is a strong assumption of the population estimation technique but is seldom completely true in natural populations (Otis et al. 1978). The population estimates for this study were calculated for the entire 20 km Study Area. Therefore, fish movements that would introduce error to the population estimates are immigration/emigration of fish at the upstream and downstream boundaries of the Study Area, and possibly to the south channel occurring between km 1030.5 and km 1037.0. The analysis of fish movements recorded during the sampling program indicate downstream movements of both mountain whitefish and northern pike occurred during the study. Therefore, it is probable that some tagged individuals emigrated from the 20 km river section, most likely moving downstream below km 1015.5. This would result in the loss of tagged fish and overestimation of the population sizes. Very few upstream movements were recorded, indicating the loss of tagged fish at the top of the Study Area and to the south channel would have been less likely. With receding water levels during the fall, the most probable movement of fish in the upper portion of the Study Area would be the immigration of untagged fish from the smaller south channel into the Study

Area. As closure was not achieved during this study, the uncertainty associated with the population estimates would be somewhat greater than is suggested by the 95% confidence intervals.

The assumption of equal catchability was tested by the CAPTURE program during data analysis. Homogeneity of capture probability was confirmed for all population estimates except for mountain whitefish 18-299 g and 300-499 g, suggesting additional inaccuracy in these two population estimates. However, the poor fit of these data to the M(o) model (null estimator) may be due in part to stratifying the population estimates into too many size classes, resulting in too small a proportion of recaptures in each size class.

Locating forage fish proved difficult due to falling water levels and ice formation on small, shallow backwaters. Since only one flathead chub was captured during boat electrofishing, sampling using backpack electrofishing and seine netting was conducted in Subreaches A and B to locate suitable numbers of fish to mark. Backpack electrofishing was considered to be the most effective method for capturing forage fish, which were generally positioned in the interstitial spaces in the substrate and were difficult to capture with the seine net. Pearl dace were found to be the most abundant and should be considered as a potential target forage fish for future studies. The population estimates obtained in this study apply to a very limited portion of the overall Study Area. More forage species work is required since the number tagged was too small to permit locating recaptures in 1994. It is recommended that an alternative marking method be used if recapture runs are attempted after a significant lag period as the brightly coloured dye may affect predation rates for the marked fish.

The capture success for this study was high relative to other sampling activities conducted in this area (Barton and Bjornson 1993; Barton et al. 1993a, 1993b) due primarily to moderately low water levels, low turbidity and the unseasonably warm abient and water temperatures that were experienced. Capture success is directly related to river discharge, ambient/water temperature and turbidity. Barton and Bjornson (1993) observed that fall weather conditions can dramatically affect fish capture success in the Athabasca River, as they conducted boat electrofishing activities in the same Study Area in October 1993 with much lower capture

rates. In future, fall collections should be conducted about one month earlier in the season than in 1993. Movement of fish to overwintering grounds could begin as soon as water temperatures drop to near-zero levels (Barton et al. 1993b). During the 1992 spring special collections on the Athabasca River (Barton et. al. 1993a), water turbidity was fairly high resulting in reduced capture success.

Discharge is considered very important for locating and capturing species such as northern pike and longnose sucker which utilize low velocity backwater and snye habitats. The number and size of these particular habitats changes with increases or decreases in river discharge. These snye and backwater areas were the primary locations for northern pike and major locations for longnose sucker. Therefore, loss or reduction of these habitats through fluctuations in water levels would reduce the likelihood of capture for these species.

5.0 LITERATURE CITED

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TABLE 1

FISH CAPTURE AND TAGGING SUMMARY, ATHABASCA RIVER AT WHITECOURT, OCTOBER 10 - 19, 1993

Species	Subreach A					Subreach B					Total				
	Total No. Captured	No. Floy Tagged	No. VI Tagged	Total No. Recaptured	No. Fish Captured ≥ 500 g	Total No. Captured	No. Floy Tagged	No. VI Tagged	Total No. Recaptured	No. Fish Captured ≥ 500 g	Total No Captured	No. Floy Tagged	No. VI Tagged	Total No. Recaptured	No. Fish Captured ≥ 500 g
Mountain Whitefish	1123	367	670	33	194	604	268	321	9	164	1727	635	991	42	358
Longnose Sucker	74	69	2	1	68	518	515	3	9	502	592	584	5	10	570
Northern Pike	104	83	21	10	62	55	50	5	2	44	159	133	26	12	106
White Sucker	21	1	0	0	16	11	0	0	0	11	32	1	0	0	27
Burbot	13	12	1	0	11	13	13	0	0	13	26	25	1	0	24
Lake Whitefish	10	2	0	0	3	2	1	0	0	0	12	3	0	0	3
Arctic Grayling	2	0	2	0	0	4	0	4	0	0	6	0	6	0	0
Walleye	0	0	0	0	0	3	3	0	0	2	3	3	0	0	2
Flathead Chub	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0
Rainbow Trout	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0
TOTAL	1349	535	697	44	354	1210	850	333	20	736	2559	1385	1030	64	1090

TABLE 2

CAPTURE AND RECAPTURE RESULTS BY RUN AND SIZE CLASS, ATHABASCA RIVER AT WHITECOURT, OCTOBER 10 - 19, 1993

Species	Run	Subreach A						Subreach B					
		<300 g		300-499 g		≥500 g		<300 g		300-499 g		≥500 g	
		Capt.	ReCapt.	Capt.	ReCapt.	Capt.	ReCapt.	Capt.	ReCapt.	Capt.	ReCapt.	Capt.	ReCapt.
Mountain Whitefish	1	258	---	41	---	60	---	146	---	30	---	59	---
	2	233	8	65	2	73	3	76	0	35	1	56	0
	3	255	10	77	7	61	3	111	2	42	2	49	4
Northern Pike	1	2	---	3	---	14	---	3	---	2	---	20	0
	2	10	0	12	0	30	4	1	1	3	0	11	1
	3	9	0	6	1	18	5	1	0	1	0	13	0
Longnose Sucker	1	3	--	0	---	28	---	2	---	2	---	176	---
	2	1	0	1	0	15	1	1	0	6	0	158	0
	3	0	0	1	0	25	0	1	0	5	0	167	9

TABLE 3

CATCH-PER-UNIT-EFFORT VALUES FOR BOAT ELECTROFISHING FOR THE ATHABASCA RIVER AT WHITECOURT, OCTOBER 10 - 19, 1993

PAGE 1 OF 2

Section (km)	Total Effort (s)	CPUE (No./100 seconds)							
		Mountain Whitefish	Longnose Sucker	White Sucker	Northern Pike	Burbot	Arctic Grayling	Walleye	Flathead Chub
1036-1037	3073	4.39	.55	.03	.07	.10	0	0	.03
1035-1036	3411	1.35	.03	0	1.32	0	0	0	0
1034-1035	3598	5.03	.08	.08	.11	0	0	0	0
1033-1034	2998	6.70	.20	.03	.3	0	0	0	0
1030.5-1033	3432	2.19	0	.09	.50	0	0	0	0
1029.5-1030.5	2375	3.37	.08	.04	.04	0	0	0	0
1028.5-1029.5	1984	5.19	.25	0	.25	0	.05	0	0
1027.5-1028.5	2609	6.71	.11	.19	.11	.08	0	0	0
1026.5-1027.5	2900	2.79	.28	.14	.45	.07	.03	0	0
1025.5-1026.5	3748	1.92	.80	.05	.35	.16	0	0	0
Subreach A	30128	3.73	.25	.07	.35	.04	.01	0	<.01

TABLE 3

PAGE 2 OF 2

Section (km)	Total Effort (s)	CPUE (No./100 seconds)							
		Mountain Whitefish	Longnose Sucker	White Sucker	Northern Pike	Burbot	Arctic Grayling	Walleye	Flathead Chub
1024.5-1025.5	2256	3.63	2.35	.04	.13	.13	.18	0	0
1023.5-1024.5	2222	2.88	.41	.05	.32	.05	0	.05	0
1022.5-1023.5	2502	.20	2.04	.04	.32	0	0	.04	0
1021.5-1022.5	2968	2.83	2.36	0	.13	.07	0	0	0
1020.5-1021.5	1840	2.72	5.43	.27	.33	.11	0	0	0
1019.5-1020.5	4657	2.06	.41	0	.09	0	0	0	0
1018.5-1019.5	2062	4.03	2.91	.10	.05	.19	0	0	0
1017.5-1018.5	4238	.54	1.89	0	.45	0	0	0	0
1016.5-1017.5	2143	2.10	2.53	0	.14	0	0	0	0
1015.5-1016.5	2856	3.05	1.44	.04	.11	.04	0	.04	0
Subreach B	27744	2.18	1.87	.04	.20	.04	.01	.01	0
TOTALS	57872	3.06	1.04	.05	.29	.04	.01	< .01	< .01

TABLE 4

FISH CONCENTRATION AREAS FROM THE ATHABASCA RIVER AT WHITECOURT, OCTOBER 10 - 19, 1993

Fish Concentration Area No.	Subreach	km Post[1]	Habitat Type[2]	Species	Life Stages	Estimated Number	Legal Land Description (L.S.)	UTM Location	Plate No. Reference
1	A	1036.5	class 1 run	Longnose Sucker	Adult	50	8-12-60-13-W5	11 UNL 783029	1
2	A	1035.6	backwater	Northern Pike	Adult/Juvenile	25	6-7-60-12-W5	11 UNL 789029	2
3	A	1033.5	class 1 run	Mountain Whitefish	Adult/Juvenile	100	10-5-60-12-W5	11 UNL 808021	3
4	A	1026.9	class 2 run	Burbot	Juvenile	30	2-3-60-12-W5	11 UNL 842011	4
5	A	1026.0	Snye	Northern Pike	Adult/Juvenile	50	4-2-60-12-W5	11 UNL 851011	5
				Mountain Whitefish	Fry	> 100			
6	A	1025.7	class 2 run	Longnose Sucker	Adult	> 100	3-2-60-12-W5	11 UNL 853012	6
				Burbot	Adult/Juvenile	> 10			
7	B	1024.7	class 1 run	Longnose Sucker	Adult	200	8-2-60-12-W5	11 UNL 863015	7
8	B	1021.5	class 3 run	Longnose Sucker	Adult	> 100	14-6-60-11-W5	11 UNL 889022	8
				Northern Pike	Adult/Juvenile	20			
9	B	1021.2	class 2 run	Longnose Sucker	Adult	100	10-6-60-11-W5	11 UNL 892021	9
10	B	1019.2	class 1 pool	Longnose Sucker	Adult	> 150	9-5-60-11-W5	11 UNL 911020	10
11	B	1018.1	backwater	Longnose Sucker	Adult	> 100	10-4-60-11-W5	11 UNL 923019	11
				Northern Pike	Adult/Juvenile	20			
12	B	1016.2	class 2 run	Longnose Sucker	Adult	> 100	7-3-60-11-W5	11 UNL 941017	12

[1] See Figures 3 - 8
[2] From Barton and Bjornson 1993

TABLE 5

SAMPLING INFORMATION FOR INCIDENTAL MORTALITIES, ATHABASCA RIVER AT WHITECOURT, OCTOBER 10-19, 1993

FISH No.	SPECIES	FORK LENGTH (mm)	WEIGHT (g)	STAGE	SEX	MATURITY	CAPTURE LOCATION				
							SUB REACH	km POST[1]	HABITAT TYPE	L.S.D.	UTM
383	Mountain whitefish	426	900	Adult	Unknown	Uknown	B	1023.4	Class 1 run by left downstream bank	14-1-60-12W5	11U NL 870026
542	Mountain whitefish	385	705	Adult	Male	Ripe	B	1022.0	Class 2 run by left downstream bank	13-6-60-11W5	11U NL 882022
1044	Mountain whitefish	300	346	Unknown	Unknown	Uknown	A	1034.0	Backwater by centre channel	12-5-60-12W5	11U NL 803020
1235	Mountain whitefish	347	550	Adult	Male	Ripe	A	1027.3	Class 2 pool	13-34-59-12W5	11U NL 834009
1454	Mountain whitefish	346	460	Adult	Uknown	Uknown	B	1018.0	Snye/ backwater by left downstream bank	10-4-60-11W5	11U NL 924019
1646	Longnose Sucker	437	1200	Adult	Unknown	Unknown	B	1018.0	Snye/ backwater by left downstream bank	10-4-60-11W5	11U NL 924019

[1] See Figure 3-8

TABLE 6

FORAGE FISH SPECIES CAPTURED AND POPULATION ESTIMATES, ATHABASCA RIVER AT WHITECOURT, OCTOBER 1993

Species	Subreach A (km 1034.0)			Subreach B (km 1020.0)		
	No. Marked	No. Recaptured	Population Estimate (95% Conf. Lev.)	No. Marked	No. Recaptured	Population Estimate (95% Conf. Lev.)
Pearl dace	76	2	505.7 (185.0 - 1264.2)	130	25	186.4 (124.2 - 292.9)
Trout-perch	0	0	---	42	3	80.0 (45.0 - 176.0)
Spottail shiner	0	0	---	3	0	---

TABLE 7

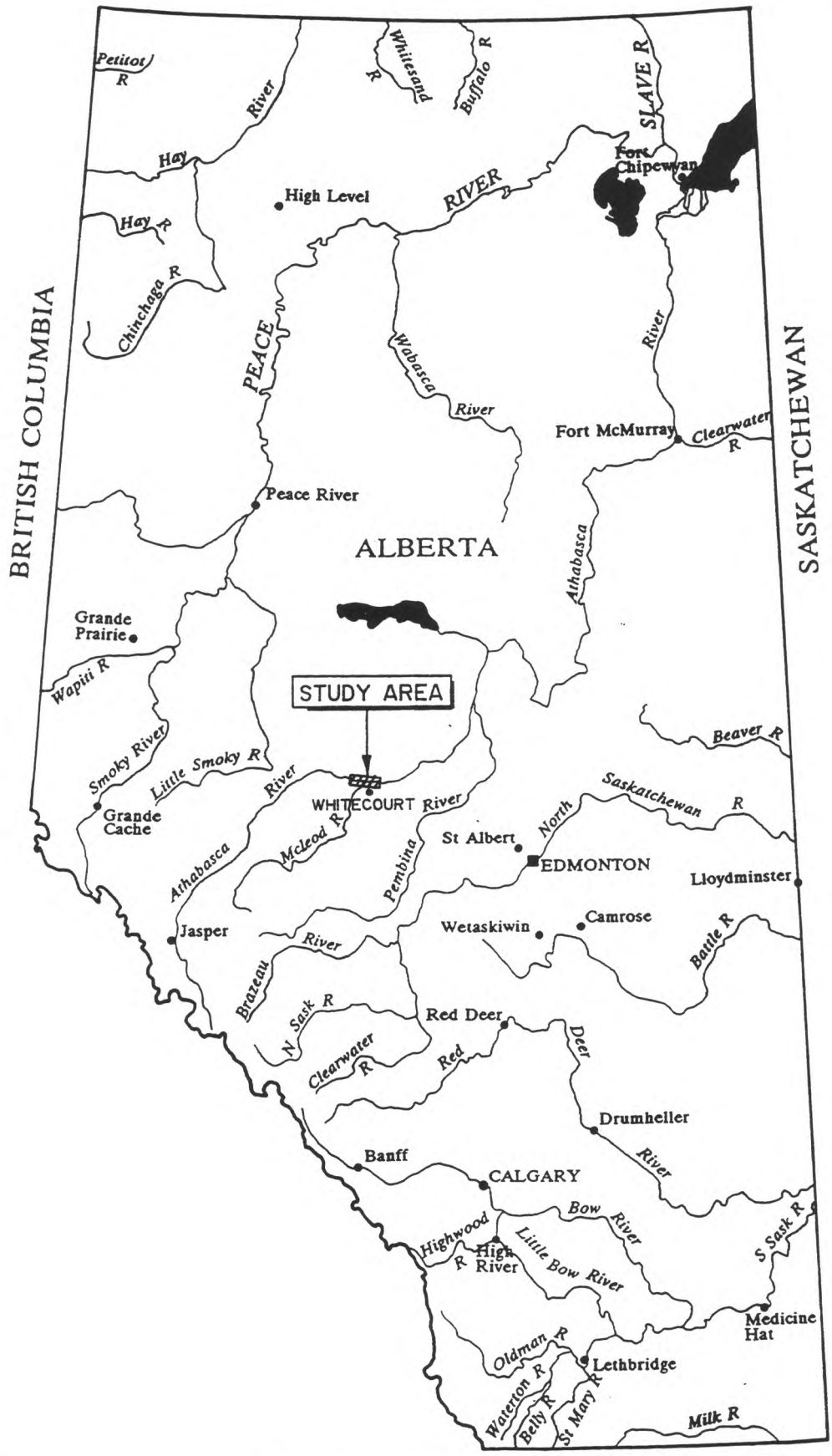
MARK-RECAPTURE POPULATION ESTIMATES FOR MOUNTAIN WHITEFISH, NORTHERN PIKE AND LONGNOSE SUCKER FROM THE ATHABASCA RIVER AT WHITECOURT, OCTOBER 10 - 19, 1993

Species	Individuals 18-299 g	95% Confidence Level	Individuals 300-499 g	95% Confidence Level	Individuals ≥ 500 g	95% Confidence Level	All Fish Combined	95% Confidence Level
Mountain Whitefish	10756	8066 - 13446	564	517 - 610	4456	1800 - 7112	15776	10383 - 21168
Northern Pike	177	26 - 454	189	27 - 485	384	190 - 578	750	243 - 1517
Longnose Sucker	---^	---	---^	---	7475	3799 - 11151	8057	4096 - 12018

^ Insufficient data (no recaptures) to obtain population estimate

LOCATION OF THE STUDY AREA

Figure 1



PROJECT No. 932-2207 DRAWN CG REVIEWED _____ DATE 31 DEC 93

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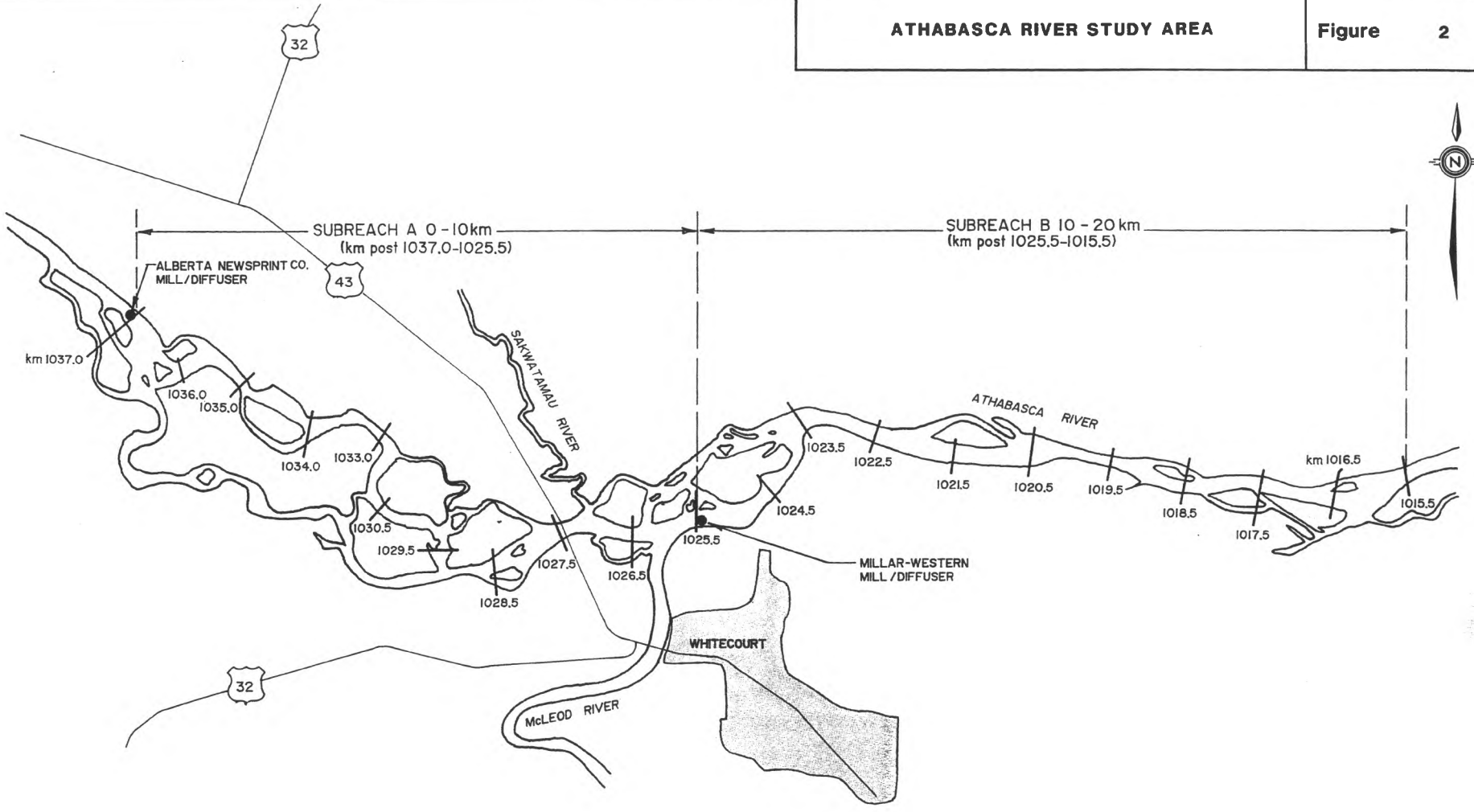
ATHABASCA RIVER STUDY AREA | **Figure 2**



REFERENCE

BASE MAP FROM NTS SERIES 83J/4

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Golder Associates			
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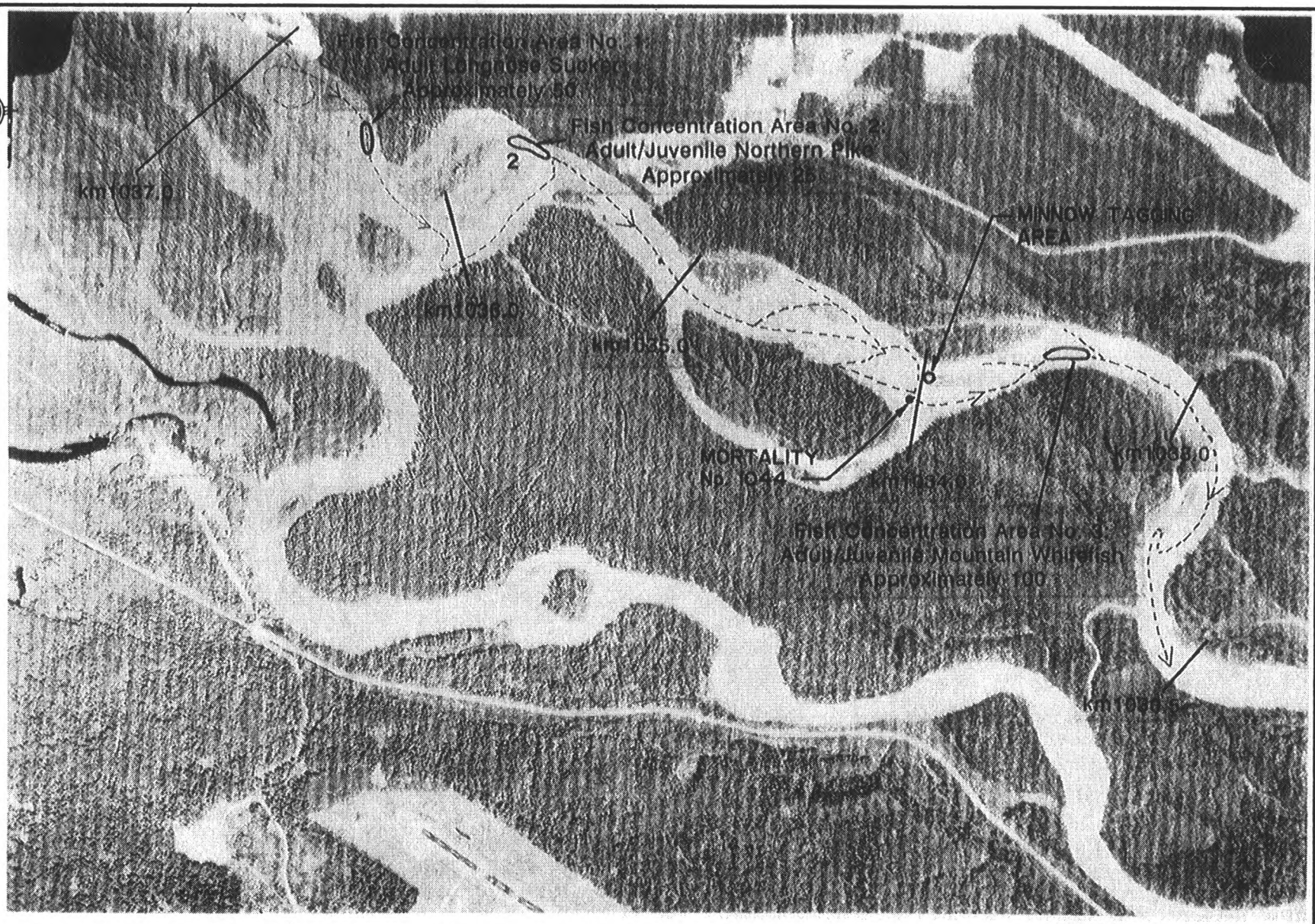
PROJECT No. 932-2207 DRAWN RK REVIEWED _____ DATE 21 JAN 94



Primary Boat Electrofishing Route

SCALE 1:20000

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AIRPHOTO No. 1 - km 1030.5 to 1037.0

Figure 3

AIRPHOTO No. 2 - km 1026.5 to 1033.0

Figure 4

PROJECT No. 932-2207 DRAWN RK REVIEWED DATE 21 JAN 94

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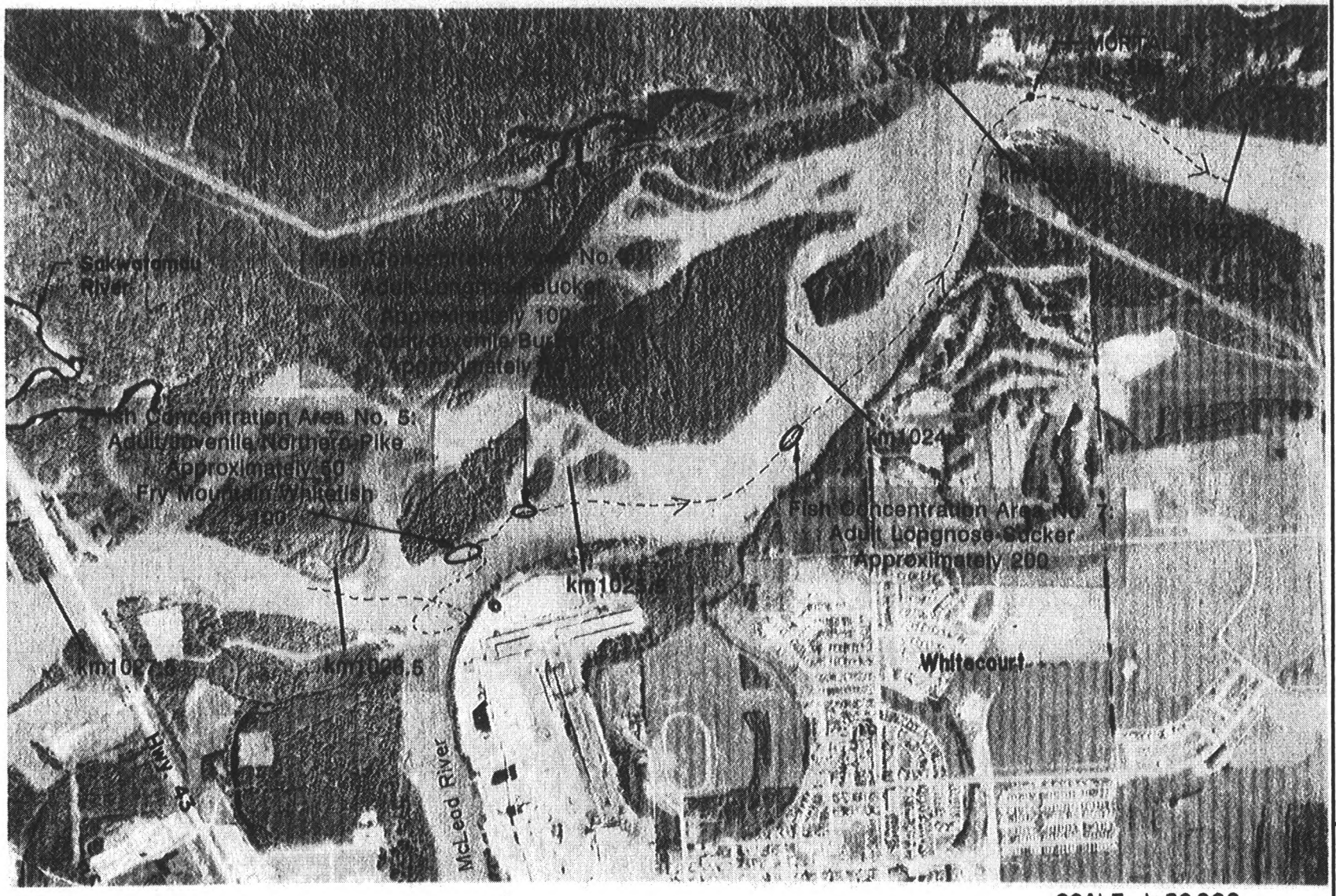
PROJECT No. 932-2207 DRAWN RK REVIEWED DATE 21 JAN 94



---→---- Primary Boat Electrofishing Route

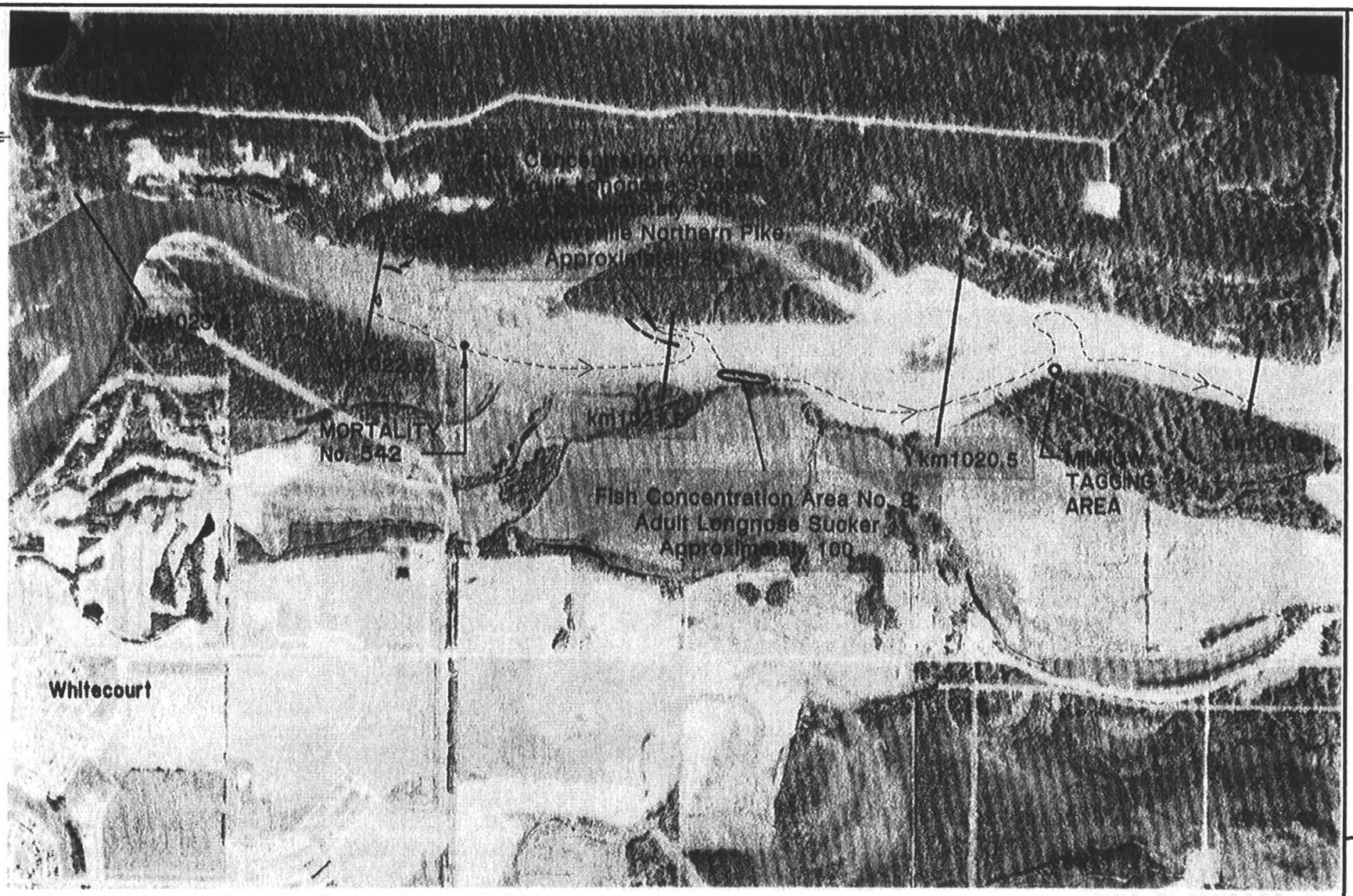
SCALE 1:20000

Golder Associates

AIRPHOTO No. 3 - km 1022.5 to 1027.5

Figure 5

PROJECT No. 932-2207 DRAWN RK REVIEWED _____ DATE 21 JAN 94



Primary Boat Electrofishing Route

SCALE 1: 20000

Golder Associates

AIRPHOTO No. 4 - km 1019.5 to 1023.5

Figure 6

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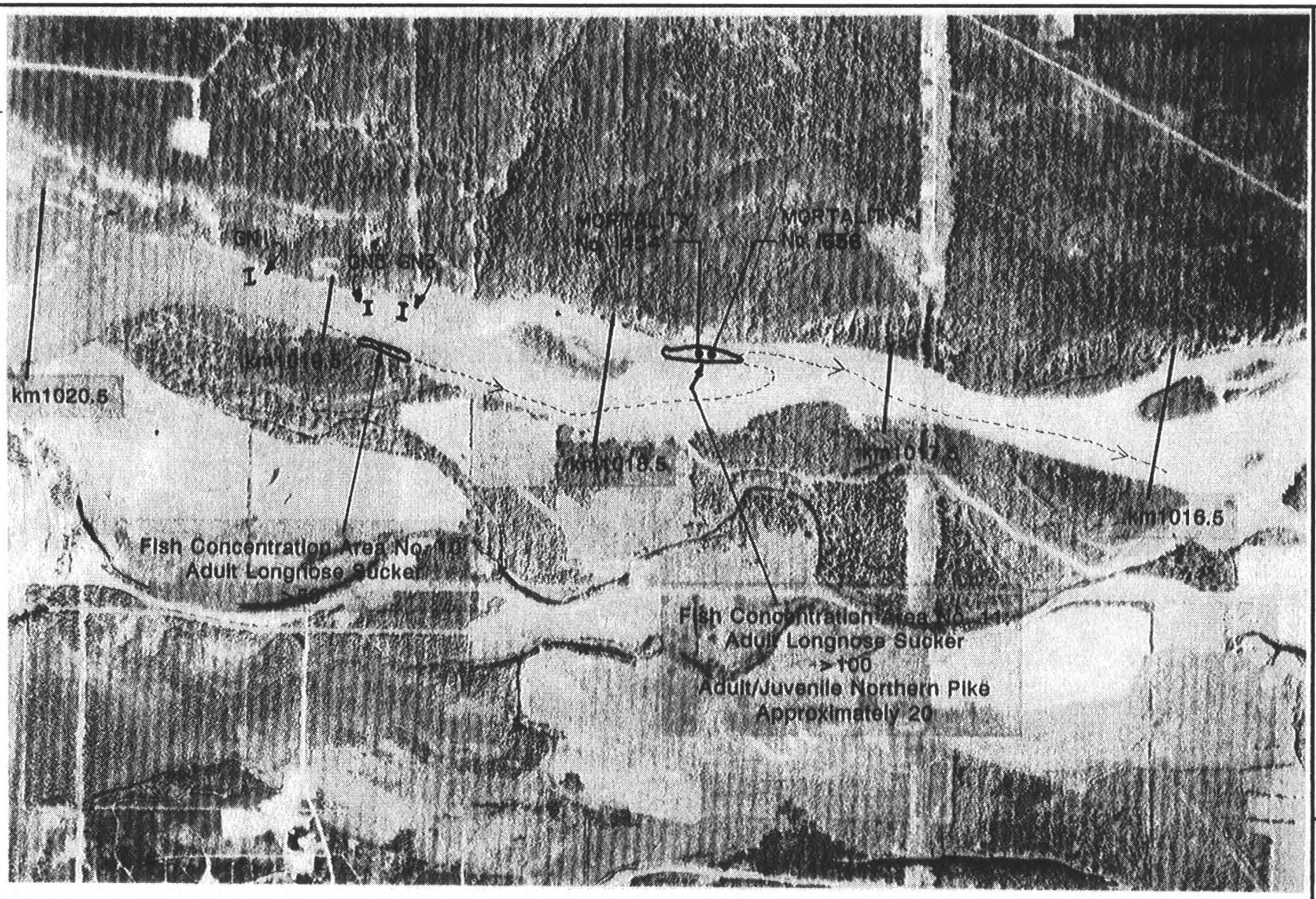


---→---- Primary Boat Electrofishing Route

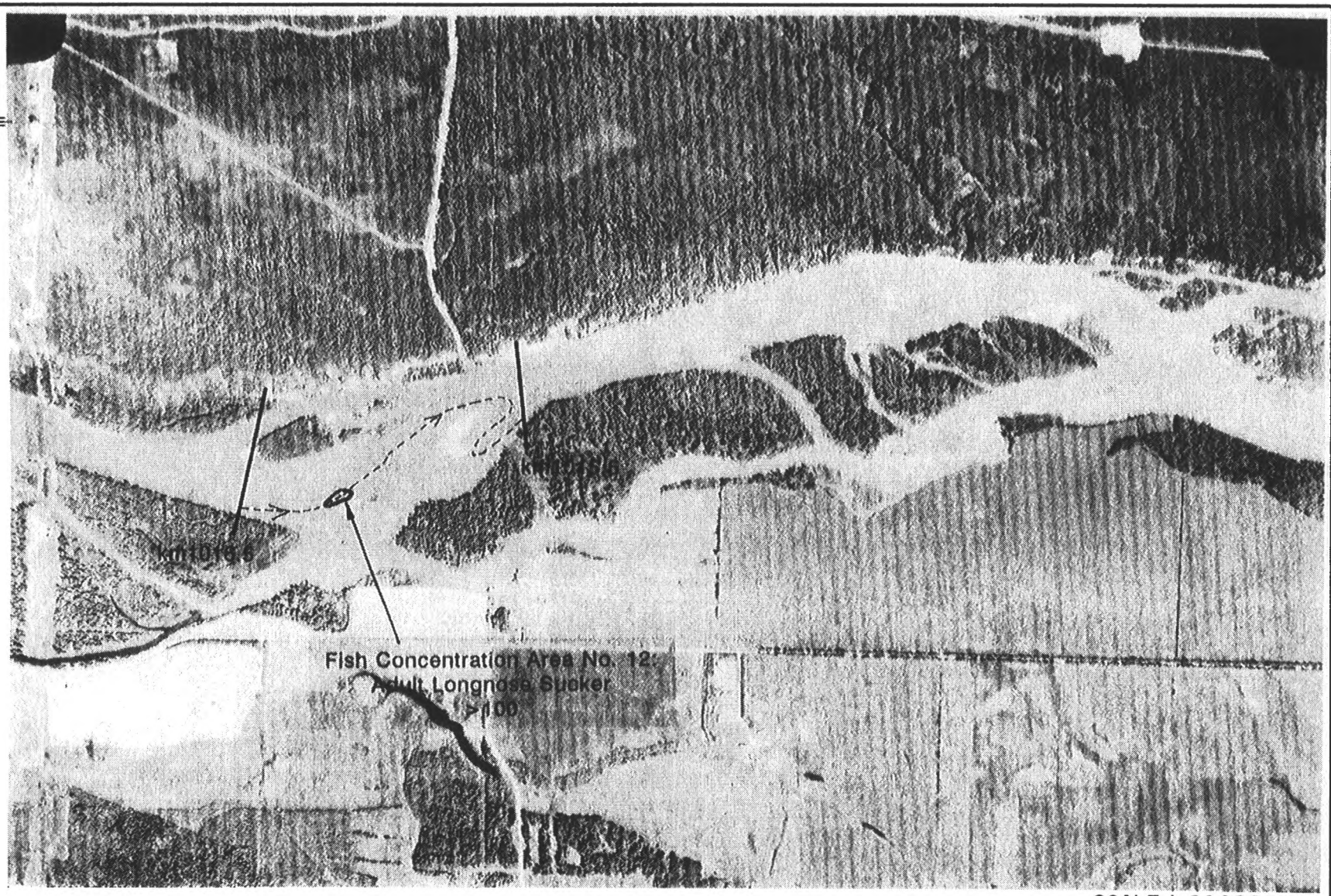
SCALE 1:20000

AIRPHOTO No. 5 - km 1016.5 to 1020.5

Figure 7

Golder Associates

PROJECT No. 932-2207 DRAWN RK REVIEWED _____ DATE 21 JAN 94



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Primary Boat Electrofishing Route

AIRPHOTO No. 6 - km 1015.5 to 1016.5

Figure 8

Golder Associates

Plate 1. Fish Concentration Area 1.

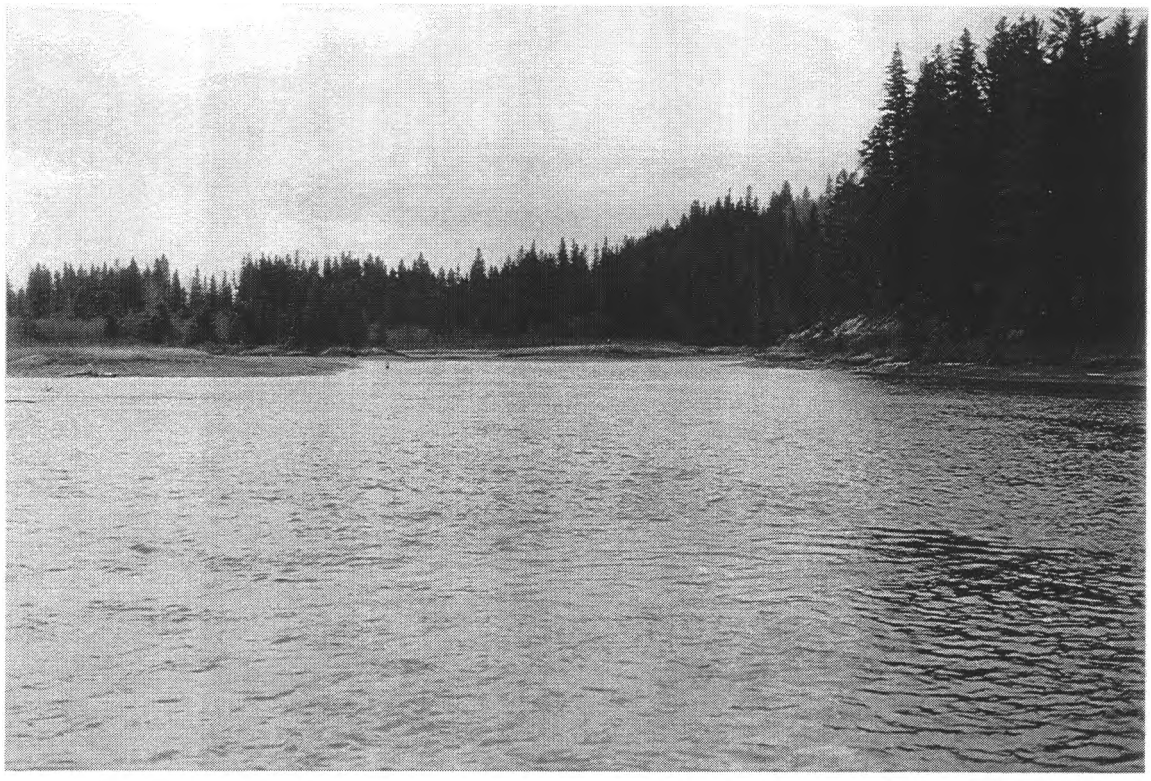

Plate 2. Fish Concentration Area 2.

Plate 3. Fish Concentration Area 3.

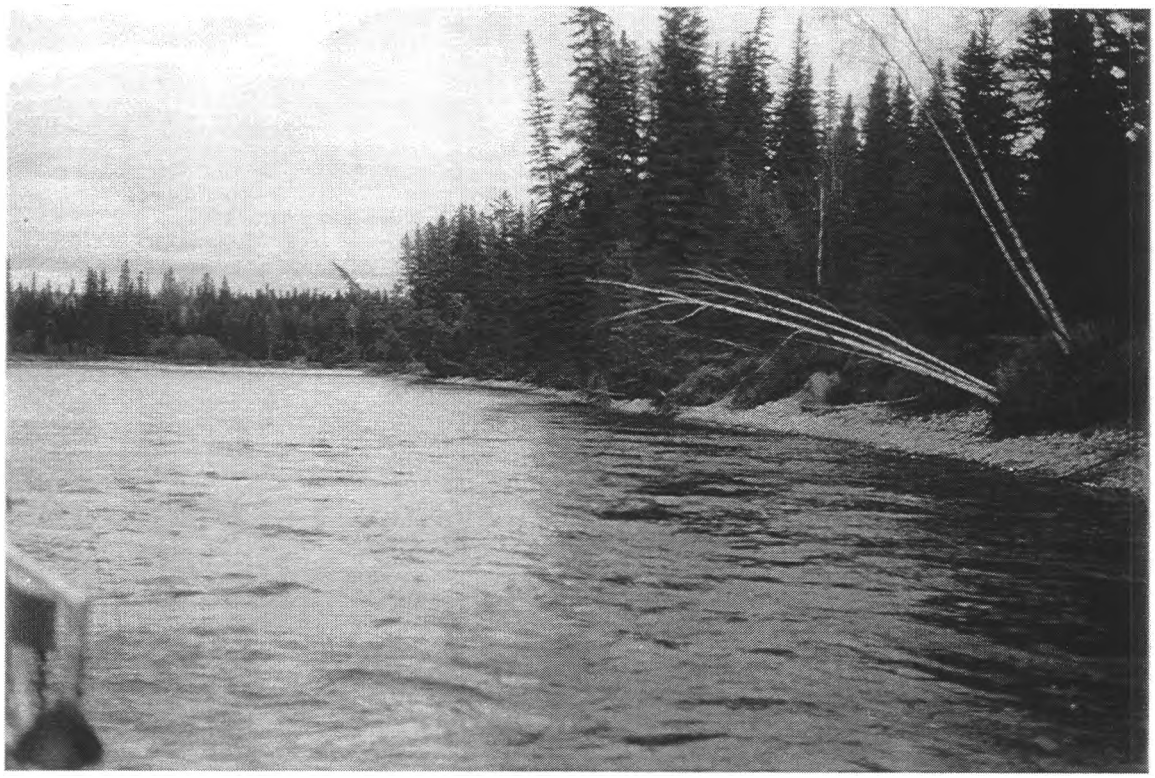

Plate 4. Fish Concentration Area 4.

Plate 5. Fish Concentration Area 5.

Plate 6. Fish Concentration Area 6.

Plate 7. Fish Concentration Area 7.

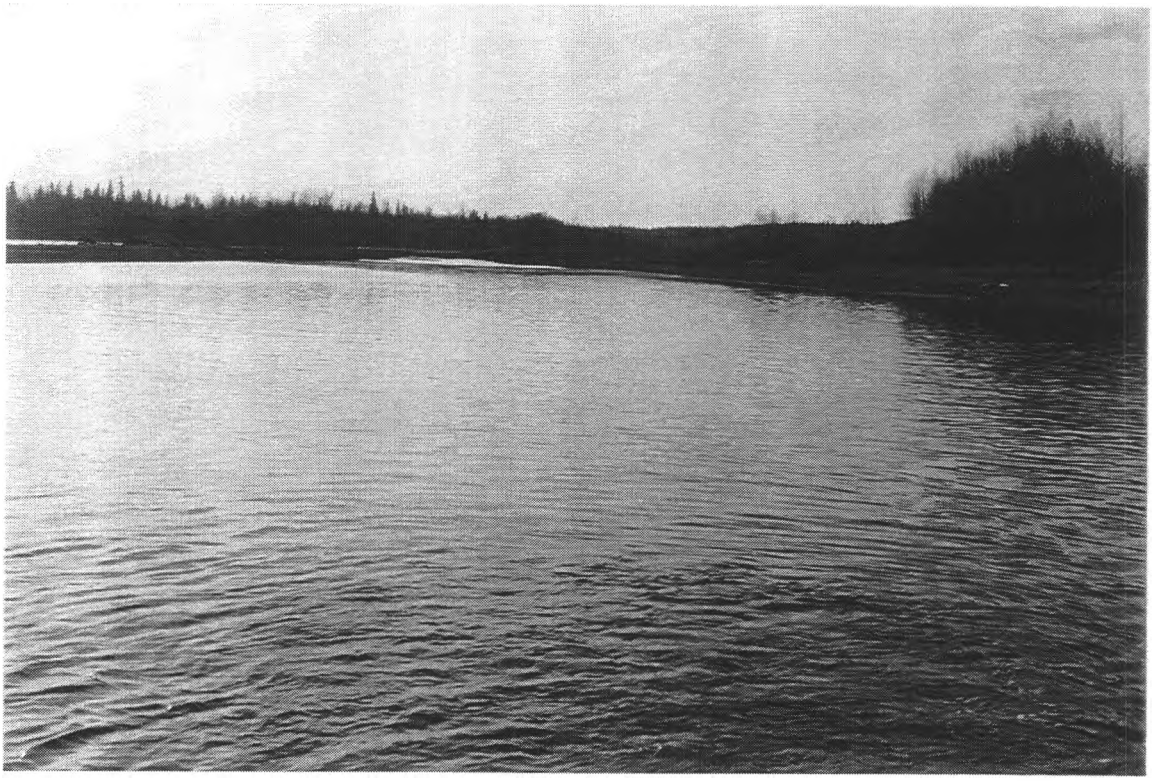

Plate 8. Fish Concentration Area 8.

Plate 9. Fish Concentration Area 9.

Plate 10. Fish Concentration Area 10.

Plate 11. Fish Concentration Area 11.

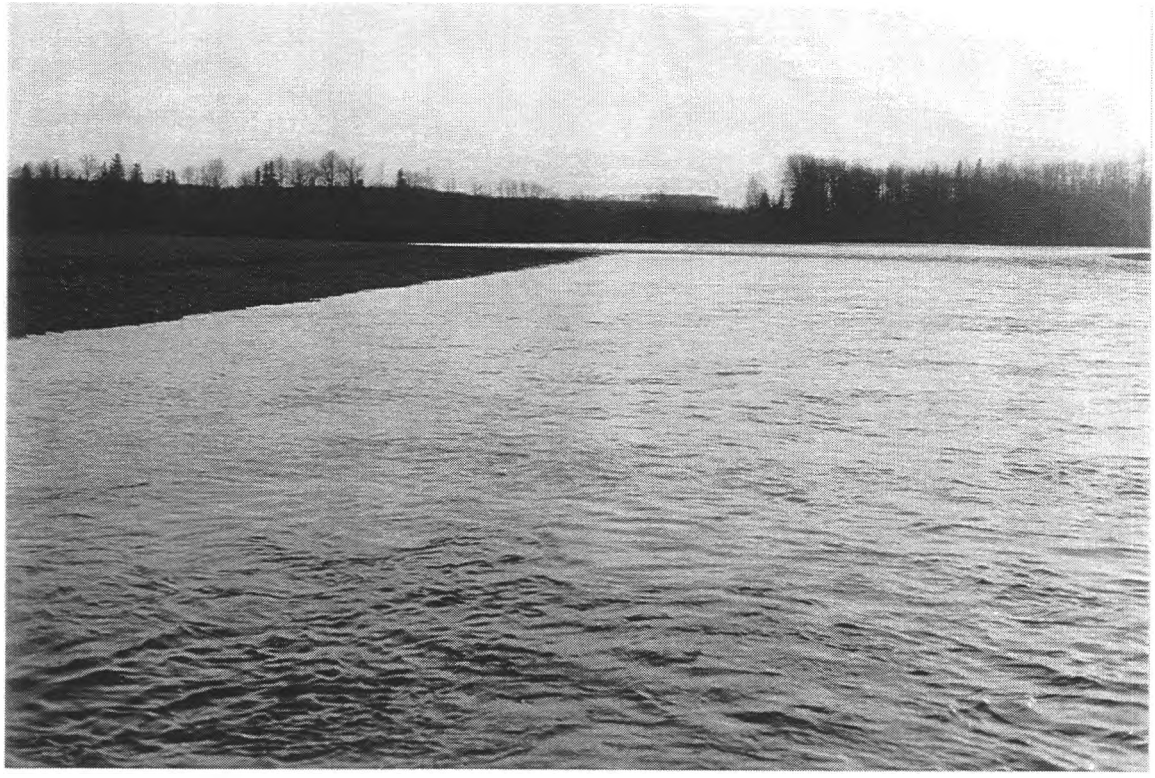

Plate 12. Fish Concentration Area 12.

APPENDIX I

TERMS OF REFERENCE

TERMS OF REFERENCE

NORTHERN RIVER BASINS STUDY

Project 3126-C1: Fish Tagging Along the Athabasca River Near Whitecourt

I. Objectives

This project aims to tag as many fish as possible within a defined time frame (without damaging the fish through excessive recapture) for two purposes: 1) to get as many tags into the populations as possible for future recapture efforts, and 2) to get some estimate of the population sizes as permitted by recaptures. It is the intention of the Northern River Basins Study (NRBS) to use the data to assess the potential for radio tagging and exposure assessment projects.

II. Requirements

1) For ten consecutive days (weather permitting) in October 1993, the Contractor will mark fish with conventional tags in the reach of the Athabasca River from the effluent outfall of the Alberta Newsprint pulp mill downstream for 20 km. The entire reach will be fished at least two times in the period.

2) The number and species of fish marked will be recorded by subreach (from the effluent outfall to 10 km downstream and from 10 km downstream to 20 km downstream). Any areas yielding large numbers of fish will be photographed, marked on 1:50,000 topographic maps and geo-referenced.

3) The species to be tagged include mountain whitefish, longnose sucker, walleye, burbot, Arctic grayling, northern pike and flathead chub.

4) Fish larger than 300 g will be marked with Floy tags provided by the NRBS. Those fish less than 300 g will be marked with another conventional tag of a type suitable for marking small fish. Small fish from the two subreaches can be marked with "batch" tags, but these should differ such that small fish from the two reaches can be recognized.

5) For the purpose of assessing the feasibility of radio tagging, the number and species of fish greater than 500 g that were caught and tagged with Floy tags will also be recorded for each of the two subreaches.

6) Records will also be kept of fishing effort as well as the number and species of fish with tags that were recaptured, and these data will also be recorded by subreach, hour and day.

7) The species, weight, length, sex, appropriate ageing structure (MacKay et al. 1990), and exact location (geo-referenced) of collection for those fish that are killed incidentally during the marking program will be recorded or collected, and these fish will be placed in NRBS approved, contaminant free plastic bags, frozen on dry ice and delivered to the NRBS.

8) The Contractor will be responsible for supplying equipment suitable to the task for sampling program.

III. Reporting Requirements

1) The Contractor is to provide ten copies of the draft report to the NRBS Component Coordinator by December 31st, 1993. The draft report is to outline the tasks carried out by the Contractor in II, above.

2) Three weeks after the receipt of review comments on the draft report, the Contractor is to provide the Component Coordinator with two unbound, camera copies and ten cerlox bound copies of the final report. The final report is to include the following: an acknowledgement section that indicates any local or native involvement in the project, table of contents, list of tables, list of figures and an appendix with the Terms of Reference for this project. Text for the report should be in Times Roman 12 point font. If photographs are to be included in the report they should be high contrast black and white. All tables and figures in the report should be clearly reproducible by a black and white photocopier. Along with copies of the final report, the Contractor is to supply an electronic version of the report in Word Perfect 5.1 format. Electronic copies of tables, figures and data appendices in the report are also to be submitted to the Component Coordinator along with the final report. These should be submitted in a spreadsheet (Quattro Pro preferred, but also Excel or Lotus) or database (dBase IV) format. Where appropriate, data in tables, figures and appendices should be geo-referenced

IV. Contacts

The Component Coordinator for this project is:

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This project has been proposed by the Food Chain Component of the NRBS. The Food Chain Component Leader is:

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V. Literature Cited

MacKay, W.C., G.R. Ash and H.J. Norris. 1990. Fish Ageing Methods for Alberta. University of Alberta.

APPENDIX II

FISH CAPTURE AND TAGGING DATA FROM ATHABASCA RIVER, 1993

APPENDIX II

FISH CAPTURE AND TAGGING DATA FROM ATHABASCA RIVER, 1993

LEGEND

SUBREACH

A = km 1025.5-1037.0
B = km 1015.5-1025.5

SPECIES

MNWH - Mountain whitefish
LNSC - Longnose sucker
WHSC - White sucker
NRPK - Northern pike
LKWH - Lake whitefish
BURB - Burbot
ARGR - Arctic grayling
WALL - Walleye
FLCH - Flathead chub

SEX

F - Female
M - Male
U - Unknown

STAGE

A - Adult
J - Juvenile
F - Fry
U - Unknown

MATURITY

RP - Ripe
GR - Green
IM - Immature
U - Unknown
SP - Spent

CAPTURE CODE

0 - First Capture, Released
1 - First Capture, Sacrificed
2 - Recapture, Released
3 - Recapture, Sacrificed

POPULATION ESTIMATE INPUT MATRIX CODE

0 - Not Captured During Run
1 - Captured During Run

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1	10/10/93	0949-1017	A	1036	MNWH	10001	484	1279	M	A	RP	0		1	0	0
2	10/10/93	0949-1017	A	1036	LNSC	10002	436	1105	U	A	U	0		1	0	0
3	10/10/93	0949-1017	A	1036	LNSC	10003	435	1370	U	A	U	0		1	0	0
4	10/10/93	0949-1017	A	1036	MNWH	10004	381	660	U	U	U	0		1	0	0
5	10/10/93	0949-1017	A	1036	MNWH	10005	359	550	U	U	U	0		1	0	0
6	10/10/93	0949-1017	A	1036	MNWH	10006	375	595	M	A	RP	0		1	0	0
7	10/10/93	0949-1017	A	1036	MNWH	10007	387	745	M	A	RP	0		1	0	0
8	10/10/93	0949-1017	A	1036	MNWH	10008	317	410	U	U	U	0		1	0	0
9	10/10/93	0949-1017	A	1036	MNWH	10009	318	325	U	U	U	0		1	0	0
10	10/10/93	0949-1017	A	1036	MNWH	10010	298	305	U	U	U	2		1	0	1
11	10/10/93	0949-1017	A	1036	MNWH	10011	317	340	U	U	U	0		1	0	0
12	10/10/93	0949-1017	A	1036	MNWH	T00	241	165	M	A	RP	0		1	0	0
13	10/10/93	0949-1017	A	1036	MNWH	T01	217	110	U	U	U	0		1	0	0
14	10/10/93	0949-1017	A	1036	MNWH	10012	307	313	M	A	RP	0		1	0	0
15	10/10/93	0949-1017	A	1036	MNWH	T02	227	155	U	U	U	0		1	0	0
16	10/10/93	0949-1017	A	1036	MNWH	T03	171	54	U	U	U	0		1	0	0
17	10/10/93	0949-1017	A	1036	MNWH	T04	266	218	U	U	U	0		1	0	0
18	10/10/93	0949-1017	A	1036	MNWH	T05	172	58	U	U	U	0		1	0	0
19	10/10/93	0949-1017	A	1036	MNWH	AP	102	10	U	J	IM	0		1	0	0
20	10/10/93	0949-1017	A	1036	MNWH	AP	137	20	U	J	IM	0		1	0	0
21	10/10/93	0949-1017	A	1036	MNWH	AP	98	8	U	J	IM	0		1	0	0
22	10/10/93	0949-1017	A	1036	MNWH	T07	170	46	U	J	IM	0		1	0	0
23	10/10/93	0949-1017	A	1036	MNWH	10013	300	316	U	U	U	0		1	0	0
24	10/10/93	0949-1017	A	1036	MNWH	T09	206	94	U	J	IM	2		1	1	0
25	10/10/93	0949-1017	A	1036	MNWH	AP	158	38	U	J	IM	0		1	0	0
26	10/10/93	0949-1017	A	1036	MNWH	T10	198	92	U	J	IM	0		1	0	0
27	10/10/93	0949-1017	A	1036	MNWH	AP	125	18	U	J	IM	0		1	0	0
28	10/10/93	0949-1017	A	1036	MNWH	T11	199	82	U	J	IM	0		1	0	0
29	10/10/93	0949-1017	A	1036	MNWH	T12	209	90	U	J	IM	0		1	0	0
30	10/10/93	0949-1017	A	1036	FLCH	T13	145	34	U	J	IM	0		1	0	0
30	10/10/93	0949-1017	A	1036	MNWH	T14	192	76	U	J	IM	0		1	0	0
32	10/10/93	0949-1017	A	1036	MNWH	AP	114	14	U	J	IM	0		1	0	0
33	10/10/93	0949-1017	A	1036	WHSC		157	38	U	J	IM	0		1	0	0
34	10/10/93	0949-1017	A	1036	LNSC	AP	99	12	U	J	IM	0		1	0	0
35	10/10/93	1100-1145	A	1035	MNWH	10014	365	560	M	A	RP	0		1	0	0
36	10/10/93	1100-1145	A	1035	MNWH	10015	317	370	F	A	RP	0		1	0	0
37	10/10/93	1100-1145	A	1035	LNSC	10016	428	1145	U	U	U	0		1	0	0
38	10/10/93	1100-1145	A	1035	NRPK	10017	494	865	U	U	U	0		1	0	0
39	10/10/93	1100-1145	A	1035	MNWH	10018	327	465	M	A	RP	0	LESION ON BELLY	1	0	0
40	10/10/93	1100-1145	A	1035	MNWH	10019	368	625	M	A	RP	0		1	0	0
41	10/10/93	1100-1145	A	1035	MNWH	T15	222	109	U	U	U	0		1	0	0
42	10/10/93	1100-1145	A	1035	MNWH	10020	361	595	M	A	RP	0		1	0	0
43	10/10/93	1100-1145	A	1035	MNWH	T16	262	204	U	U	U	0		1	0	0
44	10/10/93	1100-1145	A	1035	MNWH	T17	178	66	U	U	U	0		1	0	0
45	10/10/93	1100-1145	A	1035	MNWH	T18	205	100	U	U	U	0		1	0	0
46	10/10/93	1100-1145	A	1035	MNWH	10021	315	406	M	A	RP	0		1	0	0
47	10/10/93	1100-1145	A	1035	MNWH	T19	258	197	U	U	U	0		1	0	0
48	10/10/93	1100-1145	A	1035	MNWH	T20	236	170	U	U	U	0		1	0	0
49	10/10/93	1100-1145	A	1035	MNWH	T21	200	98	U	J	IM	0		1	0	0
50	10/10/93	1100-1145	A	1035	MNWH	T22	211	118	U	J	IM	0		1	0	0
51	10/10/93	1100-1145	A	1035	MNWH	T23	195	84	U	J	IM	0		1	0	0
52	10/10/93	1100-1145	A	1035	MNWH	T24	210	105	U	J	IM	0		1	0	0
53	10/10/93	1100-1145	A	1035	MNWH	T26	250	184	U	J	IM	0		1	0	0
54	10/10/93	1100-1145	A	1035	MNWH	T27	234	146	U	J	IM	0		1	0	0
55	10/10/93	1100-1145	A	1035	MNWH	10022	381	665	M	A	RP	0		1	0	0
56	10/10/93	1100-1145	A	1035	MNWH	10023	367	650	M	A	RP	0		1	0	0
57	10/10/93	1100-1145	A	1035	MNWH	10024	322	370	M	A	RP	0		1	0	0
58	10/10/93	1100-1145	A	1035	MNWH	T28	277	260	U	U	U	0		1	0	0
59	10/10/93	1100-1145	A	1035	MNWH	10025	353	510	M	A	RP	0		1	0	0
60	10/10/93	1200-1245	A	1034	MNWH	10026	401	770	U	A	U	2		1	1	0
61	10/10/93	1200-1245	A	1034	MNWH	10027	430	915	U	A	U	0		1	0	0
62	10/10/93	1200-1245	A	1034	MNWH	10028	406	685	M	A	RP	0		1	0	0
63	10/10/93	1200-1245	A	1034	MNWH	10029	371	620	U	A	U	0		1	0	0
64	10/10/93	1200-1245	A	1034	MNWH	10030	314	360	U	A	U	0		1	0	0
65	10/10/93	1200-1245	A	1034	MNWH	10031	319	394	M	A	RP	0	CAUDAL INJURY	1	0	0
66	10/10/93	1200-1245	A	1034	MNWH	10032	429	955	M	A	RP	0		1	0	0
67	10/10/93	1200-1245	A	1034	MNWH	10033	345	505	M	A	RP	0		1	0	0
68	10/10/93	1200-1245	A	1034	MNWH	10034	317	382	M	A	RP	0	FACIAL DAMAGE	1	0	0
69	10/10/93	1200-1245	A	1034	MNWH	10035	375	641	U	A	U	0		1	0	0
70	10/10/93	1200-1245	A	1034	NRPK	T29	324	236	U	J	IM	0	ANAL VI TAG	1	0	0
71	10/10/93	1200-1245	A	1034	LNSC	10036	409	935	U	A	U	0		1	0	0
72	10/10/93	1200-1245	A	1034	MNWH	T30	273	257	U	U	U	2		1	1	0
73	10/10/93	1200-1245	A	1034	MNWH	10037	329	421	M	A	RP	2		1	1	0
74	10/10/93	1200-1245	A	1034	MNWH	T31	265	226	U	J	IM	2		1	0	1
75	10/10/93	1200-1245	A	1034	MNWH	T32	216	102	U	J	IM	0		1	0	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
76	10/10/93	1200-1245	A	1034	LNSC	AP	96	10	U	J	IM	0		1	0	0
77	10/10/93	1200-1245	A	1034	MNWH	T33	271	264	U	J	IM	0		1	0	0
78	10/10/93	1200-1245	A	1034	MNWH	T34	283	324	U	J	IM	0		1	0	0
79	10/10/93	1200-1245	A	1034	MNWH	T35	245	186	U	J	IM	0		1	0	0
80	10/10/93	1200-1245	A	1034	MNWH	10038	301	338	U	J	IM	0		1	0	0
81	10/10/93	1200-1245	A	1034	MNWH	T36	242	166	U	J	IM	0		1	0	0
82	10/10/93	1200-1245	A	1034	WHSC		418	1110	U	A	U	0		1	0	0
83	10/10/93	1200-1245	A	1034	MNWH	10039	359	562	U	A	U	0		1	0	0
84	10/10/93	1200-1245	A	1034	MNWH	AP	130	22	U	J	IM	0		1	0	0
85	10/10/93	1200-1245	A	1034	MNWH	T37	168	52	U	J	U	0		1	0	0
86	10/10/93	1200-1245	A	1034	MNWH	T38	181	64	U	J	IM	0		1	0	0
87	10/10/93	1200-1245	A	1034	MNWH	T39	164	46	U	J	IM	0		1	0	0
88	10/10/93	1200-1245	A	1034	MNWH	T40	225	155	U	J	IM	0		1	0	0
89	10/10/93	1200-1245	A	1034	MNWH	T41	162	46	U	J	IM	0		1	0	0
90	10/10/93	1200-1245	A	1034	MNWH	T42	152	40	U	J	IM	0		1	0	0
91	10/10/93	1200-1245	A	1034	MNWH	T43	228	136	U	J	IM	2		1	1	0
92	10/10/93	1200-1245	A	1034	MNWH	10040	301	308	U	A	U	2		1	1	0
93	10/10/93	1200-1245	A	1034	MNWH	T44	177	72	U	J	IM	2		1	1	0
94	10/10/93	1200-1245	A	1034	MNWH	10041	361	578	U	A	U	0		1	0	0
95	10/10/93	1200-1245	A	1034	MNWH	10042	299	316	U	U	U	0		1	0	0
96	10/10/93	1200-1245	A	1034	MNWH	10043	298	312	U	U	U	0		1	0	0
97	10/10/93	1200-1245	A	1034	WHSC		297	414	U	U	U	0		1	0	0
98	10/10/93	1200-1245	A	1034	WHSC		321	466	U	U	U	0		1	0	0
99	10/10/93	1200-1245	A	1034	MNWH	10044	312	366	M	A	RP	0		1	0	0
100	10/10/93	1200-1245	A	1034	MNWH	T45	273	222	U	U	U	0		1	0	0
101	10/10/93	1200-1245	A	1034	MNWH	T46	238	161	U	J	IM	0		1	0	0
102	10/10/93	1200-1245	A	1034	MNWH	T47	248	183	U	J	IM	0		1	0	0
103	10/10/93	1200-1245	A	1034	MNWH	T48	257	184	U	J	IM	0		1	0	0
104	10/10/93	1200-1245	A	1034	MNWH	10045	281	302	M	A	RP	0		1	0	0
105	10/10/93	1200-1245	A	1034	MNWH	T49	206	90	U	J	IM	0		1	0	0
106	10/10/93	1200-1245	A	1034	MNWH	T50	232	135	U	J	IM	0		1	0	0
107	10/10/93	1200-1245	A	1034	MNWH	T53	265	227	U	J	IM	0		1	0	0
108	10/10/93	1200-1245	A	1034	MNWH	T54	239	166	U	J	IM	0		1	0	0
109	10/10/93	1200-1245	A	1034	MNWH	10046	322	374	M	A	RP	0		1	0	0
110	10/10/93	1200-1245	A	1034	MNWH	T55	244	178	U	J	IM	0		1	0	0
111	10/10/93	1200-1245	A	1034	MNWH	T56	266	244	U	J	IM	0		1	0	0
112	10/10/93	1200-1245	A	1034	MNWH	T57	293	290	U	A	U	0		1	0	0
113	10/10/93	1200-1245	A	1034	MNWH	T58	255	180	U	J	IM	0	TUMOUR UNDER RI	1	0	0
114	10/10/93	1400-1438	A	1033	MNWH	10047	425	960	F	A	RP	0		1	0	0
115	10/10/93	1400-1438	A	1033	NRPK	10048	434	830	U	U	U	2		1	1	0
116	10/10/93	1400-1438	A	1033	MNWH	10049	406	800	U	A	U	0		1	0	0
117	10/10/93	1400-1438	A	1033	WHSC		399	820	U	A	U	0		1	0	0
118	10/10/93	1400-1438	A	1033	MNWH	10050	379	640	F	A	RP	0		1	0	0
119	10/10/93	1400-1438	A	1033	MNWH	10051	376	625	U	A	U	0		1	0	0
120	10/10/93	1400-1438	A	1033	MNWH	10052	323	825	F	A	RP	0		1	0	0
121	10/10/93	1400-1438	A	1033	MNWH	10053	324	645	M	A	RP	0		1	0	0
122	10/10/93	1400-1438	A	1033	MNWH	T59	235	166	U	J	IM	0		1	0	0
123	10/10/93	1400-1438	A	1033	MNWH	10054	365	595	M	A	RP	0	HEMMORAGED FIN	1	0	0
124	10/10/93	1400-1438	A	1033	MNWH	10055	449	1005	F	A	RP	0		1	0	0
125	10/10/93	1400-1438	A	1033	MNWH	T60	161	48	U	J	IM	0		1	0	0
126	10/10/93	1400-1438	A	1033	MNWH	AP	102	10	U	J	IM	0		1	0	0
127	10/10/93	1400-1438	A	1033	MNWH	AP	182	77	U	J	IM	0		1	0	0
128	10/10/93	1400-1438	A	1033	MNWH	AP	106	4	U	J	IM	0		1	0	0
129	10/10/93	1400-1438	A	1033	MNWH	T62	202	102	U	J	IM	0		1	0	0
130	10/10/93	1400-1438	A	1033	MNWH	T63	241	164	U	J	IM	0		1	0	0
131	10/10/93	1400-1438	A	1033	MNWH	10056	370	605	U	A	U	0		1	0	0
132	10/10/93	1400-1438	A	1033	LNSC	10057	366	720	U	A	U	0		1	0	0
133	10/10/93	1400-1438	A	1033	MNWH	T64	193	100	U	J	IM	0		1	0	0
134	10/10/93	1400-1438	A	1033	MNWH	T65	213	116	U	J	IM	0		1	0	0
135	10/10/93	1400-1438	A	1033	MNWH	T66	238	181	U	J	IM	0		1	0	0
136	10/10/93	1400-1438	A	1033	MNWH	T67	248	171	U	J	IM	0		1	0	0
137	10/10/93	1400-1438	A	1033	MNWH	T68	238	172	U	J	IM	0		1	0	0
138	10/10/93	1400-1438	A	1033	MNWH	T69	163	54	U	J	IM	2		1	0	1
139	10/10/93	1400-1438	A	1033	MNWH	T70	193	86	U	J	IM	0		1	0	0
140	10/10/93	1400-1438	A	1033	LNSC	10058	455	1160	U	A	U	0		1	0	0
141	10/10/93	1400-1438	A	1033	MNWH	T71	225	147	U	J	IM	0		1	0	0
142	10/10/93	1400-1438	A	1033	MNWH	10059	332	442	U	A	U	0		1	0	0
143	10/10/93	1400-1438	A	1033	MNWH	T72	182	75	U	J	IM	0		1	0	0
144	10/10/93	1400-1438	A	1033	MNWH	T73	222	157	U	J	IM	0		1	0	0
145	10/10/93	1400-1438	A	1033	MNWH	T74	292	286	U	U	U	0		1	0	0
146	10/10/93	1400-1438	A	1033	MNWH	10060	342	504	U	A	U	0		1	0	0
147	10/10/93	1400-1438	A	1033	MNWH	T75	244	170	U	J	IM	0		1	0	0
148	10/10/93	1400-1438	A	1033	MNWH	10061	299	404	U	A	U	0		1	0	0
149	10/10/93	1400-1438	A	1033	MNWH	T76	337	170	U	J	IM	0		1	0	0
150	10/10/93	1400-1438	A	1033	MNWH	AP	102	11	U	J	IM	0		1	0	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
151	10/10/93	1400-1438	A	1033	WHSC		374	795	U	A	IM	0		1	0	0
152	10/10/93	1400-1438	A	1033	MNWH	10062	300	352	U	A	U	0		1	0	0
153	10/10/93	1400-1438	A	1033	LNSC	10063	432	1245	U	A	U	0		1	0	0
154	10/10/93	1400-1438	A	1033	NRPK	10064	522	955	U	A	U	0		1	0	0
155	10/10/93	1400-1438	A	1033	NRPK	10065	392	470	U	U	U	0		1	0	0
156	10/10/93	1400-1438	A	1033	MNWH	10066	411	875	M	A	RP	0		1	0	0
157	10/10/93	1400-1438	A	1033	MNWH	10067	389	670	M	A	RP	0		1	0	0
158	10/10/93	1400-1438	A	1033	LNSC	10068	382	765	U	A	U	0		1	0	0
159	10/10/93	1400-1438	A	1033	LNSC	10069	380	795	U	A	U	0		1	0	0
160	10/10/93	1400-1438	A	1033	LNSC	10070	401	835	U	A	U	0		1	0	0
161	10/10/93	1400-1438	A	1033	MNWH	10071	375	610	M	A	RP	0		1	0	0
162	10/10/93	1400-1438	A	1033	MNWH	10072	327	446	U	A	U	0		1	0	0
163	10/10/93	1400-1438	A	1033	MNWH	T77	243	192	U	J	IM	0		1	0	0
164	10/10/93	1400-1438	A	1033	MNWH	T78	213	120	U	J	IM	0		1	0	0
165	10/10/93	1400-1438	A	1033	MNWH	T49						0	RECAP	1	0	0
166	10/10/93	1400-1438	A	1033	MNWH	T79	243	186	U	J	IM	0		1	0	0
167	10/10/93	1400-1438	A	1033	MNWH	T80	182	72	U	J	IM	0		1	0	0
168	10/10/93	1400-1438	A	1033	MNWH	T81	125	76	U	J	IM	0		1	0	0
169	10/10/93	1400-1438	A	1033	MNWH	T82	230	128	U	J	IM	0	BELLY LEISONS, FIS	1	0	0
170	10/10/93	1400-1438	A	1033	MNWH	T83	246	190	U	J	IM	0		1	0	0
171	10/10/93	1400-1438	A	1033	MNWH	T84	242	176	U	J	IM	0		1	0	0
172	10/10/93	1400-1438	A	1033	MNWH	T85	222	136	U	J	IM	0		1	0	0
173	10/10/93	1400-1438	A	1033	MNWH	T86	235	154	U	J	IM	0		1	0	0
174	10/10/93	1400-1438	A	1033	MNWH	T87	232	175	U	J	IM	0		1	0	0
175	10/10/93	1400-1438	A	1033	MNWH	T88	248	207	U	J	IM	0		1	0	0
176	10/10/93	1400-1438	A	1033	MNWH	T89	266	236	U	J	IM	0		1	0	0
177	10/10/93	1400-1438	A	1033	MNWH	T91	188	74	U	J	IM	0		1	0	0
178	10/10/93	1400-1438	A	1033	MNWH	T92	245	198	U	J	IM	0		1	0	0
179	10/10/93	1400-1438	A	1033	MNWH	T93	186	74	U	J	IM	0		1	0	0
180	10/10/93	1400-1438	A	1033	MNWH	T94	214	113	U	J	IM	0		1	0	0
181	10/10/93	1400-1438	A	1033	MNWH	T95	194	90	U	J	IM	0		1	0	0
182	10/10/93	1400-1438	A	1033	MNWH	T96	165	52	U	J	IM	0		1	0	0
183	10/10/93	1400-1438	A	1033	MNWH	T98	202	96	U	J	IM	0		1	0	0
184	10/10/93	1400-1438	A	1033	MNWH	T99	192	82	U	J	IM	0		1	0	0
185	10/10/93	1400-1438	A	1033	MNWH	T97	171	68	U	J	IM	0		1	0	0
186	10/10/93	1400-1438	A	1033	MNWH	TA0	203	102	U	J	IM	0		1	0	0
187	10/10/93	1400-1438	A	1033	MNWH	TA1	206	102	U	J	IM	0		1	0	0
188	10/10/93	1400-1438	A	1033	MNWH	TA2	192	94	U	J	IM	0		1	0	0
189	10/10/93	1400-1438	A	1033	MNWH	TA3	192	72	U	J	IM	0		1	0	0
190	10/10/93	1400-1438	A	1033	MNWH	TA4	192	88	U	J	IM	0		1	0	0
191	10/10/93	1400-1438	A	1033	MNWH	TA5	196	96	U	J	IM	0		1	0	0
192	10/10/93	1400-1438	A	1033	MNWH	TA6	174	64	U	J	IM	0		1	0	0
193	10/10/93	1400-1438	A	1033	MNWH	TA7	183	66	U	J	IM	0		1	0	0
194	10/10/93	1400-1438	A	1033	MNWH	TA8	187	70	U	J	IM	0		1	0	0
195	10/10/93	1400-1438	A	1033	MNWH	TA9	197	78	U	J	IM	0		1	0	0
196	10/10/93	1400-1438	A	1033	MNWH	TB0	186	72	U	J	IM	2		1	1	0
197	10/10/93	1400-1438	A	1033	MNWH	TB1	170	54	U	J	IM	0		1	0	0
198	10/10/93	1400-1438	A	1033	MNWH	TB2	165	52	U	J	IM	0		1	0	0
199	10/10/93	1400-1438	A	1033	MNWH	TB3	177	54	U	J	IM	0		1	0	0
200	10/10/93	1400-1438	A	1033	MNWH	TB4	162	42	U	J	IM	0		1	0	0
201	10/10/93	1400-1438	A	1033	MNWH	TB5	150	42	U	J	IM	0		1	0	0
202	10/10/93	1400-1438	A	1033	MNWH	TB6	173	48	U	J	IM	0		1	0	0
203	10/10/93	1400-1438	A	1033	MNWH	AP	119	16	U	J	IM	0		1	0	0
204	10/10/93	1400-1438	A	1033	MNWH	AP	108	12	U	J	IM	0		1	0	0
205	10/10/93	1400-1438	A	1033	MNWH	AP	113	14	U	J	IM	0		1	0	0
206	10/10/93	1400-1438	A	1033	MNWH	AP	101	9	U	J	IM	0		1	0	0
207	10/10/93	1400-1438	A	1033	MNWH	AP	113	14	U	J	IM	0		1	0	0
208	10/10/93	1400-1438	A	1033	MNWH	AP	116	16	U	J	IM	0		1	0	0
209	10/10/93	1400-1438	A	1033	MNWH	AP	112	14	U	J	IM	0		1	0	0
210	10/10/93	1400-1438	A	1033	MNWH	AP	115	18	U	J	IM	0		1	0	0
211	10/10/93	1400-1438	A	1033	MNWH	AP	104	12	U	J	IM	0		1	0	0
212	10/10/93	1400-1438	A	1033	MNWH	AP	91	8	U	J	IM	0		1	0	0
213	10/10/93	1400-1438	A	1033	MNWH	AP	118	12	U	J	IM	0		1	0	0
215	10/10/93	1445-1520	A	1030.5	NRPK	10073	846	5600	U	A	U	0		1	0	0
216	10/10/93	1445-1520	A	1030.5	NRPK	10074	697	2395	U	A	U	2		1	1	0
217	10/10/93	1445-1520	A	1030.5	NRPK	10075	500	1100	U	U	U	2		1	1	1
218	10/10/93	1445-1520	A	1030.5	LKWH		330	554	U	A	U	0		1	0	0
219	10/10/93	1445-1520	A	1030.5	LKWH		255	232	U	J	IM	0		1	0	0
220	10/10/93	1445-1520	A	1030.5	WHSC		381	845	U	A	U	0		1	0	0
221	10/10/93	1445-1520	A	1030.5	WHSC		413	1100	U	A	U	0		1	0	0
222	10/10/93	1445-1520	A	1030.5	NRPK	10076	403	545	U	U	U	2		1	1	0
223	10/10/93	1445-1520	A	1030.5	WHSC		370	755	U	A	U	0		1	0	0
224	10/10/93	1445-1520	A	1030.5	MNWH	10077	371	610	F	A	RP	0		1	0	0
225	10/10/93	1445-1520	A	1030.5	MNWH	10078	320	366	M	A	RP	0		1	0	0
226	10/10/93	1445-1520	A	1030.5	MNWH	10079	320	452	U	A	U	0		1	0	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
227	10/10/93	1445-1520	A	1030.5	MNWH	10080	335	456	F	A	RP	0		1	0	0
228	10/10/93	1445-1520	A	1030.5	MNWH	10081	283	302	M	A	RP	0		1	0	0
229	10/10/93	1445-1520	A	1030.5	MNWH	10082	320	424	U	A	U	0		1	0	0
230	10/10/93	1445-1520	A	1030.5	MNWH	10083	370	612	U	A	U	0		1	0	0
231	10/10/93	1445-1520	A	1030.5	MNWH	10084	395	676	U	A	U	0		1	0	0
232	10/10/93	1445-1520	A	1030.5	MNWH	10085	421	855	M	A	RP	0		1	0	0
233	10/10/93	1445-1520	A	1030.5	MNWH	10086	347	560	M	A	RP	0		1	0	0
234	10/10/93	1445-1520	A	1030.5	MNWH	10087	340	478	M	A	RP	0		1	0	0
235	10/10/93	1445-1520	A	1030.5	MNWH	10088	335	460	M	A	RP	0		1	0	0
236	10/10/93	1445-1520	A	1030.5	MNWH	TB7	194	92	U	J	IM	0		1	0	0
237	10/10/93	1445-1520	A	1030.5	MNWH	TB8	189	90	U	J	IM	0		1	0	0
238	10/10/93	1445-1520	A	1030.5	MNWH	TB9	292	282	U	J	IM	0		1	0	0
239	10/10/93	1445-1520	A	1030.5	MNWH	TC0	272	234	U	J	IM	0		1	0	0
240	10/10/93	1445-1520	A	1030.5	MNWH	TC1	251	202	U	J	IM	0		1	0	0
241	10/10/93	1445-1520	A	1030.5	MNWH	TC2	195	82	U	J	IM	2		1	0	1
242	10/10/93	1445-1520	A	1030.5	MNWH	TC3	215	114	U	J	IM	0		1	0	0
243	10/10/93	1445-1520	A	1030.5	MNWH	TC4	196	95	U	J	IM	0		1	0	0
244	10/10/93	1445-1520	A	1030.5	MNWH	TC5	252	166	U	J	IM	0		1	0	0
245	10/10/93	1445-1520	A	1030.5	MNWH	TC6	252	184	U	J	IM	0		1	0	0
246	10/10/93	1445-1520	A	1030.5	MNWH	TC7	255	223	U	J	IM	0		1	0	0
247	10/10/93	1445-1520	A	1030.5	MNWH	TC8	240	162	U	J	IM	0		1	0	0
248	10/10/93	1445-1520	A	1030.5	MNWH	TC9	240	157	U	J	IM	0		1	0	0
249	10/10/93	1445-1520	A	1030.5	MNWH	TD0	206	98	U	J	IM	0		1	0	0
250	10/10/93	1445-1520	A	1030.5	MNWH	TD1	176	62	U	J	IM	0		1	0	0
251	10/10/93	1445-1520	A	1030.5	MNWH	TD2	196	87	U	J	IM	0		1	0	0
252	10/10/93	1445-1520	A	1030.5	MNWH	TD3	202	106	U	J	IM	0		1	0	0
253	10/10/93	1445-1520	A	1030.5	MNWH	TD4	202	86	U	J	IM	2		1	1	0
254	10/10/93	1445-1520	A	1030.5	MNWH	TD5	182	58	U	J	IM	0		1	0	0
255	10/10/93	1445-1520	A	1030.5	MNWH	TD6	187	64	U	J	IM	0		1	0	0
256	10/10/93	1445-1520	A	1030.5	MNWH	TD8	157	36	U	J	IM	0		1	0	0
257	10/10/93	1445-1520	A	1030.5	MNWH	TD9	160	52	U	J	IM	0		1	0	0
258	10/10/93	1445-1520	A	1030.5	MNWH	TE0	173	58	U	J	IM	0		1	0	0
259	10/10/93	1445-1520	A	1030.5	MNWH	TE1	181	60	U	J	IM	0		1	0	0
260	10/10/93	1445-1520	A	1030.5	MNWH	AP	106	14	U	J	IM	0		1	0	0
261	10/10/93	1445-1520	A	1030.5	MNWH	AP	112	16	U	J	IM	0		1	0	0
262	10/10/93	1445-1520	A	1030.5	MNWH	AP	103	12	U	J	IM	0		1	0	0
263	10/10/93	1700-1721	A	1029.5	MNWH	10089	372	660	M	A	RP	0		1	0	0
264	10/10/93	1700-1721	A	1029.5	MNWH	10090	364	550	U	A	U	0		1	0	0
265	10/10/93	1700-1721	A	1029.5	LNSC	10091	389	775	U	A	U	0		1	0	0
266	10/10/93	1700-1721	A	1029.5	MNWH	10092	412	910	U	A	U	0		1	0	0
267	10/10/93	1700-1721	A	1029.5	MNWH	10093	338	515	M	A	RP	0		1	0	0
268	10/10/93	1700-1721	A	1029.5	WHSC	10094	410	1115	U	U	U	0		1	0	0
269	10/10/93	1700-1721	A	1029.5	MNWH	TE3	225	1347	U	J	IM	0		1	0	0
270	10/10/93	1700-1721	A	1029.5	MNWH	TE4	255	194	U	J	IM	0		1	0	0
271	10/10/93	1700-1721	A	1029.5	MNWH	TE5	179	62	U	J	IM	0		1	0	0
272	10/10/93	1700-1721	A	1029.5	MNWH	TE7	170	58	U	J	IM	0		1	0	0
273	10/10/93	1700-1721	A	1029.5	MNWH	TE8	194	76	U	J	IM	0		1	0	0
274	10/10/93	1700-1721	A	1029.5	MNWH	TE9	223	96	U	J	IM	0		1	0	0
275	10/10/93	1700-1721	A	1029.5	MNWH	TF0	205	108	U	J	IM	0		1	0	0
276	10/10/93	1700-1721	A	1029.5	MNWH	TF1	212	118	U	J	IM	0		1	0	0
277	10/10/93	1700-1721	A	1029.5	MNWH	TF2	163	50	U	J	IM	0		1	0	0
278	10/10/93	1700-1721	A	1029.5	MNWH	TF3	182	66	U	J	IM	0	PRED. INJURY ON C	1	0	0
279	10/10/93	1700-1721	A	1029.5	MNWH	TF4	198	85	U	J	IM	2		1	0	1
280	10/10/93	1700-1721	A	1029.5	MNWH	TF5	200	96	U	J	IM	0		1	0	0
281	10/10/93	1700-1721	A	1029.5	MNWH	TF6	163	54	U	J	IM	0		1	0	0
282	10/10/93	1700-1721	A	1029.5	MNWH	TF7	258	214	U	J	IM	0		1	0	0
283	10/10/93	1700-1721	A	1029.5	MNWH	10095	301	310	U	U	U	0		1	0	0
284	10/10/93	1700-1721	A	1029.5	MNWH	TF8	263	236	U	J	IM	0		1	0	0
285	10/10/93	1700-1721	A	1029.5	MNWH	TF9	257	224	U	J	IM	0		1	0	0
286	10/10/93	1700-1721	A	1029.5	MNWH	TH0	191	79	U	J	IM	0		1	0	0
287	10/10/93	1700-1721	A	1029.5	MNWH	AP	122	20	U	J	IM	0		1	0	0
288	10/10/93	1700-1721	A	1029.5	MNWH	10096	300	339	U	A	U	0		1	0	0
289	10/10/93	1700-1721	A	1029.5	MNWH	TH1	245	164	U	J	IM	0		1	0	0
290	10/10/93	1700-1721	A	1029.5	MNWH	TH2	295	326	U	U	U	0		1	0	0
291	10/10/93	1700-1721	A	1029.5	MNWH	TH3	241	166	U	J	IM	0	PRED. WOUND CAU	1	0	0
292	10/10/93	1700-1721	A	1029.5	MNWH	TH4	225	136	U	J	IM	0		1	0	0
293	10/10/93	1700-1721	A	1029.5	MNWH	TH5	251	183	U	J	IM	0		1	0	0
294	10/10/93	1700-1721	A	1029.5	MNWH	TH6	208	106	U	J	IM	0		1	0	0
295	10/10/93	1700-1721	A	1029.5	MNWH	TH7	228	117	U	J	IM	0		1	0	0
296	10/10/93	1700-1721	A	1029.5	MNWH	10098	336	462	U	A	U	0		1	0	0
297	10/10/93	1700-1721	A	1029.5	MNWH	TH8	152	36	U	J	IM	0		1	0	0
298	10/10/93	1700-1721	A	1029.5	MNWH	TH9	266	234	U	J	IM	0		1	0	0
299	10/10/93	1700-1721	A	1029.5	MNWH	TJ0	207	105	U	J	IM	0		1	0	0
300	10/10/93	1700-1721	A	1029.5	MNWH	AP	96	8	U	J	IM	0		1	0	0
301	10/10/93	1722-1745	A	1028.5	NRPK	10099	588	1430	U	A	U	2		1	1	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
302	10/10/93	1722-1745	A	1028.5	MNWH	10100	438	1000	U	A	U	0		1	0	0
303	10/10/93	1722-1745	A	1028.5	MNWH	10101	358	565	M	A	RP	0		1	0	0
304	10/10/93	1722-1745	A	1028.5	NRPK	10102	510	1250	U	A	U	0		1	0	0
305	10/10/93	1722-1745	A	1028.5	MNWH	10103	412	940	F	A	RP	0		1	0	0
306	10/10/93	1722-1745	A	1028.5	LNSC	10104	417	1150	U	A	U	0		1	0	0
307	10/10/93	1722-1745	A	1028.5	LNSC	10105	381	730	U	A	U	0		1	0	0
308	10/10/93	1722-1745	A	1028.5	MNWH	10106	343	540	U	A	U	0		1	0	0
309	10/10/93	1722-1745	A	1028.5	MNWH	TJ1	247	190	U	J	IM	0		1	0	0
310	10/10/93	1722-1745	A	1028.5	MNWH	TJ2	267	220	U	J	IM	0		1	0	0
311	10/10/93	1722-1745	A	1028.5	MNWH	TJ3	188	84	U	J	IM	0		1	0	0
312	10/10/93	1722-1745	A	1028.5	MNWH	TJ4	204	104	U	J	IM	0		1	0	0
313	10/10/93	1722-1745	A	1028.5	MNWH	TJ5	198	84	U	J	IM	0		1	0	0
314	10/10/93	1722-1745	A	1028.5	MNWH	TJ6	216	136	U	J	IM	0		1	0	0
315	10/10/93	1722-1745	A	1028.5	MNWH	TJ7	238	180	U	J	IM	2		1	1	0
316	10/10/93	1722-1745	A	1028.5	RNTR	10107	281	264	U	U	U	0		1	0	0
317	10/10/93	1722-1745	A	1028.5	MNWH	TJ8	222	124	U	J	IM	0		1	0	0
318	10/10/93	1722-1745	A	1028.5	MNWH	TJ9	227	146	U	J	IM	0		1	0	0
319	10/10/93	1722-1745	A	1028.5	MNWH		175	63	U	J	IM	0		1	0	0
320	10/10/93	1722-1745	A	1028.5	MNWH	TK0	173	62	U	J	IM	0		1	0	0
321	10/10/93	1722-1745	A	1028.5	MNWH	TK1	193	88	U	J	IM	0		1	0	0
322	10/10/93	1722-1745	A	1028.5	MNWH	TK2	176	64	U	J	IM	0		1	0	0
323	10/10/93	1722-1745	A	1028.5	MNWH	TK3	165	48	U	J	IM	0		1	0	0
324	10/10/93	1722-1745	A	1028.5	MNWH	TK4	160	44	U	J	IM	0		1	0	0
325	10/10/93	1722-1745	A	1028.5	MNWH	TK5	150	34	U	J	IM	0		1	0	0
326	10/10/93	1722-1745	A	1028.5	MNWH	TK6	162	42	U	J	IM	0		1	0	0
327	10/10/93	1722-1745	A	1028.5	MNWH	TK7	177	64	U	J	IM	0		1	0	0
328	10/10/93	1722-1745	A	1028.5	MNWH	TK8	166	44	U	J	IM	0		1	0	0
329	10/10/93	1722-1745	A	1028.5	MNWH	TK9	162	44	U	J	IM	0		1	0	0
330	10/10/93	1722-1745	A	1028.5	MNWH	AP	111	14	U	J	IM	0		1	0	0
331	10/10/93	1722-1745	A	1028.5	MNWH	AP	103	14	U	J	IM	0		1	0	0
332	11\10/93	1000-1025	A	1027.5	WHSC		390	840	U	U	U	0		1	0	0
333	11\10/93	1000-1025	A	1027.5	WHSC		442	1200	U	U	U	0		1	0	0
334	11\10/93	1000-1025	A	1027.5	WHSC		391	850	U	U	U	0		1	0	0
335	11\10/93	1000-1025	A	1027.5	WHSC		378	785	U	U	U	0		1	0	0
336	11\10/93	1000-1025	A	1027.5	MNWH	10108	429	1200	U	A	U	0		1	0	0
337	11\10/93	1000-1025	A	1027.5	MNWH	10109	368	660	M	A	RP	0		1	0	0
338	11\10/93	1000-1025	A	1027.5	LNSC	10110	448	1475	U	A	U	0		1	0	0
339	11\10/93	1000-1025	A	1027.5	LNSC	10111	433	1170	U	A	U	2		1	1	0
340	11\10/93	1000-1025	A	1027.5	WHSC		372	7358	U	A	U	0	LESION BEHIND L P	1	0	0
341	11\10/93	1000-1025	A	1027.5	MNWH	10112	320	460	M	A	RP	0		1	0	0
342	11\10/93	1000-1025	A	1027.5	MNWH	10113	368	585	M	A	RP	0		1	0	0
343	11\10/93	1000-1025	A	1027.5	MNWH	10114	316	400	U	A	U	0		1	0	0
344	11\10/93	1000-1025	A	1027.5	MNWH	10115	354	540	U	A	RP	0		1	0	0
345	11\10/93	1000-1025	A	1027.5	MNWH	TL0	236	147	U	J	IM	0		1	0	0
346	11\10/93	1000-1025	A	1027.5	MNWH	TL1	232	144	U	J	IM	0		1	0	0
347	11\10/93	1000-1025	A	1027.5	MNWH	TL2	257	196	U	J	IM	0		1	0	0
348	11\10/93	1000-1025	A	1027.5	LKWH		200	97	U	J	IM	0		1	0	0
349	11\10/93	1000-1025	A	1027.5	MNWH	TL3	234	144	U	J	IM	0		1	0	0
350	11\10/93	1000-1025	A	1027.5	MNWH	TL4	235	150	U	J	IM	2		1	0	1
351	11\10/93	1000-1025	A	1027.5	MNWH	TL5	265	208	U	J	IM	0		1	0	0
352	11\10/93	1000-1025	A	1027.5	MNWH	TL6	218	122	U	J	IM	0		1	0	0
353	11\10/93	1000-1025	A	1027.5	MNWH	TL7	235	160	U	J	IM	0		1	0	0
354	11\10/93	1000-1025	A	1027.5	MNWH	TL8	220	122	U	J	IM	2		1	1	0
355	11\10/93	1000-1025	A	1027.5	MNWH	TL9	188	74	U	J	IM	0		1	0	0
356	11\10/93	1000-1025	A	1027.5	MNWH	WA0	195	87	U	J	IM	0		1	0	0
357	11\10/93	1000-1025	A	1027.5	MNWH	WA1	233	136	U	J	IM	0		1	0	0
358	11\10/93	1000-1025	A	1027.5	MNWH	WA2	216	112	U	J	IM	0		1	0	0
359	11\10/93	1000-1025	A	1027.5	MNWH	WA3	206	101	U	J	IM	0		1	0	0
360	11\10/93	1000-1025	A	1027.5	MNWH	WA4	161	42	U	J	IM	0		1	0	0
361	11\10/93	1000-1025	A	1027.5	MNWH	AP	104	10	U	J	IM	0	PREDATOR WOUND	1	0	0
362	11\10/93	1000-1025	A	1027.5	MNWH	AP	117	16	U	J	IM	0		1	0	0
363	11\10/93	1000-1025	A	1027.5	MNWH	AP	113	14	U	J	IM	0		1	0	0
364	11\10/93	1000-1025	A	1027.5	MNWH	AP	124	18	U	J	IM	0		1	0	0
365	11\10/93	1055-1125	A	1026.5	MNWH	AP	117	14	U	J	IM	0		1	0	0
366	11\10/93	1055-1125	A	1026.5	BURB	10116	592	1245	U	A	U	0		1	0	0
367	11\10/93	1055-1125	A	1026.5	NRPK	10117	565	1479	U	A	IM	0		1	0	0
368	11\10/93	1055-1125	A	1026.5	NRPK	10118	521	1093	U	A	U	0		1	0	0
369	11\10/93	1055-1125	A	1026.5	NRPK	10119	375	354	U	U	U	0		1	0	0
370	11\10/93	1055-1125	A	1026.5	MNWH	10120	391	735	U	A	U	0		1	0	0
371	11\10/93	1055-1125	A	1026.5	MNWH	10121	379	645	U	A	U	0		1	0	0
372	11\10/93	1055-1125	A	1026.5	MNWH	10122	362	605	M	A	RP	0		1	0	0
373	11\10/93	1055-1125	A	1026.5	MNWH	WA5	219	116	U	J	IM	0		1	0	0
374	11\10/93	1055-1125	A	1026.5	LKWH		300	354	U	U	U	0		1	0	0
375	11\10/93	1055-1125	A	1026.5	MNWH	WA6	237	176	U	J	IM	0		1	0	0
376	11\10/93	1055-1125	A	1026.5	MNWH	WA7	234	148	U	J	IM	0		1	0	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
377	11\10\93	1055-1125	A	1026.5	MNWH	Z23	317	278	U	A	U	0		1	0	0
378	11\10\93	1055-1125	A	1026.5	MNWH	WA8	276	332	U	J	IM	0		1	0	0
379	11\10\93	1055-1125	A	1026.5	MNWH	10124	312	336	M	A	RP	0		1	0	0
380	11\10\93	1055-1125	A	1026.5	LKWH		204	90	U	U	U	0		1	0	0
381	11\10\93	1055-1125	A	1026.5	WHSC		215	128	U	U	U	0		1	0	0
382	11\10\93	1055-1125	A	1026.5	WHSC		377	800	U	U	U	0		1	0	0
383	11\10\93	1055-1125	A	1026.5	MNWH	10125	426	900	U	A	U	3	MORT. COLLECTED	1	1	0
384	11\10\93	1055-1125	A	1026.5	NRPK	10126	507	905	U	A	U	0		1	0	0
385	11\10\93	1055-1125	A	1026.5	WHSC		354	590	U	A	U	0		1	0	0
386	11\10\93	1055-1125	A	1026.5	MNWH	10127	377	640	M	A	RP	0		1	0	0
387	11\10\93	1055-1125	A	1026.5	LNSC	10128	441	1150	U	A	U	0		1	0	0
388	11\10\93	1055-1125	A	1026.5	LNSC	10129	372	640	U	A	U	0		1	0	0
389	11\10\93	1055-1125	A	1026.5	LNSC	10130	375	780	M	A	U	0		1	0	0
390	11\10\93	1055-1125	A	1026.5	WHSC		263	252	U	J	IM	0		1	0	0
391	11\10\93	1055-1125	A	1026.5	MNWH	WA9	192	76	U	J	IM	0		1	0	0
392	11\10\93	1055-1125	A	1026.5	MNWH	WB0	171	50	U	J	IM	0		1	0	0
393	11\10\93	1055-1125	A	1026.5	MNWH	WB1	241	172	U	J	IM	0		1	0	0
394	11\10\93	1055-1125	A	1026.5	MNWH	WB2	248	172	U	J	IM	0		1	0	0
395	11\10\93	1055-1125	A	1026.5	MNWH	WB3	252	186	U	J	IM	0		1	0	0
396	11\10\93	1055-1125	A	1026.5	MNWH	WB4	172	52	U	J	IM	0		1	0	0
397	11\10\93	1055-1125	A	1026.5	MNWH	WB5	220	138	U	J	IM	0		1	0	0
398	11\10\93	1055-1125	A	1026.5	MNWH	WB6	179	61	U	J	IM	0		1	0	0
399	11\10\93	1055-1125	A	1026.5	MNWH	WB7	247	176	U	J	IM	0		1	0	0
400	11\10\93	1055-1125	A	1026.5	MNWH	WB9	197	80	U	J	IM	0		1	0	0
401	11\10\93	1055-1125	A	1026.5	MNWH	WC0	207	96	U	J	IM	0		1	0	0
402	11\10\93	1055-1125	A	1026.5	MNWH	WC1	201	93	U	J	IM	0		1	0	0
403	11\10\93	1055-1125	A	1026.5	MNWH	WC2	214	117	U	J	IM	0		1	0	0
404	11\10\93	1055-1125	A	1026.5	MNWH	WC3	220	118	U	J	IM	0		1	0	0
405	11\10\93	1055-1125	A	1026.5	MNWH	WC4	237	160	U	J	IM	0		1	0	0
406	11\10\93	1055-1125	A	1026.5	MNWH	WC5	220	130	U	J	IM	0		1	0	0
407	11\10\93	1055-1125	A	1026.5	MNWH	WC6	238	152	U	J	IM	0		1	0	0
408	11\10\93	1055-1125	A	1026.5	MNWH	WC7	223	124	U	J	IM	0		1	0	0
409	11\10\93	1055-1125	A	1026.5	MNWH	WC8	240	159	U	J	IM	0		1	0	0
410	11\10\93	1055-1125	A	1026.5	MNWH	WC9	242	173	U	J	IM	0		1	0	0
411	11\10\93	1055-1125	A	1026.5	MNWH	WD0	256	220	U	J	IM	0		1	0	0
412	11\10\93	1055-1125	A	1026.5	MNWH	WD1	295	286	U	J	IM	0		1	0	0
413	11\10\93	1055-1125	A	1026.5	MNWH	10131	360	574	U	A	U	0		1	0	0
414	11\10\93	1202-1245	A	1025.5	NRPK	10132	897	6050	F	A	U	0		1	0	0
415	11\10\93	1202-1245	A	1025.5	BURB	10133	725	1725	U	A	U	0		1	0	0
416	11\10\93	1202-1245	A	1025.5	NRPK	10134	740	2762	U	A	U	0		1	0	0
417	11\10\93	1202-1245	A	1025.5	BURB	10135	763	2310	U	A	U	0		1	0	0
418	11\10\93	1202-1245	A	1025.5	LNSC	10136	411	995	U	A	U	0		1	0	0
419	11\10\93	1202-1245	A	1025.5	NRPK	10137	359	338	U	U	U	0		1	0	0
420	11\10\93	1202-1245	A	1025.5	NRPK	WD2	180	30	U	J	IM	0		1	0	0
421	11\10\93	1202-1245	A	1025.5	MNWH	10139	394	820	U	A	U	0		1	0	0
422	11\10\93	1202-1245	A	1025.5	LNSC	10138	436	1150	U	A	U	0		1	0	0
423	11\10\93	1202-1245	A	1025.5	MNWH	WD3	227	146	U	J	IM	0		1	0	0
424	11\10\93	1202-1245	A	1025.5	LKWH		204	101	U	J	IM	0		1	0	0
425	11\10\93	1202-1245	A	1025.5	LNSC	10140	393	870	U	A	U	0		1	0	0
426	11\10\93	1202-1245	A	1025.5	LNSC	10141	386	710	U	A	U	0		1	0	0
427	11\10\93	1202-1245	A	1025.5	MNWH	WD4	145	32	U	J	IM	0		1	0	0
428	11\10\93	1202-1245	A	1025.5	MNWH	WD5	200	90	U	J	IM	0		1	0	0
429	11\10\93	1202-1245	A	1025.5	MNWH	WD6	190	74	U	J	IM	0		1	0	0
430	11\10\93	1202-1245	A	1025.5	LNSC	10142	474	1650	U	A	U	0		1	0	0
431	11\10\93	1202-1245	A	1025.5	MNWH	10143	367	650	U	A	U	0		1	0	0
432	11\10\93	1202-1245	A	1025.5	WHSC		401	870	U	A	U	0		1	0	0
433	11\10\93	1202-1245	A	1025.5	WHSC		436	1330	U	A	U	0		1	0	0
434	11\10\93	1202-1245	A	1025.5	LNSC	10144	352	530	U	A	U	0		1	0	0
435	11\10\93	1202-1245	A	1025.5	LNSC	10145	374	610	U	A	U	0		1	0	0
436	11\10\93	1202-1245	A	1025.5	LNSC	10146	386	780	U	A	U	0		1	0	0
437	11\10\93	1202-1245	A	1025.5	LNSC	10147	352	600	U	A	U	0		1	0	0
438	11\10\93	1202-1245	A	1025.5	LNSC	10148	372	695	U	A	U	0		1	0	0
439	11\10\93	1202-1245	A	1025.5	LNSC	WD7	245	195	U	J	IM	0		1	0	0
440	11\10\93	1202-1245	A	1025.5	BURB	10149	511	755	U	A	U	0		1	0	0
441	11\10\93	1202-1245	A	1025.5	MNWH	WD8	225	140	U	J	IM	2		1	0	1
442	11\10\93	1202-1245	A	1025.5	MNWH	WD9	180	68	U	J	IM	0		1	0	0
443	11\10\93	1202-1245	A	1025.5	MNWH	WE0	298	270	U	U	U	0		1	0	0
444	11\10\93	1202-1245	A	1025.5	MNWH	10150	362	580	U	A	U	0		1	0	0
445	11\10\93	1405-1430	B	1024.5	BURB	10151	520	795	U	A	U	0		1	0	0
446	11\10\93	1405-1430	B	1024.5	LNSC	10152	420	1060	U	A	U	0		1	0	0
447	11\10\93	1405-1430	B	1024.5	LNSC	10153	448	1310	U	A	U	0		1	0	0
448	11\10\93	1405-1430	B	1024.5	LNSC	10154	383	705	M	A	U	0		1	0	0
449	11\10\93	1405-1430	B	1024.5	LNSC	10155	369	650	U	A	IM	0		1	0	0
450	11\10\93	1405-1430	B	1024.5	LNSC	10156	376	595	U	A	U	0		1	0	0
451	11\10\93	1405-1430	B	1024.5	LNSC	10157	410	975	U	A	U	0		1	0	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
452	11\10\93	1405-1430	B	1024.5	LNSC	10158	380	740	U	A	IM	0		1	0	0
453	11\10\93	1405-1430	B	1024.5	LNSC	10159	396	750	U	A	IM	0		1	0	0
454	11\10\93	1405-1430	B	1024.5	LNSC	10160	377	640	U	A	U	0		1	0	0
455	11\10\93	1405-1430	B	1024.5	LNSC	10161	395	900	U	A	U	0		1	0	0
456	11\10\93	1405-1430	B	1024.5	LNSC	10162	429	1000	U	A	U	0		1	0	0
457	11\10\93	1405-1430	B	1024.5	LNSC	10163	394	810	U	A	U	0		1	0	0
458	11\10\93	1405-1430	B	1024.5	LNSC	10164	406	915	U	A	U	0		1	0	0
459	11\10\93	1405-1430	B	1024.5	LNSC	10165	385	720	U	A	U	0		1	0	0
460	11\10\93	1405-1430	B	1024.5	LNSC	10166	382	745	U	A	U	0		1	0	0
461	11\10\93	1405-1430	B	1024.5	LNSC	10167	402	865	U	A	U	0		1	0	0
462	11\10\93	1405-1430	B	1024.5	LNSC	10168	380	740	U	A	U	0		1	0	0
463	11\10\93	1405-1430	B	1024.5	LNSC	10169	370	600	U	A	U	0		1	0	0
464	11\10\93	1405-1430	B	1024.5	LNSC	10170	411	920	U	A	U	0		1	0	0
465	11\10\93	1405-1430	B	1024.5	LNSC	10171	389	775	U	A	U	0		1	0	0
466	11\10\93	1405-1430	B	1024.5	WHSC		361	660	U	A	U	0		1	0	0
467	11\10\93	1405-1430	B	1024.5	MNWH	WE1	285	262	U	J	IM	0		1	0	0
468	11\10\93	1405-1430	B	1024.5	MNWH	WE2	278	264	U	J	IM	0		1	0	0
469	11\10\93	1405-1430	B	1024.5	MNWH	WE3	174	78	U	J	U	0		1	0	0
470	11\10\93	1405-1430	B	1024.5	MNWH	WE4	193	76	U	J	IM	0		1	0	0
471	11\10\93	1405-1430	B	1024.5	ARGR	WE5	170	58	U	J	IM	0		1	0	0
472	11\10\93	1405-1430	B	1024.5	ARGR	WE6	230	138	U	J	IM	0		1	0	0
473	11\10\93	1405-1430	B	1024.5	ARGR	WE7	216	133	U	J	IM	0		1	0	0
474	11\10\93	1405-1430	B	1024.5	MNWH	WE8	198	99	U	J	IM	0		1	0	0
475	11\10\93	1405-1430	B	1024.5	MNWH	WE9	197	88	U	J	IM	0		1	0	0
476	11\10\93	1405-1430	B	1024.5	MNWH	WF0	224	127	U	J	IM	0		1	0	0
477	11\10\93	1405-1430	B	1024.5	MNWH	WF1	165	44	U	J	IM	0		1	0	0
478	11\10\93	1405-1430	B	1024.5	MNWH	10172	399	775	M	A	RP	0		1	0	0
479	11\10\93	1405-1430	B	1024.5	MNWH	10173	377	595	U	A	U	0		1	0	0
480	11\10\93	1405-1430	B	1024.5	MNWH	10174	346	510	U	A	U	0		1	0	0
481	11\10\93	1405-1430	B	1024.5	MNWH	WF2	285	266	U	U	U	0		1	0	0
482	11\10\93	1405-1430	B	1024.5	MNWH	10175	292	312	U	U	U	2		1	0	1
483	11\10\93	1405-1430	B	1024.5	MNWH	WF3	237	153	U	U	U	0		1	0	0
484	11\10\93	1405-1430	B	1024.5	MNWH	WF6	288	280	U	U	U	0		1	0	0
485	11\10\93	1405-1430	B	1024.5	MNWH	10176	351	510	U	A	U	0		1	0	0
486	11\10\93	1405-1430	B	1024.5	MNWH	WF7	292	270	U	U	U	0		1	0	0
487	11\10\93	1405-1430	B	1024.5	MNWH	WF5	268	210	U	J	IM	0		1	0	0
488	11\10\93	1505-1531	B	1023.5	WALL	10177	348	460	U	A	U	0		1	0	0
489	11\10\93	1505-1531	B	1023.5	BURB	10178	807	2795	U	A	U	0		1	0	0
490	11\10\93	1505-1531	B	1023.5	NRPK	10179	379	396	U	A	U	0		1	0	0
491	11\10\93	1505-1531	B	1023.5	NRPK	10180	485	875	U	A	U	0		1	0	0
492	11\10\93	1505-1531	B	1023.5	WHSC		410	930	U	A	U	0		1	0	0
493	11\10\93	1505-1531	B	1023.5	MNWH	10181	380	505	U	A	U	0		1	0	0
494	11\10\93	1505-1531	B	1023.5	MNWH	WF8	197	93	U	J	IM	0		1	0	0
495	11\10\93	1505-1531	B	1023.5	MNWH	WF9	225	128	U	J	IM	0		1	0	0
496	11\10\93	1505-1531	B	1023.5	MNWH	WH0	214	112	U	J	IM	0		1	0	0
497	11\10\93	1505-1531	B	1023.5	MNWH	WH1	192	70	U	J	IM	0		1	0	0
498	11\10\93	1505-1531	B	1023.5	MNWH	WH2	204	86	U	J	IM	0		1	0	0
499	11\10\93	1505-1531	B	1023.5	MNWH	WH3	176	60	U	J	IM	0		1	0	0
500	11\10\93	1505-1531	B	1023.5	MNWH	WH4	215	132	U	J	IM	0		1	0	0
501	11\10\93	1505-1531	B	1023.5	MNWH	WH5	198	86	U	J	IM	0		1	0	0
502	11\10\93	1505-1531	B	1023.5	MNWH	WH6	122	20	U	J	IM	0		1	0	0
503	11\10\93	1505-1531	B	1023.5	MNWH	WH7	165	46	U	J	IM	0		1	0	0
504	11\10\93	1505-1531	B	1023.5	MNWH	10182	419	820	U	A	U	0		1	0	0
505	11\10\93	1505-1531	B	1023.5	NRPK	10183	453	664	U	A	U	0		1	0	0
506	11\10\93	1505-1531	B	1023.5	MNWH	WH8	202	94	U	J	IM	0		1	0	0
507	11\10\93	1505-1531	B	1023.5	MNWH	WH9	205	92	U	J	IM	0		1	0	0
508	11\10\93	1505-1531	B	1023.5	NRPK	10184	405	450	U	U	U	0		1	0	0
509	11\10\93	1505-1531	B	1023.5	NRPK	WJ0	272	250	U	J	IM	0		1	0	0
510	11\10\93	1505-1531	B	1023.5	MNWH	WJ1	202	90	U	J	IM	0		1	0	0
511	11\10\93	1505-1531	B	1023.5	MNWH	WJ2	262	204	U	J	IM	0		1	0	0
512	11\10\93	1505-1531	B	1023.5	MNWH	WJ3	132	22	U	J	IM	0		1	0	0
513	11\10\93	1505-1531	B	1023.5	MNWH	WJ4	195	80	U	J	IM	0		1	0	0
514	11\10\93	1505-1531	B	1023.5	MNWH	WJ5	234	164	U	J	IM	0		1	0	0
515	11\10\93	1505-1531	B	1023.5	LNSC	WJ6	204	106	U	J	IM	0		1	0	0
516	11\10\93	1505-1531	B	1023.5	MNWH	WJ7	235	151	U	J	IM	0		1	0	0
517	11\10\93	1505-1531	B	1023.5	LNSC	10185	389	835	U	U	U	0		1	0	0
518	11\10\93	1505-1531	B	1023.5	MNWH	10186	325	420	U	A	U	0		1	0	0
519	11\10\93	1505-1531	B	1023.5	MNWH	10187	415	940	U	A	U	0		1	0	0
520	11\10\93	1505-1531	B	1023.5	MNWH	10188	394	740	M	A	RP	0		1	0	0
521	11\10\93	1555-1620	B	1022.5	NRPK	10189	600	1425	U	A	U	0		1	0	0
522	11\10\93	1555-1620	B	1022.5	NRPK	10190	575	1465	U	A	U	0		1	0	0
523	11\10\93	1555-1620	B	1022.5	NRPK	10191	481	785	U	A	U	0		1	0	0
524	11\10\93	1555-1620	B	1022.5	LNSC	10192	421	990	U	A	U	0		1	0	0
525	11\10\93	1555-1620	B	1022.5	LNSC	10193	445	1240	U	A	U	0		1	0	0
526	11\10\93	1555-1620	B	1022.5	LNSC	10194	413	980	U	A	U	2		1	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
527	11\10\93	1555-1620	B	1022.5	LNSC	10195	408	805	U	A	U	0		1	0	0
528	11\10\93	1555-1620	B	1022.5	LNSC	10196	380	770	U	A	U	0		1	0	0
529	11\10\93	1555-1620	B	1022.5	LNSC	10197	407	855	U	A	U	0	MULTIPLE SCARS O	1	0	0
530	11\10\93	1555-1620	B	1022.5	LNSC	10198	388	850	U	A	U	0	HEMMORAGED AN	1	0	0
531	11\10\93	1555-1620	B	1022.5	LNSC	10199	396	860	U	A	U	0		1	0	0
532	11\10\93	1555-1620	B	1022.5	LNSC	10200	417	960	U	A	U	0	PREDATORY INJUR	1	0	0
533	11\10\93	1555-1620	B	1022.5	LNSC	10201	390	850	U	A	U	0		1	0	0
534	11\10\93	1555-1620	B	1022.5	LNSC	10202	410	965	U	A	U	0		1	0	0
535	11\10\93	1555-1620	B	1022.5	LNSC	10203	366	680	U	A	U	0		1	0	0
536	11\10\93	1555-1620	B	1022.5	LNSC	10204	390	835	U	A	U	0		1	0	0
537	11\10\93	1555-1620	B	1022.5	WHSC		415	1110	U	A	U	0		1	0	0
538	11\10\93	1555-1620	B	1022.5	MNWH	WJ8	179	68	U	J	IM	0		1	0	0
539	11\10\93	1555-1620	B	1022.5	MNWH	WJ9	225	130	U	J	IM	0		1	0	0
540	11\10\93	1640-1700	B	1021.5	MNWH	10205	463	1170	F	A	RP	1		1	0	1
541	11\10\93	1640-1700	B	1021.5	NRPK	10206	485	750	U	A	U	0		1	0	0
542	11\10\93	1640-1700	B	1021.5	MNWH	10208	385	705	M	A	RP	1	MORT. COLLECTED	1	0	0
543	11\10\93	1640-1700	B	1021.5	MNWH	10207	350	520	U	A	U	0		1	0	0
544	11\10\93	1640-1700	B	1021.5	MNWH	10209	347	495	M	A	RP	0		1	0	0
545	11\10\93	1640-1700	B	1021.5	MNWH	10210	342	465	U	A	U	0		1	0	0
546	11\10\93	1640-1700	B	1021.5	BURB	10211	560	875	U	A	U	0		1	0	0
547	11\10\93	1640-1700	B	1021.5	BURB	10212	525	875	U	A	U	0		1	0	0
548	11\10\93	1640-1700	B	1021.5	MNWH	10213	295	370	U	J	IM	0		1	0	0
549	11\10\93	1640-1700	B	1021.5	MNWH		135	28	U	J	IM	0		1	0	0
550	11\10\93	1640-1700	B	1021.5	MNWH	10214	418	885	U	A	U	0		1	0	0
551	11\10\93	1640-1700	B	1021.5	MNWH	10215	365	560	M	A	RP	0		1	0	0
552	11\10\93	1640-1700	B	1021.5	MNWH	10216	410	800	U	A	U	0		1	0	0
553	11\10\93	1640-1700	B	1021.5	MNWH	10217	467	1310	U	A	U	0		1	0	0
554	11\10\93	1640-1700	B	1021.5	MNWH	WK0	250	184	U	J	IM	0		1	0	0
555	11\10\93	1640-1700	B	1021.5	MNWH	WK1	212	110	U	J	IM	0		1	0	0
556	11\10\93	1640-1700	B	1021.5	MNWH	WK2	200	86	U	J	IM	0		1	0	0
557	11\10\93	1640-1700	B	1021.5	MNWH	WK3	212	111	U	J	IM	0		1	0	0
558	11\10\93	1640-1700	B	1021.5	MNWH	WK4	188	79	U	J	IM	0		1	0	0
559	11\10\93	1640-1700	B	1021.5	MNWH	WK5	193	88	U	J	IM	0		1	0	0
560	11\10\93	1640-1700	B	1021.5	MNWH	WK6	241	152	U	J	IM	0		1	0	0
561	11\10\93	1640-1700	B	1021.5	MNWH	10218	400	800	U	A	U	0		1	0	0
562	11\10\93	1640-1700	B	1021.5	MNWH	10219	365	550	M	A	RP	0		1	0	0
563	11\10\93	1640-1700	B	1021.5	MNWH	10220	371	655	M	A	RP	0		1	0	0
564	11\10\93	1640-1700	B	1021.5	MNWH	10221	412	810	M	A	RP	0		1	0	0
565	11\10\93	1640-1700	B	1021.5	MNWH	10222	313	405	U	A	U	0		1	0	0
566	11\10\93	1640-1700	B	1021.5	MNWH	WK7	260	206	U	J	IM	2		1	0	1
567	11\10\93	1640-1700	B	1021.5	MNWH	WK8	230	132	U	J	IM	0		1	0	0
568	11\10\93	1640-1700	B	1021.5	MNWH	10223	361	495	M	A	RP	0		1	0	0
569	11\10\93	1640-1700	B	1021.5	MNWH	10224	376	596	M	A	RP	0		1	0	0
570	11\10\93	1640-1700	B	1021.5	MNWH	10225	301	334	U	A	U	0	DEFORMED SPINE	1	0	0
571	11\10\93	1640-1700	B	1021.5	MNWH	WK9	264	242	U	J	IM	0		1	0	0
572	11\10\93	1700-1730	B	1020.5	MNWH		263	236	U	J	IM	0		1	0	0
573	11\10\93	1700-1730	B	1020.5	NRPK	10226	822	5550	U	A	U	0		1	0	0
574	11\10\93	1700-1730	B	1020.5	LNSC	10227	422	955	U	A	U	0		1	0	0
575	11\10\93	1700-1730	B	1020.5	LNSC	10228	350	645	M	A	U	0		1	0	0
576	11\10\93	1700-1730	B	1020.5	WHSC		426	1300	U	A	U	0		1	0	0
577	11\10\93	1700-1730	B	1020.5	LNSC	10229	406	915	U	A	U	0		1	0	0
578	11\10\93	1700-1730	B	1020.5	LNSC	10230	431	1255	U	A	U	0		1	0	0
579	11\10\93	1700-1730	B	1020.5	NRPK	10231	503	935	U	A	U	0		1	0	0
580	11\10\93	1700-1730	B	1020.5	NRPK	10232	422	585	U	A	U	0		1	0	0
581	11\10\93	1700-1730	B	1020.5	NRPK	10233	561	1345	U	A	U	0		1	0	0
582	11\10\93	1700-1730	B	1020.5	NRPK	10234	463	810	U	A	U	0		1	0	0
583	11\10\93	1700-1730	B	1020.5	LNSC	10235	430	1090	U	A	U	0		1	0	0
584	11\10\93	1700-1730	B	1020.5	WHSC		408	1200	U	A	U	0		1	0	0
585	11\10\93	1700-1730	B	1020.5	WHSC		389	900	U	A	U	0		1	0	0
586	11\10\93	1700-1730	B	1020.5	WHSC		417	1050	U	A	U	0		1	0	0
587	11\10\93	1700-1730	B	1020.5	LNSC	10236	422	1170	U	A	U	2		1	0	1
588	11\10\93	1700-1730	B	1020.5	NRPK	10237	517	962	U	A	U	0		1	0	0
589	11\10\93	1700-1730	B	1020.5	MNWH	WLO	264	204	U	J	U	0		1	0	0
590	11\10\93	1700-1730	B	1020.5	WHSC		396	1060	U	A	U	0		1	0	0
591	11\10\93	1700-1730	B	1020.5	MNWH	10238	368	660	U	A	U	0		1	0	0
592	11\10\93	1700-1730	B	1020.5	LNSC	10239	403	920	U	A	U	0		1	0	0
593	11\10\93	1700-1730	B	1020.5	MNWH	10240	405	750	U	A	U	0		1	0	0
594	11\10\93	1700-1730	B	1020.5	LNSC	10241	403	955	U	A	U	0		1	0	0
595	11\10\93	1700-1730	B	1020.5	LNSC	10242	414	1020	U	A	U	0		1	0	0
596	11\10\93	1700-1730	B	1020.5	LNSC	10243	383	765	U	A	U	0		1	0	0
597	11\10\93	1700-1730	B	1020.5	LNSC	10244	392	820	U	A	U	0		1	0	0
598	11\10\93	1700-1730	B	1020.5	LNSC	10245	391	830	U	A	U	0		1	0	0
599	11\10\93	1700-1730	B	1020.5	LNSC	10246	425	870	U	A	U	0	LESIONON L & R AN	1	0	0
600	11\10\93	1700-1730	B	1020.5	MNWH	WL1	266	268	U	J	IM	0		1	0	0
601	11\10\93	1700-1730	B	1020.5	MNWH	WL2	262	214	U	J	IM	0		1	0	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
602	11\10\93	1700-1730	B	1020.5	MNWH	WL4	261	215	U	J	IM	0		1	0	0
603	11\10\93	1700-1730	B	1020.5	MNWH	WL5	166	53	U	J	IM	0		1	0	0
604	11\10\93	1700-1730	B	1020.5	LNSC	10247	348	780	U	A	U	0		1	0	0
605	11\10\93	1700-1730	B	1020.5	LNSC	10248	420	1070	U	A	U	0		1	0	0
606	11\10\93	1700-1730	B	1020.5	LNSC	10249	422	1070	U	A	U	0		1	0	0
607	11\10\93	1700-1730	B	1020.5	LNSC	10250	374	750	U	A	U	0		1	0	0
608	11\10\93	1700-1730	B	1020.5	LNSC	10251	407	940	U	A	U	0		1	0	0
609	11\10\93	1700-1730	B	1020.5	LNSC	10252	384	790	U	A	U	0		1	0	0
610	11\10\93	1700-1730	B	1020.5	LNSC	10253	364	635	U	A	U	0		1	0	0
611	11\10\93	1700-1730	B	1020.5	LNSC	10254	429	1100	U	A	U	0		1	0	0
612	11\10\93	1700-1730	B	1020.5	LNSC	10255	369	760	U	A	U	0		1	0	0
613	11\10\93	1700-1730	B	1020.5	LNSC	10256	373	750	U	A	U	0		1	0	0
614	11\10\93	1700-1730	B	1020.5	LNSC	10257	400	820	U	A	U	0		1	0	0
615	11\10\93	1700-1730	B	1020.5	LNSC	10258	374	790	U	A	U	0		1	0	0
616	11\10\93	1700-1730	B	1020.5	LNSC	10259	356	705	U	A	U	0		1	0	0
617	11\10\93	1700-1730	B	1020.5	LNSC	10260	384	750	U	A	U	0		1	0	0
618	11\10\93	1700-1730	B	1020.5	LNSC	10261	386	798	U	A	U	0		1	0	0
619	11\10\93	1700-1730	B	1020.5	LNSC	10262	408	970	U	A	U	0		1	0	0
620	11\10\93	1700-1730	B	1020.5	LNSC	10263	394	893	U	A	U	0		1	0	0
621	11\10\93	1700-1730	B	1020.5	LNSC	10264	381	800	U	A	U	0		1	0	0
622	11\10\93	1700-1730	B	1020.5	LNSC	10265	430	1210	U	A	U	0		1	0	0
623	11\10\93	1700-1730	B	1020.5	LNSC	10266	386	805	U	A	U	0		1	0	0
624	11\10\93	1700-1730	B	1020.5	LNSC	10267	357	680	U	A	U	0		1	0	0
625	11\10\93	1700-1730	B	1020.5	LNSC	10268	406	982	U	A	U	0		1	0	0
626	11\10\93	1700-1730	B	1020.5	LNSC	10269	396	923	U	A	U	0		1	0	0
627	11\10\93	1700-1730	B	1020.5	LNSC	10270	399	940	U	A	U	0		1	0	0
628	11\10\93	1700-1730	B	1020.5	LNSC	10271	392	825	U	A	U	0		1	0	0
629	11\10\93	1700-1730	B	1020.5	LNSC	10272	398	985	U	A	U	0		1	0	0
630	11\10\93	1700-1730	B	1020.5	LNSC	10273	381	775	U	A	U	0		1	0	0
631	11\10\93	1700-1730	B	1020.5	LNSC	10274	364	673	U	A	U	0		1	0	0
632	11\10\93	1700-1730	B	1020.5	LNSC	10275	405	978	U	A	U	0		1	0	0
633	11\10\93	1700-1730	B	1020.5	LNSC	10276	371	775	U	A	U	0		1	0	0
634	11\10\93	1700-1730	B	1020.5	LNSC	10277	368	815	U	A	U	0		1	0	0
635	11\10\93	1700-1730	B	1020.5	LNSC	10278	371	782	U	A	U	0		1	0	0
636	11\10\93	1700-1730	B	1020.5	LNSC	10279	373	765	U	A	U	0		1	0	0
637	11\10\93	1700-1730	B	1020.5	LNSC	10280	425	1120	U	A	U	0		1	0	0
638	11\10\93	1700-1730	B	1020.5	LNSC	10281	359	720	U	A	U	0		1	0	0
639	11\10\93	1700-1730	B	1020.5	LNSC	10282	375	760	U	A	U	0		1	0	0
640	11\10\93	1700-1730	B	1020.5	LNSC	10283	376	775	U	A	U	0		1	0	0
641	11\10\93	1700-1730	B	1020.5	LNSC	10284	371	749	U	A	U	0		1	0	0
642	11\10\93	1700-1730	B	1020.5	LNSC	10285	380	895	U	A	U	0		1	0	0
643	11\10\93	1700-1730	B	1020.5	LNSC	10286	391	925	U	A	U	0		1	0	0
644	11\10\93	1700-1730	B	1020.5	LNSC	10287	375	780	U	A	U	0		1	0	0
645	11\10\93	1700-1730	B	1020.5	LNSC	10288	379	835	U	A	U	0		1	0	0
646	11\10\93	1700-1730	B	1020.5	LNSC	10289	377	840	U	A	U	0		1	0	0
647	11\10\93	1700-1730	B	1020.5	LNSC	10290	343	575	U	A	U	0		1	0	0
648	11\10\93	1700-1730	B	1020.5	LNSC	10291	370	690	U	A	U	0		1	0	0
649	12\10\93	1010-1055	B	1019.5	MNWH	10292	421	855	F	A	RP	0	LESIONS ON L SIDE	1	0	0
650	12\10\93	1010-1055	B	1019.5	MNWH	10293	412	845	U	A	U	0		1	0	0
651	12\10\93	1010-1055	B	1019.5	MNWH	10294	441	1130	U	A	U	0		1	0	0
652	12\10\93	1010-1055	B	1019.5	MNWH	10295	427	855	U	A	U	0	WOUND R SIDE ANT	1	0	0
653	12\10\93	1010-1055	B	1019.5	MNWH	10296	427	945	U	A	U	0		1	0	0
654	12\10\93	1010-1055	B	1019.5	LNSC	10297	424	985	U	A	U	0		1	0	0
655	12\10\93	1010-1055	B	1019.5	MNWH	10298	352	505	M	A	RP	0		1	0	0
656	12\10\93	1010-1055	B	1019.5	MNWH	10299	383	635	U	A	U	0		1	0	0
657	12\10\93	1010-1055	B	1019.5	MNWH	10300	372	565	U	A	U	2		1	1	0
658	12\10\93	1010-1055	B	1019.5	MNWH	10301	394	760	U	A	U	2		1	0	1
659	12\10\93	1010-1055	B	1019.5	MNWH	WL6	223	132	U	J	IM	0		1	0	0
660	12\10\93	1010-1055	B	1019.5	MNWH	10302	286	303	U	U	U	0		1	0	0
661	12\10\93	1010-1055	B	1019.5	MNWH	WL7	270	259	U	J	IM	0		1	0	0
662	12\10\93	1010-1055	B	1019.5	MNWH		287	304	U	J	IM	1		1	0	0
663	12\10\93	1010-1055	B	1019.5	MNWH	WL8	207	109	U	J	IM	0		1	0	0
664	12\10\93	1010-1055	B	1019.5	MNWH	WL9	244	171	U	J	IM	0		1	0	0
665	12\10\93	1010-1055	B	1019.5	MNWH	S00	268	228	U	U	U	0		1	0	0
666	12\10\93	1010-1055	B	1019.5	MNWH	S01	252	189	U	J	IM	0		1	0	0
667	12\10\93	1010-1055	B	1019.5	MNWH	S02	196	89	U	J	IM	0		1	0	0
668	12\10\93	1010-1055	B	1019.5	MNWH	S03	247	183	U	J	IM	0		1	0	0
669	12\10\93	1010-1055	B	1019.5	MNWH	S05	196	114	U	J	IM	2		1	0	1
670	12\10\93	1010-1055	B	1019.5	MNWH	S06	224	122	U	J	IM	0		1	0	0
671	12\10\93	1010-1055	B	1019.5	MNWH	S07	246		U	J	IM	0	BACT. INFECT. CAU	1	0	0
672	12\10\93	1010-1055	B	1019.5	MNWH	S08	212	115	U	J	IM	0		1	0	0
673	12\10\93	1010-1055	B	1019.5	MNWH	S09	177	56	U	J	IM	0		1	0	0
674	12\10\93	1010-1055	B	1019.5	MNWH	S10	225	162	U	J	IM	0		1	0	0
675	12\10\93	1010-1055	B	1019.5	MNWH	S11	237	154	U	J	IM	0		1	0	0
676	12\10\93	1010-1055	B	1019.5	MNWH	S12	205	116	U	J	IM	0		1	0	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
677	12\10\93	1010-1055	B	1019.5	MNWH	S13	264	238	U	J	IM	0		1	0	0
678	12\10\93	1010-1055	B	1019.5	MNWH	S14	232	142	U	J	IM	0		1	0	0
679	12\10\93	1010-1055	B	1019.5	MNWH	S15	150	34	U	J	IM	0		1	0	0
680	12\10\93	1010-1055	B	1019.5	MNWH	S16	182	68	U	J	IM	0		1	0	0
681	12\10\93	1010-1055	B	1019.5	MNWH	S17	228	151	U	J	IM	0		1	0	0
682	12\10\93	1010-1055	B	1019.5	MNWH	S18	192	68	U	J	IM	0		1	0	0
683	12\10\93	1010-1055	B	1019.5	MNWH	10303	301	334	M	A	RP	0		1	0	0
684	12\10\93	1010-1055	B	1019.5	MNWH	S19	192	72	U	J	IM	0		1	0	0
685	12\10\93	1010-1055	B	1019.5	MNWH	S20	186	76	U	J	IM	0		1	0	0
686	12\10\93	1010-1055	B	1019.5	MNWH	S21	244	174	U	J	IM	0		1	0	0
687	12\10\93	1010-1055	B	1019.5	MNWH	10304	324	382	U	A	U	0		1	0	0
688	12\10\93	1010-1055	B	1019.5	MNWH	S22	177	66	U	J	IM	0		1	0	0
689	12\10\93	1010-1055	B	1019.5	MNWH	S23	267	240	U	J	IM	0		1	0	0
690	12\10\93	1010-1055	B	1019.5	MNWH	S24	180	64	U	J	IM	0		1	0	0
691	12\10\93	1010-1055	B	1019.5	MNWH	S25	245	164	U	J	IM	0		1	0	0
692	12\10\93	1010-1055	B	1019.5	MNWH	10305	367	596	U	A	U	0		1	0	0
693	12\10\93	1010-1055	B	1019.5	MNWH	S26	259	224	U	J	IM	0		1	0	0
694	12\10\93	1010-1055	B	1019.5	MNWH	10306	290	306	U	U	U	0		1	0	0
695	12\10\93	1010-1055	B	1019.5	LNSC	10307	425	910	U	A	U	0		1	0	0
696	12\10\93	1010-1055	B	1019.5	MNWH	S27	245	172	U	J	IM	0		1	0	0
697	12\10\93	1010-1055	B	1019.5	MNWH	S28	221	126	U	J	IM	0		1	0	0
698	12\10\93	1010-1055	B	1019.5	MNWH	10308	349	546	M	A	RP	0		1	0	0
699	12\10\93	1010-1055	B	1019.5	MNWH	S29	239	172	U	J	IM	0		1	0	0
700	12\10\93	1010-1055	B	1019.5	MNWH	S30	158	74	U	J	IM	0		1	0	0
701	12\10\93	1010-1055	B	1019.5	MNWH	S31	201	90	U	J	IM	0		1	0	0
702	12\10\93	1010-1055	B	1019.5	MNWH	S32	230	144	U	J	IM	0		1	0	0
703	12\10\93	1010-1055	B	1019.5	MNWH	S33	258	182	U	J	IM	0		1	0	0
704	12\10\93	1010-1055	B	1019.5	MNWH	S34	211	113	U	J	IM	0		1	0	0
705	12\10\93	1010-1055	B	1019.5	MNWH	S35	273	261	U	J	IM	0		1	0	0
706	12\10\93	1010-1055	B	1019.5	MNWH	S36	262	212	U	J	IM	0		1	0	0
707	12\10\93	1010-1055	B	1019.5	MNWH	S37	255	234	U	J	IM	0		1	0	0
708	12\10\93	1010-1055	B	1019.5	MNWH	S38	262	224	U	J	IM	0		1	0	0
709	12\10\93	1010-1055	B	1019.5	MNWH	S39	203	120	U	J	IM	0		1	0	0
710	12\10\93	1010-1055	B	1019.5	MNWH	S40	173	54	U	J	IM	0		1	0	0
711	12\10\93	1010-1055	B	1019.5	MNWH	S41	192	76	U	J	IM	0		1	0	0
712	12\10\93	1010-1055	B	1019.5	MNWH	S42	234	160	U	J	IM	0		1	0	0
713	12\10\93	1010-1055	B	1019.5	MNWH	S43	212	136	U	J	IM	0		1	0	0
714	12\10\93	1010-1055	B	1019.5	MNWH	S44	216	116	U	J	IM	0		1	0	0
715	12\10\93	1210-1240	B	1018.5	BURB	10310	879	3475	U	A	U	0		1	0	0
716	12\10\93	1210-1240	B	1018.5	BURB	10309	712	1995	U	A	U	0		1	0	0
717	12\10\93	1210-1240	B	1018.5	BURB	10311	485	595	U	A	U	0		1	0	0
718	12\10\93	1210-1240	B	1018.5	NRPK	10312	509	1020	U	A	U	0		1	0	0
719	12\10\93	1210-1240	B	1018.5	MNWH	S45	252	218	U	J	IM	0		1	0	0
720	12\10\93	1210-1240	B	1018.5	MNWH	S46	250	190	U	J	IM	0		1	0	0
721	12\10\93	1210-1240	B	1018.5	MNWH	S47	255	220	U	J	IM	0		1	0	0
722	12\10\93	1210-1240	B	1018.5	MNWH	S48	230	178	U	J	IM	0		1	0	0
723	12\10\93	1210-1240	B	1018.5	MNWH	10313	386	650	U	A	U	0		1	0	0
724	12\10\93	1210-1240	B	1018.5	MNWH	10314	320	346	U	A	U	0		1	0	0
725	12\10\93	1210-1240	B	1018.5	BURB	10315	502	640	U	A	U	0		1	0	0
726	12\10\93	1210-1240	B	1018.5	MNWH	S49	258	225	U	J	IM	0		1	0	0
727	12\10\93	1210-1240	B	1018.5	MNWH	10316	372	640	M	A	RP	0		1	0	0
728	12\10\93	1210-1240	B	1018.5	MNWH	S50	300	246	U	U	U	0		1	0	0
729	12\10\93	1210-1240	B	1018.5	MNWH	10317	342	535	M	A	RP	0		1	0	0
730	12\10\93	1210-1240	B	1018.5	MNWH	S51	265	198	U	J	IM	0		1	0	0
731	12\10\93	1210-1240	B	1018.5	MNWH	10318	358	589	U	A	U	0		1	0	0
732	12\10\93	1210-1240	B	1018.5	LNSC	10319	394	921	U	A	U	0		1	0	0
733	12\10\93	1210-1240	B	1018.5	MNWH	S52	202	96	U	J	IM	0		1	0	0
734	12\10\93	1210-1240	B	1018.5	MNWH	10320	385	645	U	A	U	0		1	0	0
735	12\10\93	1210-1240	B	1018.5	MNWH	10321	290	318	U	U	U	2		1	1	0
736	12\10\93	1210-1240	B	1018.5	WHSC		426	1170	U	A	U	0		1	0	0
737	12\10\93	1210-1240	B	1018.5	MNWH	10322	339	462	M	A	RP	0		1	0	0
738	12\10\93	1210-1240	B	1018.5	LNSC	10323	426	1070	U	A	U	0		1	0	0
739	12\10\93	1210-1240	B	1018.5	LNSC	10324	433	1005	U	A	U	0		1	0	0
740	12\10\93	1210-1240	B	1018.5	LNSC	10325	433	1020	U	A	U	0		1	0	0
741	12\10\93	1210-1240	B	1018.5	LNSC	10326	372	715	U	A	U	0		1	0	0
742	12\10\93	1210-1240	B	1018.5	MNWH	S53	257	196	U	J	IM	0		1	0	0
743	12\10\93	1210-1240	B	1018.5	MNWH	10327	486	1365	F	A	RP	0		1	0	0
744	12\10\93	1210-1240	B	1018.5	MNWH	10328	371	685	M	A	RP	0		1	0	0
745	12\10\93	1210-1240	B	1018.5	MNWH	10329	299	304	U	U	U	0		1	0	0
746	12\10\93	1210-1240	B	1018.5	LNSC	10330	396	835	U	A	U	0		1	0	0
747	12\10\93	1210-1240	B	1018.5	LNSC	10331	427	1070	U	A	U	0		1	0	0
748	12\10\93	1210-1240	B	1018.5	MNWH	10332	410	740	M	A	RP	0		1	0	0
749	12\10\93	1210-1240	B	1018.5	MNWH	10333	360	560	M	A	RP	0		1	0	0
750	12\10\93	1210-1240	B	1018.5	LNSC	10334	394	905	U	A	U	0		1	0	0
751	12\10\93	1210-1240	B	1018.5	MNWH	10335	371	615	U	A	U	0	DEFORMED CAUDA	1	0	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
752	12\10\93	1210-1240	B	1018.5	MNWH	10336	356	555	U	A	U	0		1	0	0
753	12\10\93	1210-1240	B	1018.5	MNWH	S54	252	184	U	J	IM	0		1	0	0
754	12\10\93	1210-1240	B	1018.5	MNWH	S55	270	233	U	J	IM	0		1	0	0
755	12\10\93	1210-1240	B	1018.5	MNWH	10337	301	369	U	U	U	0		1	0	0
756	12\10\93	1210-1240	B	1018.5	LNSC	10338	405	925	U	A	U	0		1	0	0
757	12\10\93	1210-1240	B	1018.5	MNWH	S56	252	186	U	J	IM	0		1	0	0
758	12\10\93	1210-1240	B	1018.5	LNSC	10339	395	845	U	A	U	0		1	0	0
759	12\10\93	1210-1240	B	1018.5	MNWH	S57	192	80	U	J	IM	0		1	0	0
760	12\10\93	1210-1240	B	1018.5	LNSC	10340	376	715	U	U	U	0		1	0	0
761	12\10\93	1210-1240	B	1018.5	LNSC	10341	397	855	U	A	U	0	CAUDAL TUMOUR	1	0	0
762	12\10\93	1210-1240	B	1018.5	LNSC	10342	422	1070	U	A	U	0		1	0	0
763	12\10\93	1210-1240	B	1018.5	MNWH	10343	361	555	U	A	U	0		1	0	0
764	12\10\93	1210-1240	B	1018.5	LNSC	10344	401	845	U	A	U	0		1	0	0
765	12\10\93	1210-1240	B	1018.5	LNSC	10345	412	955	M	A	U	0		1	0	0
766	12\10\93	1210-1240	B	1018.5	MNWH	S58	262	202	U	J	IM	0		1	0	0
767	12\10\93	1210-1240	B	1018.5	MNWH	10346	339	420	U	A	U	0		1	0	0
768	12\10\93	1210-1240	B	1018.5	MNWH	10347	336	450	M	A	RP	0		1	0	0
769	12\10\93	1210-1240	B	1018.5	MNWH	10348	377	605	M	A	RP	0		1	0	0
770	12\10\93	1210-1240	B	1018.5	LNSC	10349	432	1255	U	A	U	0		1	0	0
771	12\10\93	1210-1240	B	1018.5	MNWH	S59	207	100	U	J	IM	0		1	0	0
772	12\10\93	1210-1240	B	1018.5	MNWH	10350	342	475	M	A	RP	0		1	0	0
773	12\10\93	1210-1240	B	1018.5	WHSC		515	1990	U	A	U	0	LARGE TUMOUR O	1	0	0
774	12\10\93	1210-1240	B	1018.5	MNWH	10351	348	485	M	A	RP	0		1	0	0
775	12\10\93	1210-1240	B	1018.5	LNSC	10352	408	920	U	A	U	0		1	0	0
776	12\10\93	1210-1240	B	1018.5	MNWH	10353	335	510	M	A	RP	0		1	0	0
777	12\10\93	1210-1240	B	1018.5	LNSC	10354	373	770	U	A	U	0		1	0	0
778	12\10\93	1210-1240	B	1018.5	MNWH	10355	337	420	U	A	U	0		1	0	0
779	12\10\93	1210-1240	B	1018.5	MNWH	S60	243	164	U	J	IM	0		1	0	0
780	12\10\93	1210-1240	B	1018.5	LNSC	10356	374	720	U	A	U	0		1	0	0
781	12\10\93	1210-1240	B	1018.5	MNWH	10357	344	455	U	A	U	0		1	0	0
782	12\10\93	1210-1240	B	1018.5	LNSC	10358	423	1175	U	A	U	0		1	0	0
783	12\10\93	1210-1240	B	1018.5	MNWH	S61	263	226	U	J	IM	0		1	0	0
784	12\10\93	1210-1240	B	1018.5	MNWH	10359	342	450	U	A	U	0		1	0	0
785	12\10\93	1210-1240	B	1018.5	MNWH	10360	356	575	M	A	RP	0		1	0	0
786	12\10\93	1210-1240	B	1018.5	MNWH	S62	167	52	U	J	IM	0		1	0	0
787	12\10\93	1420-1503	B	1017.5	NRPK	10361	736	3105	F	A	U	0	2 TUMOURS L, 1 R	1	0	0
788	12\10\93	1420-1503	B	1017.5	NRPK	10362	571	1470	U	A	U	0		1	0	0
789	12\10\93	1420-1503	B	1017.5	NRPK	10363	565	1505	U	A	U	0	MAJOR WOUND R. S	1	0	0
790	12\10\93	1420-1503	B	1017.5	NRPK	S64	218	76	U	J	IM	2		1	1	0
791	12\10\93	1420-1503	B	1017.5	LNSC	10364	432	1075	U	A	U	0		1	0	0
792	12\10\93	1420-1503	B	1017.5	LNSC	10365	423	1050	U	A	U	0		1	0	0
793	12\10\93	1420-1503	B	1017.5	LNSC	10366	436	1140	U	A	U	0		1	0	0
794	12\10\93	1420-1503	B	1017.5	LNSC	10367	428	1115	U	A	U	0		1	0	0
795	12\10\93	1420-1503	B	1017.5	NRPK	10368	591	1325	U	A	U	0	LESION L. SIDE	1	0	0
796	12\10\93	1420-1503	B	1017.5	NRPK	10369	543	1230	U	A	U	0		1	0	0
797	12\10\93	1420-1503	B	1017.5	LNSC	10370	380	805	U	A	U	0		1	0	0
798	12\10\93	1420-1503	B	1017.5	LNSC	10371	437	1155	U	A	U	0		1	0	0
799	12\10\93	1420-1503	B	1017.5	LNSC	10372	412	920	U	A	U	0	LESION NEAR R. AN	1	0	0
800	12\10\93	1420-1503	B	1017.5	LNSC	10373	422	1130	U	A	U	2		1	0	1
801	12\10\93	1420-1503	B	1017.5	LNSC	10374	394	915	U	A	U	0		1	0	0
802	12\10\93	1420-1503	B	1017.5	MNWH	S63	246	182	U	J	IM	0		1	0	0
803	12\10\93	1420-1503	B	1017.5	MNWH	S65	121	20	U	J	IM	0		1	0	0
804	12\10\93	1420-1503	B	1017.5	LNSC	10375	431	1125	U	A	U	0		1	0	0
805	12\10\93	1420-1503	B	1017.5	MNWH	S66	177	58	U	J	IM	0		1	0	0
806	12\10\93	1420-1503	B	1017.5	LNSC	10376	438	1200	U	A	U	0		1	0	0
807	12\10\93	1420-1503	B	1017.5	MNWH	S67	251	206	U	J	IM	0		1	0	0
808	12\10\93	1420-1503	B	1017.5	LNSC	10377	399	810	U	A	U	0	LESION ON BELLY	1	0	0
809	12\10\93	1420-1503	B	1017.5	LNSC	10378	413	1015	U	A	U	2		1	0	1
810	12\10\93	1420-1503	B	1017.5	LNSC	10379	408	955	U	A	U	0		1	0	0
811	12\10\93	1420-1503	B	1017.5	LNSC	10380	415	1015	U	A	U	0		1	0	0
812	12\10\93	1420-1503	B	1017.5	LNSC	10381	425	1150	U	A	U	0		1	0	0
813	12\10\93	1420-1503	B	1017.5	LNSC	10382	360	690	U	A	U	0		1	0	0
814	12\10\93	1420-1503	B	1017.5	LNSC	10383	402	955	U	A	U	0		1	0	0
815	12\10\93	1420-1503	B	1017.5	LNSC	10384	387	810	U	A	U	0		1	0	0
816	12\10\93	1420-1503	B	1017.5	LNSC	10385	408	1025	U	A	U	0		1	0	0
817	12\10\93	1420-1503	B	1017.5	LNSC	10386	419	1155	U	A	U	0		1	0	0
818	12\10\93	1420-1503	B	1017.5	MNWH	10387	398	885	M	A	RP	0		1	0	0
819	12\10\93	1420-1503	B	1017.5	LNSC	10388	391	885	U	A	U	0		1	0	0
820	12\10\93	1420-1503	B	1017.5	LNSC	10389	452	1445	U	A	U	0		1	0	0
821	12\10\93	1420-1503	B	1017.5	MNWH	S68	252	220	U	J	IM	0	HELD FOR OBS.	1	0	0
822	12\10\93	1420-1503	B	1017.5	LNSC	10390	412	1020	U	A	U	0	HELD FOR OBS.	1	0	0
823	12\10\93	1420-1503	B	1017.5	LNSC	10391	383	790	M	A	RP	0	HELD FOR OBS.	1	0	0
824	12\10\93	1420-1503	B	1017.5	MNWH	10392	370	625	U	A	U	0	HELD FOR OBS.	1	0	0
825	12\10\93	1420-1503	B	1017.5	LNSC	10393	398	1055	U	A	U	0	HELD FOR OBS.	1	0	0
826	12\10\93	1420-1503	B	1017.5	LNSC	10394	381	785	U	A	U	0	HELD FOR OBS.	1	0	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
827	12\10\93	1420-1503	B	1017.5	LNSC	10395	422	1020	U	A	U	0	HELD FOR OBS.	1	0	0
828	12\10\93	1420-1503	B	1017.5	MNWH	S69	122	18	U	J	IM	0		1	0	0
829	12\10\93	1545-1614	B	1016.5	MNWH	S70	218	118	U	J	IM	0		1	0	0
830	12\10\93	1545-1614	B	1016.5	MNWH	10396	475	1395	U	A	U	0		1	0	0
831	12\10\93	1545-1614	B	1016.5	MNWH	10397	342	445	U	A	U	0		1	0	0
832	12\10\93	1545-1614	B	1016.5	MNWH	10398	376	665	U	A	U	0		1	0	0
833	12\10\93	1545-1614	B	1016.5	MNWH	10399	407	765	U	A	U	0		1	0	0
834	12\10\93	1545-1614	B	1016.5	MNWH	10400	348	530	U	A	U	0		1	0	0
835	12\10\93	1545-1614	B	1016.5	MNWH	S71	167	46	U	J	IM	0		1	0	0
836	12\10\93	1545-1614	B	1016.5	MNWH	10401	434	910	U	A	U	0		1	0	0
837	12\10\93	1545-1614	B	1016.5	MNWH	10402	327	430	U	A	U	0		1	0	0
838	12\10\93	1545-1614	B	1016.5	MNWH	S72	295	294	U	J	IM	0		1	0	0
839	12\10\93	1545-1614	B	1016.5	MNWH	S73	205	101	U	J	IM	0		1	0	0
840	12\10\93	1545-1614	B	1016.5	MNWH	S74	251	188	U	J	IM	0		1	0	0
841	12\10\93	1545-1614	B	1016.5	NRPK	S75	322	249	U	J	IM	0		1	0	0
842	12\10\93	1545-1614	B	1016.5	LNSC	S76	178	74	U	J	IM	0		1	0	0
843	12\10\93	1545-1614	B	1016.5	LNSC	10403	408	905	U	A	U	0		1	0	0
844	12\10\93	1545-1614	B	1016.5	LNSC	10404	423	1085	U	A	U	0		1	0	0
845	12\10\93	1545-1614	B	1016.5	LNSC	10405	395	910	U	A	U	0		1	0	0
846	12\10\93	1545-1614	B	1016.5	LNSC	10406	403	915	U	A	U	0		1	0	0
847	12\10\93	1545-1614	B	1016.5	LNSC	10407	413	990	U	A	U	0	TAIL SCAR	1	0	0
848	12\10\93	1545-1614	B	1016.5	LNSC	10408	462	1440	U	A	U	2		1	0	1
849	12\10\93	1545-1614	B	1016.5	LNSC	10409	417	1055	U	A	U	0		1	0	0
850	12\10\93	1545-1614	B	1016.5	LNSC	10410	397	840	M	A	U	0	DISEASED R. SIDE	1	0	0
851	12\10\93	1545-1614	B	1016.5	LNSC	10411	396	890	U	A	U	0		1	0	0
852	12\10\93	1545-1614	B	1016.5	LNSC	10412	411	985	U	A	U	0		1	0	0
853	12\10\93	1545-1614	B	1016.5	LNSC	10413	429	1100	U	A	U	0		1	0	0
854	12\10\93	1545-1614	B	1016.5	LNSC	10414	407	855	U	A	U	2		1	0	1
855	12\10\93	1545-1614	B	1016.5	LNSC	10415	366	630	U	A	U	0		1	0	0
856	12\10\93	1545-1614	B	1016.5	LNSC	10416	369	655	U	A	U	0		1	0	0
857	12\10\93	1545-1614	B	1016.5	LNSC	10417	417	990	U	A	U	0	HEMMORAGED AN	1	0	0
858	12\10\93	1545-1614	B	1016.5	LNSC	10418	408	760	U	A	U	0	PREDATOR SCAR	1	0	0
859	12\10\93	1545-1614	B	1016.5	LNSC	10419	387	805	U	A	U	0		1	0	0
860	12\10\93	1545-1614	B	1016.5	LNSC	10420	413	690	U	A	U	0	INJURY REAR ANA	1	0	0
861	12\10\93	1640-1724	B	1015.5	NRPK	10421	695	2350	U	A	U	0		1	0	0
862	12\10\93	1640-1724	B	1015.5	NRPK	10422	596	1675	U	A	U	0		1	0	0
863	12\10\93	1640-1724	B	1015.5	LNSC	10423	450	1305	U	A	U	0		1	0	0
864	12\10\93	1640-1724	B	1015.5	LNSC	10424	380	750	U	A	U	0		1	0	0
865	12\10\93	1640-1724	B	1015.5	LNSC	10425	400	865	U	A	U	0		1	0	0
866	12\10\93	1640-1724	B	1015.5	WALL	10426	360	520	U	U	U	0		1	0	0
867	12\10\93	1640-1724	B	1015.5	MNWH	10427	410	920	U	A	U	0		1	0	0
868	12\10\93	1640-1724	B	1015.5	MNWH	10428	405	870	U	A	U	0		1	0	0
869	12\10\93	1640-1724	B	1015.5	MNWH	10429	410	800	U	A	U	0		1	0	0
870	12\10\93	1640-1724	B	1015.5	MNWH	S77	196	86	U	J	IM	0		1	0	0
871	12\10\93	1640-1724	B	1015.5	LNSC	10430	390	770	U	A	U	0		1	0	0
872	12\10\93	1640-1724	B	1015.5	MNWH	S78	270	258	U	J	IM	0		1	0	0
873	12\10\93	1640-1724	B	1015.5	MNWH	S79	247	178	U	J	IM	0		1	0	0
874	12\10\93	1640-1724	B	1015.5	MNWH	10431	302	333	U	A	U	0		1	0	0
875	12\10\93	1640-1724	B	1015.5	MNWH	S80	198	89	U	J	IM	0		1	0	0
876	12\10\93	1640-1724	B	1015.5	MNWH	S81	254	193	U	J	IM	0		1	0	0
877	12\10\93	1640-1724	B	1015.5	MNWH	S82	257	204	U	J	IM	0		1	0	0
878	12\10\93	1640-1724	B	1015.5	MNWH	S83	265	213	U	J	IM	0		1	0	0
879	12\10\93	1640-1724	B	1015.5	MNWH	S84	261	213	U	J	IM	0		1	0	0
880	12\10\93	1640-1724	B	1015.5	MNWH	S85	280	260	U	J	IM	0		1	0	0
881	12\10\93	1640-1724	B	1015.5	MNWH	S86	276	268	U	J	IM	0		1	0	0
882	12\10\93	1640-1724	B	1015.5	MNWH	S87	180	65	U	J	IM	0		1	0	0
883	12\10\93	1640-1724	B	1015.5	MNWH	S88	223	127	U	J	IM	0		1	0	0
884	12\10\93	1640-1724	B	1015.5	MNWH	S89	283	292	U	J	IM	0		1	0	0
885	12\10\93	1640-1724	B	1015.5	MNWH	10432	332	463	U	A	U	0		1	0	0
886	12\10\93	1640-1724	B	1015.5	MNWH	S90	270	232	U	J	IM	0		1	0	0
887	12\10\93	1640-1724	B	1015.5	MNWH	S91	232	142	U	A	J	0		1	0	0
888	12\10\93	1640-1724	B	1015.5	MNWH	10434	347	505	U	A	U	0		1	0	0
889	12\10\93	1640-1724	B	1015.5	MNWH	S92	292	266	U	J	IM	0		1	0	0
890	12\10\93	1640-1724	B	1015.5	MNWH		122	20	U	J	IM	0		1	0	0
891	12\10\93	1640-1724	B	1015.5	MNWH	S93	251	200	U	J	IM	0		1	0	0
892	12\10\93	1640-1724	B	1015.5	MNWH	S94	187	94	U	J	IM	0		1	0	0
893	12\10\93	1640-1724	B	1015.5	MNWH	10435	311	320	U	U	U	0		1	0	0
894	12\10\93	1640-1724	B	1015.5	LNSC	10436	346	455	U	A	U	0		1	0	0
895	12\10\93	1640-1724	B	1015.5	LNSC	10437	368	620	U	A	U	0		1	0	0
896	12\10\93	1640-1724	B	1015.5	LNSC	10438	407	1005	U	A	U	0		1	0	0
897	12\10\93	1640-1724	B	1015.5	LNSC	10439	396	805	U	A	M	0		1	0	0
898	12\10\93	1640-1724	B	1015.5	LNSC	10440	390	755	U	A	U	0		1	0	0
899	12\10\93	1640-1724	B	1015.5	LNSC	10441	387	765	U	A	U	0		1	0	0
900	12\10\93	1640-1724	B	1015.5	LNSC	10442	379	705	U	A	U	0		1	0	0
901	12\10\93	1640-1724	B	1015.5	LNSC	10443	394	815	U	A	M	0		1	0	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
902	12\10\93	1640-1724	B	1015.5	LNSC	10444	409	815	U	A	U	0		1	0	0
903	12\10\93	1640-1724	B	1015.5	LNSC	10445	397	725	U	A	U	0		1	0	0
904	12\10\93	1640-1724	B	1015.5	LNSC	10446	342	505	U	A	U	0		1	0	0
905	12\10\93	1640-1724	B	1015.5	LNSC	10447	351	545	U	A	U	0		1	0	0
906	12\10\93	1640-1724	B	1015.5	LNSC	10448	377	689	U	A	U	0		1	0	0
907	12\10\93	1640-1724	B	1015.5	LNSC	10449	316	435	U	A	U	0		1	0	0
908	12\10\93	1640-1724	B	1015.5	WHSC		331	510	U	A	U	0		1	0	0
909	14\10\93	1010-1046	A	1036	LKWH	10450	496	1675	U	A	U	0		0	1	0
910	14\10\93	1010-1046	A	1036	LKWH	10451	478	1780	M	A	RP	0	PARASITE ON DORS	0	1	0
911	14\10\93	1010-1046	A	1036	MNWH	10452	365	635	U	A	U	0		0	1	0
912	14\10\93	1010-1046	A	1036	MNWH	S95	267	230	U	J	IM	0		0	1	0
913	14\10\93	1010-1046	A	1036	MNWH	S96	213	108	U	J	IM	0		0	1	0
914	14\10\93	1010-1046	A	1036	MNWH	10453	300	334	U	J	IM	2		0	1	1
915	14\10\93	1010-1046	A	1036	MNWH	10454	358	544	M	A	RP	0		0	1	0
916	14\10\93	1010-1046	A	1036	MNWH	10455	386	685	U	A	U	2		0	1	1
917	14\10\93	1010-1046	A	1036	NRPK	10456	476	838	U	A	U	0		0	1	0
918	14\10\93	1010-1046	A	1036	MNWH	10457	335	464	U	A	U	2		0	1	1
919	14\10\93	1010-1046	A	1036	MNWH	S97	217	136	U	J	U	0		0	1	0
920	14\10\93	1010-1046	A	1036	MNWH	10458	428	333	U	A	U	0		0	1	0
921	14\10\93	1010-1046	A	1036	MNWH	10459	344	476	M	A	RP	0		0	1	0
922	14\10\93	1010-1046	A	1036	MNWH	10460	375	608	M	A	RP	0		0	1	0
923	14\10\93	1010-1046	A	1036	MNWH	10461	406	760	U	A	U	0		0	1	0
924	14\10\93	1010-1046	A	1036	MNWH	S98	189	76	U	J	IM	0		0	1	0
925	14\10\93	1010-1046	A	1036	MNWH	S99	235	150	U	J	U	0		0	1	0
926	14\10\93	1010-1046	A	1036	MNWH	W00	217	116	U	J	IM	0		0	1	0
927	14\10\93	1010-1046	A	1036	MNWH	W01	193	81	U	J	IM	0		0	1	0
928	14\10\93	1010-1046	A	1036	MNWH	AP	88	6	U	J	IM	0		0	1	0
929	14\10\93	1010-1046	A	1036	LNSC	10462	402	930	U	A	U	0		0	1	0
930	14\10\93	1010-1046	A	1036	LNSC	10463	432	1050	U	A	U	0		0	1	0
931	14\10\93	1010-1046	A	1036	LNSC	10464	422	975	U	A	U	0		0	1	0
932	14\10\93	1010-1046	A	1036	LNSC	10465	390	825	U	A	U	0	SCAR ON BACK	0	1	0
933	14\10\93	1010-1046	A	1036	LNSC	10466	397	830	U	A	U	0		0	1	0
934	14\10\93	1010-1046	A	1036	LNSC	10467	397	870	U	A	U	0	SCAR ON SIDE	0	1	0
936	14\10\93	1010-1046	A	1036	MNWH	W02	195	82	U	J	IM	0		0	1	0
937	14\10\93	1010-1046	A	1036	MNWH	WO3	275	244	U	J	IM	0		0	1	0
938	14\10\93	1010-1046	A	1036	MNWH	WO4	242	151	U	J	IM	0		0	1	0
939	14\10\93	1010-1046	A	1036	MNWH	10468	302	312	U	U	U	0		0	1	0
940	14\10\93	1010-1046	A	1036	MNWH	W05	223	116	U	J	IM	0		0	1	0
941	14\10\93	1010-1046	A	1036	MNWH	W06	293	282	U	J	IM	0		0	1	0
942	14\10\93	1010-1046	A	1036	MNWH	W07	191	72	U	J	IM	0		0	1	0
943	14\10\93	1010-1046	A	1036	LNSC	10469	388	725	U	A	U	0		0	1	0
944	14\10\93	1010-1046	A	1036	MNWH	W08	282	68	U	J	IM	0		0	1	0
945	14\10\93	1010-1046	A	1036	MNWH	AP	111	12	U	J	IM	0		0	1	0
946	14\10\93	1010-1046	A	1036	MNWH	AP	96	8	U	J	IM	0		0	1	0
947	14\10\93	1010-1046	A	1036	MNWH	W09	272	221	U	J	IM	0		0	1	0
948	14\10\93	1010-1046	A	1036	MNWH	W10	202	86	U	J	IM	0		0	1	0
949	14\10\93	1010-1046	A	1036	MNWH	W11	207	103	U	J	IM	0		0	1	0
950	14\10\93	1010-1046	A	1036	MNWH	W12	181	61	U	J	IM	0		0	1	0
951	14\10\93	1010-1046	A	1036	MNWH	AP	92	10	U	J	IM	0		0	1	0
952	14\10\93	1010-1046	A	1036	MNWH	AP	103	11	U	J	IM	0		0	1	0
953	14\10\93	1010-1046	A	1036	MNWH	AP	103	11	U	J	IM	0		0	1	0
954	14\10\93	1010-1046	A	1036	MNWH	AP	93	8	U	J	IM	0		0	1	0
955	14\10\93	1010-1046	A	1036	MNWH	AP	104	12	U	J	IM	0		0	1	0
956	14\10\93	1010-1046	A	1036	MNWH	AP	94	6	U	J	IM	0		0	1	0
957	14\10\93	1010-1046	A	1036	MNWH	AP	79	6	U	J	IM	0		0	1	0
958	14\10\93	1010-1046	A	1036	MNWH	AP	84	6	U	J	IM	0		0	1	0
959	14\10\93	1010-1046	A	1036	MNWH	W13	203	88	U	J	IM	0		0	1	0
960	14\10\93	1010-1046	A	1036	NRPK	10470	441	715	U	A	U	0		0	1	0
961	14\10\93	1010-1046	A	1036	MNWH	10471	327	408	M	A	RP	2		0	1	1
962	14\10\93	1010-1046	A	1036	MNWH	W14	232	156	U	J	IM	0		0	1	0
963	14\10\93	1010-1046	A	1036	MNWH	W15	267	221	U	J	IM	0		0	1	0
964	14\10\93	1010-1046	A	1036	MNWH	10472	361	546	M	A	RP	0		0	1	0
965	14\10\93	1010-1046	A	1036	MNWH	10473	357	540	M	A	RP	0		0	1	0
966	14\10\93	1010-1046	A	1036	MNWH	10474	320	404	U	A	U	0		0	1	0
967	14\10\93	1010-1046	A	1036	MNWH	W16	203	86	U	J	IM	0		0	1	0
968	14\10\93	1010-1046	A	1036	MNWH	W17	190	70	U	J	IM	0		0	1	0
969	14\10\93	1010-1046	A	1036	MNWH	W18	202	85	U	J	IM	0		0	1	0
970	14\10\93	1010-1046	A	1036	MNWH	W19	188	67	U	J	IM	0		0	1	0
971	14\10\93	1010-1046	A	1036	MNWH	W20	162	46	U	J	IM	0		0	1	0
972	14\10\93	1010-1046	A	1036	MNWH	AP	122	18	U	J	IM	0		0	1	0
973	14\10\93	1010-1046	A	1036	MNWH	W21	213	110	U	J	IM	0		0	1	0
974	14\10\93	1010-1046	A	1036	MNWH	W22	183	66	U	J	IM	0		0	1	0
975	14\10\93	1010-1046	A	1036	LNSC	W23	156	48	U	J	IM	0		0	1	0
976	14\10\93	1010-1046	A	1036	MNWH	W24	150	31	U	J	IM	0		0	1	0
977	14\10\93	1010-1046	A	1036	MNWH	AP	113	12	U	J	IM	0		0	1	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
978	14\10\93	1010-1046	A	1036	MNWH	AP	92	6	U	J	IM	0		0	1	0
979	14\10\93	1010-1046	A	1036	MNWH	AP	82	6	U	J	IM	0		0	1	0
980	14\10\93	1010-1046	A	1036	MNWH	AP	92	7	U	J	IM	0		0	1	0
981	14\10\93	1010-1046	A	1036	MNWH	AP	103	8	U	J	IM	0		0	1	0
982	14\10\93	1010-1046	A	1036	MNWH	AP	101	11	U	J	IM	0		0	1	0
983	14\10\93	1010-1046	A	1036	NRPK	10475	852	5600	U	A	U	0		0	1	0
984	14\10\93	1010-1046	A	1036	NRPK	10476	782	3875	U	A	U	0		0	1	0
985	14\10\93	1135-1207	A	1035	NRPK	10477	508	840	U	A	U	0		0	1	0
986	14\10\93	1135-1207	A	1035	NRPK	10478	818	5005	U	A	U	2	SCAR ON BACK	0	1	1
987	14\10\93	1135-1207	A	1035	MNWH	W25	222	135	U	J	IM	0		0	1	0
988	14\10\93	1135-1207	A	1035	NRPK	10479	429	518	U	A	U	2		0	1	1
989	14\10\93	1135-1207	A	1035	NRPK	10480	453	1085	U	A	U	0		0	1	0
990	14\10\93	1135-1207	A	1035	MNWH	W26	265	196	U	J	IM	0		0	1	0
991	14\10\93	1135-1207	A	1035	MNWH	W27	166	38	U	J	IM	0		0	1	0
992	14\10\93	1135-1207	A	1035	NRPK	10481	466	840	U	A	U	0		0	1	0
993	14\10\93	1135-1207	A	1035	NRPK	10482	757	3950	U	A	U	0		0	1	0
994	14\10\93	1135-1207	A	1035	NRPK	10483	630	1805	U	A	U	0		0	1	0
995	14\10\93	1135-1207	A	1035	NRPK	10484	818	4425	U	A	U	0		0	1	0
996	14\10\93	1135-1207	A	1035	NRPK	10485	408	492	U	U	U	0		0	1	0
997	14\10\93	1135-1207	A	1035	MNWH	W28	225	140	U	J	IM	0		0	1	0
998	14\10\93	1135-1207	A	1035	MNWH	10486	321	424	U	A	U	0		0	1	0
999	14\10\93	1135-1207	A	1035	NRPK	10487	522	1055	U	A	U	0		0	1	0
1000	14\10\93	1135-1207	A	1035	MNWH	W29	234	144	U	J	IM	0		0	1	0
1001	14\10\93	1135-1207	A	1035	MNWH	W30	265	220	U	J	IM	0		0	1	0
1002	14\10\93	1135-1207	A	1035	MNWH	W31	188	63	U	J	U	0		0	1	0
1003	14\10\93	1135-1207	A	1035	MNWH	10488	303	342	U	U	U	0		0	1	0
1004	14\10\93	1135-1207	A	1035	NRPK	10489	558	1335	U	A	U	0		0	1	0
1005	14\10\93	1135-1207	A	1035	NRPK	10490	617	2035	U	A	U	0	LESION ABOVE HEA	0	1	0
1006	14\10\93	1135-1207	A	1035	MNWH	W32	187	72	U	J	IM	0		0	1	0
1007	14\10\93	1135-1207	A	1035	MNWH	W33	270	263	U	J	IM	0		0	1	0
1008	14\10\93	1135-1207	A	1035	NRPK	10491	387	412	U	U	U	0		0	1	0
1009	14\10\93	1135-1207	A	1035	NRPK	10492	677	2110	U	A	U	0		0	1	0
1010	14\10\93	1135-1207	A	1035	MNWH	W34	252	180	U	J	IM	0		0	1	0
1011	14\10\93	1135-1207	A	1035	NRPK	10493	472	774	U	A	U	0		0	1	0
1012	14\10\93	1135-1207	A	1035	NRPK	10493	474	762	U	A	U	0		0	1	0
1013	14\10\93	1135-1207	A	1035	MNWH	W35	224	122	U	J	IM	0		0	1	0
1014	14\10\93	1135-1207	A	1035	NRPK	W36	334	249	U	J	IM	0		0	1	0
1015	14\10\93	1135-1207	A	1035	NRPK	10495	394	376	U	A	U	0		0	1	0
1016	14\10\93	1135-1207	A	1035	NRPK	10496	515	1005	U	A	U	0		0	1	0
1017	14\10\93	1135-1207	A	1035	NRPK	10497	609	1715	U	A	U	0		0	1	0
1018	14\10\93	1135-1207	A	1035	NRPK	10498	535	940	U	A	U	2	LESIONS, ROTT. AN	0	1	1
1019	14\10\93	1135-1207	A	1035	MNWH	W37	253	203	U	A	U	0		0	1	0
1020	14\10\93	1135-1207	A	1035	NRPK	10499	376	378	U	A	U	0		0	1	0
1021	14\10\93	1245-1330	A	1034	NRPK	10500	910	7650	U	A	U	0		0	1	0
1022	14\10\93	1245-1330	A	1034	MNWH	10501	303	314	M	A	RP	0	LESION CAUDAL PE	0	1	0
1024	14\10\93	1245-1330	A	1034	MNWH	W38	245	166	U	J	IM	0		0	1	0
1025	14\10\93	1245-1330	A	1034	MNWH	W39	187	92	U	J	IM	0		0	1	0
1026	14\10\93	1245-1330	A	1034	MNWH	W40	222	120	U	J	IM	0		0	1	0
1027	14\10\93	1245-1330	A	1034	MNWH	W41	195	86	U	J	IM	0	DEFORMED SPINE	0	1	0
1028	14\10\93	1245-1330	A	1034	MNWH	W42	189	70	U	J	IM	2		0	1	1
1029	14\10\93	1245-1330	A	1034	MNWH	W44	177	68	U	J	IM	0		0	1	0
1030	14\10\93	1245-1330	A	1034	MNWH	W45	174	60	U	J	IM	0		0	1	0
1031	14\10\93	1245-1330	A	1034	MNWH	W46	171	54	U	J	IM	0		0	1	0
1032	14\10\93	1245-1330	A	1034	NRPK	10502	374	364	U	U	U	0		0	1	0
1033	14\10\93	1245-1330	A	1034	MNWH	10503	321	405	U	A	U	0		0	1	0
1034	14\10\93	1245-1330	A	1034	MNWH	10504	380	708	M	A	RP	0		0	1	0
1035	14\10\93	1245-1330	A	1034	MNWH	W47	195	84	U	J	IM	0		0	1	0
1036	14\10\93	1245-1330	A	1034	MNWH	W48	240	156	U	J	IM	0		0	1	0
1037	14\10\93	1245-1330	A	1034	MNWH	W49	274	236	U	J	IM	2		0	1	1
1038	14\10\93	1245-1330	A	1034	MNWH	W50	242	167	U	J	IM	0		0	1	0
1039	14\10\93	1245-1330	A	1034	MNWH	10505	369	576	U	A	U	0		0	1	0
1040	14\10\93	1245-1330	A	1034	LNSC	10506	328	438	U	A	U	0		0	1	0
1041	14\10\93	1245-1330	A	1034	MNWH	W51	265	256	U	J	IM	0		0	1	0
1042	14\10\93	1245-1330	A	1034	MNWH	W52	259	196	U	J	IM	0		0	1	0
1043	14\10\93	1245-1330	A	1034	MNWH	10507	390	732	U	A	U	0		0	1	0
1044	14\10\93	1245-1330	A	1034	MNWH	10509	300	346	U	U	IM	1	MORTALITY, COLLE	0	1	0
1045	14\10\93	1245-1330	A	1034	MNWH	10508	331	430	U	A	U	0		0	1	0
1046	14\10\93	1245-1330	A	1034	MNWH	W53	252	200	U	J	IM	0		0	1	0
1047	14\10\93	1245-1330	A	1034	MNWH	W54	190	76	U	J	IM	0		0	1	0
1048	14\10\93	1245-1330	A	1034	MNWH	W55	194	78	U	J	IM	0		0	1	0
1049	14\10\93	1245-1330	A	1034	MNWH	10510	382	790	M	A	RP	0		0	1	0
1050	14\10\93	1245-1330	A	1034	MNWH	W56	249	184	U	J	IM	0		0	1	0
1051	14\10\93	1245-1330	A	1034	MNWH	W57	278	294	U	J	IM	0		0	1	0
1052	14\10\93	1245-1330	A	1034	MNWH	10511	383	640	M	A	RP	0		0	1	0
1053	14\10\93	1245-1330	A	1034	MNWH		182	54	U	J	IM	1		0	1	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1055	14\10\93	1245-1330	A	1034	MNWH	10512	325	486	U	A	U	0		0	1	0
1056	14\10\93	1245-1330	A	1034	MNWH	W58	235	180	U	J	IM	0		0	1	0
1057	14\10\93	1245-1330	A	1034	MNWH	10513	395	704	M	A	RP	0		0	1	0
1058	14\10\93	1245-1330	A	1034	MNWH	W59	232	154	U	J	IM	0		0	1	0
1059	14\10\93	1245-1330	A	1034	MNWH	10514	380	656	U	J	IM	0		0	1	0
1060	14\10\93	1245-1330	A	1034	MNWH	W60	252	178	U	J	IM	0		0	1	0
1061	14\10\93	1245-1330	A	1034	MNWH	W61	206	94	U	J	IM	0		0	1	0
1062	14\10\93	1245-1330	A	1034	MNWH	W62	156	34	U	J	IM	0	PREDATORY WOUN	0	1	0
1063	14\10\93	1245-1330	A	1034	MNWH	W63	259	220	U	J	IM	0		0	1	0
1064	14\10\93	1245-1330	A	1034	MNWH	W64	240	160	U	J	IM	2		0	1	1
1065	14\10\93	1245-1330	A	1034	MNWH	W65	176	62	U	J	IM	0		0	1	0
1066	14\10\93	1245-1330	A	1034	MNWH	10515	379	813	U	A	U	0		0	1	0
1067	14\10\93	1245-1330	A	1034	MNWH	10516	346	518	M	A	RP	0		0	1	0
1068	14\10\93	1245-1330	A	1034	MNWH	W66	216	120	U	J	IM	0		0	1	0
1069	14\10\93	1245-1330	A	1034	MNWH	10517	315	386	U	A	U	0		0	1	0
1070	14\10\93	1245-1330	A	1034	MNWH	10518	290	350	U	A	U	0		0	1	0
1071	14\10\93	1245-1330	A	1034	MNWH	10519	299	330	U	U	U	0		0	1	0
1072	14\10\93	1245-1330	A	1034	MNWH	W67	191	72	U	J	IM	0		0	1	0
1073	14\10\93	1245-1330	A	1034	MNWH	10520	456	1100	F	A	RP	0		0	1	0
1074	14\10\93	1245-1330	A	1034	MNWH	10521	306	342	U	A	U	0		0	1	0
1076	14\10\93	1245-1330	A	1034	MNWH	W68	236	188	U	J	IM	0		0	1	0
1077	14\10\93	1245-1330	A	1034	MNWH	W69	233	134	U	J	IM	0		0	1	0
1078	14\10\93	1245-1330	A	1034	MNWH	W70	229	132	U	J	IM	0		0	1	0
1079	14\10\93	1245-1330	A	1034	MNWH	W71	282	274	U	J	IM	0		0	1	0
1080	14\10\93	1245-1330	A	1034	MNWH	W72	242	159	U	J	IM	0	MISSING UPPER TAI	0	1	0
1081	14\10\93	1245-1330	A	1034	MNWH	W73	198	76	U	J	IM	0		0	1	0
1082	14\10\93	1245-1330	A	1034	MNWH	W74	232	126	U	J	IM	0		0	1	0
1083	14\10\93	1245-1330	A	1034	MNWH	W75	201	82	U	J	IM	0		0	1	0
1084	14\10\93	1245-1330	A	1034	MNWH	W76	256	202	U	J	IM	0		0	1	0
1085	14\10\93	1245-1330	A	1034	MNWH	W77	222	126	U	J	IM	0		0	1	0
1086	14\10\93	1245-1330	A	1034	MNWH	10522	299	318	U	U	U	0		0	1	0
1087	14\10\93	1245-1330	A	1034	MNWH	W78	262	222	U	J	IM	0	LESION ON R. SIDE	0	1	0
1088	14\10\93	1245-1330	A	1034	MNWH	10523	321	474	U	A	U	0		0	1	0
1089	14\10\93	1245-1330	A	1034	MNWH	10524	349	520	U	A	U	0		0	1	0
1090	14\10\93	1245-1330	A	1034	MNWH	W79	269	216	U	J	IM	0		0	1	0
1091	14\10\93	1245-1330	A	1034	MNWH	W80	231	144	U	J	IM	0		0	1	0
1092	14\10\93	1245-1330	A	1034	MNWH	W81	234	150	U	J	IM	0		0	1	0
1093	14\10\93	1245-1330	A	1034	MNWH	10525	390	738	U	A	U	0		0	1	0
1094	14\10\93	1245-1330	A	1034	MNWH	10526	407	864	M	A	RP	0		0	1	0
1095	14\10\93	1245-1330	A	1034	MNWH	W82	229	144	U	J	IM	0		0	1	0
1096	14\10\93	1245-1330	A	1034	MNWH	W83	270	224	M	A	RP	0		0	1	0
1097	14\10\93	1245-1330	A	1034	MNWH	W84	227	212	U	U	U	0		0	1	0
1098	14\10\93	1245-1330	A	1034	MNWH	10527	325	410	U	A	U	0		0	1	0
1099	14\10\93	1245-1330	A	1034	MNWH	W85	264	236	U	J	IM	0		0	1	0
1100	14\10\93	1245-1330	A	1034	MNWH	10528	290	332	U	U	U	0		0	1	0
1101	14\10\93	1245-1330	A	1034	MNWH	W86	218	113	U	J	IM	0		0	1	0
1102	14\10\93	1245-1330	A	1034	MNWH	W87	250	200	U	U	U	0		0	1	0
1103	14\10\93	1245-1330	A	1034	MNWH	W88	262	240	U	J	IM	0		0	1	0
1104	14\10\93	1245-1330	A	1034	MNWH	W89	185	68	U	J	IM	0		0	1	0
1105	14\10\93	1245-1330	A	1034	MNWH	AP	115	18	U	J	IM	0		0	1	0
1106	14\10\93	1519-1545	A	1033	MNWH	10529	423	860	U	A	U	0		0	1	0
1107	14\10\93	1519-1545	A	1033	MNWH	10530	302	332	U	U	U	0		0	1	0
1108	14\10\93	1519-1545	A	1033	MNWH	10531	307	370	U	A	U	0		0	1	0
1109	14\10\93	1519-1545	A	1033	MNWH	W90	232	140	U	J	IM	0		0	1	0
1110	14\10\93	1519-1545	A	1033	MNWH	W91	295	290	U	J	IM	0		0	1	0
1111	14\10\93	1519-1545	A	1033	NRPK	10532	582	1365	U	A	U	0		0	1	0
1112	14\10\93	1519-1545	A	1033	NRPK	W92	357	292	U	J	IM	0		0	1	0
1113	14\10\93	1519-1545	A	1033	NRPK	W93	329	278	U	J	IM	0		0	1	0
1114	14\10\93	1519-1545	A	1033	MNWH	W94	253	202	U	J	IM	0		0	1	0
1115	14\10\93	1519-1545	A	1033	MNWH	W95	235	154	U	J	IM	0		0	1	0
1116	14\10\93	1519-1545	A	1033	MNWH	W96	250	174	U	J	IM	0		0	1	0
1117	14\10\93	1519-1545	A	1033	MNWH	10533	322	400	U	A	U	0		0	1	0
1118	14\10\93	1519-1545	A	1033	MNWH	W97	192	90	U	J	IM	0		0	1	0
1119	14\10\93	1519-1545	A	1033	NRPK	10534	435	606	U	A	U	0		0	1	0
1120	14\10\93	1519-1545	A	1033	NRPK	W98	323	256	U	J	IM	0		0	1	0
1121	14\10\93	1519-1545	A	1033	MNWH	W99	258	245	U	J	IM	0	TUMOUR BASE R. P	0	1	0
1122	14\10\93	1519-1545	A	1033	MNWH	X00	232	154	U	J	IM	0		0	1	0
1123	14\10\93	1519-1545	A	1033	MNWH	10535	360	574	U	A	U	0		0	1	0
1124	14\10\93	1519-1545	A	1033	MNWH	X01	215	114	U	J	IM	0		0	1	0
1125	14\10\93	1519-1545	A	1033	MNWH	X02	200	82	U	J	IM	0		0	1	0
1126	14\10\93	1519-1545	A	1033	MNWH	AP	110	11	U	J	IM	0		0	1	0
1127	14\10\93	1519-1545	A	1033	MNWH	AP	105	10	U	J	IM	0		0	1	0
1128	14\10\93	1519-1545	A	1033	MNWH	10536	316	406	U	A	U	0		0	1	0
1129	14\10\93	1519-1545	A	1033	MNWH	10537	322	392	M	A	RP	0		0	1	0
1130	14\10\93	1519-1545	A	1033	MNWH	10538	303	314	U	U	U	0		0	1	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1131	14\10\93	1519-1545	A	1033	MNWH	10539	325	366	U	A	U	0		0	1	0
1132	14\10\93	1519-1545	A	1033	MNWH	X03	192	66	U	J	IM	0		0	1	0
1134	14\10\93	1519-1545	A	1033	MNWH	X04	160	42	U	J	IM	0		0	1	0
1135	14\10\93	1519-1545	A	1033	MNWH	AP	126	22	U	J	IM	0		0	1	0
1136	14\10\93	1519-1545	A	1033	MNWH	X05	152	38	U	J	IM	0		0	1	0
1137	14\10\93	1519-1545	A	1033	MNWH	X06	177	63	U	J	IM	0		0	1	0
1138	14\10\93	1519-1545	A	1033	MNWH	X07	209	158	U	J	IM	0		0	1	0
1139	14\10\93	1519-1545	A	1033	MNWH	X08	178	61	U	J	IM	0		0	1	0
1140	14\10\93	1519-1545	A	1033	MNWH	X09	180	68	U	J	IM	0		0	1	0
1141	14\10\93	1519-1545	A	1033	MNWH	10540	354	470	U	A	U	0		0	1	0
1142	14\10\93	1519-1545	A	1033	MNWH	AP	94	18	U	J	IM	0		0	1	0
1143	14\10\93	1519-1545	A	1033	MNWH	X10	237	161	U	J	IM	0		0	1	0
1144	14\10\93	1519-1545	A	1033	MNWH	X11	201	94	U	J	IM	0		0	1	0
1145	14\10\93	1519-1545	A	1033	MNWH	X12	234	156	U	J	IM	0	DEFORMED L. OPE	0	1	0
1146	14\10\93	1519-1545	A	1033	MNWH	10541	397	656	M	A	RP	0		0	1	0
1147	14\10\93	1615-1645	A	1030.5	NRPK	X13	249	85	U	J	IM	0		0	1	0
1148	14\10\93	1615-1645	A	1030.5	NRPK	10542	364	348	U	U	U	0		0	1	0
1150	14\10\93	1615-1645	A	1030.5	MNWH	10543	435	920	U	A	U	0		0	1	0
1151	14\10\93	1615-1645	A	1030.5	MNWH	10544	295	305	U	U	U	2		0	1	1
1152	14\10\93	1615-1645	A	1030.5	LKWH		242	202	U	U	U	0		0	1	0
1154	14\10\93	1615-1645	A	1030.5	NRPK	10545	492	885	U	A	U	0		0	1	0
1155	14\10\93	1615-1645	A	1030.5	NRPK	10546	675	2335	U	A	U	0		0	1	0
1156	14\10\93	1615-1645	A	1030.5	NRPK	10547	353	345	U	U	U	0		0	1	0
1157	14\10\93	1615-1645	A	1030.5	NRPK	X14	324	225	U	J	IM	0		0	1	0
1158	14\10\93	1615-1645	A	1030.5	NRPK	10548	387	405	U	A	U	0		0	1	0
1159	14\10\93	1615-1645	A	1030.5	NRPK	10549	495	1070	U	A	U	0		0	1	0
1160	14\10\93	1615-1645	A	1030.5	NRPK	10550	555	1495	U	A	U	2		0	1	1
1161	14\10\93	1615-1645	A	1030.5	NRPK	10551	371	410	U	A	U	0		0	1	0
1162	14\10\93	1615-1645	A	1030.5	MNWH	X15	295	295	U	U	U	0		0	1	0
1163	14\10\93	1615-1645	A	1030.5	MNWH	10552	312	365	U	A	U	0		0	1	0
1164	14\10\93	1615-1645	A	1030.5	MNWH	10553	456	1195	F	A	RP	0		0	1	0
1165	14\10\93	1615-1645	A	1030.5	MNWH	X16	195	75	U	J	IM	0		0	1	0
1166	14\10\93	1615-1645	A	1030.5	MNWH	X17	243	205	U	J	IM	0		0	1	0
1167	14\10\93	1615-1645	A	1030.5	MNWH	X18	241	165	U	J	IM	0		0	1	0
1168	14\10\93	1615-1645	A	1030.5	MNWH	X19	209	100	U	J	IM	0		0	1	0
1169	14\10\93	1615-1645	A	1030.5	MNWH	X20	250	195	U	J	IM	0		0	1	0
1170	14\10\93	1615-1645	A	1030.5	MNWH	10554	391	690	M	A	RP	0		0	1	0
1171	14\10\93	1615-1645	A	1030.5	MNWH	10555	324	385	U	A	U	0		0	1	0
1172	14\10\93	1615-1645	A	1030.5	MNWH	X21	207	80	U	J	IM	0		0	1	0
1173	14\10\93	1615-1645	A	1030.5	MNWH	X22	270	250	U	J	IM	0	LESION R. SIDE	0	1	0
1174	14\10\93	1615-1645	A	1030.5	MNWH	10556	333	505	U	A	U	0		0	1	0
1175	14\10\93	1709-1733	A	1029.5	MNWH	10557	407	820	F	A	RP	0		0	1	0
1176	14\10\93	1709-1733	A	1029.5	MNWH	10558	434	950	U	A	U	0		0	1	0
1177	14\10\93	1709-1733	A	1029.5	MNWH	X23	210	105	U	J	IM	0		0	1	0
1178	14\10\93	1709-1733	A	1029.5	MNWH	10559	235	500	U	A	U	0		0	1	0
1179	14\10\93	1709-1733	A	1029.5	MNWH	X24	275	240	U	J	IM	0		0	1	0
1180	14\10\93	1709-1733	A	1029.5	MNWH	10560	350	590	U	A	U	0	LARGE TUMOUR O	0	1	0
1181	14\10\93	1709-1733	A	1029.5	MNWH	10561	312	400	U	A	U	0		0	1	0
1182	14\10\93	1709-1733	A	1029.5	LNSC	10562	435	1275	U	A	U	0		0	1	0
1183	14\10\93	1709-1733	A	1029.5	MNWH	10563	450	1320	M	A	RP	0		0	1	0
1184	14\10\93	1709-1733	A	1029.5	MNWH	10564	403	815	U	A	U	0		0	1	0
1185	14\10\93	1709-1733	A	1029.5	MNWH	10565	274	315	U	J	IM	0		0	1	0
1186	14\10\93	1709-1733	A	1029.5	MNWH	10566	403	660	U	A	U	0	SMALL LESION REA	0	1	0
1187	14\10\93	1709-1733	A	1029.5	MNWH	10567	302	305	U	U	U	0		0	1	0
1188	14\10\93	1709-1733	A	1029.5	MNWH	10568	390	685	M	A	RP	0		0	1	0
1189	14\10\93	1709-1733	A	1029.5	MNWH	10569	354	600	M	A	RP	2		0	1	1
1190	14\10\93	1709-1733	A	1029.5	MNWH	10570	319	410	U	A	U	0		0	1	0
1191	14\10\93	1709-1733	A	1029.5	MNWH	X25	252	210	U	J	IM	0		0	1	0
1192	14\10\93	1709-1733	A	1029.5	MNWH	X26	263	250	U	J	IM	0		0	1	0
1193	14\10\93	1709-1733	A	1029.5	MNWH	X27	221	150	U	J	IM	0		0	1	0
1194	14\10\93	1709-1733	A	1029.5	MNWH	X28	225	140	U	J	IM	0		0	1	0
1195	14\10\93	1709-1733	A	1029.5	MNWH	X29	250	200	U	J	IM	0		0	1	0
1196	14\10\93	1709-1733	A	1029.5	MNWH	X30	254	210	U	J	IM	0		0	1	0
1197	14\10\93	1709-1733	A	1029.5	MNWH	10571	286	325	U	A	U	2		0	1	1
1198	14\10\93	1709-1733	A	1029.5	MNWH	10572	285	310	U	U	U	2		0	1	1
1199	14\10\93	1734-1800	A	1028.5	MNWH	10573	450	1100	M	A	RP	0		0	1	0
1200	14\10\93	1734-1800	A	1028.5	MNWH	10574	335	510	U	A	U	0		0	1	0
1201	14\10\93	1734-1800	A	1028.5	MNWH	X31	230		U	J	IM	0		0	1	0
1202	14\10\93	1734-1800	A	1028.5	MNWH	10575	342	560	U	A	U	0	BELLY LESION	0	1	0
1203	14\10\93	1734-1800	A	1028.5	MNWH	10576	342	450	U	A	U	0		0	1	0
1204	14\10\93	1734-1800	A	1028.5	MNWH	10577	407	915	U	A	U	0		0	1	0
1205	14\10\93	1734-1800	A	1028.5	MNWH	10578	440	1090	U	A	U	0		0	1	0
1206	14\10\93	1734-1800	A	1028.5	MNWH	10579	419	850	U	A	U	0	DEFORMED ANAL F	0	1	0
1207	14\10\93	1734-1800	A	1028.5	MNWH	X32	246	200	U	J	IM	0		0	1	0
1208	14\10\93	1734-1800	A	1028.5	MNWH	X33	252	200	U	J	U	0		0	1	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1209	14\10\93	1734-1800	A	1028.5	MNWH	10580	350	625	M	A	RP	0		0	1	0
1210	14\10\93	1734-1800	A	1028.5	MNWH	10581	310	340	U	A	U	0		0	1	0
1211	14\10\93	1734-1800	A	1028.5	MNWH	10582	350	500	U	A	U	2		0	1	1
1212	14\10\93	1734-1800	A	1028.5	MNWH	X34	240	175	U	J	IM	0		0	1	0
1213	14\10\93	1734-1800	A	1028.5	MNWH	X35	182	80	U	J	IM	0		0	1	0
1214	14\10\93	1734-1800	A	1028.5	MNWH	10583	295	325	U	U	U	0		0	1	0
1215	14\10\93	1734-1800	A	1028.5	MNWH	X36	218	125	U	J	IM	0		0	1	0
1216	14\10\93	1734-1800	A	1028.5	MNWH	X37	192	80	U	J	IM	0		0	1	0
1217	14\10\93	1734-1800	A	1028.5	MNWH	X38	165	65	U	J	IM	0	DEFORMED SPINE	0	1	0
1219	14\10\93	1734-1800	A	1028.5	MNWH	X39	194	85	U	J	IM	0		0	1	0
1220	14\10\93	1734-1800	A	1028.5	ARGR	X40	167	60	U	J	IM	0		0	1	0
1221	14\10\93	1734-1800	A	1028.5	MNWH	X41	242	165	U	J	IM	0		0	1	0
1222	14\10\93	1734-1800	A	1028.5	MNWH	X42	210	110	U	J	IM	0		0	1	0
1223	14\10\93	1734-1800	A	1028.5	MNWH	X43	176	65	U	J	IM	0		0	1	0
1224	14\10\93	1734-1800	A	1028.5	MNWH	10584	333	425	U	A	U	0		0	1	0
1225	14\10\93	1734-1800	A	1028.5	MNWH	X44	218	115	U	J	IM	0		0	1	0
1226	14\10\93	1734-1800	A	1028.5	MNWH	X45	252	190	U	J	IM	0		0	1	0
1228	15\10\93	0930-1015	A	1027.5	MNWH	10585	390	660	U	A	U	0		0	1	0
1229	15\10\93	0930-1015	A	1027.5	MNWH	10586	335	465	U	A	U	0		0	1	0
1230	15\10\93	0930-1015	A	1027.5	MNWH	10587	450	1050	U	A	U	0		0	1	0
1231	15\10\93	0930-1015	A	1027.5	MNWH	10591	312	335	M	A	RP	0		0	1	0
1232	15\10\93	0930-1015	A	1027.5	MNWH	X46	233	197	U	J	IM	0		0	1	0
1233	15\10\93	0930-1015	A	1027.5	MNWH	10589	304	310	U	U	U	0		0	1	0
1234	15\10\93	0930-1015	A	1027.5	MNWH	10590	367	610	U	A	U	0		0	1	0
1235	15\10\93	0930-1015	A	1027.5	MNWH	10588	347	550	M	A	RP	1	MORT. COLLECTED	0	1	0
1236	15\10\93	0930-1015	A	1027.5	MNWH	X47	240	185	U	J	IM	0		0	1	0
1237	15\10\93	0930-1015	A	1027.5	MNWH	X48	234	190	U	J	IM	0		0	1	0
1238	15\10\93	0930-1015	A	1027.5	MNWH	X49	245	190	U	J	IM	0		0	1	0
1239	15\10\93	0930-1015	A	1027.5	MNWH	X50	273	250	U	J	IM	0	LESION BY ANUS	0	1	0
1240	15\10\93	0930-1015	A	1027.5	MNWH	X51	232	165	U	J	IM	0	MISSING MAXILLA	0	1	0
1241	15\10\93	0930-1015	A	1027.5	MNWH	10592	421	770	F	A	SP	0	DAMAGED DORSAL	0	1	0
1242	15\10\93	0930-1015	A	1027.5	MNWH	X52	176	65	U	J	IM	0		0	1	0
1243	15\10\93	0930-1015	A	1027.5	MNWH	10593	467	1120	U	J	IM	0	ABNORMAL LEFT E	0	1	0
1244	15\10\93	0930-1015	A	1027.5	MNWH	10594	338	515	U	A	U	0		0	1	0
1245	15\10\93	0930-1015	A	1027.5	MNWH	X52	240	180	U	J	IM	0		0	1	0
1246	15\10\93	0930-1015	A	1027.5	MNWH	10595	368	685	U	A	U	0		0	1	0
1247	15\10\93	0930-1015	A	1027.5	MNWH	X53	235	165	U	J	IM	0		0	1	0
1248	15\10\93	0930-1015	A	1027.5	MNWH	FW00264	421	830	U	A	U	0	F&W TAG	0	1	0
1249	15\10\93	0930-1015	A	1027.5	MNWH	10596	280	310	U	U	U	0		0	1	0
1250	15\10\93	0930-1015	A	1027.5	MNWH	10597	296	320	U	U	U	0		0	1	0
1251	15\10\93	0930-1015	A	1027.5	MNWH	X54	222	120	U	J	IM	0		0	1	0
1252	15\10\93	0930-1015	A	1027.5	MNWH	X55	272	222	U	J	IM	0		0	1	0
1253	15\10\93	0930-1015	A	1027.5	MNWH	X56	162	45	U	J	IM	0		0	1	0
1254	15\10\93	0930-1015	A	1027.5	MNWH	X57	202	96	U	J	IM	0		0	1	0
1255	15\10\93	0930-1015	A	1027.5	MNWH	X58	149	36	U	J	IM	0		0	1	0
1256	15\10\93	0930-1015	A	1027.5	MNWH	10598	333	450	U	A	U	0		0	1	0
1257	15\10\93	0930-1015	A	1027.5	MNWH	10599	354	590	U	A	U	0		0	1	0
1258	15\10\93	0930-1015	A	1027.5	MNWH	X59	236	182	U	J	IM	0		0	1	0
1259	15\10\93	0930-1015	A	1027.5	MNWH	10600	361	530	M	A	RP	0		0	1	0
1260	15\10\93	0930-1015	A	1027.5	MNWH	10601	298	386	M	A	RP	0		0	1	0
1261	15\10\93	0930-1015	A	1027.5	MNWH	X60	182	66	U	J	IM	0		0	1	0
1262	15\10\93	0930-1015	A	1027.5	MNWH	X61	264	231	U	J	IM	0		0	1	0
1263	15\10\93	0930-1015	A	1027.5	MNWH	X62	155	38	U	J	IM	0		0	1	0
1264	15\10\93	0930-1015	A	1027.5	MNWH	X63	237	176	U	J	IM	0		0	1	0
1265	15\10\93	0930-1015	A	1027.5	MNWH	10602	312	319	U	U	U	0		0	1	0
1266	15\10\93	0930-1015	A	1027.5	MNWH	X64	222	127	U	J	IM	0		0	1	0
1267	15\10\93	0930-1015	A	1027.5	MNWH	X65	222	116	U	J	IM	0		0	1	0
1268	15\10\93	0930-1015	A	1027.5	MNWH	X66	291	266	U	J	IM	0		0	1	0
1269	15\10\93	0930-1015	A	1027.5	MNWH	10603	327	438	U	A	U	0		0	1	0
1270	15\10\93	0930-1015	A	1027.5	MNWH	X67	236	158	U	J	IM	2		0	1	1
1271	15\10\93	0930-1015	A	1027.5	MNWH	X68	258	208	U	J	IM	0		0	1	0
1272	15\10\93	0930-1015	A	1027.5	MNWH	X69	255	198	U	J	IM	0		0	1	0
1273	15\10\93	0930-1015	A	1027.5	MNWH	X70	170	48	U	J	IM	0		0	1	0
1274	15\10\93	0930-1015	A	1027.5	MNWH	X71	195	82	U	J	IM	0		0	1	0
1275	15\10\93	0930-1015	A	1027.5	MNWH	X72	231	156	U	J	IM	0		0	1	0
1276	15\10\93	0930-1015	A	1027.5	MNWH	X73	186	84	U	J	IM	0		0	1	0
1277	15\10\93	0930-1015	A	1027.5	MNWH	X74	234	150	U	U	U	0		0	1	0
1278	15\10\93	0930-1015	A	1027.5	MNWH	X75	226	144	U	J	IM	0		0	1	0
1279	15\10\93	0930-1015	A	1027.5	MNWH	X76	164	46	U	J	IM	0		0	1	0
1280	15\10\93	0930-1015	A	1027.5	MNWH	X77	241	155	U	J	IM	0		0	1	0
1281	15\10\93	0930-1015	A	1027.5	MNWH	X78	235	148	U	J	IM	0	LESION LEFT SIDE	0	1	0
1283	15\10\93	0930-1015	A	1027.5	MNWH	X79	190	74	U	J	IM	0		0	1	0
1284	15\10\93	0930-1015	A	1027.5	MNWH	X80	186	76	U	J	IM	0		0	1	0
1285	15\10\93	0930-1015	A	1027.5	MNWH	X81	272	244	U	J	IM	0		0	1	0
1286	15\10\93	0930-1015	A	1027.5	MNWH	X82	277	240	U	J	IM	0		0	1	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1287	15\10\93	0930-1015	A	1027.5	MNWH	X83	236	160	U	J	IM	0		0	1	0
1288	15\10\93	0930-1015	A	1027.5	MNWH	X84	245	174	U	J	IM	0		0	1	0
1289	15\10\93	0930-1015	A	1027.5	MNWH	X85	257	190	U	J	IM	0		0	1	0
1290	15\10\93	0930-1015	A	1027.5	MNWH	10604	310	330	M	A	RP	0		0	1	0
1291	15\10\93	0930-1015	A	1027.5	NRPK	10605	372	336	U	A	U	0		0	1	0
1292	15\10\93	0930-1015	A	1027.5	MNWH	X86	232	146	U	J	IM	0		0	1	0
1293	15\10\93	0930-1015	A	1027.5	LNSC	10606	423	940	U	A	U	0	LESION ABOVE ANA	0	1	0
1294	15\10\93	0930-1015	A	1027.5	BURB	10607	493	990	U	A	U	0		0	1	0
1295	15\10\93	0930-1015	A	1027.5	BURB	10608	335	198	U	J	IM	0		0	1	0
1296	15\10\93	0930-1015	A	1027.5	MNWH	10609	309	320	U	U	U	0		0	1	0
1297	15\10\93	0930-1015	A	1027.5	MNWH	10610	341	430	U	A	U	0		0	1	0
1298	15\10\93	0930-1015	A	1027.5	MNWH	10611	300	335	U	U	U	0		0	1	0
1299	15\10\93	0930-1015	A	1027.5	MNWH	10612	426	920	U	A	U	0		0	1	0
1300	15\10\93	0930-1015	A	1027.5	MNWH	10613	343	470	U	A	U	0		0	1	0
1301	15\10\93	0930-1015	A	1027.5	MNWH	10614	388	660	M	A	RP	0	LESION ON BELLY	0	1	0
1302	15\10\93	0930-1015	A	1027.5	MNWH	10615	320	376	U	A	U	0		0	1	0
1303	15\10\93	0930-1015	A	1027.5	MNWH	10616	361	505	U	A	U	0		0	1	0
1304	15\10\93	0930-1015	A	1027.5	MNWH	10617	400	805	M	A	U	0		0	1	0
1305	15\10\93	0930-1015	A	1027.5	MNWH	10618	362	560	U	A	U	0		0	1	0
1306	15\10\93	0930-1015	A	1027.5	NRPK	X87	313	220	U	J	IM	0		0	1	0
1309	15\10\93	1120-1150	A	1026.5	BURB	10619	795	2580	U	A	U	0		0	1	0
1310	15\10\93	1120-1150	A	1026.5	NRPK	10620	359	325	U	U	U	2		0	1	1
1311	15\10\93	1120-1150	A	1026.5	NRPK	10621	380	360	U	U	U	0	WOUND ON BACK	0	1	0
1312	15\10\93	1120-1150	A	1026.5	NRPK	X88	339	290	U	J	IM	0		0	1	0
1313	15\10\93	1120-1150	A	1026.5	NRPK	X89	357	290	U	J	IM	0		0	1	0
1314	15\10\93	1120-1150	A	1026.5	NRPK	X90	340	270	U	J	IM	0		0	1	0
1315	15\10\93	1120-1150	A	1026.5	MNWH	X91	265	264	U	J	IM	0		0	1	0
1316	15\10\93	1120-1150	A	1026.5	MNWH	10622	365	576	F	A	RP	0		0	1	0
1317	15\10\93	1120-1150	A	1026.5	MNWH	X92	200	92	U	J	IM	0		0	1	0
1318	15\10\93	1120-1150	A	1026.5	MNWH	10623	341	448	M	A	RP	0		0	1	0
1319	15\10\93	1120-1150	A	1026.5	LKWH		222	134	U	J	IM	0		0	1	0
1320	15\10\93	1120-1150	A	1026.5	MNWH	X93	181	58	U	J	IM	0		0	1	0
1321	15\10\93	1120-1150	A	1026.5	MNWH	X94	190	82	U	J	IM	0		0	1	0
1322	15\10\93	1120-1150	A	1026.5	MNWH	X95	228	144	U	J	IM	0		0	1	0
1323	15\10\93	1120-1150	A	1026.5	MNWH	X96	162	46	U	J	IM	0		0	1	0
1324	15\10\93	1120-1150	A	1026.5	MNWH	X97	185	68	U	J	IM	0		0	1	0
1325	15\10\93	1120-1150	A	1026.5	LNSC	10624	426	1010	U	A	U	0		0	1	0
1326	15\10\93	1120-1150	A	1026.5	MNWH	10625	437	1080	U	A	U	0	LESION ON BELLY	0	1	0
1327	15\10\93	1120-1150	A	1026.5	MNWH	10626	417	416	U	A	U	0	LESION BELOW AN	0	1	0
1328	15\10\93	1120-1150	A	1026.5	LNSC	10627	417	980	U	A	U	0		0	1	0
1329	15\10\93	1120-1150	A	1026.5	LNSC	10628	435	1110	U	A	U	0		0	1	0
1330	15\10\93	1120-1150	A	1026.5	LNSC	10629	385	770	U	A	U	0		0	1	0
1331	15\10\93	1120-1150	A	1026.5	MNWH	10630	388	720	U	A	U	0		0	1	0
1332	15\10\93	1120-1150	A	1026.5	MNWH	10631	392	725	U	A	U	0	HEMORAGED PECT.	0	1	0
1333	15\10\93	1120-1150	A	1026.5	MNWH	10632	356	565	U	A	U	2	WOUND RIGHT SID	0	1	1
1334	15\10\93	1120-1150	A	1026.5	MNWH	10633	307	350	U	U	U	0		0	1	0
1335	15\10\93	1120-1150	A	1026.5	MNWH	X98	217	126	U	J	IM	0		0	1	0
1337	15\10\93	1120-1150	A	1026.5	MNWH	X99	196	86	U	J	IM	0		0	1	0
1338	15\10\93	1120-1150	A	1026.5	MNWH	Y00	197	106	U	J	IM	0		0	1	0
1339	15\10\93	1120-1150	A	1026.5	MNWH	Y01	210	120	U	J	IM	0		0	1	0
1340	15\10\93	1120-1150	A	1026.5	MNWH	Y02	205	123	U	J	IM	0		0	1	0
1341	15\10\93	1120-1150	A	1026.5	MNWH	Y03	252	188	U	J	IM	0		0	1	0
1342	15\10\93	1120-1150	A	1026.5	MNWH	Y04	273	278	U	J	IM	0		0	1	0
1343	15\10\93	1120-1150	A	1026.5	MNWH	Y05	165	46	U	J	IM	0		0	1	0
1346	15\10\93	1255-1308	A	1025.5	BURB	10634	610	1220	U	A	U	0		0	1	0
1347	15\10\93	1255-1308	A	1025.5	BURB	10635	690	1720	U	A	U	0		0	1	0
1348	15\10\93	1255-1308	A	1025.5	BURB	10636	445	430	U	J	IM	0		0	1	0
1349	15\10\93	1255-1308	A	1025.5	MNWH	10637	442	910	U	A	U	0		0	1	0
1350	15\10\93	1255-1308	A	1025.5	MNWH	10638	332	380	U	A	U	0		0	1	0
1351	15\10\93	1255-1308	A	1025.5	MNWH	10639	413	900	U	A	U	0		0	1	0
1352	15\10\93	1255-1308	A	1025.5	MNWH	10640	416	825	M	A	RP	0		0	1	0
1353	15\10\93	1255-1308	A	1025.5	MNWH	10641	365	575	U	A	U	0		0	1	0
1354	15\10\93	1255-1308	A	1025.5	MNWH	Y06	220	138	U	J	IM	0		0	1	0
1355	15\10\93	1255-1308	A	1025.5	MNWH	Y07	235	154	U	J	IM	0		0	1	0
1356	15\10\93	1255-1308	A	1025.5	MNWH	10642	315	542	U	A	U	0		0	1	0
1357	15\10\93	1255-1308	A	1025.5	MNWH	Y08	240	160	U	J	IM	0		0	1	0
1358	15\10\93	1255-1308	A	1025.5	MNWH	Y09	241	163	U	J	IM	0		0	1	0
1359	15\10\93	1255-1308	A	1025.5	MNWH	Y10	242	160	U	J	IM	0		0	1	0
1360	15\10\93	1255-1308	A	1025.5	MNWH	Y11	238	156	U	J	IM	0		0	1	0
1361	15\10\93	1255-1308	A	1025.5	MNWH	Y12	183	68	U	J	IM	0		0	1	0
1362	15\10\93	1255-1308	A	1025.5	MNWH	Y13	263	196	U	J	IM	0		0	1	0
1363	15\10\93	1255-1308	A	1025.5	MNWH	Y14	292	292	U	J	IM	0		0	1	0
1364	15\10\93	1255-1308	A	1025.5	MNWH	10643	339	410	U	A	U	0		0	1	0
1365	15\10\93	1255-1308	A	1025.5	MNWH	10644	318	395	U	A	U	0		0	1	0
1366	15\10\93	1255-1308	A	1025.5	NRPK	10645	640	1935	U	A	U	0		0	1	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1367	15\10\93	1255-1308	A	1025.5	NRPK	10646	470	725	U	A	U	0		0	1	0
1368	15\10\93	1255-1308	A	1025.5	MNWH	10647	412	735	M	A	RP	0		0	1	0
1369	15\10\93	1255-1308	A	1025.5	MNWH	Y15	240	166	U	J	IM	0		0	1	0
1370	15\10\93	1255-1308	A	1025.5	MNWH	10648	381	630	U	A	U	0		0	1	0
1371	15\10\93	1255-1308	A	1025.5	MNWH	10650	437	1180	U	A	U	0		0	1	0
1372	15\10\93	1255-1308	A	1025.5	LNSC	10651	441	1180	U	A	U	0		0	1	0
1373	15\10\93	1255-1308	A	1025.5	LNSC	10652	387	805	U	IM	U	0		0	1	0
1374	15\10\93	1445-1530	B	1024.5	MNWH		345	510	U	A	U	0	INJURY LEFT SIDE	0	1	0
1375	15\10\93	1445-1530	B	1024.5	MNWH	10653	347	500	U	A	U	0		0	1	0
1376	15\10\93	1445-1530	B	1024.5	MNWH	10654	343	560	M	A	U	0		0	1	0
1377	15\10\93	1445-1530	B	1024.5	MNWH	10655	332	515	U	A	U	0		0	1	0
1378	15\10\93	1445-1530	B	1024.5	MNWH	10656	400	740	F	A	RP	0		0	1	0
1379	15\10\93	1445-1530	B	1024.5	MNWH	10657	337	430	U	A	U	0		0	1	0
1380	15\10\93	1445-1530	B	1024.5	MNWH	10658	305	340	M	A	RP	0		0	1	0
1381	15\10\93	1445-1530	B	1024.5	MNWH	10659	375	580	F	A	RP	0	HOOK DAMAGE	0	1	0
1382	15\10\93	1445-1530	B	1024.5	MNWH	10660	343	530	U	A	U	0		0	1	0
1383	15\10\93	1445-1530	B	1024.5	MNWH	Y16	281	260	U	J	IM	0		0	1	0
1384	15\10\93	1445-1530	B	1024.5	MNWH	Y17	255	212	U	J	IM	0		0	1	0
1385	15\10\93	1445-1530	B	1024.5	MNWH	Y18	225	118	U	J	IM	0	PREDATOR DAMAG	0	1	0
1386	15\10\93	1445-1530	B	1024.5	MNWH	Y19	227	136	U	J	IM	0		0	1	0
1387	15\10\93	1445-1530	B	1024.5	LNSC	10661	412	850	U	A	U	0	SCARS UPPER BOD	0	1	0
1388	15\10\93	1445-1530	B	1024.5	LNSC	10662	393	820	U	J	IM	0		0	1	0
1389	15\10\93	1445-1530	B	1024.5	MNWH	Y21	240	164	U	J	IM	0		0	1	0
1390	15\10\93	1445-1530	B	1024.5	MNWH	Y22	190	94	U	J	IM	0		0	1	0
1391	15\10\93	1445-1530	B	1024.5	MNWH	Y23	155	70	U	J	IM	0		0	1	0
1392	15\10\93	1445-1530	B	1024.5	MNWH	10663	295	325	U	A	U	0		0	1	0
1393	15\10\93	1445-1530	B	1024.5	MNWH	10664	370	595	U	A	U	0		0	1	0
1394	15\10\93	1445-1530	B	1024.5	MNWH	Y24	227	140	U	J	IM	0		0	1	0
1395	15\10\93	1445-1530	B	1024.5	MNWH	Y25	202	104	U	J	IM	0		0	1	0
1396	15\10\93	1445-1530	B	1024.5	MNWH	10665	390	715	U	A	U	0		0	1	0
1397	15\10\93	1445-1530	B	1024.5	NRPK	10666	442	680	U	A	U	0		0	1	0
1398	15\10\93	1445-1530	B	1024.5	NRPK	10667	380	435	U	A	U	0		0	1	0
1399	15\10\93	1445-1530	B	1024.5	LNSC	10668	434	1270	U	A	U	0		0	1	0
1400	15\10\93	1445-1530	B	1024.5	BURB	10669	505	610	U	A	U	0	ANGLER DAMAGE	0	1	0
1401	15\10\93	1445-1530	B	1024.5	LNSC	10670	347	610	U	J	IM	0	DENT ON SIDE	0	1	0
1402	15\10\93	1445-1530	B	1024.5	MNWH	T26	255	203	U	J	IM	0		0	1	0
1403	15\10\93	1445-1530	B	1024.5	LNSC	10671	386	695	U	A	U	0		0	1	0
1404	15\10\93	1445-1530	B	1024.5	LNSC	10672	364	660	U	A	U	0		0	1	0
1405	15\10\93	1445-1530	B	1024.5	LNSC	10673	397	840	U	A	U	0		0	1	0
1406	15\10\93	1445-1530	B	1024.5	LNSC	10674	387	740	U	A	U	0		0	1	0
1407	15\10\93	1445-1530	B	1024.5	LNSC	10675	424	1140	U	A	U	0		0	1	0
1408	15\10\93	1445-1530	B	1024.5	LNSC	10676	409	875	U	A	U	0		0	1	0
1409	15\10\93	1445-1530	B	1024.5	LNSC	10677	330	465	U	A	U	0		0	1	0
1410	15\10\93	1445-1530	B	1024.5	LNSC	10678	332	470	U	A	U	0		0	1	0
1411	15\10\93	1445-1530	B	1024.5	LNSC	10679	416	960	U	A	U	0		0	1	0
1412	15\10\93	1445-1530	B	1024.5	LNSC	10680	372	810	U	A	U	0	SCARRING	0	1	0
1413	15\10\93	1445-1530	B	1024.5	LNSC	10681	352	595	U	A	U	0		0	1	0
1414	15\10\93	1445-1530	B	1024.5	MNWH	10682	444	1000	U	A	U	0		0	1	0
1415	15\10\93	1445-1530	B	1024.5	MNWH	10683	351	490	U	A	U	0		0	1	0
1416	15\10\93	1445-1530	B	1024.5	MNWH	10684	330	450	U	A	U	0		0	1	0
1417	15\10\93	1445-1530	B	1024.5	MNWH	10685	331	450	U	A	U	0		0	1	0
1418	15\10\93	1445-1530	B	1024.5	MNWH	10686	360	555	U	A	U	0		0	1	0
1419	15\10\93	1445-1530	B	1024.5	MNWH	10687	330	420	U	A	U	0		0	1	0
1420	15\10\93	1445-1530	B	1024.5	ARGR	Y27	206	105	U	J	IM	0		0	1	0
1421	15\10\93	1445-1530	B	1024.5	MNWH	Y28	252	220	U	J	IM	0		0	1	0
1422	15\10\93	1445-1530	B	1024.5	MNWH	Y29	232	142	U	J	IM	0		0	1	0
1423	15\10\93	1445-1530	B	1024.5	MNWH	Y30	217	224	U	J	IM	0		0	1	0
1424	15\10\93	1445-1530	B	1024.5	MNWH	Y31	210	117	U	J	IM	0		0	1	0
1425	15\10\93	1445-1530	B	1024.5	MNWH	Y32	255	198	U	J	IM	0		0	1	0
1426	15\10\93	1445-1530	B	1024.5	MNWH	Y33	235	156	U	J	IM	0		0	1	0
1427	15\10\93	1445-1530	B	1024.5	MNWH	Y34	201	86	U	J	IM	0		0	1	0
1428	15\10\93	1445-1530	B	1024.5	MNWH	Y35	190	76	U	J	IM	0		0	1	0
1429	15\10\93	1445-1530	B	1024.5	MNWH	Y36	237	156	U	J	IM	0		0	1	0
1430	15\10\93	1445-1530	B	1024.5	MNWH	Y37	222	142	U	J	IM	0		0	1	0
1431	15\10\93	1445-1530	B	1024.5	MNWH	Y38	188	82	U	J	IM	0		0	1	0
1432	15\10\93	1445-1530	B	1024.5	MNWH	Y40	191	84	U	J	IM	0		0	1	0
1433	15\10\93	1445-1530	B	1024.5	MNWH	Y41	187	74	U	J	IM	0		0	1	0
1434	15\10\93	1445-1530	B	1024.5	MNWH	Y42	244	183	U	J	IM	0		0	1	0
1435	15\10\93	1445-1530	B	1024.5	MNWH	Y43	270	214	U	J	IM	0		0	1	0
1436	15\10\93	1445-1530	B	1024.5	MNWH	Y44	202	88	U	J	IM	0		0	1	0
1437	15\10\93	1445-1530	B	1024.5	MNWH	Y45	252	186	U	J	IM	0		0	1	0
1438	15\10\93	1445-1530	B	1024.5	MNWH	Y46	268	228	U	J	IM	0		0	1	0
1440	15\10\93	1610-1620	B	123.5	NRPK	10688	557	1350	U	A	U	0		0	1	0
1441	15\10\93	1610-1620	B	123.5	LNSC	10689	427	1000	U	A	U	0		0	1	0
1442	15\10\93	1610-1620	B	123.5	LNSC	10690	435	1290	U	A	U	0	SCAR ON CAUDAL F	0	1	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1443	15\10\93	1610-1620	B	123.5	LNSC	10691	397	810	U	A	U	0	LARGE TUMOUR A	0	1	0
1444	15\10\93	1610-1620	B	123.5	LNSC	10692	418	1020	U	A	U	0	SCARS	0	1	0
1445	15\10\93	1610-1620	B	123.5	LNSC	10693	397	700	U	A	U	0		0	1	0
1446	15\10\93	1620-1655	B	123.5	LNSC	10698	404	975	U	A	U	0		0	1	0
1447	15\10\93	1610-1620	B	123.5	MNWH	10695	310	355	U	A	U	0		0	1	0
1448	15\10\93	1610-1620	B	123.5	MNWH	Y47	188	75	U	J	IM	0		0	1	0
1449	15\10\93	1610-1620	B	123.5	MNWH	Y48	242	166	U	J	IM	0		0	1	0
1450	15\10\93	1620-1655	B	1022.5	NRPK	10696	477	810	U	A	U	0		0	1	0
1451	15\10\93	1620-1655	B	1022.5	MNWH	Y49	183	78	U	J	IM	0		0	1	0
1452	15\10\93	1620-1655	B	1022.5	MNWH	Y50	242	174	U	J	IM	0		0	1	0
1453	15\10\93	1620-1655	B	1022.5	LNSC	10697	402	850	U	A	U	0	DEFORMED CAUDA	0	1	0
1454	15\10\93	1610-1620	B	1022.5	MNWH	10694	346	460	U	A	U	1	MORT. COLLECTED	0	1	0
1455	15\10\93	1620-1655	B	1022.5	LNSC	10699	388	770	U	A	U	0		0	1	0
1456	15\10\93	1620-1655	B	1022.5	LNSC	10700	412	1000	U	A	U	0		0	1	0
1457	15\10\93	1620-1655	B	1022.5	LNSC	10701	419	960	U	A	U	0	BODY SCARRING	0	1	0
1458	15\10\93	1620-1655	B	1022.5	LNSC	10702	407	1005	U	A	U	0		0	1	0
1459	15\10\93	1620-1655	B	1022.5	LNSC	10703	391	755	U	A	U	0		0	1	0
1460	15\10\93	1620-1655	B	1022.5	LNSC	10704	367	650	U	A	U	0		0	1	0
1461	15\10\93	1620-1655	B	1022.5	LNSC	10705	429	1190	U	A	U	0		0	1	0
1462	15\10\93	1620-1655	B	1022.5	LNSC	10706	412	1005	U	A	U	0		0	1	0
1463	15\10\93	1620-1655	B	1022.5	LNSC	10707	357	625	U	A	U	0		0	1	0
1464	15\10\93	1620-1655	B	1022.5	LNSC	10708	262	665	U	U	U	0		0	1	0
1466	15\10\93	1725-1803	B	1021.5	LNSC	10709	400	910	U	A	U	0		0	1	0
1467	15\10\93	1725-1803	B	1021.5	NRPK	10710	710	610	U	A	U	0		0	1	0
1468	15\10\93	1725-1803	B	1021.5	MNWH	10711	360	660	U	A	U	0		0	1	0
1469	15\10\93	1725-1803	B	1021.5	MNWH	10712	467	1270	U	A	U	0		0	1	0
1470	15\10\93	1725-1803	B	1021.5	MNWH	10713	385	700	U	A	U	0		0	1	0
1471	15\10\93	1725-1803	B	1021.5	MNWH	10714	423	830	U	A	U	0		0	1	0
1472	15\10\93	1725-1803	B	1021.5	MNWH	10715	362	620	U	A	U	0		0	1	0
1473	15\10\93	1725-1803	B	1021.5	MNWH	10716	394	840	U	A	U	0		0	1	0
1474	15\10\93	1725-1803	B	1021.5	MNWH	10717	399	940	U	A	U	0		0	1	0
1475	15\10\93	1725-1803	B	1021.5	LNSC	10718	412	920	U	A	U	0		0	1	0
1476	15\10\93	1725-1803	B	1021.5	MNWH	10719	380	705	U	A	U	0		0	1	0
1477	15\10\93	1725-1803	B	1021.5	MNWH	10720	357	700	U	A	U	0	LESION ON BELLY	0	1	0
1478	15\10\93	1725-1803	B	1021.5	MNWH	10721	417	900	U	A	U	0		0	1	0
1479	15\10\93	1725-1803	B	1021.5	MNWH	10722	451	1180	U	A	U	0		0	1	0
1480	15\10\93	1725-1803	B	1021.5	MNWH	Y51	205	90	U	A	U	0		0	1	0
1481	15\10\93	1725-1803	B	1021.5	MNWH	10723	300	365	U	A	U	0		0	1	0
1482	15\10\93	1725-1803	B	1021.5	MNWH	10724	375	670	U	A	U	0		0	1	0
1483	15\10\93	1725-1803	B	1021.5	LNSC	10725	412	970	U	A	U	0		0	1	0
1484	15\10\93	1725-1803	B	1021.5	LNSC	10726	411	1050	U	A	U	0	SCARS ON BODY	0	1	0
1485	15\10\93	1725-1803	B	1021.5	LNSC	10727	368	670	U	A	U	0		0	1	0
1486	15\10\93	1725-1803	B	1021.5	LNSC	10728	393	780	U	A	U	0		0	1	0
1487	15\10\93	1725-1803	B	1021.5	LNSC	10729	395	820	U	A	U	0		0	1	0
1488	15\10\93	1725-1803	B	1021.5	LNSC	10730	410	910	U	A	U	0		0	1	0
1489	15\10\93	1725-1803	B	1021.5	LNSC	10731	430	1110	U	A	U	0		0	1	0
1490	15\10\93	1725-1803	B	1021.5	LNSC	10732	392	780	U	A	U	0		0	1	0
1491	15\10\93	1725-1803	B	1021.5	MNWH	10733	372	600	U	A	U	0		0	1	0
1492	15\10\93	1725-1803	B	1021.5	MNWH	Y52	233	162	U	J	IM	0		0	1	0
1493	15\10\93	1725-1803	B	1021.5	MNWH	Y53	236	154	U	J	IM	0		0	1	0
1494	15\10\93	1725-1803	B	1021.5	MNWH	10734	282	300	U	U	U	0		0	1	0
1495	15\10\93	1725-1803	B	1021.5	MNWH	Y54	272	244	U	J	IM	0		0	1	0
1496	15\10\93	1725-1803	B	1021.5	MNWH	10735	330	440	M	A	RP	0		0	1	0
1497	15\10\93	1725-1803	B	1021.5	MNWH	Y55	143	32	U	J	IM	0		0	1	0
1498	15\10\93	1725-1803	B	1021.5	MNWH	Y56	149	36	U	J	IM	0		0	1	0
1499	15\10\93	1725-1803	B	1021.5	MNWH	Y57	281	274	U	J	IM	0		0	1	0
1500	15\10\93	1725-1803	B	1021.5	MNWH	10736	290	300	U	U	U	0		0	1	0
1501	15\10\93	1725-1803	B	1021.5	MNWH	Y58	217	122	U	J	IM	0		0	1	0
1502	15\10\93	1725-1803	B	1021.5	MNWH	Y59	196	278	U	J	IM	0		0	1	0
1503	15\10\93	1725-1803	B	1021.5	MNWH	Y60	200	278	U	J	IM	0		0	1	0
1504	15\10\93	1725-1803	B	1021.5	MNWH	Y61	231	152	U	J	IM	0		0	1	0
1505	15\10\93	1725-1803	B	1021.5	MNWH	Y62	205	90	U	J	IM	0		0	1	0
1506	15\10\93	1725-1803	B	1021.5	MNWH	Y64	189	86	U	J	IM	0		0	1	0
1507	15\10\93	1725-1803	B	1021.5	MNWH	Y65	182	68	U	J	IM	0		0	1	0
1508	15\10\93	1803-1820	B	1020.5	MNWH	10737	320	368	U	A	U	2	LESIONS BETWEEN	0	1	1
1509	15\10\93	1803-1820	B	1020.5	LNSC	10738	377	712	U	A	U	0		0	1	0
1510	15\10\93	1803-1820	B	1020.5	LNSC	10739	387	840	U	A	U	0		0	1	0
1511	15\10\93	1803-1820	B	1020.5	MNWH	10740	298	502	U	A	U	0		0	1	0
1512	15\10\93	1803-1820	B	1020.5	LNSC	10741	385	690	U	A	U	0		0	1	0
1513	15\10\93	1803-1820	B	1020.5	LNSC	10742	362	695	U	A	U	0		0	1	0
1514	15\10\93	1803-1820	B	1020.5	LNSC	10743	384	755	U	A	U	0		0	1	0
1515	15\10\93	1803-1820	B	1020.5	LNSC	10744	430	1160	U	A	U	0		0	1	0
1516	15\10\93	1803-1820	B	1020.5	LNSC	10745	390	860	U	A	U	0		0	1	0
1517	15\10\93	1803-1820	B	1020.5	LNSC	10746	380	820	U	A	U	0		0	1	0
1518	15\10\93	1803-1820	B	1020.5	LNSC	10747	390	940	U	A	U	0		0	1	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1519	15\10\93	1803-1820	B	1020.5	LNSC	10748	358	640	U	A	U	0		0	1	0
1520	15\10\93	1803-1820	B	1020.5	LNSC	10749	402	945	U	A	U	0		0	1	0
1521	15\10\93	1803-1820	B	1020.5	LNSC	10750	365	820	U	A	U	0		0	1	0
1522	15\10\93	1803-1820	B	1020.5	LNSC	10751	375	745	U	A	U	0		0	1	0
1523	15\10\93	1803-1820	B	1020.5	MNWH	10752	357	550	U	A	U	0		0	1	0
1524	15\10\93	1803-1820	B	1020.5	LNSC	10753	382	750	U	A	U	0	LESION ON LEFT SI	0	1	0
1525	15\10\93	1803-1820	B	1020.5	LNSC	10754	380	760	U	A	U	0	SCARRING ON BOD	0	1	0
1526	15\10\93	1803-1820	B	1020.5	LNSC	10755	369	630	U	A	U	0		0	1	0
1527	15\10\93	1803-1820	B	1020.5	LNSC	10756	382	790	U	A	U	0		0	1	0
1528	15\10\93	1803-1820	B	1020.5	LNSC	10757	410	920	U	A	U	0		0	1	0
1529	15\10\93	1803-1820	B	1020.5	LNSC	10758	302	940	U	A	U	0		0	1	0
1530	15\10\93	1803-1820	B	1020.5	LNSC	10759	356	1290	U	A	U	0		0	1	0
1531	15\10\93	1803-1820	B	1020.5	MNWH	Y66	194	90	U	J	IM	0		0	1	0
1532	15\10\93	1803-1820	B	1020.5	MNWH	Y67	230	160	U	J	IM	0		0	1	0
1533	15\10\93	1803-1820	B	1020.5	MNWH	10760	310	390	U	A	U	0		0	1	0
1534	15\10\93	1803-1820	B	1020.5	LNSC	10761	332	510	U	A	U	0		0	1	0
1535	15\10\93	1803-1820	B	1020.5	LNSC	10762	375	770	U	A	U	0	SCARS	0	1	0
1536	15\10\93	1803-1820	B	1020.5	LNSC	10763	310	380	U	A	U	0		0	1	0
1537	15\10\93	1803-1820	B	1020.5	LNSC	10764	370	760	U	A	U	0		0	1	0
1538	15\10\93	1803-1820	B	1020.5	LNSC	10765	370	795	U	A	U	2		0	1	1
1539	15\10\93	1803-1820	B	1020.5	LNSC	10766	358	660	U	A	U	0		0	1	0
1540	15\10\93	1803-1820	B	1020.5	BURB	10767	645	1182	U	A	U	0		0	1	0
1541	15\10\93	1803-1820	B	1020.5	BURB	10768	659	1420	U	A	U	0		0	1	0
1542	16\10\93	1145-1230	B	1019.5	NRPK	10769	514	860	U	A	U	0		0	1	0
1543	16\10\93	1145-1230	B	1019.5	NRPK	10770	556	1400	U	A	U	0		0	1	0
1544	16\10\93	1145-1230	B	1019.5	NRPK	10771	625	1615	U	A	U	0		0	1	0
1545	16\10\93	1145-1230	B	1019.5	MNWH	10772	455	1265	F	A	RP	2		0	1	1
1546	16\10\93	1145-1230	B	1019.5	MNWH	10773	375	695	U	A	U	0		0	1	0
1547	16\10\93	1145-1230	B	1019.5	MNWH	10774	355	570	U	A	U	0		0	1	0
1548	16\10\93	1145-1230	B	1019.5	MNWH	10775	395	840	U	A	U	0		0	1	0
1549	16\10\93	1145-1230	B	1019.5	MNWH	10776	332	450	U	A	U	0		0	1	0
1550	16\10\93	1145-1230	B	1019.5	LNSC	10777	388	840	U	A	U	0	DEFORMED LEFT P	0	1	0
1551	16\10\93	1145-1230	B	1019.5	LNSC	10778	372	730	U	A	U	0		0	1	0
1552	16\10\93	1145-1230	B	1019.5	LNSC	10779	432	1050	U	A	U	0	SCARRING ON SIDE	0	1	0
1553	16\10\93	1145-1230	B	1019.5	LNSC	10780	410	830	U	A	U	0		0	1	0
1554	16\10\93	1145-1230	B	1019.5	LNSC	10781	450	1210	U	A	U	0	SCARRING ON SIDE	0	1	0
1555	16\10\93	1145-1230	B	1019.5	LNSC	10782	455	1260	U	A	U	0	DEFORMED CAUDA	0	1	0
1556	16\10\93	1145-1230	B	1019.5	LNSC	10783	475	1465	U	A	U	0		0	1	0
1557	16\10\93	1145-1230	B	1019.5	LNSC	10784	433	520	U	A	U	0		0	1	0
1558	16\10\93	1145-1230	B	1019.5	LNSC	10785	400	955	U	A	U	0		0	1	0
1559	16\10\93	1145-1230	B	1019.5	LNSC	10786	422	966	U	A	U	0		0	1	0
1560	16\10\93	1145-1230	B	1019.5	LNSC	10787	417	920	U	A	U	0		0	1	0
1561	16\10\93	1145-1230	B	1019.5	MNWH	10788	377	765	U	A	U	0	LESION ON BELLY	0	1	0
1562	16\10\93	1145-1230	B	1019.5	MNWH	10789	377	705	M	A	RP	0		0	1	0
1563	16\10\93	1145-1230	B	1019.5	MNWH	10790	400	705	U	A	U	0		0	1	0
1564	16\10\93	1145-1230	B	1019.5	MNWH	10791	311	350	U	A	U	0		0	1	0
1565	16\10\93	1145-1230	B	1019.5	MNWH	10792	372	595	U	A	U	0		0	1	0
1566	16\10\93	1145-1230	B	1019.5	MNWH	10793	292	340	U	A	U	0		0	1	0
1567	16\10\93	1145-1230	B	1019.5	MNWH	Y68	289	296	U	J	IM	0		0	1	0
1568	16\10\93	1145-1230	B	1019.5	MNWH	Y69	240	158	U	J	IM	0		0	1	0
1569	16\10\93	1145-1230	B	1019.5	MNWH	Y70	218	124	U	J	IM	0		0	1	0
1570	16\10\93	1145-1230	B	1019.5	MNWH	Y71	255	189	U	J	IM	0		0	1	0
1571	16\10\93	1145-1230	B	1019.5	MNWH	Y72	286	282	U	J	IM	0		0	1	0
1572	16\10\93	1145-1230	B	1019.5	MNWH	Y73	238	155	U	J	IM	0		0	1	0
1573	16\10\93	1145-1230	B	1019.5	MNWH	Y74	229	133	U	J	IM	0		0	1	0
1574	16\10\93	1545-1610	B	1018.5	MNWH	10794	452	1060	U	A	U	0		0	1	0
1575	16\10\93	1545-1610	B	1018.5	MNWH	10795	377	640	U	A	U	0		0	1	0
1576	16\10\93	1545-1610	B	1018.5	MNWH	10796	402	760	U	A	U	0		0	1	0
1577	16\10\93	1545-1610	B	1018.5	MNWH	10797	346	420	U	A	U	0		0	1	0
1578	16\10\93	1545-1610	B	1018.5	LNSC	10798	388	845	U	A	U	0		0	1	0
1579	16\10\93	1545-1610	B	1018.5	LNSC	10799	385	765	U	A	U	0	SCARS	0	1	0
1580	16\10\93	1545-1610	B	1018.5	LNSC	10800	428	1030	U	A	U	0		0	1	0
1581	16\10\93	1545-1610	B	1018.5	MNWH	10801	357	560	U	A	U	0		0	1	0
1582	16\10\93	1545-1610	B	1018.5	LNSC	10802	428	910	U	A	U	0	SCARS	0	1	0
1583	16\10\93	1545-1610	B	1018.5	LNSC	10803	405	990	U	A	U	0		0	1	0
1584	16\10\93	1545-1610	B	1018.5	LNSC	10804	403	825	U	A	U	0		0	1	0
1585	16\10\93	1545-1610	B	1018.5	LNSC	10805	402	970	U	A	U	0	SCARS	0	1	0
1586	16\10\93	1545-1610	B	1018.5	LNSC	10806	364	875	U	A	U	0		0	1	0
1587	16\10\93	1545-1610	B	1018.5	LNSC	10807	362	720	U	A	U	0		0	1	0
1588	16\10\93	1545-1610	B	1018.5	LNSC	10808	420	1000	U	A	U	0	ROTTED DORSAL FI	0	1	0
1589	16\10\93	1545-1610	B	1018.5	MNWH	10809	442	1020	U	A	U	0		0	1	0
1590	16\10\93	1545-1610	B	1018.5	MNWH	Y75	248	216	U	J	IM	0		0	1	0
1591	16\10\93	1545-1610	B	1018.5	MNWH	Y76	253	291	U	J	IM	0		0	1	0
1592	16\10\93	1545-1610	B	1018.5	MNWH	Y77	297	290	U	J	IM	0		0	1	0
1593	16\10\93	1545-1610	B	1018.5	MNWH	10810	300	310	U	A	U	0		0	1	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1594	16\10\93	1545-1610	B	1018.5	MNWH	Y78	258	212	U	J	IM	0		0	1	0
1595	16\10\93	1545-1610	B	1018.5	MNWH	Y79	222	132	U	J	IM	0		0	1	0
1596	16\10\93	1545-1610	B	1018.5	MNWH	Y80	246	195	U	J	IM	0		0	1	0
1598	16\10\93	1545-1610	B	1018.5	MNWH	Y81	240	190	U	J	IM	0		0	1	0
1599	16\10\93	1545-1610	B	1018.5	LNSC	10811	403	970	U	A	U	0		0	1	0
1600	16\10\93	1545-1610	B	1018.5	LNSC	10812	396	840	U	A	U	0		0	1	0
1601	16\10\93	1545-1610	B	1018.5	LNSC	10813	326	475	U	A	U	0		0	1	0
1602	16\10\93	1545-1610	B	1018.5	LNSC	10814	400	930	U	A	U	0		0	1	0
1603	16\10\93	1545-1610	B	1018.5	LNSC	10815	362	670	U	A	U	0		0	1	0
1604	16\10\93	1545-1610	B	1018.5	LNSC	10816	372	805	U	A	U	0		0	1	0
1605	16\10\93	1545-1610	B	1018.5	LNSC	10817	388	805	U	A	U	0		0	1	0
1606	16\10\93	1545-1610	B	1018.5	LNSC	10818	372	750	U	A	U	0		0	1	0
1607	16\10\93	1545-1610	B	1018.5	LNSC	10819	380	200	U	A	U	0		0	1	0
1608	16\10\93	1545-1610	B	1018.5	LNSC	10820	370	770	U	A	U	0		0	1	0
1609	16\10\93	1545-1610	B	1018.5	LNSC	10821	392	820	U	A	U	0	SCARRING	0	1	0
1610	16\10\93	1545-1610	B	1018.5	LNSC	10822	400	910	U	A	U	0		0	1	0
1611	16\10\93	1545-1610	B	1018.5	LNSC	10823	400	955	U	A	U	0		0	1	0
1612	16\10\93	1545-1610	B	1018.5	LNSC	10824	396	840	U	A	U	0		0	1	0
1613	16\10\93	1545-1610	B	1018.5	LNSC	10825	382	850	U	A	U	0		0	1	0
1614	16\10\93	1545-1610	B	1018.5	LNSC	10826	380	840	U	A	U	0		0	1	0
1615	16\10\93	1545-1610	B	1018.5	MNWH	10827	405	800	M	A	RP	0		0	1	0
1616	16\10\93	1545-1610	B	1018.5	MNWH	Y82	286	258	U	J	IM	0		0	1	0
1617	16\10\93	1545-1610	B	1018.5	MNWH	Y83	217	118	U	J	IM	0		0	1	0
1619	16\10\93	1545-1610	B	1018.5	MNWH	Y84	250	190	U	J	IM	0		0	1	0
1620	16\10\93	1545-1610	B	1018.5	MNWH	Y85	218	116	U	J	IM	0		0	1	0
1621	16\10\93	1545-1610	B	1018.5	LNSC	10828	372	765	U	A	U	0	SCARRING	0	1	0
1622	16\10\93	1545-1610	B	1018.5	LNSC	10829	376	745	U	A	U	0		0	1	0
1623	16\10\93	1545-1610	B	1018.5	LNSC	10830	380	790	U	A	U	0	SCARRING	0	1	0
1624	16\10\93	1545-1610	B	1018.5	LNSC	10831	370	665	U	A	U	0		0	1	0
1625	16\10\93	1545-1610	B	1018.5	LNSC	10832	355	660	U	A	U	0		0	1	0
1626	16\10\93	1545-1610	B	1018.5	LNSC	10833	357	675	U	A	U	0		0	1	0
1627	16\10\93	1545-1610	B	1018.5	LNSC	10834	392	790	U	A	U	0		0	1	0
1628	16\10\93	1545-1610	B	1018.5	LNSC	10835	297	335	U	A	U	0		0	1	0
1629	16\10\93	1545-1610	B	1018.5	LNSC	10836	377	815	U	A	U	0		0	1	0
1630	16\10\93	1545-1610	B	1018.5	LNSC	10837	321	410	U	A	U	0		0	1	0
1631	16\10\93	1545-1610	B	1018.5	LNSC	10838	369	725	U	A	U	0		0	1	0
1633	16\10\93	1610-1648	B	1017.5	NRPK	10839	1045	10250	U	A	U	0		0	1	0
1635	16\10\93	1610-1648	B	1017.5	LNSC	10841	447	1230	U	A	U	0		0	1	0
1635	16\10\93	1610-1648	B	1017.5	NRPK	10851	480	915	U	A	U	0		0	1	0
1636	16\10\93	1610-1648	B	1017.5	LNSC	10842	423	1180	U	A	U	0		0	1	0
1637	16\10\93	1610-1648	B	1017.5	LNSC	10843	423	1245	U	A	U	0	SCARRING	0	1	0
1638	16\10\93	1610-1648	B	1017.5	LNSC	10844	432	1205	U	A	U	0	SCARRING	0	1	0
1639	16\10\93	1610-1648	B	1017.5	LNSC	10845	400	910	M	A	RP	0		0	1	0
1640	16\10\93	1610-1648	B	1017.5	LNSC	10846	454	1475	U	A	U	0		0	1	0
1641	16\10\93	1610-1648	B	1017.5	LNSC	10847	429	1105	U	A	U	0		0	1	0
1642	16\10\93	1610-1648	B	1017.5	LNSC	10848	403	899	U	A	U	0		0	1	0
1643	16\10\93	1610-1648	B	1017.5	LNSC	10849	413	920	U	A	U	0		0	1	0
1644	16\10\93	1610-1648	B	1017.5	LNSC	10850	440	1235	U	A	U	0		0	1	0
1645	16\10\93	1610-1648	B	1017.5	LNSC	10860	422	1049	U	A	U	0		0	1	0
1646	16\10\93	1610-1648	B	1017.5	LNSC	10840	437	1200	U	A	U	1	MORT. COLLECTED	0	1	0
1647	16\10\93	1610-1648	B	1017.5	NRPK	10852	504	972	U	A	U	0		0	1	0
1648	16\10\93	1610-1648	B	1017.5	NRPK	10853	326	300	U	U	U	0		0	1	0
1649	16\10\93	1610-1648	B	1017.5	NRPK	10854	407	485	U	A	U	0		0	1	0
1650	16\10\93	1610-1648	B	1017.5	NRPK	10855	483	842	U	A	U	0		0	1	0
1651	16\10\93	1610-1648	B	1017.5	LNSC	10856	417	1030	U	A	U	0		0	1	0
1652	16\10\93	1610-1648	B	1017.5	MNWH	10857	422	895	U	A	U	0		0	1	0
1653	16\10\93	1610-1648	B	1017.5	LNSC	10858	425	1032	U	A	U	0		0	1	0
1654	16\10\93	1610-1648	B	1017.5	LNSC	10859	425	1082	U	A	U	0		0	1	0
1655	16\10\93	1610-1648	B	1017.5	LNSC	10860	432	1158	U	A	U	0		0	1	0
1656	16\10\93	1610-1648	B	1017.5	LNSC	10861	420	1032	U	A	U	0		0	1	0
1657	16\10\93	1610-1648	B	1017.5	LNSC	10862	416	1030	U	A	U	0		0	1	0
1658	16\10\93	1610-1648	B	1017.5	LNSC	10863	414	999	U	A	U	0		0	1	0
1659	16\10\93	1610-1648	B	1017.5	LNSC	10864	411	980	U	A	U	0		0	1	0
1660	16\10\93	1610-1648	B	1017.5	LNSC	10865	415	980	U	A	U	2		0	1	1
1661	16\10\93	1610-1648	B	1017.5	LNSC	10866	430	1069	U	A	U	0		0	1	0
1662	16\10\93	1610-1648	B	1017.5	LNSC	10867	408	1015	U	A	U	2		0	1	1
1663	16\10\93	1610-1648	B	1017.5	LNSC	10868	418	952	U	A	U	0		0	1	0
1664	16\10\93	1610-1648	B	1017.5	LNSC	10869	386	852	U	A	U	0		0	1	0
1665	16\10\93	1610-1648	B	1017.5	LNSC	10870	418	942	U	A	U	0		0	1	0
1666	16\10\93	1610-1648	B	1017.5	LNSC	10871	352	568	U	A	U	0		0	1	0
1667	16\10\93	1610-1648	B	1017.5	MNWH	10872	310	391	U	U	U	0		0	1	0
1668	16\10\93	1610-1648	B	1017.5	MNWH	10873	341	475	U	A	U	0		0	1	0
1669	16\10\93	1610-1648	B	1017.5	MNWH	10874	312	370	U	U	U	0		0	1	0
1670	16\10\93	1610-1648	B	1017.5	MNWH	10875	322	427	U	A	U	0		0	1	0
1671	16\10\93	1610-1648	B	1017.5	MNWH	10876	325	385	U	A	U	0		0	1	0

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1673	16\10\93	1610-1648	B	1017.5	NRPK	Y86	218	69	U	J	IM	0		0	1	0
1674	16\10\93	1746-1807	B	1016.5	LNSC	10877	443	1285	U	A	U	0		0	1	0
1675	16\10\93	1746-1807	B	1016.5	MNWH	10878	455	1225	U	A	U	0		0	1	0
1676	16\10\93	1746-1807	B	1016.5	MNWH	10879	468	532	U	A	U	0		0	1	0
1677	16\10\93	1746-1807	B	1016.5	LNSC	10880	468	1350	U	A	U	0		0	1	0
1678	16\10\93	1746-1807	B	1016.5	LNSC	10881	443	1150	U	A	U	0		0	1	0
1679	16\10\93	1746-1807	B	1016.5	MNWH	Y87	262	231	U	J	IM	0		0	1	0
1680	16\10\93	1746-1807	B	1016.5	MNWH	10882	342	450	U	A	U	0		0	1	0
1681	16\10\93	1746-1807	B	1016.5	MNWH	Y88	228	130	U	J	IM	0		0	1	0
1682	16\10\93	1746-1807	B	1016.5	MNWH	10883	328	426	M	A	RP	0	SEVERE TUMOURS	0	1	0
1683	16\10\93	1746-1807	B	1016.5	LNSC	10884	377	815	U	A	U	0		0	1	0
1684	16\10\93	1746-1807	B	1016.5	LNSC	10855	426	955	U	A	U	0		0	1	0
1685	16\10\93	1746-1807	B	1016.5	LNSC	10886	430	1105	U	A	U	0		0	1	0
1686	16\10\93	1746-1807	B	1016.5	LNSC	10887	440	1210	U	A	U	0		0	1	0
1687	16\10\93	1746-1807	B	1016.5	LNSC	10888	442	1015	U	A	U	0		0	1	0
1688	16\10\93	1746-1807	B	1016.5	LNSC	10889	376	640	M	A	U	0	INJURY ON CAUDA	0	1	0
1689	16\10\93	1746-1807	B	1016.5	LNSC	10890	665	890	U	A	U	0		0	1	0
1690	16\10\93	1746-1807	B	1016.5	LNSC	10891	455	1475	U	A	U	0		0	1	0
1691	16\10\93	1746-1807	B	1016.5	MNWH	10892	342	512	M	A	RP	0		0	1	0
1692	16\10\93	1746-1807	B	1016.5	LNSC	10893	432	1005	U	A	U	0		0	1	0
1693	16\10\93	1746-1807	B	1016.5	LNSC	10894	422	972	U	A	U	0		0	1	0
1694	16\10\93	1746-1807	B	1016.5	LNSC	10895	448	1080	U	A	U	0		0	1	0
1695	16\10\93	1746-1807	B	1016.5	LNSC	10896	407	830	U	A	U	0		0	1	0
1696	16\10\93	1746-1807	B	1016.5	MNWH	10897	322	375	U	A	U	0		0	1	0
1697	16\10\93	1746-1807	B	1016.5	MNWH	10898	414	820	M	A	RP	0		0	1	0
1698	16\10\93	1746-1807	B	1016.5	MNWH	10899	410	798	M	A	RP	0		0	1	0
1699	16\10\93	1746-1807	B	1016.5	MNWH	10900	345	475	M	A	RP	0		0	1	0
1700	16\10\93	1746-1807	B	1016.5	MNWH	10901	332	390	U	A	U	0		0	1	0
1701	16\10\93	1746-1807	B	1016.5	MNWH	Y89	174	66	U	J	IM	0		0	1	0
1702	16\10\93	1746-1807	B	1016.5	MNWH	Y90	185	68	U	J	IM	0		0	1	0
1704	16\10\93	1807-1825	B	1015.5	MNWH	10925	425	969	M	A	RP	0		0	1	0
1705	16\10\93	1807-1825	B	1015.5	MNWH	10902	395	874	U	A	U	0		0	1	0
1706	16\10\93	1807-1825	B	1015.5	MNWH	10903	374	585	U	A	U	0		0	1	0
1707	16\10\93	1807-1825	B	1015.5	MNWH	10904	360	575	U	A	U	0		0	1	0
1708	16\10\93	1807-1825	B	1015.5	MNWH	10905	326	374	U	A	U	0		0	1	0
1709	16\10\93	1807-1825	B	1015.5	MNWH	10906	397	720	U	A	U	0		0	1	0
1710	16\10\93	1807-1825	B	1015.5	MNWH	10907	347	529	U	A	U	0	TUMOUR BY ANAL	0	1	0
1711	16\10\93	1807-1825	B	1015.5	MNWH	10908	365	630	U	A	U	0		0	1	0
1712	16\10\93	1807-1825	B	1015.5	MNWH	10909	345	551	U	A	U	0		0	1	0
1713	16\10\93	1807-1825	B	1015.5	MNWH	10910	365	615	U	A	U	0		0	1	0
1714	16\10\93	1807-1825	B	1015.5	MNWH	10911	300	322	U	U	U	0		0	1	0
1715	16\10\93	1807-1825	B	1015.5	MNWH	10912	296	329	U	U	U	0		0	1	0
1716	16\10\93	1807-1825	B	1015.5	MNWH	10913	314	350	U	U	U	0		0	1	0
1717	16\10\93	1807-1825	B	1015.5	MNWH	10914	295	320	U	U	U	0		0	1	0
1718	16\10\93	1807-1825	B	1015.5	LNSC	10915	410	840	U	A	U	0	EXPLODED RIGHT	0	1	0
1719	16\10\93	1807-1825	B	1015.5	LNSC	10916	375	720	U	A	U	0		0	1	0
1720	16\10\93	1807-1825	B	1015.5	LNSC	10917	410	1162	U	A	U	0		0	1	0
1721	16\10\93	1807-1825	B	1015.5	LNSC	10918	380	710	U	A	U	0		0	1	0
1722	16\10\93	1807-1825	B	1015.5	LNSC	10919	366	745	U	A	U	0		0	1	0
1723	16\10\93	1807-1825	B	1015.5	LNSC	10920	385	754	U	A	U	0		0	1	0
1724	16\10\93	1807-1825	B	1015.5	LNSC	10921	375	672	U	A	U	0		0	1	0
1725	16\10\93	1807-1825	B	1015.5	MNWH	Y91	207	108	U	J	IM	0		0	1	0
1726	16\10\93	1807-1825	B	1015.5	MNWH	Y92	248	172	U	J	IM	0		0	1	0
1727	16\10\93	1807-1825	B	1015.5	MNWH	Y94	157	36	U	J	IM	0		0	1	0
1728	16\10\93	1807-1825	B	1015.5	MNWH	Y95	166	46	U	J	IM	0		0	1	0
1729	16\10\93	1807-1825	B	1015.5	MNWH	Y96	228	126	U	J	IM	0		0	1	0
1730	16\10\93	1807-1825	B	1015.5	MNWH	Y97	175	60	U	J	IM	0		0	1	0
1732	17\10\93	1000-1028	A	1036	BURB	10922	535	945	U	A	U	0		0	0	1
1733	17\10\93	1000-1028	A	1036	BURB	10923	545	1095	U	A	U	0		0	0	1
1734	17\10\93	1000-1028	A	1036	BURB	10924	654	1520	U	A	U	0		0	0	1
1735	17\10\93	1000-1028	A	1036	MNWH	10926	347	460	M	A	RP	0		0	0	1
1736	17\10\93	1000-1028	A	1036	MNWH	10927	318	385	U	U	]	0		0	0	1
1737	17\10\93	1000-1028	A	1036	LNSC	10928	380	695	U	A	U	0		0	0	1
1739	17\10\93	1000-1028	A	1036	MNWH	Y98	162	42	U	J	U	0		0	0	1
1740	17\10\93	1000-1028	A	1036	MNWH	10929	434	885	U	A	U	0		0	0	1
1741	17\10\93	1000-1028	A	1036	LNSC	10930	392	805	U	A	U	0		0	0	1
1742	17\10\93	1000-1028	A	1036	MNWH	Y99	175	58	U	J	U	0		0	0	1
1743	17\10\93	1000-1028	A	1036	MNWH	YA0	248	164	U	J	U	0		0	0	1
1744	17\10\93	1000-1028	A	1036	MNWH	YA1	182	62	U	J	U	0		0	0	1
1745	17\10\93	1000-1028	A	1036	MNWH	YA2	235	138	U	J	U	0		0	0	1
1746	17\10\93	1000-1028	A	1036	MNWH	YA3	200	89	U	J	U	0		0	0	1
1747	17\10\93	1000-1028	A	1036	MNWH	YA4	150	38	U	J	U	0		0	0	1
1748	17\10\93	1000-1028	A	1036	MNWH	YA5	175	68	U	J	U	0		0	0	1
1749	17\10\93	1000-1028	A	1036	MNWH	YA6	187	73	U	J	U	0		0	0	1
1750	17\10\93	1000-1028	A	1036	MNWH	YA7	178	60	U	J	U	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1751	17\10\93	1000-1028	A	1036	MNWH	YA8	202	92	U	J	U	0		0	0	1
1752	17\10\93	1000-1028	A	1036	MNWH	YA9	189	68	U	J	U	0		0	0	1
1753	17\10\93	1000-1028	A	1036	MNWH	YB0	177	59	U	J	U	0		0	0	1
1754	17\10\93	1000-1028	A	1036	MNWH	YB1	238	152	U	J	U	0		0	0	1
1755	17\10\93	1000-1028	A	1036	MNWH	YB2	168	48	U	J	U	0		0	0	1
1756	17\10\93	1000-1028	A	1036	MNWH	YB3	228	134	U	J	U	0		0	0	1
1757	17\10\93	1000-1028	A	1036	MNWH	YB4	167	46	U	J	U	0		0	0	1
1758	17\10\93	1000-1028	A	1036	MNWH	YB5	217	118	U	J	U	0		0	0	1
1759	17\10\93	1000-1028	A	1036	MNWH	YB6	205	92	U	J	U	0		0	0	1
1760	17\10\93	1000-1028	A	1036	MNWH	YB7	203	94	U	J	U	0		0	0	1
1761	17\10\93	1000-1028	A	1036	MNWH	YB8	243	166	U	J	U	0		0	0	1
1762	17\10\93	1000-1028	A	1036	MNWH	YB9	178	60	U	J	U	0		0	0	1
1763	17\10\93	1000-1028	A	1036	MNWH	YC0	173	56	U	J	U	0		0	0	1
1764	17\10\93	1000-1028	A	1036	MNWH	YC1	187	73	U	J	U	0		0	0	1
1765	17\10\93	1000-1028	A	1036	MNWH	YC2	177	86	U	J	U	0		0	0	1
1766	17\10\93	1000-1028	A	1036	MNWH	YC3	232	159	U	J	U	0		0	0	1
1767	17\10\93	1000-1028	A	1036	MNWH	YC4	229	124	U	J	U	0		0	0	1
1768	17\10\93	1000-1028	A	1036	MNWH	YC5	198	92	U	J	U	0		0	0	1
1769	17\10\93	1000-1028	A	1036	MNWH	YC6	194	88	U	J	U	0		0	0	1
1770	17\10\93	1000-1028	A	1036	MNWH	YC7	188	70	U	J	U	0		0	0	1
1771	17\10\93	1000-1028	A	1036	MNWH	YC9	257	186	U	J	U	0		0	0	1
1772	17\10\93	1000-1028	A	1036	MNWH	YD0	233	142	U	J	U	0		0	0	1
1773	17\10\93	1000-1028	A	1036	MNWH	YD1	265	246	U	J	U	0		0	0	1
1774	17\10\93	1000-1028	A	1036	MNWH	10931	319	360	U	U	U	0		0	0	1
1775	17\10\93	1000-1028	A	1036	MNWH	10932	328	428	U	A	U	0		0	0	1
1776	17\10\93	1000-1028	A	1036	MNWH	10933	365	575	M	A	RP	0		0	0	1
1777	17\10\93	1000-1028	A	1036	LNSC	10934	362	700	M	A	RP	0		0	0	1
1778	17\10\93	1000-1028	A	1036	MNWH	10935	373	615	U	A	U	0	LESION R. SIDE	0	0	1
1779	17\10\93	1000-1028	A	1036	MNWH	10936	347	520	M	A	RP	0		0	0	1
1780	17\10\93	1000-1028	A	1036	LNSC	10937	385	720	U	A	U	0		0	0	1
1781	17\10\93	1000-1028	A	1036	MNWH	10938	309	320	M	A	RP	0		0	0	1
1782	17\10\93	1000-1028	A	1036	LNSC	10939	387	890	U	A	U	0		0	0	1
1783	17\10\93	1000-1028	A	1036	LNSC	10940	410	840	U	A	U	0		0	0	1
1785	17\10\93	1028-1107	A	1035	NRPK	10941	833	4950	U	A	U	0	SCAR ON TAIL	0	0	1
1787	17\10\93	1028-1107	A	1035	NRPK	10942	682	2472	U	A	U	0	DEFORMED LOWER	0	0	1
1788	17\10\93	1028-1107	A	1035	NRPK	YD2	250	100	U	J	IM	0		0	0	1
1790	17\10\93	1028-1107	A	1035	NRPK	10943	630	1690	U	A	U	0		0	0	1
1791	17\10\93	1028-1107	A	1035	NRPK	10944	620	1905	U	A	U	0	ANAL FIN CLIP	0	0	1
1792	17\10\93	1028-1107	A	1035	NRPK	YD3	354	290	U	U	U	0		0	0	1
1793	17\10\93	1028-1107	A	1035	NRPK	10945	516	1100	U	A	U	0		0	0	1
1794	17\10\93	1028-1107	A	1035	NRPK	10946	382	360	U	U	U	0		0	0	1
1795	17\10\93	1028-1107	A	1035	NRPK	10947	365	348	U	U	U	0		0	0	1
1796	17\10\93	1028-1107	A	1035	NRPK	10948	544	1278	U	A	U	0		0	0	1
1797	17\10\93	1028-1107	A	1035	NRPK	YD4	360	288	U	U	U	0		0	0	1
1798	17\10\93	1028-1107	A	1035	NRPK	10949	553	1335	U	A	U	0		0	0	1
1799	17\10\93	1028-1107	A	1035	NRPK	10950	361	339	U	U	U	0		0	0	1
1800	17\10\93	1028-1107	A	1035	NRPK	10951	390	434	U	U	U	0		0	0	1
1801	17\10\93	1028-1107	A	1035	NRPK	YD5	350	260	U	U	U	0		0	0	1
1802	17\10\93	1028-1107	A	1035	NRPK	YD6	322	242	U	U	U	0		0	0	1
1803	17\10\93	1028-1107	A	1035	NRPK	YD7	228	74	U	J	IM	0		0	0	1
1804	17\10\93	1028-1107	A	1035	MNWH	10952	297	310	U	U	U	0		0	0	1
1805	17\10\93	1028-1107	A	1035	MNWH	10953	402	750	U	U	U	0		0	0	1
1806	17\10\93	1028-1107	A	1035	MNWH	YD8	237	172	U	J	IM	0		0	0	1
1807	17\10\93	1028-1107	A	1035	MNWH	YD9	268	256	U	J	IM	0		0	0	1
1808	17\10\93	1028-1107	A	1035	MNWH	10954	292	326	U	U	U	0		0	0	1
1809	17\10\93	1028-1107	A	1035	MNWH	10955	330	428	U	A	U	0		0	0	1
1810	17\10\93	1028-1107	A	1035	MNWH	10956	328	455	U	A	U	0		0	0	1
1811	17\10\93	1028-1107	A	1035	MNWH	YE0	282	265	U	J	IM	0	TUMOUR UNDER R.	0	0	1
1812	17\10\93	1028-1107	A	1035	MNWH	YE1	278	284	U	J	IM	0		0	0	1
1813	17\10\93	1200-1242	A	1034	MNWH		300	308	U	U	U	0		0	0	1
1814	17\10\93	1200-1242	A	1034	MNWH	10957	300	345	U	U	U	0		0	0	1
1815	17\10\93	1200-1242	A	1034	MNWH	10958	305	345	U	U	U	0		0	0	1
1816	17\10\93	1200-1242	A	1034	MNWH	10959	417	775	U	A	U	0		0	0	1
1817	17\10\93	1200-1242	A	1034	MNWH	10960	382	660	M	A	RP	0		0	0	1
1818	17\10\93	1200-1242	A	1034	MNWH	10961	410	928	U	A	U	0	DISEASED CAUDAL	0	0	1
1819	17\10\93	1200-1242	A	1034	MNWH	10962	353	485	U	A	U	0		0	0	1
1820	17\10\93	1200-1242	A	1034	MNWH	10963	382	668	U	A	U	0		0	0	1
1821	17\10\93	1200-1242	A	1034	MNWH	10964	403	774	U	A	U	0		0	0	1
1822	17\10\93	1200-1242	A	1034	MNWH	10965	443	1082	U	A	U	0		0	0	1
1823	17\10\93	1200-1242	A	1034	MNWH	10966	390	691	U	A	U	0		0	0	1
1824	17\10\93	1200-1242	A	1034	MNWH	10967	310	371	U	U	U	0		0	0	1
1825	17\10\93	1200-1242	A	1034	MNWH	10968	312	370	U	U	U	0		0	0	1
1826	17\10\93	1200-1242	A	1034	MNWH	10969	287	325	U	U	U	0		0	0	1
1827	17\10\93	1200-1242	A	1034	MNWH	10970	310	362	U	U	U	0		0	0	1
1828	17\10\93	1200-1242	A	1034	MNWH	10971	292	305	U	U	U	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1829	17\10\93	1200-1242	A	1034	MNWH	10972	312	340	U	U	U	0		0	0	1
1830	17\10\93	1200-1242	A	1034	MNWH	10973	402	746	M	A	RP	0		0	0	1
1831	17\10\93	1200-1242	A	1034	MNWH	YE2	282	255	U	J	IM	0		0	0	1
1832	17\10\93	1200-1242	A	1034	MNWH	10974	305	360	U	A	U	0		0	0	1
1833	17\10\93	1200-1242	A	1034	MNWH	10975	327	410	U	A	U	0		0	0	1
1834	17\10\93	1200-1242	A	1034	MNWH	10976	337	412	U	A	U	0		0	0	1
1835	17\10\93	1200-1242	A	1034	MNWH	10977	312	385	U	U	U	0		0	0	1
1836	17\10\93	1200-1242	A	1034	MNWH	10978	299	300	U	U	U	0		0	0	1
1837	17\10\93	1200-1242	A	1034	MNWH	10979	282	310	U	U	U	0		0	0	1
1838	17\10\93	1200-1242	A	1034	MNWH	YE3	286	276	U	J	IM	0		0	0	1
1839	17\10\93	1200-1242	A	1034	MNWH	YE4	296	298	U	J	IM	0		0	0	1
1840	17\10\93	1200-1242	A	1034	MNWH	YE5	200	86	U	J	IM	0		0	0	1
1841	17\10\93	1200-1242	A	1034	MNWH	YE6	282	278	U	J	IM	0		0	0	1
1842	17\10\93	1200-1242	A	1034	NRPK	YE7	296	174	U	J	IM	0		0	0	1
1843	17\10\93	1200-1242	A	1034	MNWH	YE8	221	110	U	J	IM	0		0	0	1
1844	17\10\93	1200-1242	A	1034	MNWH	YE9	264	222	U	J	IM	0		0	0	1
1845	17\10\93	1200-1242	A	1034	MNWH	YF0	182	66	U	J	IM	0		0	0	1
1846	17\10\93	1200-1242	A	1034	MNWH	YF1	212	124	U	J	IM	0		0	0	1
1847	17\10\93	1200-1242	A	1034	MNWH	YF2	200	90	U	J	IM	0		0	0	1
1848	17\10\93	1200-1242	A	1034	MNWH	YF3	166	44	U	J	IM	0		0	0	1
1849	17\10\93	1200-1242	A	1034	MNWH	YF4	187	82	U	J	IM	0		0	0	1
1850	17\10\93	1200-1242	A	1034	MNWH	YF5	256	209	U	J	IM	0		0	0	1
1851	17\10\93	1200-1242	A	1034	MNWH	YF6	232	156	U	J	IM	0		0	0	1
1852	17\10\93	1200-1242	A	1034	MNWH	YF7	245	154	U	J	IM	0		0	0	1
1853	17\10\93	1200-1242	A	1034	MNWH	YF8	156	42	U	J	IM	0		0	0	1
1854	17\10\93	1200-1242	A	1034	MNWH	YF9	187	66	U	J	IM	0		0	0	1
1855	17\10\93	1200-1242	A	1034	MNWH	YH0	268	214	U	J	IM	0		0	0	1
1856	17\10\93	1200-1242	A	1034	MNWH	YH1	272	216	U	J	IM	0		0	0	1
1857	17\10\93	1200-1242	A	1034	MNWH	YH2	272	224	U	J	IM	0		0	0	1
1858	17\10\93	1200-1242	A	1034	MNWH	YH3	193	81	U	J	IM	0		0	0	1
1859	17\10\93	1200-1242	A	1034	MNWH	YH4	259	213	U	J	IM	0		0	0	1
1860	17\10\93	1200-1242	A	1034	MNWH	YH5	256	199	U	J	IM	0		0	0	1
1861	17\10\93	1200-1242	A	1034	MNWH	YH6	220	135	U	J	IM	0		0	0	1
1862	17\10\93	1200-1242	A	1034	MNWH	YH7	228	144	U	J	IM	0		0	0	1
1863	17\10\93	1200-1242	A	1034	MNWH	YH8	269	219	U	J	IM	0		0	0	1
1864	17\10\93	1200-1242	A	1034	MNWH	YH9	221	132	U	J	IM	0		0	0	1
1865	17\10\93	1200-1242	A	1034	MNWH		92		U	J	IM	0		0	0	1
1866	17\10\93	1200-1242	A	1034	MNWH		92	7	U	J	IM	0		0	0	1
1867	17\10\93	1200-1242	A	1034	MNWH		105	10	U	J	IM	0		0	0	1
1868	17\10\93	1242-1308	A	1033	MNWH	10980	358	475	U	A	U	0		0	0	1
1869	17\10\93	1242-1308	A	1033	MNWH	10981	300	310	U	U	U	0		0	0	1
1870	17\10\93	1242-1308	A	1033	MNWH	10982	297	325	U	U	U	0		0	0	1
1871	17\10\93	1242-1308	A	1033	MNWH		300	312	U	U	U	0		0	0	1
1872	17\10\93	1242-1308	A	1033	MNWH	10983	411	801	U	A	U	0		0	0	1
1873	17\10\93	1242-1308	A	1033	MNWH	10984	363	430	U	A	U	0		0	0	1
1874	17\10\93	1242-1308	A	1033	MNWH	10985	340	561	U	A	U	0		0	0	1
1875	17\10\93	1242-1308	A	1033	MNWH	10986	380	645	U	A	U	0		0	0	1
1876	17\10\93	1242-1308	A	1033	MNWH	10987	380	602	U	A	U	0		0	0	1
1877	17\10\93	1242-1308	A	1033	MNWH	10988	345	465	U	A	U	0		0	0	1
1878	17\10\93	1242-1308	A	1033	MNWH	10989	380	530	U	A	U	0		0	0	1
1879	17\10\93	1242-1308	A	1033	MNWH		246	176	U	J	IM	0		0	0	1
1880	17\10\93	1242-1308	A	1033	MNWH		190	89	U	J	IM	0		0	0	1
1881	17\10\93	1242-1308	A	1033	MNWH		241	181	U	J	IM	0		0	0	1
1882	17\10\93	1242-1308	A	1033	MNWH		244	194	U	J	IM	0		0	0	1
1883	17\10\93	1242-1308	A	1033	MNWH		241	176	U	J	IM	0		0	0	1
1885	17\10\93	1242-1308	A	1033	MNWH		255	194	U	J	IM	0		0	0	1
1886	17\10\93	1242-1308	A	1033	MNWH		226	165	U	J	IM	0		0	0	1
1887	17\10\93	1242-1308	A	1033	MNWH		274	304	U	J	IM	0		0	0	1
1888	17\10\93	1242-1308	A	1033	MNWH		204	102	U	J	IM	0		0	0	1
1889	17\10\93	1242-1308	A	1033	MNWH	10990	308	360	U	U	U	0		0	0	1
1890	17\10\93	1242-1308	A	1033	MNWH	10991	385	692	U	A	U	0		0	0	1
1891	17\10\93	1242-1308	A	1033	MNWH	10992	322	375	U	U	U	0		0	0	1
1892	17\10\93	1242-1308	A	1033	MNWH	10993	320	400	U	J	IM	0		0	0	1
1893	17\10\93	1242-1308	A	1033	MNWH	YJO	223	130	U	J	IM	0		0	0	1
1894	17\10\93	1242-1308	A	1033	MNWH	YJ1	177	75	U	J	IM	0		0	0	1
1895	17\10\93	1242-1308	A	1033	MNWH	YJ2	178	62	U	J	IM	0		0	0	1
1896	17\10\93	1242-1308	A	1033	MNWH	YJ3	202	86	U	J	IM	0		0	0	1
1897	17\10\93	1242-1308	A	1033	MNWH	YJ4	202	108	U	J	IM	0		0	0	1
1898	17\10\93	1242-1308	A	1033	NRPK	YJ5	202	54	U	J	IM	0		0	0	1
1899	17\10\93	1242-1308	A	1033	MNWH	YJ6	233	150	U	J	IM	0		0	0	1
1900	17\10\93	1242-1308	A	1033	MNWH	YJ7	203	86	U	J	IM	0		0	0	1
1901	17\10\93	1242-1308	A	1033	MNWH	YJ8	282	290	U	J	IM	0		0	0	1
1903	17\10\93	1242-1308	A	1033	MNWH	YJ9	185	56	U	J	IM	0		0	0	1
1904	17\10\93	1242-1308	A	1033	MNWH	YK0	212	134	U	J	IM	0		0	0	1
1906	17\10\93	1242-1308	A	1033	MNWH	YK1	216	110	U	J	IM	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1907	17\10\93	1242-1308	A	1033	MNWH	YK2	215	94	U	J	IM	0		0	0	1
1908	17\10\93	1242-1308	A	1033	MNWH	YK3	227	134	U	J	IM	0		0	0	1
1909	17\10\93	1242-1308	A	1033	MNWH	YK4	241	180	U	J	IM	0		0	0	1
1910	17\10\93	1242-1308	A	1033	MNWH	YK5	200	91	U	J	IM	0		0	0	1
1911	17\10\93	1242-1308	A	1033	MNWH	YK6	174	56	U	J	IM	0		0	0	1
1912	17\10\93	1242-1308	A	1033	MNWH	YK7	209	91	U	J	IM	0		0	0	1
1913	17\10\93	1242-1308	A	1033	MNWH	YK8	198	88	U	J	IM	0		0	0	1
1914	17\10\93	1242-1308	A	1033	MNWH	YK9	194	78	U	J	IM	0		0	0	1
1915	17\10\93	1242-1308	A	1033	MNWH	YL0	236	132	U	J	IM	0		0	0	1
1916	17\10\93	1242-1308	A	1033	MNWH	YL1	260	196	U	J	IM	0		0	0	1
1917	17\10\93	1242-1308	A	1033	MNWH	YL2	218	128	U	J	IM	0		0	0	1
1918	17\10\93	1242-1308	A	1033	MNWH	YL3	265	234	U	J	IM	0		0	0	1
1920	17\10\93	1242-1308	A	1033	MNWH	YL4	240	170	U	J	IM	0		0	0	1
1921	17\10\93	1242-1308	A	1033	MNWH	YL5	204	88	U	J	IM	0		0	0	1
1922	17\10\93	1242-1308	A	1033	MNWH	YL6	193	88	U	J	IM	0		0	0	1
1923	17\10\93	1242-1308	A	1033	MNWH	YL7	289	288	U	J	IM	0		0	0	1
1924	17\10\93	1242-1308	A	1033	MNWH	YL8	183	66	U	J	IM	0		0	0	1
1925	17\10\93	1242-1308	A	1033	MNWH	YL9	190	78	U	J	IM	0		0	0	1
1926	17\10\93	1242-1308	A	1033	MNWH	10994	318	356	U	J	IM	0		0	0	1
1927	17\10\93	1242-1308	A	1033	MNWH	Z00	244	172	U	J	IM	0		0	0	1
1928	17\10\93	1242-1308	A	1033	MNWH	Z01	190	72	U	J	IM	0		0	0	1
1929	17\10\93	1242-1308	A	1033	MNWH	Z02	230	130	U	J	IM	0		0	0	1
1930	17\10\93	1242-1308	A	1033	MNWH	Z03	218	108	U	J	IM	0		0	0	1
1931	17\10\93	1242-1308	A	1033	MNWH	10995	295	330	U	J	IM	0		0	0	1
1932	17\10\93	1242-1308	A	1033	MNWH	Z04	273	226	U	J	IM	0		0	0	1
1933	17\10\93	1242-1308	A	1033	MNWH	Z05	232	132	U	J	IM	0		0	0	1
1934	17\10\93	1242-1308	A	1033	MNWH	Z06	244	170	U	J	IM	0		0	0	1
1935	17\10\93	1242-1308	A	1033	MNWH	Z07	205	94	U	J	IM	0		0	0	1
1936	17\10\93	1242-1308	A	1033	MNWH	Z08	220	122	U	J	IM	0		0	0	1
1937	17\10\93	1242-1308	A	1033	MNWH	Z09	210	117	U	J	IM	0		0	0	1
1938	17\10\93	1242-1308	A	1033	MNWH	Z10	230	138	U	J	IM	0		0	0	1
1939	17\10\93	1242-1308	A	1033	MNWH	Z11	250	210	U	J	IM	0		0	0	1
1940	17\10\93	1242-1308	A	1033	MNWH	Z12	240	157	U	J	IM	0		0	0	1
1941	17\10\93	1242-1308	A	1033	MNWH	Z13	217	236	U	J	IM	0		0	0	1
1942	17\10\93	1242-1308	A	1033	MNWH	Z14	236	172	U	J	IM	0		0	0	1
1943	17\10\93	1242-1308	A	1033	MNWH	Z15	194	80	U	J	IM	0		0	0	1
1944	17\10\93	1242-1308	A	1033	MNWH	Z16	202	86	U	J	IM	0		0	0	1
1945	17\10\93	1242-1308	A	1033	MNWH	Z17	166	40	U	J	IM	0		0	0	1
1946	17\10\93	1242-1308	A	1033	MNWH	Z18	213	92	U	J	IM	0		0	0	1
1950	17\10\93	1520-1556	A	1030.5	MNWH		302	339	U	U	U	0		0	0	1
1951	17\10\93	1520-1556	A	1030.5	MNWH	Z19	193	84	U	J	IM	0		0	0	1
1952	17\10\93	1520-1556	A	1030.5	MNWH	10996	340	500	U	A	U	0		0	0	1
1953	17\10\93	1520-1556	A	1030.5	MNWH	Z20	262	211	U	J	IM	0		0	0	1
1954	17\10\93	1520-1556	A	1030.5	MNWH	Z21	304	286	U	J	IM	0		0	0	1
1956	17\10\93	1520-1556	A	1030.5	MNWH	Z22	262	220	U	J	IM	0		0	0	1
1957	17\10\93	1520-1556	A	1030.5	MNWH	Z23	186	68	U	J	IM	0		0	0	1
1958	17\10\93	1520-1556	A	1030.5	MNWH	Z24	256	196	U	J	IM	0		0	0	1
1959	17\10\93	1520-1556	A	1030.5	NRPK	10997	455	721	U	A	U	0		0	0	1
1960	17\10\93	1520-1556	A	1030.5	MNWH	10998	298	302	U	A	U	0		0	0	1
1961	17\10\93	1520-1556	A	1030.5	MNWH	10999	400	821	U	A	U	0		0	0	1
1962	17\10\93	1520-1556	A	1030.5	MNWH	11000	364	669	U	A	U	0		0	0	1
1963	17\10\93	1520-1556	A	1030.5	NRPK	11001	513	991	U	U	U	0		0	0	1
1964	17\10\93	1520-1556	A	1030.5	MNWH	11002	325	462	U	A	U	0		0	0	1
1965	17\10\93	1520-1556	A	1030.5	MNWH	11003	404	808	U	A	U	0		0	0	1
1966	17\10\93	1520-1556	A	1030.5	MNWH	11004	356	590	U	A	U	0		0	0	1
1967	17\10\93	1520-1556	A	1030.5	MNWH	11005	357	578	U	A	U	0		0	0	1
1968	17\10\93	1520-1556	A	1030.5	MNWH	11006	366	612	U	A	U	0		0	0	1
1969	17\10\93	1520-1556	A	1030.5	MNWH	11041	308	420	U	A	U	0		0	0	1
1970	17\10\93	1520-1556	A	1030.5	MNWH	11008	363	590	U	A	U	0		0	0	1
1971	17\10\93	1556-1621	A	1029.5	MNWH	11009	396	825	U	A	U	0		0	0	1
1972	17\10\93	1556-1621	A	1029.5	MNWH	11010	348	535	M	A	RP	0		0	0	1
1973	17\10\93	1556-1621	A	1029.5	MNWH	11011	414	1040	U	A	U	0		0	0	1
1974	17\10\93	1556-1621	A	1029.5	MNWH	11012	340	440	M	A	RP	0		0	0	1
1975	17\10\93	1556-1621	A	1029.5	MNWH	11013	363	540	U	A	U	0		0	0	1
1976	17\10\93	1556-1621	A	1029.5	MNWH	11014	412	1035	M	A	RP	0		0	0	1
1977	17\10\93	1556-1621	A	1029.5	MNWH	11015	353	490	U	A	U	0		0	0	1
1978	17\10\93	1556-1621	A	1029.5	MNWH	11016	379	600	M	A	SP	0		0	0	1
1979	17\10\93	1556-1621	A	1029.5	MNWH	11017	375	675	U	A	U	0		0	0	1
1980	17\10\93	1556-1621	A	1029.5	MNWH	Z25	288	286	U	J	IM	0		0	0	1
1981	17\10\93	1556-1621	A	1029.5	MNWH	Z26	241	148	U	J	IM	0		0	0	1
1982	17\10\93	1556-1621	A	1029.5	MNWH	11018	315	410	U	A	U	0		0	0	1
1983	17\10\93	1556-1621	A	1029.5	MNWH	Z27	275	248	U	J	IM	0	DEFORMED CAUDA	0	0	1
1984	17\10\93	1556-1621	A	1029.5	MNWH	11019	298	326	U	J	IM	0		0	0	1
1985	17\10\93	1556-1621	A	1029.5	MNWH	Z28	216	96	U	J	IM	0		0	0	1
1986	17\10\93	1556-1621	A	1029.5	MNWH	Z29	240	191	U	J	IM	0		0	0	1

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FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
1987	17\10\93	1556-1621	A	1029.5	MNWH	Z30	176	60	U	J	IM	0		0	0	1
1988	17\10\93	1556-1621	A	1029.5	MNWH	11020	327	450	U	J	IM	0		0	0	1
1989	17\10\93	1556-1621	A	1029.5	MNWH	Z31	193	76	U	J	IM	0		0	0	1
1990	17\10\93	1556-1621	A	1029.5	MNWH	Z32	193	72	U	J	IM	0		0	0	1
1991	17\10\93	1556-1621	A	1029.5	MNWH	Z33	197	86	U	J	IM	0		0	0	1
1992	17\10\93	1556-1621	A	1029.5	NRPK	Z34	347	270	U	J	IM	0		0	0	1
1996	17\10\93	1705-1730	A	1028.5	MNWH	11021	418	918	M	A	RP	0		0	0	1
1997	17\10\93	1705-1730	A	1028.5	LNSC	11022	337	520	U	A	U	0		0	0	1
1998	17\10\93	1705-1730	A	1028.5	MNWH	11023	320	355	U	A	U	0		0	0	1
1999	17\10\93	1705-1730	A	1028.5	MNWH	11024	327	455	M	A	RP	0		0	0	1
2000	17\10\93	1705-1730	A	1028.5	MNWH	11025	366	572	U	A	U	0		0	0	1
2001	17\10\93	1705-1730	A	1028.5	MNWH	11026	339	460	U	A	U	0		0	0	1
2002	17\10\93	1705-1730	A	1028.5	MNWH	11027	350	529	U	A	U	0		0	0	1
2003	17\10\93	1705-1730	A	1028.5	MNWH	11028	305	389	U	A	U	0		0	0	1
2004	17\10\93	1705-1730	A	1028.5	LNSC	11029	406	782	U	A	U	0		0	0	1
2005	17\10\93	1705-1730	A	1028.5	NRPK	11030	502	909	U	A	U	0		0	0	1
2006	17\10\93	1705-1730	A	1028.5	NRPK	11031	530	1459	U	A	U	0		0	0	1
2007	17\10\93	1705-1730	A	1028.5	NRPK	11032	385	415	U	U	U	0		0	0	1
2008	17\10\93	1705-1730	A	1028.5	MNWH	11033	403	910	U	U	U	0		0	0	1
2009	17\10\93	1705-1730	A	1028.5	MNWH	11034	355	559	U	U	U	0		0	0	1
2010	17\10\93	1705-1730	A	1028.5	MNWH	11035	355	642	U	A	U	0		0	0	1
2011	17\10\93	1705-1730	A	1028.5	MNWH	11036	403	780	U	A	U	0		0	0	1
2012	17\10\93	1705-1730	A	1028.5	MNWH	11037	399	672	U	A	U	0		0	0	1
2013	17\10\93	1705-1730	A	1028.5	LNSC	11038	414	899	U	A	U	0		0	0	1
2014	17\10\93	1705-1730	A	1028.5	MNWH	11039	321	403	U	A	U	0		0	0	1
2015	17\10\93	1705-1730	A	1028.5	MNWH	11040	328	411	U	A	U	0		0	0	1
2016	17\10\93	1705-1730	A	1028.5	MNWH	11042	327	408	U	A	U	0		0	0	1
2017	17\10\93	1705-1730	A	1028.5	MNWH	11043	313	404	U	A	U	0		0	0	1
2018	17\10\93	1705-1730	A	1028.5	MNWH	11044	300	319	U	U	U	0		0	0	1
2019	17\10\93	1705-1730	A	1028.5	MNWH	11045	296	306	U	U	U	0		0	0	1
2020	17\10\93	1705-1730	A	1028.5	MNWH	Z35	250	182	U	J	U	0		0	0	1
2021	17\10\93	1705-1730	A	1028.5	MNWH	Z36	205	100	U	J	U	0		0	0	1
2022	17\10\93	1705-1730	A	1028.5	MNWH	Z37	197	96	U	J	U	0		0	0	1
2023	17\10\93	1705-1730	A	1028.5	MNWH	Z38	292	283	U	J	U	0		0	0	1
2024	17\10\93	1705-1730	A	1028.5	MNWH	Z39	245	172	U	J	U	0		0	0	1
2025	17\10\93	1705-1730	A	1028.5	MNWH	Z40	260	214	U	J	U	0		0	0	1
2026	17\10\93	1705-1730	A	1028.5	MNWH	Z41	200	88	U	J	U	0		0	0	1
2027	17\10\93	1705-1730	A	1028.5	MNWH	Z42	287	259	U	J	U	0		0	0	1
2028	17\10\93	1705-1730	A	1028.5	MNWH	Z43	240	150	U	J	U	0	WOUND ON TAIL	0	0	1
2029	17\10\93	1705-1730	A	1028.5	MNWH	Z44	205	90	U	J	U	0		0	0	1
2030	17\10\93	1705-1730	A	1028.5	MNWH	Z45	223	130	U	J	U	0		0	0	1
2031	17\10\93	1705-1730	A	1028.5	MNWH	Z46	181	68	U	J	U	0		0	0	1
2032	17\10\93	1705-1730	A	1028.5	MNWH	Z47	236	166	U	J	U	0		0	0	1
2033	17\10\93	1705-1730	A	1028.5	MNWH	Z48	175	56	U	J	U	0		0	0	1
2034	17\10\93	1705-1730	A	1028.5	MNWH	Z49	281	230	U	J	U	0		0	0	1
2035	17\10\93	1705-1730	A	1028.5	MNWH	Z50	240	174	U	J	U	0		0	0	1
2036	17\10\93	1705-1730	A	1028.5	MNWH	Z51	295	289	U	J	U	0		0	0	1
2037	17\10\93	1705-1730	A	1028.5	MNWH	Z52	250	216	U	J	U	0		0	0	1
2038	17\10\93	1705-1730	A	1028.5	MNWH	Z53	252	195	U	J	U	0		0	0	1
2039	17\10\93	1705-1730	A	1028.5	MNWH	Z54	280	254	U	J	U	0		0	0	1
2040	17\10\93	1705-1730	A	1028.5	MNWH	Z55	260	202	U	J	U	0		0	0	1
2041	17\10\93	1705-1730	A	1028.5	MNWH	Z56	285	272	U	J	U	0		0	0	1
2042	17\10\93	1705-1730	A	1028.5	MNWH	Z57	285	274	U	J	U	0		0	0	1
2043	17\10\93	1705-1730	A	1028.5	MNWH	Z58	245	168	U	J	U	0		0	0	1
2044	17\10\93	1705-1730	A	1028.5	MNWH	Z59	283	254	U	J	U	0		0	0	1
2045	17\10\93	1705-1730	A	1028.5	MNWH	Z60	242	172	U	J	U	0		0	0	1
2046	17\10\93	1705-1730	A	1028.5	MNWH	Z61	241	162	U	J	U	0		0	0	1
2048	17\10\93	1705-1730	A	1028.5	MNWH	Z62	245	164	U	J	U	0		0	0	1
2049	17\10\93	1705-1730	A	1028.5	MNWH	Z63	232	172	U	J	U	0		0	0	1
2050	17\10\93	1730-1756	A	1027.5	MNWH	11046	290	316	U	U	U	0		0	0	1
2051	17\10\93	1730-1756	A	1027.5	MNWH	11047	410	772	F	A	RP	0		0	0	1
2052	17\10\93	1730-1756	A	1027.5	MNWH	11048	317	685	M	A	RP	0		0	0	1
2053	17\10\93	1730-1756	A	1027.5	MNWH	11049	388	720	M	A	RP	0		0	0	1
2054	17\10\93	1730-1756	A	1027.5	MNWH	11050	390	784	U	A	U	0		0	0	1
2055	17\10\93	1730-1756	A	1027.5	MNWH	11051	335	455	U	A	U	0		0	0	1
2056	17\10\93	1730-1756	A	1027.5	MNWH	11052	380	659	U	A	U	0		0	0	1
2057	17\10\93	1730-1756	A	1027.5	MNWH	11053	354	570	F	A	RP	0		0	0	1
2058	17\10\93	1730-1756	A	1027.5	MNWH	11054	330	411	M	A	RP	0		0	0	1
2059	17\10\93	1730-1756	A	1027.5	NRPK	11055	367	358	U	U	U	0		0	0	1
2060	17\10\93	1730-1756	A	1027.5	MNWH	11056	362	580	M	A	RP	0		0	0	1
2061	17\10\93	1730-1756	A	1027.5	MNWH	Z64	282	262	U	J	IM	0		0	0	1
2062	17\10\93	1730-1756	A	1027.5	MNWH	Z65	231	160	U	J	IM	0		0	0	1
2063	17\10\93	1730-1756	A	1027.5	MNWH	Z66	278	244	U	J	IM	0		0	0	1
2064	17\10\93	1730-1756	A	1027.5	MNWH	Z67	240	178	U	J	IM	0		0	0	1
2065	17\10\93	1730-1756	A	1027.5	MNWH	Z68	206	122	U	J	IM	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
2066	17\10\93	1730-1756	A	1027.5	MNWH	Z69	237	148	U	J	IM	0		0	0	1
2067	17\10\93	1730-1756	A	1027.5	MNWH	Z70	237	172	U	J	IM	0		0	0	1
2068	17\10\93	1730-1756	A	1027.5	MNWH	Z71	245	164	U	J	IM	0		0	0	1
2069	17\10\93	1730-1756	A	1027.5	MNWH	Z72	200	98	U	J	IM	0		0	0	1
2070	17\10\93	1730-1756	A	1027.5	MNWH	Z73	293	296	U	J	IM	0		0	0	1
2071	17\10\93	1730-1756	A	1027.5	MNWH	Z74	163	44	U	J	IM	0		0	0	1
2072	17\10\93	1730-1756	A	1027.5	MNWH	Z75	289	282	U	J	IM	0		0	0	1
2073	17\10\93	1730-1756	A	1027.5	MNWH	Z76	190	76	U	J	IM	0		0	0	1
2075	17\10\93	1730-1756	A	1027.5	MNWH	Z77	235	150	U	J	IM	0		0	0	1
2076	17\10\93	1730-1756	A	1027.5	MNWH	Z78	173	48	U	J	IM	0		0	0	1
2077	17\10\93	1730-1756	A	1027.5	MNWH	Z79	258	212	U	J	IM	0		0	0	1
2078	17\10\93	1730-1756	A	1027.5	MNWH	Z80	289	278	U	J	IM	0		0	0	1
2079	17\10\93	1730-1756	A	1027.5	MNWH	11057	305	358	U	J	IM	0		0	0	1
2080	17\10\93	1730-1756	A	1027.5	MNWH	Z81	235	144	U	J	IM	0		0	0	1
2081	17\10\93	1730-1756	A	1027.5	MNWH	Z82	237	140	U	J	IM	0		0	0	1
2082	17\10\93	1730-1756	A	1027.5	MNWH	Z83	286	278	U	J	IM	0		0	0	1
2083	17\10\93	1730-1756	A	1027.5	MNWH	Z84	266	182	U	J	IM	0		0	0	1
2084	17\10\93	1730-1756	A	1027.5	MNWH	Z85	187	64	U	J	IM	0		0	0	1
2085	17\10\93	1730-1756	A	1027.5	MNWH	Z86	187	64	U	J	IM	0		0	0	1
2086	17\10\93	1730-1756	A	1027.5	MNWH	Z87	181	56	U	J	IM	0		0	0	1
2087	17\10\93	1730-1756	A	1027.5	MNWH	Z88	159	44	U	J	IM	0		0	0	1
2088	17\10\93	1730-1756	A	1027.5	MNWH	11058	323	381	U	U	IM	0		0	0	1
2089	17\10\93	1730-1756	A	1027.5	MNWH	11059	301	332	U	U	U	0		0	0	1
2090	17\10\93	1730-1756	A	1027.5	MNWH	Z89	237	154	U	U	U	0		0	0	1
2091	17\10\93	1730-1756	A	1027.5	MNWH	Z90	207	108	U	J	IM	0		0	0	1
2092	17\10\93	1730-1756	A	1027.5	MNWH	Z91	243	170	U	J	IM	0		0	0	1
2093	17\10\93	1730-1756	A	1027.5	MNWH	Z92	235	148	U	J	IM	0		0	0	1
2094	17\10\93	1730-1756	A	1027.5	MNWH	Z93	186	72	U	J	IM	0		0	0	1
2096	17\10\93	1730-1756	A	1027.5	MNWH	Z94	140	26	U	J	IM	0		0	0	1
2097	17\10\93	1730-1756	A	1027.5	MNWH	Z95	240	144	U	J	IM	0		0	0	1
2099	17\10\93	1730-1756	A	1027.5	MNWH	Z96	286	278	U	J	IM	0		0	0	1
2100	17\10\93	1730-1756	A	1027.5	MNWH	Z97	258	202	U	J	IM	0		0	0	1
2101	17\10\93	1730-1756	A	1027.5	MNWH	11060	320	373	U	J	IM	0		0	0	1
2102	17\10\93	1730-1756	A	1027.5	MNWH	Z98	247	166	U	J	IM	0		0	0	1
2103	17\10\93	1730-1756	A	1027.5	MNWH	Z99	239	168	U	J	IM	0		0	0	1
2104	17\10\93	1730-1756	A	1027.5	MNWH	11061	296	324	U	U	U	0		0	0	1
2105	17\10\93	1730-1756	A	1027.5	MNWH	ZA0	286	293	U	J	IM	0		0	0	1
2106	17\10\93	1730-1756	A	1027.5	MNWH	ZA1	256	196	U	J	IM	0		0	0	1
2107	17\10\93	1730-1756	A	1027.5	MNWH	ZA2	234	141	U	U	U	0		0	0	1
2108	17\10\93	1730-1756	A	1027.5	MNWH	ZA4	225	130	U	J	IM	0		0	0	1
2109	17\10\93	1730-1756	A	1027.5	MNWH	ZA5	284	256	U	J	IM	0		0	0	1
2110	17\10\93	1730-1756	A	1027.5	MNWH	ZA6	185	70	U	J	IM	0		0	0	1
2111	17\10\93	1730-1756	A	1027.5	MNWH	11062	287	308	U	J	IM	0		0	0	1
2112	17\10\93	1730-1756	A	1027.5	MNWH	ZA7	245	144	U	J	IM	0		0	0	1
2113	17\10\93	1730-1756	A	1027.5	MNWH	ZA8	289	284	U	J	IM	0		0	0	1
2114	17\10\93	1730-1756	A	1027.5	MNWH	ZA9	193	76	U	J	IM	0		0	0	1
2115	17\10\93	1730-1756	A	1027.5	MNWH		105	11	U	J	IM	0		0	0	1
2116	17\10\93	1730-1756	A	1027.5	MNWH		94	8	U	J	IM	0		0	0	1
2117	17\10\93	1730-1756	A	1027.5	MNWH		95	9	U	J	IM	0		0	0	1
2118	17\10\93	1730-1756	A	1027.5	MNWH		84	6	U	J	IM	0		0	0	1
2119	17\10\93	1730-1756	A	1027.5	MNWH		120	16	U	J	IM	0		0	0	1
2120	17\10\93	1730-1756	A	1027.5	MNWH		97	8	U	J	IM	0		0	0	1
2121	17\10\93	1730-1756	A	1027.5	MNWH		99	8	U	J	IM	0		0	0	1
2122	17\10\93	1730-1756	A	1027.5	MNWH		91	7	U	J	IM	0		0	0	1
2123	17\10\93	1730-1756	A	1027.5	MNWH		105	10	U	J	IM	0		0	0	1
2124	17\10\93	1730-1756	A	1027.5	MNWH		86		U	J	IM	0		0	0	1
2129	18\10\93	0915-0945	A	1026.5	MNWH	ZB0	339	475	U	A	U	0		0	0	1
2130	18\10\93	0915-0945	A	1026.5	MNWH		252	198	U	J	IM	0		0	0	1
2131	18\10\93	0915-0945	A	1026.5	NRPK	11063	551	1292	U	A	U	0		0	0	1
2132	18\10\93	0915-0945	A	1026.5	MNWH	ZB1	190	78	U	J	IM	0		0	0	1
2133	18\10\93	0915-0945	A	1026.5	MNWH	ZB2	196	80	U	J	IM	0		0	0	1
2134	18\10\93	0915-0945	A	1026.5	MNWH	ZB3	218	115	U	J	IM	0		0	0	1
2135	18\10\93	0915-0945	A	1026.5	MNWH	ZB4	246	204	U	J	IM	0		0	0	1
2136	18\10\93	0915-0945	A	1026.5	MNWH	ZB5	187	80	U	J	IM	0		0	0	1
2137	18\10\93	0915-0945	A	1026.5	MNWH	11064	383	660	U	A	U	0		0	0	1
2138	18\10\93	0915-0945	A	1026.5	MNWH	11065	320	445	U	A	U	0		0	0	1
2139	18\10\93	0915-0945	A	1026.5	MNWH	ZB6	194	98	U	J	IM	0		0	0	1
2140	18\10\93	0915-0945	A	1026.5	ARGR	ZB7	212	106	U	U	U	0		0	0	1
2141	18\10\93	0915-0945	A	1026.5	MNWH	11066	306	320	U	U	U	0		0	0	1
2142	18\10\93	0915-0945	A	1026.5	MNWH	11067	301	355	M	A	RP	0		0	0	1
2143	18\10\93	0915-0945	A	1026.5	MNWH	ZB8	287	240	U	J	IM	0		0	0	1
2144	18\10\93	0915-0945	A	1026.5	MNWH	ZB9	257	202	U	J	IM	0		0	0	1
2145	18\10\93	0915-0945	A	1026.5	MNWH		250	168	U	J	IM	0		0	0	1
2146	18\10\93	0915-0945	A	1026.5	MNWH	ZC0	253	186	U	J	IM	0		0	0	1
2147	18\10\93	0915-0945	A	1026.5	MNWH	ZC1	236	150	U	J	IM	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
2148	18\10\93	0915-0945	A	1026.5	MNWH	11068	300	318	U	U	U	0		0	0	1
2149	18\10\93	0915-0945	A	1026.5	MNWH	11069	294	322	U	U	U	0		0	0	1
2150	18\10\93	0915-0945	A	1026.5	MNWH	ZC2	192	52	U	J	IM	0		0	0	1
2151	18\10\93	0915-0945	A	1026.5	MNWH	ZC3	243	168	U	J	IM	0		0	0	1
2152	18\10\93	0945-1030	A	1025.5	MNWH	11071	340	455	U	A	U	0		0	0	1
2153	18\10\93	0945-1030	A	1025.5	MNWH	11072	414	805	U	A	U	0		0	0	1
2154	18\10\93	0945-1030	A	1025.5	MNWH	11073	368	612	U	A	U	0		0	0	1
2155	18\10\93	0945-1030	A	1025.5	MNWH	11074	400	902	U	A	U	0		0	0	1
2156	18\10\93	0945-1030	A	1025.5	MNWH	11075	336	510	U	A	U	0		0	0	1
2157	18\10\93	0945-1030	A	1025.5	MNWH	11076	430	985	U	A	U	0		0	0	1
2158	18\10\93	0945-1030	A	1025.5	MNWH	11077	430	987	U	A	U	0		0	0	1
2159	18\10\93	0945-1030	A	1025.5	MNWH	11078	343	520	U	A	U	0		0	0	1
2160	18\10\93	0945-1030	A	1025.5	MNWH	11079	397	725	M	A	RP	0		0	0	1
2161	18\10\93	0945-1030	A	1025.5	MNWH	11080	420	872	U	A	U	0		0	0	1
2162	18\10\93	0945-1030	A	1025.5	MNWH	11081	360	589	U	A	U	0		0	0	1
2163	18\10\93	0945-1030	A	1025.5	NRPK	11082	570	1365	U	A	U	0		0	0	1
2164	18\10\93	0945-1030	A	1025.5	NRPK	11083	523	1162	U	A	U	0		0	0	1
2165	18\10\93	0945-1030	A	1025.5	NRPK	11084	481	827	U	A	U	0		0	0	1
2166	18\10\93	0945-1030	A	1025.5	NRPK	11085	680	2150	U	A	U	0		0	0	1
2167	18\10\93	0945-1030	A	1025.5	NRPK	11086	514	1189	U	A	U	0		0	0	1
2169	18\10\93	0945-1030	A	1025.5	LNSC	11087	404	849	U	A	U	0		0	0	1
2170	18\10\93	0945-1030	A	1025.5	LNSC	11088	394	799	U	A	U	0		0	0	1
2171	18\10\93	0945-1030	A	1025.5	MNWH	11089	322	445	U	A	U	0		0	0	1
2172	18\10\93	0945-1030	A	1025.5	MNWH	11090	353	552	U	A	U	0		0	0	1
2173	18\10\93	0945-1030	A	1025.5	LNSC	11091	420	1025	U	A	U	0	SCARRING	0	0	1
2174	18\10\93	0945-1030	A	1025.5	MNWH	11092	327	415	U	A	U	0		0	0	1
2175	18\10\93	0945-1030	A	1025.5	LNSC	11093	391	850	U	A	U	0		0	0	1
2176	18\10\93	0945-1030	A	1025.5	LNSC	11094	382	720	U	A	U	0		0	0	1
2177	18\10\93	0945-1030	A	1025.5	NRPK	11095	453	602	U	A	U	0		0	0	1
2178	18\10\93	0945-1030	A	1025.5	LNSC	11096	411	845	U	A	U	0		0	0	1
2179	18\10\93	0945-1030	A	1025.5	MNWH	11097	296	300	M	A	RP	0		0	0	1
2180	18\10\93	0945-1030	A	1025.5	MNWH	11098	366	615	M	A	RP	0		0	0	1
2181	18\10\93	0945-1030	A	1025.5	LNSC	11099	438	1180	U	A	RP	0		0	0	1
2182	18\10\93	0945-1030	A	1025.5	LNSC	11100	392	940	U	A	U	0		0	0	1
2183	18\10\93	0945-1030	A	1025.5	LNSC	11101	373	702	U	A	U	0		0	0	1
2184	18\10\93	0945-1030	A	1025.5	LNSC	11102	410	931	U	A	U	0		0	0	1
2185	18\10\93	0945-1030	A	1025.5	LNSC	11103	432	1070	U	A	U	0		0	0	1
2186	18\10\93	0945-1030	A	1025.5	LNSC	11104	366	789	U	A	U	0		0	0	1
2187	18\10\93	0945-1030	A	1025.5	LNSC	11105	380	760	U	A	U	0		0	0	1
2188	18\10\93	0945-1030	A	1025.5	LNSC	11106	385	770	U	A	U	0		0	0	1
2189	18\10\93	0945-1030	A	1025.5	LNSC	11107	425	1039	U	A	U	0		0	0	1
2190	18\10\93	0945-1030	A	1025.5	LNSC	11108	374	664	U	A	U	0		0	0	1
2191	18\10\93	0945-1030	A	1025.5	MNWH	11109	299	309	U	A	U	0		0	0	1
2192	18\10\93	0945-1030	A	1025.5	MNWH	11111	315	325	U	U	U	0		0	0	1
2193	18\10\93	0945-1030	A	1025.5	MNWH		273	243	U	U	U	0		0	0	1
2194	18\10\93	0945-1030	A	1025.5	MNWH	ZC4	185	64	U	U	U	0		0	0	1
2195	18\10\93	0945-1030	A	1025.5	MNWH	ZC5	197	88	U	J	U	0		0	0	1
2196	18\10\93	0945-1030	A	1025.5	MNWH	ZC6	287	276	U	J	U	0		0	0	1
2197	18\10\93	0945-1030	A	1025.5	MNWH	ZC7	237	150	U	J	U	0		0	0	1
2198	18\10\93	0945-1030	A	1025.5	MNWH	ZC8	287	285	U	J	U	0		0	0	1
2199	18\10\93	0945-1030	A	1025.5	MNWH	ZC9	255	196	U	J	U	0		0	0	1
2200	18\10\93	0945-1030	A	1025.5	MNWH	ZD0	236	154	U	J	U	0		0	0	1
2201	18\10\93	0945-1030	A	1025.5	MNWH	ZD1	257	194	U	J	U	0		0	0	1
2202	18\10\93	0945-1030	A	1025.5	MNWH	ZD2	280	232	U	J	U	0		0	0	1
2203	18\10\93	0945-1030	A	1025.5	MNWH	ZD3	233	139	U	J	U	0		0	0	1
2204	18\10\93	0945-1030	A	1025.5	LNSC		312	366	U	J	U	0	PREDATOR WOUND	0	0	1
2206	18\10\93	0945-1030	A	1025.5	MNWH	ZD4	288	188	U	J	U	0		0	0	1
2207	18\10\93	0945-1030	A	1025.5	MNWH	ZD5	249	178	U	J	U	0		0	0	1
2208	18\10\93	0945-1030	A	1025.5	MNWH	ZD6	287	284	U	J	U	0		0	0	1
2209	18\10\93	0945-1030	A	1025.5	MNWH	ZD7	201	102	U	J	U	0		0	0	1
2210	18\10\93	0945-1030	A	1025.5	MNWH	ZD8	257	208	U	J	U	0		0	0	1
2211	18\10\93	0945-1030	A	1025.5	MNWH	ZD9	207	98	U	J	U	0		0	0	1
2212	18\10\93	0945-1030	A	1025.5	MNWH	ZE0	204	100	U	J	U	0		0	0	1
2213	18\10\93	0945-1030	A	1025.5	MNWH	ZE1	201	90	U	J	U	0		0	0	1
2214	18\10\93	0945-1030	A	1025.5	MNWH	ZE2	219	126	U	J	U	0		0	0	1
2215	18\10\93	1115-1145	B	1024.5	LNSC	11112	414	875	U	A	U	0	WOUND CAUDAL P	0	0	1
2216	18\10\93	1115-1145	B	1024.5	LNSC	11113	382	755	U	A	U	0		0	0	1
2217	18\10\93	1115-1145	B	1024.5	LNSC	11114	422	1105	U	A	U	0		0	0	1
2218	18\10\93	1115-1145	B	1024.5	MNWH	11115	334	455	U	A	U	0		0	0	1
2219	18\10\93	1115-1145	B	1024.5	LNSC	11116	437	1031	U	A	U	0		0	0	1
2220	18\10\93	1115-1145	B	1024.5	LNSC	11117	382	729	U	A	U	0		0	0	1
2221	18\10\93	1115-1145	B	1024.5	LNSC	11118	362	587	U	A	U	0		0	0	1
2222	18\10\93	1115-1145	B	1024.5	LNSC	11119	405	960	U	A	U	0		0	0	1
2223	18\10\93	1115-1145	B	1024.5	LNSC	11120	438	1272	U	A	U	0		0	0	1
2224	18\10\93	1115-1145	B	1024.5	LNSC	11121	390	820	U	A	U	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
2225	18\10\93	1115-1145	B	1024.5	LNSC	11122	365	679	U	A	U	0		0	0	1
2226	18\10\93	1115-1145	B	1024.5	LNSC	11123	364	685	U	A	U	0		0	0	1
2227	18\10\93	1115-1145	B	1024.5	LNSC	11124	417	1045	U	A	U	0		0	0	1
2228	18\10\93	1115-1145	B	1024.5	LNSC	11125	413	930	U	A	U	0		0	0	1
2229	18\10\93	1115-1145	B	1024.5	LNSC	11126	345	515	U	A	U	0		0	0	1
2230	18\10\93	1115-1145	B	1024.5	LNSC	11127	374	730	U	A	U	0		0	0	1
2231	18\10\93	1115-1145	B	1024.5	LNSC	11128	397	910	U	A	U	0		0	0	1
2232	18\10\93	1115-1145	B	1024.5	LNSC	11129	303	310	U	A	U	0		0	0	1
2233	18\10\93	1115-1145	B	1024.5	MNWH	11130	294	352	U	U	U	0		0	0	1
2234	18\10\93	1115-1145	B	1024.5	MNWH	11131	400	805	U	A	U	0		0	0	1
2235	18\10\93	1115-1145	B	1024.5	MNWH	11132	381	665	U	A	U	0		0	0	1
2236	18\10\93	1115-1145	B	1024.5	LNSC	ZE3	272	260	U	J	IM	0		0	0	1
2237	18\10\93	1115-1145	B	1024.5	MNWH	11133	341	455	U	A	U	0		0	0	1
2238	18\10\93	1115-1145	B	1024.5	MNWH	11134	314	405	U	U	U	0		0	0	1
2239	18\10\93	1115-1145	B	1024.5	BURB	11135	653	1435	U	A	U	0		0	0	1
2240	18\10\93	1115-1145	B	1024.5	NRPK	ZE4	265	134	U	J	IM	0		0	0	1
2241	18\10\93	1115-1145	B	1024.5	MNWH	ZE5	228	165	U	J	IM	0		0	0	1
2242	18\10\93	1115-1145	B	1024.5	MNWH	ZE6	262	214	U	J	IM	0		0	0	1
2243	18\10\93	1115-1145	B	1024.5	MNWH	ZE7	243	164	U	J	IM	0		0	0	1
2244	18\10\93	1115-1145	B	1024.5	MNWH	ZE8	253	214	U	J	IM	0		0	0	1
2245	18\10\93	1115-1145	B	1024.5	MNWH	ZE9	243	192	U	J	IM	0		0	0	1
2246	18\10\93	1115-1145	B	1024.5	MNWH	ZF0	226	128	U	J	IM	0		0	0	1
2247	18\10\93	1115-1145	B	1024.5	MNWH	ZF1	220	266	U	J	IM	0		0	0	1
2248	18\10\93	1115-1145	B	1024.5	MNWH	ZF2	230	140	U	J	IM	0		0	0	1
2249	18\10\93	1115-1145	B	1024.5	MNWH	ZF3	253	198	U	J	IM	0		0	0	1
2250	18\10\93	1115-1145	B	1024.5	MNWH	ZF4	247	194	U	J	IM	0		0	0	1
2251	18\10\93	1115-1145	B	1024.5	MNWH	ZF5	182	62	U	J	IM	0		0	0	1
2252	18\10\93	1115-1145	B	1024.5	MNWH	ZF6	238	161	U	J	IM	0		0	0	1
2254	18\10\93	1145-1207	B	1023.5	LKWH	11136	320	445	U	U	U	0		0	0	1
2255	18\10\93	1145-1207	B	1023.5	LNSC	11137	402	860	U	A	U	0		0	0	1
2256	18\10\93	1145-1207	B	1023.5	MNWH	11138	406	831	U	A	U	0		0	0	1
2257	18\10\93	1145-1207	B	1023.5	MNWH	11139	306	360	U	A	U	0		0	0	1
2258	18\10\93	1145-1207	B	1023.5	MNWH	11140	410	759	U	A	U	0		0	0	1
2259	18\10\93	1145-1207	B	1023.5	MNWH	11141	396	792	U	A	U	0		0	0	1
2260	18\10\93	1145-1207	B	1023.5	NRPK	11142	590	1620	U	A	U	0		0	0	1
2261	18\10\93	1145-1207	B	1023.5	MNWH	11143	307	300	U	U	U	0		0	0	1
2262	18\10\93	1145-1207	B	1023.5	MNWH	11144	300	328	U	U	U	0		0	0	1
2263	18\10\93	1145-1207	B	1023.5	MNWH	11145	396	808	U	A	U	0		0	0	1
2264	18\10\93	1145-1207	B	1023.5	MNWH	11146	389	721	U	A	U	0		0	0	1
2265	18\10\93	1145-1207	B	1023.5	MNWH	11147	384	768	U	A	U	0		0	0	1
2266	18\10\93	1145-1207	B	1023.5	MNWH	11148	372	601	U	A	U	0		0	0	1
2267	18\10\93	1145-1207	B	1023.5	MNWH	11149	426	957	U	A	U	0		0	0	1
2268	18\10\93	1145-1207	B	1023.5	MNWH	11150	412	919	U	A	U	0		0	0	1
2269	18\10\93	1145-1207	B	1023.5	MNWH	11151	339	654	U	A	U	0		0	0	1
2270	18\10\93	1145-1207	B	1023.5	MNWH	11152	382	665	U	A	U	0		0	0	1
2271	18\10\93	1145-1207	B	1023.5	LNSC	11153	440	1190	U	A	U	0		0	0	1
2272	18\10\93	1145-1207	B	1023.5	MNWH	11154	328	431	U	A	U	0		0	0	1
2273	18\10\93	1145-1207	B	1023.5	MNWH		282	274	U	J	IM	1		0	0	1
2274	18\10\93	1145-1207	B	1023.5	MNWH	ZF7	265	264	U	J	IM	0		0	0	1
2275	18\10\93	1145-1207	B	1023.5	MNWH	ZF8	268	226	U	J	IM	0	PREDATOR WOUND	0	0	1
2276	18\10\93	1145-1207	B	1023.5	MNWH	ZF9	267	258	U	J	IM	0		0	0	1
2277	18\10\93	1145-1207	B	1023.5	MNWH	ZH0	281	290	U	J	IM	0		0	0	1
2278	18\10\93	1145-1207	B	1023.5	MNWH	11155	295	232	U	J	IM	0		0	0	1
2279	18\10\93	1145-1207	B	1023.5	MNWH	ZH1	276	234	U	J	IM	0		0	0	1
2280	18\10\93	1145-1207	B	1023.5	MNWH	ZH2	271	246	U	J	IM	0		0	0	1
2281	18\10\93	1145-1207	B	1023.5	MNWH	ZH3	254	214	U	J	IM	0		0	0	1
2282	18\10\93	1145-1207	B	1023.5	MNWH	ZH4	270	248	U	J	IM	0		0	0	1
2283	18\10\93	1145-1207	B	1023.5	MNWH	ZH5	292	276	U	J	IM	0		0	0	1
2284	18\10\93	1145-1207	B	1023.5	MNWH	11156	291	306	U	J	IM	0		0	0	1
2285	18\10\93	1145-1207	B	1023.5	MNWH	ZH6	284	278	U	J	IM	0		0	0	1
2286	18\10\93	1145-1207	B	1023.5	MNWH	ZH7	266	243	U	J	IM	0		0	0	1
2287	18\10\93	1145-1207	B	1023.5	MNWH	ZH9	252	218	U	J	IM	0		0	0	1
2288	18\10\93	1145-1207	B	1023.5	MNWH	ZJ0	272	215	U	J	IM	0		0	0	1
2289	18\10\93	1145-1207	B	1023.5	MNWH	ZJ1	259	204	U	J	IM	0		0	0	1
2290	18\10\93	1145-1207	B	1023.5	MNWH	ZJ2	283	282	U	J	IM	0		0	0	1
2291	18\10\93	1145-1207	B	1023.5	MNWH	ZJ3	238	149	U	J	IM	0		0	0	1
2292	18\10\93	1145-1207	B	1023.5	MNWH	ZJ4	261	207	U	J	IM	0		0	0	1
2294	18\10\93	1405-1430	B	1022.5	WALL	11157	442	915	U	U		0		0	0	1
2295	18\10\93	1405-1430	B	1022.5	LNSC	11158	418	1005	U	A	U	0		0	0	1
2296	18\10\93	1405-1430	B	1022.5	LNSC	11159	448	1185	U	A	U	0		0	0	1
2297	18\10\93	1405-1430	B	1022.5	LNSC	11160	385	720	U	A	U	0		0	0	1
2298	18\10\93	1405-1430	B	1022.5	LNSC	11161	418	1062	U	A	U	0		0	0	1
2299	18\10\93	1405-1430	B	1022.5	LNSC	11162	405	940	U	A	U	0		0	0	1
2300	18\10\93	1405-1430	B	1022.5	LNSC	11163	395	870	M	A	U	0		0	0	1
2301	18\10\93	1405-1430	B	1022.5	LNSC	11164	437	1154	U	A	U	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
2302	18\10\93	1405-1430	B	1022.5	LNSC	11165	415	940	U	A	U	0		0	0	1
2303	18\10\93	1405-1430	B	1022.5	LNSC	11166	387	730	U	A	U	0		0	0	1
2304	18\10\93	1405-1430	B	1022.5	LNSC	11168	452	1169	U	A	U	0		0	0	1
2305	18\10\93	1405-1430	B	1022.5	NRPK	11167	640	1945	U	A	U	0		0	0	1
2306	18\10\93	1405-1430	B	1022.5	NRPK	11169	477	820	U	A	U	0		0	0	1
2307	18\10\93	1405-1430	B	1022.5	NRPK	11170	437	640	U	A	U	0		0	0	1
2308	18\10\93	1405-1430	B	1022.5	NRPK	11171	477	832	U	A	U	0		0	0	1
2309	18\10\93	1405-1430	B	1022.5	LNSC	11172	362	590	U	A	U	0		0	0	1
2310	18\10\93	1405-1430	B	1022.5	LNSC	11173	393	770	U	A	U	0		0	0	1
2311	18\10\93	1405-1430	B	1022.5	LNSC	11174	388	810	M	A	U	0		0	0	1
2312	18\10\93	1405-1430	B	1022.5	LNSC	11175	424	1041	U	A	U	0	DEFORMED SPINAL	0	0	1
2313	18\10\93	1405-1430	B	1022.5	LNSC	11176	422	900	U	A	U	0	CAUDAL INJURY	0	0	1
2314	18\10\93	1405-1430	B	1022.5	LNSC	11177	407	850	U	A	U	0		0	0	1
2315	18\10\93	1405-1430	B	1022.5	LNSC	11178	377	694	U	A	U	0		0	0	1
2316	18\10\93	1405-1430	B	1022.5	LNSC	11179	376	690	U	A	U	0		0	0	1
2317	18\10\93	1405-1430	B	1022.5	LNSC	11180	440	1220	U	A	U	0	SCARRING ON TAIL	0	0	1
2318	18\10\93	1405-1430	B	1022.5	LNSC	11181	392	770	M	A	U	0		0	0	1
2319	18\10\93	1405-1430	B	1022.5	LNSC	11182	407	878	M	A	U	0		0	0	1
2320	18\10\93	1405-1430	B	1022.5	LNSC	11183	381	775	U	A	U	0		0	0	1
2321	18\10\93	1405-1430	B	1022.5	LNSC	11184	394	765	U	A	U	0		0	0	1
2322	18\10\93	1405-1430	B	1022.5	LNSC	11185	405	905	M	A	U	0		0	0	1
2323	18\10\93	1405-1430	B	1022.5	LNSC	11186	294	840	M	A	U	0		0	0	1
2324	18\10\93	1405-1430	B	1022.5	LNSC	11187	390	795	M	A	U	0		0	0	1
2325	18\10\93	1430-1503	B	1021.5	LNSC	11188	451	1225	U	A	U	0		0	0	1
2326	18\10\93	1430-1503	B	1021.5	MNWH	11189	445	1150	U	A	U	0		0	0	1
2327	18\10\93	1430-1503	B	1021.5	LNSC	11190	490	1370	U	A	U	0		0	0	1
2331	18\10\93	1430-1503	B	1021.5	LNSC	11191	445	1100	U	A	U	0		0	0	1
2332	18\10\93	1430-1503	B	1021.5	LNSC	11192	420	1015	U	A	U	0		0	0	1
2333	18\10\93	1430-1503	B	1021.5	LNSC	11193	434	1145	U	A	U	0		0	0	1
2334	18\10\93	1430-1503	B	1021.5	LNSC	11194	411	890	M	A	U	0		0	0	1
2335	18\10\93	1430-1503	B	1021.5	MNWH	11195	352	610	U	A	U	0		0	0	1
2336	18\10\93	1430-1503	B	1021.5	LNSC	11196	402	810	U	A	U	0		0	0	1
2337	18\10\93	1430-1503	B	1021.5	LNSC	11197	442	1165	U	A	U	0		0	0	1
2338	18\10\93	1430-1503	B	1021.5	LNSC	11198	407	785	U	A	U	0		0	0	1
2339	18\10\93	1430-1503	B	1021.5	LNSC	11199	426	1090	U	A	U	0	SCARRING/INJURY	0	0	1
2340	18\10\93	1430-1503	B	1021.5	LNSC	11200	392	1025	U	A	U	0	SCAR BEFORE DOR	0	0	1
2341	18\10\93	1430-1503	B	1021.5	MNWH	11201	314	409	U	A	U	0		0	0	1
2342	18\10\93	1430-1503	B	1021.5	LNSC	11202	396	899	U	A	U	0		0	0	1
2345	18\10\93	1430-1503	B	1021.5	LNSC	11203	352	561	U	A	U	0		0	0	1
2346	18\10\93	1430-1503	B	1021.5	LNSC	11204	425	1040	U	A	U	0	PREDATOR WOUND	0	0	1
2347	18\10\93	1430-1503	B	1021.5	LNSC	11205	437	1195	U	A	U	0		0	0	1
2349	18\10\93	1430-1503	B	1021.5	LNSC	11206	432	930	U	A	U	0		0	0	1
2350	18\10\93	1430-1503	B	1021.5	LNSC	11207	385	780	U	A	U	0		0	0	1
2351	18\10\93	1430-1503	B	1021.5	MNWH	ZJ5	175	170	U	J	IM	0		0	0	1
2352	18\10\93	1430-1503	B	1021.5	MNWH	ZJ6	213	114	U	J	IM	0		0	0	1
2353	18\10\93	1430-1503	B	1021.5	MNWH	ZJ7	204	170	U	J	IM	0		0	0	1
2354	18\10\93	1430-1503	B	1021.5	MNWH	ZJ8	227	142	U	J	IM	0		0	0	1
2355	18\10\93	1430-1503	B	1021.5	MNWH	11208	316	385	U	U	U	0		0	0	1
2356	18\10\93	1430-1503	B	1021.5	MNWH	ZJ9	196	86	U	J	IM	0		0	0	1
2357	18\10\93	1430-1503	B	1021.5	MNWH	ZK0	180	68	U	J	IM	0		0	0	1
2358	18\10\93	1430-1503	B	1021.5	MNWH	ZK1	204	78	U	J	IM	0		0	0	1
2359	18\10\93	1430-1503	B	1021.5	MNWH	ZK2	235	146	U	J	IM	0		0	0	1
2360	18\10\93	1430-1503	B	1021.5	LNSC	11209	427	1035	U	A	U	0		0	0	1
2361	18\10\93	1430-1503	B	1021.5	MNWH	ZK3	237	152	U	J	IM	0		0	0	1
2362	18\10\93	1430-1503	B	1021.5	MNWH	11210	297	340	U	U	U	0		0	0	1
2363	18\10\93	1430-1503	B	1021.5	MNWH	ZK4	272	248	U	J	IM	0		0	0	1
2364	18\10\93	1430-1503	B	1021.5	LNSC	11211	362	715	U	A	U	0		0	0	1
2365	18\10\93	1430-1503	B	1021.5	LNSC	11212	386	770	U	A	U	0		0	0	1
2366	18\10\93	1430-1503	B	1021.5	LNSC	11213	420	990	U	A	U	0		0	0	1
2367	18\10\93	1430-1503	B	1021.5	LNSC	11214	411	965	U	A	U	0		0	0	1
2368	18\10\93	1430-1503	B	1021.5	LNSC	11215	385	790	U	A	U	0		0	0	1
2369	18\10\93	1430-1503	B	1021.5	LNSC	11216	433	1090	U	A	U	0		0	0	1
2370	18\10\93	1430-1503	B	1021.5	LNSC	11217	403	935	U	A	U	0		0	0	1
2371	18\10\93	1430-1503	B	1021.5	LNSC	11218	426	1010	U	A	U	0		0	0	1
2372	18\10\93	1430-1503	B	1021.5	MNWH	ZK5	253	210	U	J	IM	0		0	0	1
2373	18\10\93	1430-1503	B	1021.5	NRPK	11219	623	2049	U	A	U	0		0	0	1
2374	18\10\93	1430-1503	B	1021.5	LNSC	11220	414	1044	U	A	U	0		0	0	1
2375	18\10\93	1430-1503	B	1021.5	MNWH	ZK6	252	215	U	J	IM	0		0	0	1
2376	18\10\93	1430-1503	B	1021.5	LNSC	11221	376	765	U	A	U	0		0	0	1
2377	18\10\93	1430-1503	B	1021.5	LNSC	11222	388	809	U	A	U	0		0	0	1
2378	18\10\93	1430-1503	B	1021.5	LNSC	11223	416	1070	U	A	U	0	SCARRED TAIL	0	0	1
2379	18\10\93	1430-1503	B	1021.5	LNSC	11224	433	1127	U	A	U	0		0	0	1
2380	18\10\93	1430-1503	B	1021.5	LNSC	11225	407	951	U	A	U	0		0	0	1
2381	18\10\93	1430-1503	B	1021.5	LNSC	11226	421	1025	U	A	U	0	SCARRED REAR AN	0	0	1
2382	18\10\93	1430-1503	B	1021.5	LNSC	11227	416	1020	U	A	U	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
2383	18\10\93	1430-1503	B	1021.5	LNSC	11228	410	963	U	A	U	0		0	0	1
2384	18\10\93	1430-1503	B	1021.5	LNSC	11229	390	825	M	A	U	0		0	0	1
2385	18\10\93	1430-1503	B	1021.5	LNSC	11230	406	915	U	A	U	0		0	0	1
2386	18\10\93	1430-1503	B	1021.5	LNSC	11231	420	1008	U	A	U	0		0	0	1
2387	18\10\93	1430-1503	B	1021.5	LNSC	11232	434	1025	U	A	U	0		0	0	1
2388	18\10\93	1430-1503	B	1021.5	LNSC	11233	375	797	U	A	U	0		0	0	1
2389	18\10\93	1430-1503	B	1021.5	LNSC	11234	376	680	U	A	U	0		0	0	1
2390	18\10\93	1430-1503	B	1021.5	LNSC	11235	451	1475	U	A	U	0		0	0	1
2391	18\10\93	1430-1503	B	1021.5	LNSC	11236	388	836	U	A	U	0		0	0	1
2392	18\10\93	1430-1503	B	1021.5	LNSC	11237	390	820	U	A	U	0		0	0	1
2393	18\10\93	1430-1503	B	1021.5	LNSC	11238	372	890	U	A	U	0		0	0	1
2394	18\10\93	1430-1503	B	1021.5	LNSC	11239	382	799	U	A	U	0		0	0	1
2395	18\10\93	1430-1503	B	1021.5	LNSC	11240	412	995	U	A	U	0	WOUND ABOVE AN	0	0	1
2396	18\10\93	1430-1503	B	1021.5	LNSC	11241	403	1050	M	A	U	0		0	0	1
2397	18\10\93	1430-1503	B	1021.5	LNSC	11242	389	841	M	A	U	0		0	0	1
2398	18\10\93	1430-1503	B	1021.5	LNSC	11242	385	815	M	A	U	0		0	0	1
2399	18\10\93	1430-1503	B	1021.5	LNSC	11243	374	778	U	A	U	0		0	0	1
2400	18\10\93	1430-1503	B	1021.5	LNSC	11244	373	770	M	A	U	0		0	0	1
2401	18\10\93	1430-1503	B	1021.5	LNSC	11245	407	975	U	A	U	0		0	0	1
2402	18\10\93	1430-1503	B	1021.5	LNSC	11246	389	870	U	A	U	0		0	0	1
2403	18\10\93	1430-1503	B	1021.5	LNSC	11247	402	932	U	A	U	0		0	0	1
2404	18\10\93	1430-1503	B	1021.5	LNSC	11248	445	1160	U	A	U	0		0	0	1
2405	18\10\93	1430-1503	B	1021.5	LNSC	11249	382	795	M	A	U	0		0	0	1
2406	18\10\93	1430-1503	B	1021.5	MNWH	ZK7	185	78	U	J	IM	0		0	0	1
2407	18\10\93	1430-1503	B	1021.5	MNWH	ZK8	227	174	U	J	IM	0		0	0	1
2408	18\10\93	1430-1503	B	1021.5	MNWH	ZK9	201	108	U	J	IM	0		0	0	1
2409	18\10\93	1430-1503	B	1021.5	MNWH	ZL0	256	178	U	J	IM	0		0	0	1
2410	18\10\93	1555-1615	B	1020.5	LNSC	11251	381	765	U	A	U	0		0	0	1
2411	18\10\93	1555-1615	B	1020.5	MNWH	11252	396	698	U	A	U	0		0	0	1
2412	18\10\93	1555-1615	B	1020.5	MNWH	11253	367	634	M	A	U	0		0	0	1
2413	18\10\93	1555-1615	B	1020.5	MNWH	11254	365	670	U	A	U	0		0	0	1
2414	18\10\93	1555-1615	B	1020.5	MNWH	11255	405	890	U	A	U	0		0	0	1
2415	18\10\93	1555-1615	B	1020.5	MNWH	11256	368	600	U	A	U	0		0	0	1
2416	18\10\93	1555-1615	B	1020.5	MNWH	11257	371	775	U	A	U	0		0	0	1
2417	18\10\93	1555-1615	B	1020.5	MNWH	11258	418	889	U	A	U	0		0	0	1
2418	18\10\93	1555-1615	B	1020.5	MNWH	11259	408	880	U	A	U	0		0	0	1
2419	18\10\93	1555-1615	B	1020.5	MNWH	11260	392	820	U	A	U	0		0	0	1
2420	18\10\93	1555-1615	B	1020.5	LNSC	11261	428	1145	U	A	U	0		0	0	1
2422	18\10\93	1555-1615	B	1020.5	MNWH		275	280	U	J	IM	0		0	0	1
2423	18\10\93	1555-1615	B	1020.5	MNWH	ZL1	255	250	U	J	IM	0		0	0	1
2424	18\10\93	1555-1615	B	1020.5	MNWH		307	415	U	A	U	0		0	0	1
2425	18\10\93	1555-1615	B	1020.5	MNWH	ZL2	239	219	U	J	IM	0		0	0	1
2426	18\10\93	1555-1615	B	1020.5	MNWH	ZL3	273	255	U	J	IM	0		0	0	1
2427	18\10\93	1555-1615	B	1020.5	MNWH	ZL4	238	184	U	J	IM	0		0	0	1
2428	18\10\93	1555-1615	B	1020.5	LNSC	11262	422	1075	U	A	U	0		0	0	1
2429	18\10\93	1555-1615	B	1020.5	LNSC	11263	334	515	U	A	U	0		0	0	1
2430	18\10\93	1555-1615	B	1020.5	LNSC	11264	378	400	M	A	U	0		0	0	1
2431	18\10\93	1555-1615	B	1020.5	LNSC	11265	355	380	M	A	U	0		0	0	1
2432	18\10\93	1555-1615	B	1020.5	LNSC	11266	380	733	M	A	U	0		0	0	1
2433	18\10\93	1555-1615	B	1020.5	LNSC	11267	372	760	M	A	U	0		0	0	1
2434	18\10\93	1555-1615	B	1020.5	LNSC	11268	410	902	M	A	U	0		0	0	1
2435	18\10\93	1555-1615	B	1020.5	LNSC	11269	357	598	U	A	U	0		0	0	1
2436	18\10\93	1555-1615	B	1020.5	LNSC	11270	387	785	M	A	U	0		0	0	1
2437	18\10\93	1555-1615	B	1020.5	LNSC	11271	407	970	M	A	U	0		0	0	1
2438	18\10\93	1555-1615	B	1020.5	LNSC	11272	373	702	M	A	U	0		0	0	1
2439	18\10\93	1555-1615	B	1020.5	LNSC	11273	367	629	M	A	U	0		0	0	1
2440	18\10\93	1555-1615	B	1020.5	LNSC	11274	402	826	M	A	U	0		0	0	1
2441	18\10\93	1555-1615	B	1020.5	LNSC	11275	397	854	M	A	U	0		0	0	1
2442	18\10\93	1555-1615	B	1020.5	MNWH	11276	365	630	U	A	U	0		0	0	1
2443	18\10\93	1555-1615	B	1020.5	MNWH	11277	305	375	U	U	U	0		0	0	1
2444	18\10\93	1555-1615	B	1020.5	MNWH	11278	312	380	U	U	U	0		0	0	1
2445	18\10\93	1555-1615	B	1020.5	MNWH	11279	307	347	U	U	U	0		0	0	1
2446	18\10\93	1555-1615	B	1020.5	MNWH	11280	312	350	U	U	U	0		0	0	1
2447	18\10\93	1555-1615	B	1020.5	MNWH	11281	285	324	U	U	U	0		0	0	1
2448	18\10\93	1555-1615	B	1020.5	MNWH	ZL5	216	110	U	J	IM	0		0	0	1
2450	18\10\93	1555-1615	B	1020.5	MNWH	ZL6	278	249	U	J	IM	0		0	0	1
2451	18\10\93	1555-1615	B	1020.5	MNWH	ZL7	255	208	U	J	IM	0		0	0	1
2452	18\10\93	1555-1615	B	1020.5	MNWH	ZL8	244	188	U	J	IM	0		0	0	1
2453	18\10\93	1555-1615	B	1020.5	MNWH	ZL9	242	194	U	J	IM	0		0	0	1
2454	18\10\93	1555-1615	B	1020.5	MNWH	RM5	267	212	U	J	IM	0		0	0	1
2455	18\10\93	1555-1615	B	1020.5	MNWH	RM6	222	157	U	J	IM	0		0	0	1
2456	18\10\93	1555-1615	B	1020.5	MNWH		239	156	U	J	IM	0		0	0	1
2457	18\10\93	1555-1615	B	1020.5	MNWH	11282	296	319	U	U	U	0		0	0	1
2458	18\10\93	1555-1615	B	1020.5	MNWH	11283	319	388	U	U	U	0		0	0	1
2459	18\10\93	1555-1615	B	1020.5	MNWH	RM7	270	251	U	J	IM	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
2460	18\10\93	1555-1615	B	1020.5	MNWH	RM8	231	110	U	J	IM	0		0	0	1
2461	18\10\93	1555-1615	B	1020.5	MNWH	RM9	250	189	U	J	IM	0		0	0	1
2464	18\10\93	1615-1653	B	1019.5	MNWH	11284	386	629	U	A	U	0		0	0	1
2465	18\10\93	1615-1653	B	1019.5	NRPK	11285	800	3929	U	A	U	0		0	0	1
2466	18\10\93	1615-1653	B	1019.5	LNSC	11286	445	1255	U	A	U	0		0	0	1
2467	18\10\93	1615-1653	B	1019.5	LNSC	11286	487	1680	U	A	U	0		0	0	1
2468	18\10\93	1615-1653	B	1019.5	LNSC	11287	423	1040	U	A	U	0		0	0	1
2469	18\10\93	1615-1653	B	1019.5	LNSC	11288	388	720	U	A	U	0		0	0	1
2470	18\10\93	1615-1653	B	1019.5	LNSC	11289	391	892	U	A	U	0		0	0	1
2471	18\10\93	1615-1653	B	1019.5	LNSC	11290	380	765	M	A	U	0		0	0	1
2472	18\10\93	1615-1653	B	1019.5	MNWH	11291	420	875	U	A	U	0		0	0	1
2473	18\10\93	1615-1653	B	1019.5	MNWH	11292	362	609	U	A	U	0		0	0	1
2474	18\10\93	1615-1653	B	1019.5	MNWH	11293	407	939	U	A	U	0		0	0	1
2475	18\10\93	1615-1653	B	1019.5	MNWH	11294	378	741	U	A	U	0		0	0	1
2476	18\10\93	1615-1653	B	1019.5	MNWH	11295	333	465	U	A	U	0		0	0	1
2477	18\10\93	1615-1653	B	1019.5	MNWH	11297	395	751	U	A	U	0		0	0	1
2478	18\10\93	1615-1653	B	1019.5	MNWH	11298	308	330	U	U	U	0		0	0	1
2479	18\10\93	1615-1653	B	1019.5	MNWH	RN0	288	290	U	J	IM	0	LESION O BELLY	0	0	1
2480	18\10\93	1615-1653	B	1019.5	MNWH	RN1	245	180	U	J	IM	0		0	0	1
2481	18\10\93	1615-1653	B	1019.5	MNWH	RN2	244	156	U	J	IM	0		0	0	1
2482	18\10\93	1615-1653	B	1019.5	MNWH	RN3	235	152	U	J	IM	0		0	0	1
2483	19\10\93	1455-1510	B	1018.5	LNSC	11299	407	920	U		U	0		0	0	1
2484	19\10\93	1455-1510	B	1018.5	LNSC	11300	402	770	U	A	U	0		0	0	1
2485	19\10\93	1455-1510	B	1018.5	MNWH	11301	331	415	U	A	U	0		0	0	1
2486	19\10\93	1455-1510	B	1018.5	LNSC	11302	386	860	U	A	U	0		0	0	1
2487	19\10\93	1455-1510	B	1018.5	MNWH	11303	318	330	U	U	U	0		0	0	1
2488	19\10\93	1455-1510	B	1018.5	MNWH	11304	333	300	M	A	RP	0		0	0	1
2489	19\10\93	1455-1510	B	1018.5	MNWH	NL7	270	270	U	J	U	0		0	0	1
2490	19\10\93	1455-1510	B	1018.5	MNWH	NL6	270	255	U	J	U	0		0	0	1
2491	19\10\93	1455-1510	B	1018.5	MNWH	11305	335	395	U	U	U	0		0	0	1
2492	19\10\93	1455-1510	B	1018.5	MNWH	11306	301	335	U	U	U	0		0	0	1
2493	19\10\93	1455-1510	B	1018.5	MNWH	NL5	223		U	J	U	0		0	0	1
2494	19\10\93	1455-1510	B	1018.5	MNWH	11307	307	355	U	U	U	0		0	0	1
2495	19\10\93	1455-1510	B	1018.5	MNWH	RN4	213		U	J	U	0		0	0	1
2496	19\10\93	1455-1510	B	1018.5	MNWH	RN5	217		U	J	U	0		0	0	1
2497	19\10\93	1455-1510	B	1018.5	MNWH	RN6	227		U	J	U	0		0	0	1
2498	19\10\93	1455-1510	B	1018.5	MNWH	RN7	235		U	J	U	0		0	0	1
2499	19\10\93	1455-1510	B	1018.5	MNWH	RN8	167		U	J	U	0		0	0	1
2500	19\10\93	1455-1510	B	1018.5	MNWH	RN9	202		U	J	U	0		0	0	1
2502	19\10\93	1455-1510	B	1018.5	MNWH	RP0	183		U	J	U	0		0	0	1
2507	19\10\93	1510-1553	B	1017.5	NRPK	11308	432	630	U	A	U	0	MISSING LEFT OPER	0	0	1
2508	19\10\93	1510-1553	B	1017.5	MNWH	11309	399	740	U	A	U	0		0	0	1
2509	19\10\93	1510-1553	B	1017.5	MNWH	11310	428	920	U	A	U	0		0	0	1
2510	19\10\93	1510-1553	B	1017.5	LNSC	11311	446	1080	U	A	U	0		0	0	1
2511	19\10\93	1510-1553	B	1017.5	LNSC	11312	399	885	U	A	U	0		0	0	1
2512	19\10\93	1510-1553	B	1017.5	LNSC	11313	434	1070	U	A	U	0		0	0	1
2513	19\10\93	1510-1553	B	1017.5	LNSC	11314	427	1145	U	A	U	0		0	0	1
2514	19\10\93	1510-1553	B	1017.5	LNSC	11315	404	770	U	A	U	0		0	0	1
2515	19\10\93	1510-1553	B	1017.5	LNSC	11316	436	1190	U	A	U	0		0	0	1
2516	19\10\93	1510-1553	B	1017.5	MNWH	11317	394	440	U	A	U	0		0	0	1
2517	19\10\93	1510-1553	B	1017.5	LNSC	11318	465	1430	U	A	U	0		0	0	1
2518	19\10\93	1510-1553	B	1017.5	LNSC	11319	419	955	U	A	U	0		0	0	1
2519	19\10\93	1510-1553	B	1017.5	LNSC	11320	450	1215	U	A	U	0		0	0	1
2520	19\10\93	1510-1553	B	1017.5	LNSC	11321	457	1170	U	A	U	0		0	0	1
2521	19\10\93	1510-1553	B	1017.5	LNSC	11322	448	1135	U	A	U	0		0	0	1
2522	19\10\93	1510-1553	B	1017.5	LNSC	11323	1323	443	U	A	U	0		0	0	1
2523	19\10\93	1510-1553	B	1017.5	NRPK	11324	541	1355	U	A	U	0		0	0	1
2524	19\10\93	1510-1553	B	1017.5	NRPK	11325	440	610	U	A	U	0		0	0	1
2525	19\10\93	1510-1553	B	1017.5	NRPK	11326	437	585	U	A	U	0		0	0	1
2526	19\10\93	1510-1553	B	1017.5	LNSC	11327	442	1160	U	A	U	0		0	0	1
2527	19\10\93	1510-1553	B	1017.5	LNSC	11328	410	870	M	A	U	0		0	0	1
2528	19\10\93	1510-1553	B	1017.5	LNSC	11329	430	955	U	A	U	0		0	0	1
2529	19\10\93	1510-1553	B	1017.5	LNSC	11330	420	950	U	A	U	0		0	0	1
2530	19\10\93	1510-1553	B	1017.5	LNSC	11331	400	790	M	A	U	0		0	0	1
2531	19\10\93	1510-1553	B	1017.5	LNSC	11332	417	1020	U	A	U	0	TUMOURS ON RIGH	0	0	1
2532	19\10\93	1510-1553	B	1017.5	LNSC	11333	440	1070	U	A	U	0		0	0	1
2533	19\10\93	1510-1553	B	1017.5	LNSC	11334	410	910	U	A	U	0		0	0	1
2534	19\10\93	1510-1553	B	1017.5	LNSC	11335	426	970	U	A	U	0		0	0	1
2535	19\10\93	1510-1553	B	1017.5	LNSC	11336	416	910	U	A	U	0		0	0	1
2536	19\10\93	1510-1553	B	1017.5	MNWH	11337	427	1052	U	A	U	0	PREDATOR INJURY	0	0	1
2537	19\10\93	1510-1553	B	1017.5	LKWH		224		U	J	IM	0		0	0	1
2538	19\10\93	1510-1553	B	1017.5	MNWH		287		U	J	IM	0		0	0	1
2539	19\10\93	1510-1553	B	1017.5	MNWH		233		U	J	IM	0		0	0	1
2540	19\10\93	1510-1553	B	1017.5	MNWH		233		U	J	IM	0		0	0	1
2541	19\10\93	1510-1553	B	1017.5	MNWH	197			U	J	IM	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
2544	19\10\93	1630-1652	B	1016.5	MNWH	11338	419	962	U	A	U	0	TUMOURS	0	0	1
2545	19\10\93	1630-1652	B	1016.5	LNSC	11339	403	925	U	A	U	0		0	0	1
2546	19\10\93	1630-1652	B	1016.5	LNSC	11340	462	1515	U	A	U	0		0	0	1
2547	19\10\93	1630-1652	B	1016.5	MNWH	11341	313	362	U	U	U	0		0	0	1
2548	19\10\93	1630-1652	B	1016.5	MNWH	11342	369	1332	U	A	U	0		0	0	1
2549	19\10\93	1630-1652	B	1016.5	MNWH	11343	367	1225	U	A	U	0		0	0	1
2550	19\10\93	1630-1652	B	1016.5	LNSC	11344	453	1245	U	A	U	0		0	0	1
2551	19\10\93	1630-1652	B	1016.5	LNSC	11345	458	1240	U	A	U	0	SCARRING	0	0	1
2552	19\10\93	1630-1652	B	1016.5	LNSC	11346	419	970	U	A	U	0		0	0	1
2553	19\10\93	1630-1652	B	1016.5	LNSC	11347	428	1058	U	A	U	0	SCARRING	0	0	1
2554	19\10\93	1630-1652	B	1016.5	LNSC	11348	323	821	U	A	U	0		0	0	1
2555	19\10\93	1630-1652	B	1016.5	LNSC	11349	369	662	M	A	U	0		0	0	1
2556	19\10\93	1630-1652	B	1016.5	NRPK	11350	441	712	U	U	U	0		0	0	1
2557	19\10\93	1630-1652	B	1016.5	MNWH	11351	402	730	U	A	U	0		0	0	1
2558	19\10\93	1630-1652	B	1016.5	MNWH	11352	368	585	U	A	U	0		0	0	1
2559	19\10\93	1630-1652	B	1016.5	MNWH	11353	358	355	U	U	U	0		0	0	1
2560	19\10\93	1630-1652	B	1016.5	MNWH	11354	325	430	F	A	RP	0		0	0	1
2561	19\10\93	1630-1652	B	1016.5	MNWH	11355	330	462	U	A	U	0		0	0	1
2562	19\10\93	1630-1652	B	1016.5	NRPK	11356	365	372	U	U	U	0		0	0	1
2563	19\10\93	1630-1652	B	1016.5	MNWH	RP6	264	261	U	J	U	0		0	0	1
2564	19\10\93	1630-1652	B	1016.5	MNWH	RP7	256	213	U	J	U	0		0	0	1
2565	19\10\93	1630-1652	B	1016.5	MNWH	RP8	197	92	U	J	U	0		0	0	1
2566	19\10\93	1630-1652	B	1016.5	MNWH	RP9	230	155	U	J	U	0		0	0	1
2567	19\10\93	1630-1652	B	1016.5	MNWH	RR0	237	203	U	J	U	0	TUMOUR ON TAIL	0	0	1
2568	19\10\93	1630-1652	B	1016.5	MNWH	RR1	204	118	U	J	U	0		0	0	1
2569	19\10\93	1630-1652	B	1016.5	MNWH	RR2	160	43	U	J	U	0		0	0	1
2570	19\10\93	1630-1652	B	1016.5	MNWH	RR3	160	42	U	J	U	0		0	0	1
2571	19\10\93	1630-1652	B	1016.5	MNWH	RR4	202	100	U	J	U	0		0	0	1
2572	19\10\93	1630-1652	B	1016.5	MNWH	RR5	225	133	U	J	U	0		0	0	1
2573	19\10\93	1652-1725	B	1015.5	MNWH	2250	404	755	F	A	RP	0	F&W TAG	0	0	1
2574	19\10\93	1652-1725	B	1015.5	MNWH	11357	418	915	U	A	U	0		0	0	1
2575	19\10\93	1652-1725	B	1015.5	MNWH	11358	441	922	U	A	U	0		0	0	1
2576	19\10\93	1652-1725	B	1015.5	MNWH	11359	450	1210	U	A	U	0		0	0	1
2578	19\10\93	1652-1725	B	1015.5	MNWH	11360	366	579	U	A	U	0		0	0	1
2579	19\10\93	1652-1725	B	1015.5	MNWH	11361	325	469	U	A	U	0		0	0	1
2580	19\10\93	1652-1725	B	1015.5	MNWH	11362	416	825	U	A	U	0		0	0	1
2581	19\10\93	1652-1725	B	1015.5	MNWH	11363	331	424	U	A	U	0		0	0	1
2582	19\10\93	1652-1725	B	1015.5	MNWH	11364	306	382	U	U	U	0		0	0	1
2583	19\10\93	1652-1725	B	1015.5	NRPK	11365	499	862	U	A	U	0		0	0	1
2584	19\10\93	1652-1725	B	1015.5	LNSC	11366	448	1240	U	A	U	0		0	0	1
2585	19\10\93	1652-1725	B	1015.5	MNWH	11367	392	720	U	A	U	0		0	0	1
2586	19\10\93	1652-1725	B	1015.5	MNWH	11368	322	431	U	A	U	0		0	0	1
2587	19\10\93	1652-1725	B	1015.5	MNWH	11369	405	771	U	A	U	0		0	0	1
2588	19\10\93	1652-1725	B	1015.5	MNWH	11370	379	712	U	A	U	0		0	0	1
2589	19\10\93	1652-1725	B	1015.5	MNWH	11371	342	510	U	A	U	0		0	0	1
2590	19\10\93	1652-1725	B	1015.5	MNWH	11372	341	449	U	A	U	0		0	0	1
2591	19\10\93	1652-1725	B	1015.5	LNSC	11373	371	715	M	A	U	0		0	0	1
2592	19\10\93	1652-1725	B	1015.5	LNSC	11374	418	970	U	A	U	0		0	0	1
2593	19\10\93	1652-1725	B	1015.5	LNSC	11375	385	820	M	A	U	0		0	0	1
2594	19\10\93	1652-1725	B	1015.5	LNSC	11376	357	547	U	A	U	0		0	0	1
2595	19\10\93	1652-1725	B	1015.5	LNSC	11377	383	839	U	A	U	0		0	0	1
2596	19\10\93	1652-1725	B	1015.5	LNSC	11378	378	762	U	A	U	0		0	0	1
2597	19\10\93	1652-1725	B	1015.5	LNSC	11379	421	1035	U	A	U	0		0	0	1
2598	19\10\93	1652-1725	B	1015.5	LNSC	11380	371	688	M	A	U	0		0	0	1
2599	19\10\93	1652-1725	B	1015.5	LNSC	11381	392	775	U	A	U	0		0	0	1
2600	19\10\93	1652-1725	B	1015.5	LNSC	11382	373	690	U	A	U	0		0	0	1
2601	19\10\93	1652-1725	B	1015.5	LNSC	11383	401	875	U	A	U	0	NO DORSAL FIN	0	0	1
2602	19\10\93	1652-1725	B	1015.5	LNSC	11384	380	652	M	A	U	0		0	0	1
2603	19\10\93	1652-1725	B	1015.5	LNSC	11385	380	795	M	A	U	0		0	0	1
2604	19\10\93	1652-1725	B	1015.5	LNSC	11386	325	450	U	A	U	0		0	0	1
2605	19\10\93	1652-1725	B	1015.5	MNWH	11387	421	965	U	A	U	0		0	0	1
2606	19\10\93	1652-1725	B	1015.5	BURB	11388	456	595	U	A	U	0		0	0	1
2607	19\10\93	1652-1725	B	1015.5	MNWH	11389	291	330	U	J	IM	0		0	0	1
2608	19\10\93	1652-1725	B	1015.5	MNWH	RR6	260	220	U	J	IM	0		0	0	1
2609	19\10\93	1652-1725	B	1015.5	MNWH	RR7	253	214	U	J	IM	0		0	0	1
2610	19\10\93	1652-1725	B	1015.5	MNWH	RR8	256	208	U	J	IM	0		0	0	1
2611	19\10\93	1652-1725	B	1015.5	MNWH	RR9	270	244	U	J	IM	0		0	0	1
2612	19\10\93	1652-1725	B	1015.5	MNWH	RS0	210	109	U	J	IM	0		0	0	1
2613	19\10\93	1652-1725	B	1015.5	MNWH	RS1	280	295	U	J	IM	0		0	0	1
2614	19\10\93	1652-1725	B	1015.5	MNWH	RS2	274	228	U	J	IM	0		0	0	1
2615	19\10\93	1652-1725	B	1015.5	MNWH	RS3	245	218	U	J	IM	0		0	0	1
2616	19\10\93	1652-1725	B	1015.5	MNWH		234	169	U	J	IM	0		0	0	1
2617	19\10\93	1652-1725	B	1015.5	MNWH	RS4	272	234	U	J	IM	0		0	0	1
2618	19\10\93	1652-1725	B	1015.5	MNWH	11390	295	310	U	U	U	0		0	0	1
2619	19\10\93	1652-1725	B	1015.5	MNWH	11391	302	318	U	U	U	0		0	0	1

SUMMARY OF FISH CAPTURED DURING ELECTROFISHING, ATHABASCA RIVER, OCTOBER 10-19, 1993

FISH NO.	DATE	TIME (24 HOURS)	SUBREACH	CAPTURE LOCATION (km)	SPECIES CODE	TAG NO.	FORK LENGTH (mm)	WEIGHT (g)	SEX	LIFE HISTORY STAGE	SEXUAL MATURITY	CAPT. CODE	COMMENTS	POPULATION ESTIMATE MATRIX INPUT 1	2	3
2620	19\10\93	1652-1725	B	1015.5	MNWH	RS5	211	104	U	J	IM	0		0	0	1
2621	19\10\93	1652-1725	B	1015.5	MNWH	RS6	280	223	U	J	IM	0		0	0	1
2622	19\10\93	1652-1725	B	1015.5	MNWH		190	187	U	J	IM	0		0	0	1
2623	19\10\93	1652-1725	B	1015.5	MNWH	RS7	245	173	U	J	IM	0		0	0	1
2624	19\10\93	1652-1725	B	1015.5	MNWH	RS8	218	129	U	J	IM	0		0	0	1
2625	19\10\93	1652-1725	B	1015.5	MNWH	11392	298	313	U	U	U	0		0	0	1
2626	19\10\93	1652-1725	B	1015.5	MNWH	RS9	257	203	U	J	IM	0		0	0	1
2627	19\10\93	1652-1725	B	1015.5	MNWH	RT0	215	114	U	J	IM	0		0	0	1
2628	19\10\93	1652-1725	B	1015.5	MNWH	RT2	270	221	U	J	IM	0		0	0	1
2629	19\10\93	1652-1725	B	1015.5	MNWH	RT3	263	250	U	J	IM	0		0	0	1
2630	19\10\93	1652-1725	B	1015.5	MNWH	RT4	173	55	U	J	IM	0		0	0	1

APPENDIX III

GOLDER FISH AUTOPSY DATA SHEETS

GOLDER FISH AUTOPSY DATA SHEET

Project No. 932-2207

Species MTWF #383
Date 11/10/93
Water Temp.
Strain
Sample No.
Investigator(s)
Location Km Post 12.1
Reason

Smp No.	Fl. mm	Wt g	Kil	Eye	Gil	Psb	Thy	Fat	Spl	Hin Gut	Kid	Liv	bil	Sex	Hem	Leu	Pl Pro	Fin	Opl		Remarks
1	426	900		N	N	N	O							U				O	O		
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					

GENERAL REMARKS

Fins
Skin
Gonads
Other

GOLDER FISH AUTOPSY DATA SHEET

Project No. 432-2207

Species MTWF # 542
Date 11/10/93
Water Temp.

Strain
Sample No.
Investigator(s)

Location Km Post 13.5
Reason

Smp No.	Fl. mm	Wt g	Ktl	Eye	Gil	Psb	Thy	Fat	Spl	Hin Gut	Kid	Liv	bil	Sex	Hem	Leu	Pl Pro	Fin	Opl		Remarks
1	385	705		N	N	N	O							M				O	O		
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					

GENERAL REMARKS

Fins
Skin
Gonads
Other

GOLDER FISH AUTOPSY DATA SHEET

Project No. 932-2207

Species MTWF # 1044
Date 14/10/93
Water Temp.

Strain
Sample No.
Investigator(s)

Location Hwy Post 3.0
Reason

Smp No.	Fl. mm	Wt g	Ktl	Eye	Gil	Psb	Thy	Fat	Spl	Hin Gut	Kid	Liv	bil	Sex	Hem	Leu	Pl Pro	Fin	Opl		Remarks
1	300	346		N	N	N	O							U				O	O		
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					

GENERAL REMARKS

Fins
Skin

Gonads
Other

GOLDER FISH AUTOPSY DATA SHEET

Project No. 932-2207

Species MTWF 1235
Date 15/10/93
Water Temp.

Strain
Sample No.
Investigator(s)

Location Km Post 7.8
Reason

Smp No.	Fl. mm	Wt g	Ktl	Eye	Gil	Psb	Thy	Fat	Spl	Hin Gut	Kid	Liv	bil	Sex	Hem	Leu	Pl Pro	Fin	Opl		Remarks
1	347	550		N	N	N	O							M				O	O		
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					

GENERAL REMARKS

Fins
Skin

Gonads
Other

GOLDER FISH AUTOPSY DATA SHEET

Project No. 932-2207

Species MTWF # 1454
Date 15/10/93
Water Temp.

Strain
Sample No.
Investigator(s)

Location Hm Post 17.5
Reason

Smp No.	Fl mm	Wt g	Ktl	Eye	Gil	Psb	Thy	Fat	Spl	Hin Gut	Kid	Liv	bil	Sex	Hem	Leu	Pl Pro	Fin	Opl		Remarks
1	346	460		N	N	N	O							U				O	O		
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					

GENERAL REMARKS

Fins
Skin

Gonads
Other

3 1510 00149 6216

GOLDER FISH AUTOPSY DATA SHEET

Project No. 932-2207

Species LNSK # 1646
Date 16/10/93
Water Temp.
Strain
Sample No.
Investigator(s)
Location Km Post 17.5
Reason

Smp No.	Fl. mm	Wt g	Ktl	Eye	Gil	Psb	Thy	Fat	Spl	Hin Gut	Kid	Liv	bil	Sex	Hem	Leu	Pl Pro	Fin	Opl		Remarks
1	437	1200		N	N	N	O							U				O	O		
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					

GENERAL REMARKS

Fins
Skin
Gonads
Other