FISH AND WILDLIFE PROJECTS 1993 - 94

June 1994

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1993-94

Department of Renewable Resources

June, 1994

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Introduction

What is in this report?

This report begins with an outline of Fish and Wildlife Branch responsibilities as detailed in the Strategic Plan of the Department of Renewable Resources. A glance at this page may give you a new perspective on the branch and its activities.

The next section of the report provides brief descriptions of all fish and wildlife projects budgeted for the 1993-94 fiscal year. Each description includes a contact name and number for those who want more information. New projects moved forward in November, 1993 as part of the government's make-work initiative are not included here.

The final section describes the public management bodies and local working groups that bringing Yukoners together to resolve fish and wildlife issues. These groups are the vanguard of cooperative management. For the first time in Yukon history, Indian and non-Indian people are beginning to manage fish and wildlife together.

Why was this report produced?

The way in which fish and wildlife management decisions are made is changing as the Department of Renewable Resources adapts to the requirements of land claim agreements and the Yukon Environment Act. These initiatives have laid the groundwork for greater public involvement in wildlife management decisions.

Meaningful participation requires access to information, and that's what this report is all about. It is designed to provide public management bodies, local working groups, fish and wildlife lobby groups, First Nation governments, municipal governments, citizen activists and journalists with an overview of where effort is being directed in 1993-94. It is hoped that this report will help de-mystify the work of the Fish and Wildlife Branch and allow interested Yukoners to develop a clear understanding of fish and wildlife work underway in 1993-94.

Written in 1993 - printed in 1994

As you read this report you will notice that work scheduled for the summer of 1993 is referred to in the future tense, as if the summer of 1993 is still ahead of us. The awkwardness in dates is a result of the time it took to complete this report, the first of its kind produced since 1988.

The first draft was written in May-June 1993. The format was then changed to make it more user-friendly, the facts were checked and rechecked, and the report was reviewed extensively within the department. All of these tasks were completed in stop-and-go fashion as other priorities allowed. The next edition of this report, covering the 1994-95 fiscal year, should be available in the fall of 1994.

Fish and Wildlife Branch Responsibilities

Department mission statement

The Department of Renewable Resources is responsible for ensuring that the environment and renewable resources of the Yukon are managed and used on a sustainable basis.

Branch responsibilities

The Fish and Wildlife Branch has specific responsibilities which are laid out in the department's strategic plan. These are:

1. To develop and implement management programs for all Yukon fish and wildlife populations, to ensure the conservation of the Yukon's fish and wildlife resources.

2. To develop and implement programs to ensure the best sustainable use of Yukon's fish and wildlife resources.

3. To develop a conservation education program, including elements targeted for the schools and youth and for other consumptive and non-consumptive users, which promotes the conservation and wise use of Yukon fish and wildlife and the habitat upon which it subsists.

4. To provide efficient and effective delivery of fish and wildlife management programs.

5. To protect, maintain and where appropriate, enhance the fish and wildlife habitat which is the land and water resource base upon which fish and wildlife subsist.

6. To ensure meaningful public involvement in the development and implementation of fish and wildlife management policies, legislation and programs.

7. To provide for regional and community based delivery of fish and wildlife management programs which integrate traditional and local knowledge with scientific approaches.

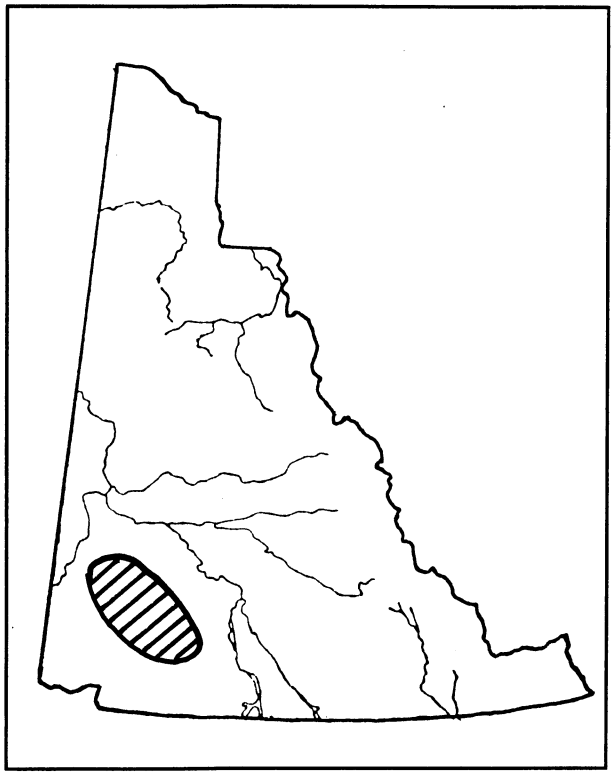
8. To establish an environment and working relationship with First Nations and user groups to allow for the effective and cooperative implementation of fish and wildlife programs, including those incorporated into claim settlements.

9. To liaise with federal and provincial agencies in order to ensure effective delivery of shared programs.

Fish and Wildlife Projects 1993-94

Caribou

Aishihik Caribou Herd Recovery Project



Project Description

This project is rebuilding the Aishihik Caribou Herd to a population size of about 2,500 animals. It may also stabilize the population size of the nearby Kluane herd. The Aishihik and Kluane caribou herds are in rapid decline because of low adult and calf survival rates. Studies indicate that predation is likely the main cause of continuing declines.

The population target is being achieved through hunting closures and a wolf reduction effort in the Aishihik study area. Wolf numbers in the study area will be reduced by at least 70 per cent for two years. The wolf reduction effort is based on guidelines set out in the Wolf Conservation and Management Plan.

The Aishihik Caribou Herd Recovery Project includes a strong research component aimed at investigating the factors limiting ungulate populations. A study design incorporating rigorous monitoring of experimental (wolf controlled) and adjacent (non-wolf controlled) herds has been developed. This project includes monitoring of the Aishihik, Kluane, Klaza, Chisana and Wolf Lake caribou herds.

This is a long-term project which began in 1990. Field work will be carried out monthly through 1993-94.

Community Involvement

This project was initiated in response to community concerns expressed by Champagne and Aishihik First Nation elders in 1990. A local steering group made up of representatives from six communities in the area was set up when the project began in February, 1993. The group meets regularly to review progress and make recommendations on how the project should proceed (see p. 106).

Community residents were also involved in carrying out this project. Local people were contracted to help out with the field work, maintain the camp, plough the road and develop an information and education program.

Progress to Date

The caribou hunting season in the range of the Aishihik and Kluane herds was closed in 1990.

Aishihik herd size has declined from at least 1,500 in 1982 to 785 in April 1991. Herd size is likely lower at present because calf survival was very poor during 1991 and 1992 (8.6 calves/100 cows and 7.3 calves/100 cows in 1991 and 1992 respectively). Adult mortality may be high because many collared caribou have died from natural causes (20-6% in 1991 & 50% in 1992). Body condition indicators for the Aishihik herd suggest the animals are in good health. Pregnancy rates were 92-96% in 1992 and 94% in 1993. Climate and habitat conditions do not appear to be the cause of herd decline.

Data for the Kluane herd indicate a similar crisis. Herd size was 450 in 1982 and is likely around 180 in the fall of 1993.

In February 1993, 12 caribou were radio-collared in the adjacent Klaza herd and 29 caribou were radio-collared in the Wolf Lake herd. These herds will provide the study with information on non-wolf controlled populations.

Wolf numbers in the Aishihik study area were reduced to about 45 wolves by the end of March, 1993. The pre-reduction population in February, 1992 numbered about 155 wolves.

Eighteen of the 26 packs in the area were reduced. Four of the eight packs which were not reduced are in the caribou calving range and the other four are in outlying boundary areas.

Plans for 1993-94

All radio-collared caribou from each of these herds will be relocated during June, July, October, December and March. These relocations will provide information about seasonal movements and distribution, adult mortality and changes in herd sizes. Composition counts will be carried out on these herds during the post-calving (July) and rut (October) periods to monitor calf survival. Additional radio collars will be added to herds as needed to maintain sufficient sample sizes. A population estimate of the Aishihik herd will be carried out during late winter 1994.

Wolf numbers will be surveyed and reduced again during the winter of 1993/94. The goal is to achieve a total wolf population level of 30 to 35 wolves in the area, or 1.5-3 wolves/1000 km^2 by March 30, 1994.

Publications and Reports

Hayes, R. An Experimental Design to Test Wolf Regulation of Ungulates in the Aishihik Area, Southwest Yukon. December, 1992.

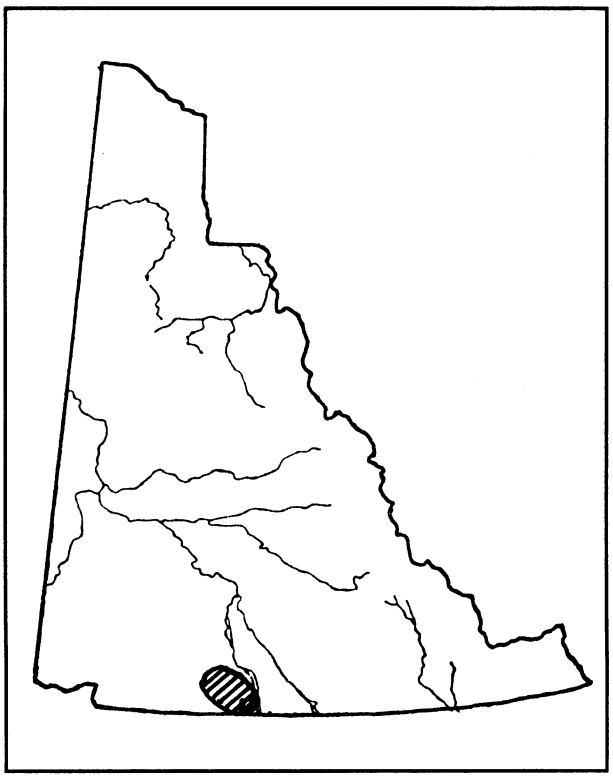
Technical Progress Report. Aishihik and Kluane Caribou Recovery Program. Anonymous. November 1992 to October 1993.

Cooperating Agencies: Environment Canada, Parks Service

Budget: Yukon Government: $ 173,300 Cooperators: $0.0

Contacts: Rick Farnell, Caribou Biologist, 667-5465
Doug Larsen, Chief, Wildlife Management, 667-5177
Jean Carey, Sheep Biologist, 667-5849
Barney Smith, Management Biologist, Public Programs, 667-8640

Carcross Caribou Herd Recovery Project



Project Description

This project aims to halt the decline of the Carcross Caribou Herd and rebuild it to a population size of 2,000 animals by the year 2,000. Herd recovery will be achieved through a community-based management plan aimed at ending all native hunting and non-native poaching. Population trends will be monitored over the life of the project.

Traditional knowledge suggests that the Carcross Caribou Herd may have numbered in the thousands during the early part of this century. The herd now survives as four remnant sub-herds with a total population of about 350 animals (1992). High calf survival rates have been offset by hunter harvests. Non-native hunting of these animals has been closed since 1989 but the caribou are still being harvested by a few native hunters who are not adhering to the hunting policies of the Southern Lakes first nations.

This ongoing project began in 1992. Community meetings will be held in Carcross in October 1993.

Community Involvement

This project was initiated in response to concerns expressed by elders and other residents of the Southern Lakes region. It is being driven by a local working group made up of representatives from all first nations whose traditional territories overlap with the range of the herd (see p. 106). The Council for Yukon Indians has been involved in coordinating community workshops and providing technical support through its biologist. A local First Nation field worker has been contracted to monitor native hunting and implement other aspects of the plan.

Progress to Date

No-hunting signs aimed at First Nation hunters were erected in July 1992.

Community workshops held in April and May, 1993 were attended by representatives of the Carcross-Tagish, Kwanlin Dun, Ta'an Kwach'an, Teslin Tlingit, Champagne and Aishihik, and Taku River Tlingit first nations as well as Yukon and B.C. government officials. A management plan and an implementation plan for the recovery of the Carcross Caribou Herd were developed and finalized at the workshops. These plans have led to a formal agreement between affected First Nations to eliminate the harvest.

Plans for 1993-94

Monitoring surveys of the herd will be carried out in October 1993. A number of caribou will be radio-collared in February 1994 to provide a better understanding of herd distribution and movements. Radio-collaring will also make it easier to find the caribou during monitoring surveys. The BC Fish and Wildlife Branch will participate in these activities because some caribou move back and forth across the border.

Local elders and youths will be invited to participate in an educational field trip to the herd's rutting grounds.

Publications and Reports

Carcross Caribou Herd Recovery Plan, 1993-1998 (May 1993)
Carcross Caribou Survey Summary Report (October, 1992)

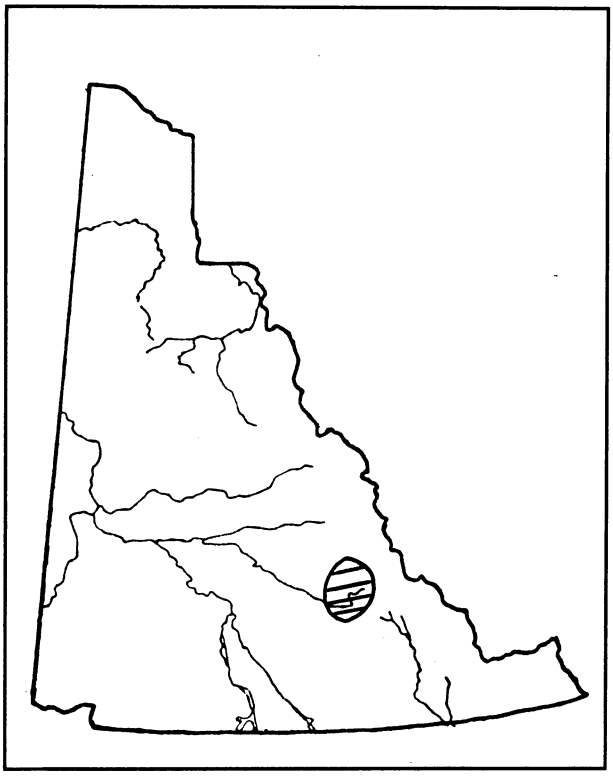
Cooperating Agencies:

Carcross-Tagish First Nation
Kwanlin Dun First Nation
Ta'an Kwach'an First Nation
Teslin Tlingit First Nation
Taku River Tlingit First Nation
Champagne and Aishihik First Nations
Council for Yukon Indians
BC Fish and Wildlife Branch

Budget: Yukon Government: $51,000 BC Government: $10,000

Contacts: Rick Farnell, Caribou Biologist, 667-5465
Ray Quock, Biologist, Council for Yukon Indians, 667-2177

Finlayson Caribou Herd Monitoring



Project Description

The Finlayson Caribou herd was intensively managed with wolf control in the 1980s to rebuild numbers and support a modest subsistence harvest. This project involves long-term monitoring of the herd to study the causes of woodland caribou population fluctuation and to provide a basis for setting sustainable harvest levels.

Information on the size and sex/age composition of the herd is also used to study post-control wolf recovery, its potential impact on herd growth, and caribou body condition in relation to forage and climate.

This long-term project began in 1982. Field work in 1993-94 will be carried out in October and March.

Community Involvement

The Ross River Dene Council has been a full partner in this project from the beginning. The council first identified the problem and then set the objectives for this project. First Nation members participated in field work and voluntarily restricted their harvest while the herd was being recovered.

Progress to Date

Annual herd growth averaged 17 per cent during wolf control years. Herd growth gradually stabilized as the wolf population recovered after the control program ended.

Forage and the nutritional condition of the caribou do not appear to be affecting herd growth. However, climatic events such as a late spring appear to profoundly affect calf survival. A poor year of calf survival was detected after the record late spring conditions of 1992. This result was consistent with most Yukon herds monitored during that year.

Harvest levels have been maintained well below sustainable yields and should cause only minimal impact on herd population performance.

Plans for 1993-94

A composition count of herd will be conducted during the October rut, snow conditions will be monitored on the herd's winter range, and faecal samples will be collected for analysis of winter food habits. Hunter harvest will also be monitored.

Publications and Reports

Farnell, R. and J. McDonald. 1987. The Demography of Yukon's Finlayson Caribou Herd 1982-1987.

Farnell, R. and J. McDonald. 1988. The Influence of Wolf Predation on Caribou Mortality in Yukon's Finlayson Caribou Herd.

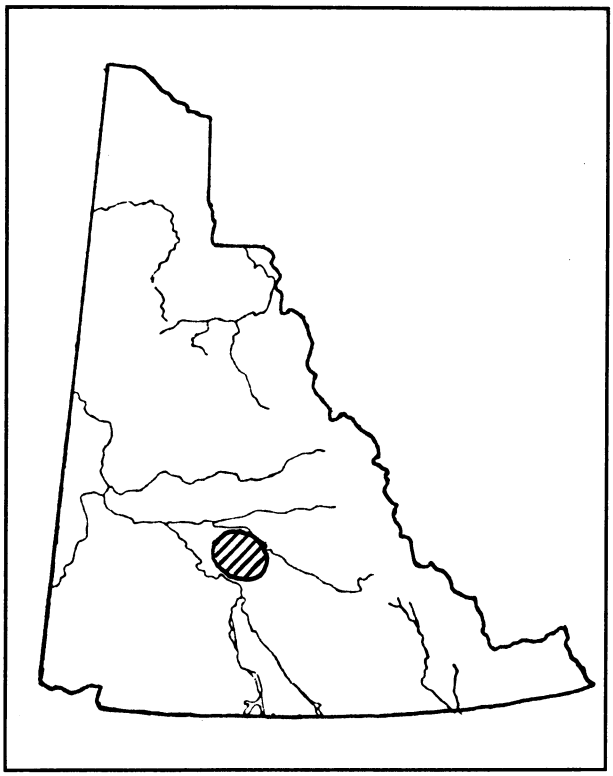
Farnell, R. and R. Hayes (In prep.) Results of Wolf Removal on Wolves and Caribou in the Finlayson Study Area, Yukon, 1983-92.

Cooperating Agencies: Ross River Dena Council

Budget: Yukon Government: $11,000 Cooperators: $0.0

Contact: Rick Farnell, Caribou Biologist, 667-5465

Inventory of the Tatchun Caribou Herd



Project Description

This project is carrying out an inventory of the Tatchun Caribou Herd. The Tatchun herd was selected for inventory because there is reason to believe it may be over-harvested, it appears to be a small and therefore vulnerable population, and coincidental data from the Tatchun herd could be very useful to the nearby Aishihik caribou study.

The department began a systematic inventory of all woodland caribou populations in the Yukon in 1980. These inventories provide the information required to manage woodland caribou effectively.

This project began in December, 1993. Field work in 1993-94 will be carried out in June, July, October, December, February and March.

Progress to Date

Seven caribou have been captured and radio-collared to help locate the rest of the herd for population counts and for monitoring seasonal movements and distribution.

An apparent traditional winter range for the herd has been identified in the Tatchun Hills north of Carmacks and south of Pelly Crossing. The herd's winter range is easily accessible to hunters which raises concerns about potentially high levels of harvest. The herd is distributed in the Glenlyon Range during summer.

Tatchun caribou are among the largest body size specimens recorded in Yukon. Blood progesterone testing of four females in the winter of 1993 revealed a 100 per cent pregnancy rate. Blood samples are also being tested for disease agents.

Plans for 1993-94

Caribou movements, distribution and survival rates will be monitored during relocation surveys to be conducted on June 1, July 1, Oct. 1, Dec. 15, and March 1, 1993-94.

A rut-count of herd composition and relative abundance will be carried out in early October, 1993. An additional 10 caribou will be captured and radio-collared to increase the sample size for herd monitoring.

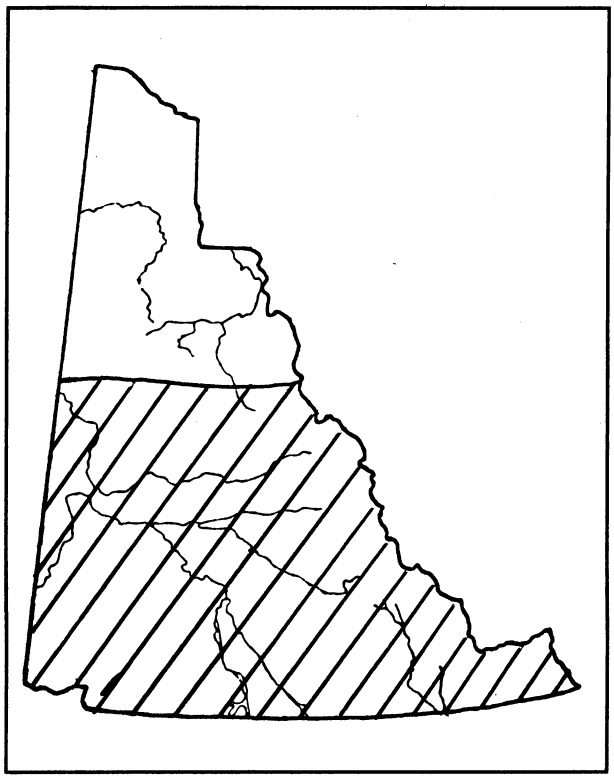
The department will incorporate community involvement in this study and the impact of winter subsistence hunting will be examined.

Publications and Reports: File data only.

Budget: Yukon Government: $31,200

Contact: Rick Farnell, Caribou Biologist, 667-5465

Woodland Caribou Laboratory Analysis



Project Description

This ongoing project provides information about the physical condition of woodland caribou in the Yukon. Analysis of laboratory specimens improves our understanding of disease prevalence, pregnancy rates, food habits, contaminant levels, and changes in caribou ecology. This information is vital to the management of caribou and their habitat.

Progress to Date

An ongoing register of disease prevalence among Yukon woodland caribou has been established. The register includes disease incidence from eight herds spread over six years.

Blood samples from Yukon caribou are placed in long-term storage with the Alaska Department of Fish and Game. These samples can be retrieved for further testing if necessary.

Analyses of winter food habits have been carried out for 12 herds over 10 years. Radio-cesium levels have been determined before and after the Chernoble nuclear accident. No significant changes were detected. Comparison of wolf and caribou radio-cesium data has also provided some insight into the winter prey selection of wolves (caribou vs. moose).

Pregnancy testing has been carried out on an as-needed basis for caribou studies. In 1991-92 the Aishihik herd was determined to have a pregnancy rate of 94-96%. During 1992-93 pregnancy rates were determined for six herds: Aishihik (94%), Wolf Lake (95%), Kluane (100%), Klaza (100%), Tatchun (100%), and Chisana (25%). Test results from the Chisana herd have sparked further investigation into biological factors limiting that population.

Plans for 1993-94

A total of 158 blood samples are being tested for various diseases.

Faecal samples will be collected and analyzed to provide information about the food habits of five caribou herds under study this year.

Muscle tissue samples from 62 caribou from five herds are being prepared for assay of radio-cesium levels. The samples were collected over the winter of 1992-93.

Liver and kidney samples from 60 caribou are being tested for cadmium concentration levels.

Blood samples will be collected from all caribou handled during capture and radio-collaring operations in 1993-94. Tissue samples from killed caribou will be collected as opportunities arise.

Publications and Reports

Zarnke, R.L. 1992. Alaska Wildlife Serologic Survey 1972-1992.

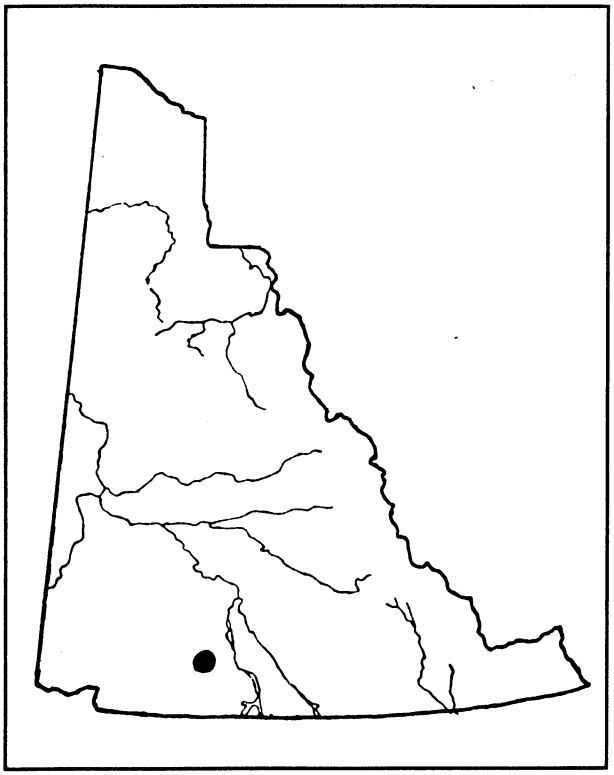
Cooperating Agencies: Alaska Department of Fish and Game

Budget: Yukon Government: $16,000 Cooperators: $0.0

Contacts: Rick Farnell, Caribou Biologist, 667-5465
Randy Zarnke, Disease Specialist, Alaska Department of Fish and Game
(907) 452-1531

Elk

Elk Enhancement Project



Project Description

This project aims to build the two Yukon elk herds to a population size of about 100 animals each. Both of these herds are small and neither is viable at its current size because mortality rates are equal to or greater than reproduction rates.

Elk were first introduced to the Yukon in 1951 by the Yukon Fish and Game Association. The elk were able to establish themselves through successful reproduction but high mortality rates prevented the population from growing. The department of Renewable Resources released additional elk west of Whitehorse in the late 1980s to help establish a viable population. The project is now focused on providing viewing rather than hunting opportunities.

The department began working on this project in 1987. Periodic aerial surveys will be carried out throughout the year in 1993-94.

Community Involvement

Champagne and Aishihik First Nations and the Yukon Fish and Game Association participate in this project through their membership on a management committee.

Progress to Date

Over the past three years, 20 elk have been released to enhance the Takhini herd and 12 elk have been released to build up the Hutshi herd. The two elk herds now number between 30 and 40 animals each. The management objective is to build each herd up to about 100 elk.

Plans for 1993-94

Six elk will be released within the range of the Takhini herd.

The size and reproductive performance of each herd will be monitored through periodic aerial surveys and ground checks.

Publications and Reports

Department of Renewable Resources. 1990. Management Plan for the Takhini Elk Herd.

Department of Renewable Resources. 1993. Management Plan for the Hutshi Elk Herd (draft).

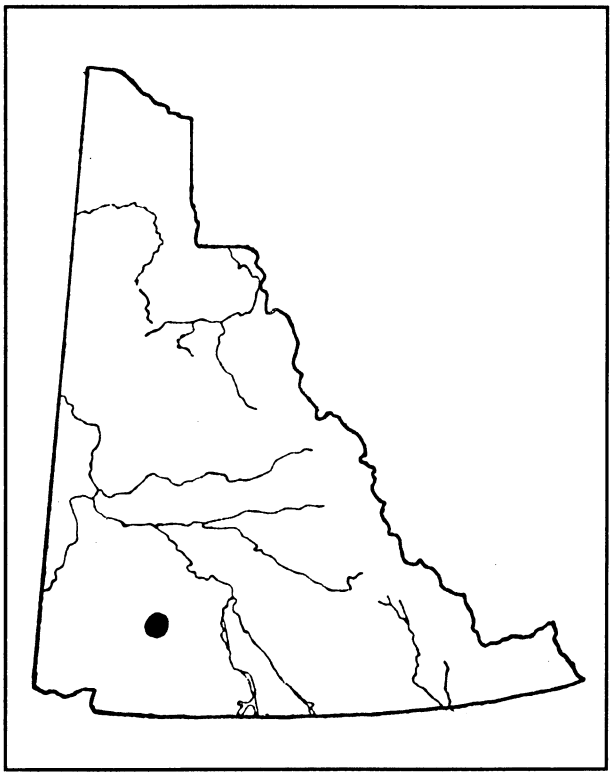
Cooperating Agencies: Champagne and Aishihik First Nations
Yukon Fish and Game Association

Budget: Yukon Government: $18,000 Cooperators: $0.0

Contact: Manfred Hoefs, Chief, Habitat Management and Research, 667-5671

Fish

Aishihik Lake Mitigation and Monitoring Project



Project Description

Recent study results have shown that the operation of the Aishihik hydro-electric dam has had a damaging effect on local fish stocks. This project is investigating options for reducing the negative impacts of past water management practices at the site.

This ongoing study began in 1991. The next field work will be carried out in July, 1993.

Progress to Date

The first results from this project will be available in early 1994.

Plans for 1993-94

Rainbow trout captured in the Kathleen River system will be re-introduced into the East Aishihik River at Otter Falls.

Fine-mesh nets will be dragged through shallow waters along the Aishihik Lake shoreline where whitefish fry concentrate in the spring. This technique is being tested as a cost-effective means of measuring the number of whitefish added to the population each year.

Traditional knowledge about Aishihik Lake fish stocks will be compiled by a First Nation researcher who will interview Champagne and Aishihik elders.

Publications and Reports

Allen, J. 1992. Champagne and Aishihik Oral Survey and Report of Traditional Food Fishing in the Aishihik Area. (Consultant report.)

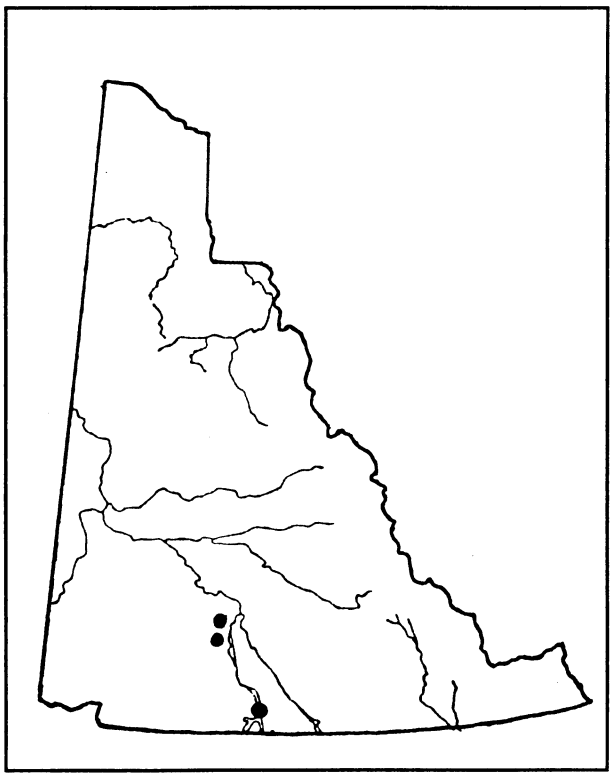
Reports summarizing the results of the rainbow trout re-introduction and the beach seining test will be prepared in 1994.

Cooperating Agencies: Department of Fisheries and Oceans

Budget: Yukon Government: $11,000 Cooperators: $0.0

Contact: Lorne Larocque, Supervisory Technician, Haines Junction, 634-2110

Angler Harvest Survey



Project Description

This project is collecting information about angler harvests from three heavily fished waterbodies: Fox Lake, Braeburn Lake and Tagish River at the Tagish bridge. Effort and harvest information obtained through the survey will enable fisheries staff to assess the status of lake trout stocks and trends in angling quality. If the harvest data reflect an over-harvest or poor angling quality, regulations can be developed to reduce the harvest and conserve the fish stocks.

Sport angling accounts for the largest portion of the freshwater fish harvest in the Yukon. Harvest estimates for lakes receiving moderate to heavy angling pressure provide the basis for managing stocks and developing regulations.

This four-month project begins on May 31, 1993. Field work will be carried out on various dates from June through September.

Progress to Date

The first results from this project will be available in 1994.

Plans for 1993-94

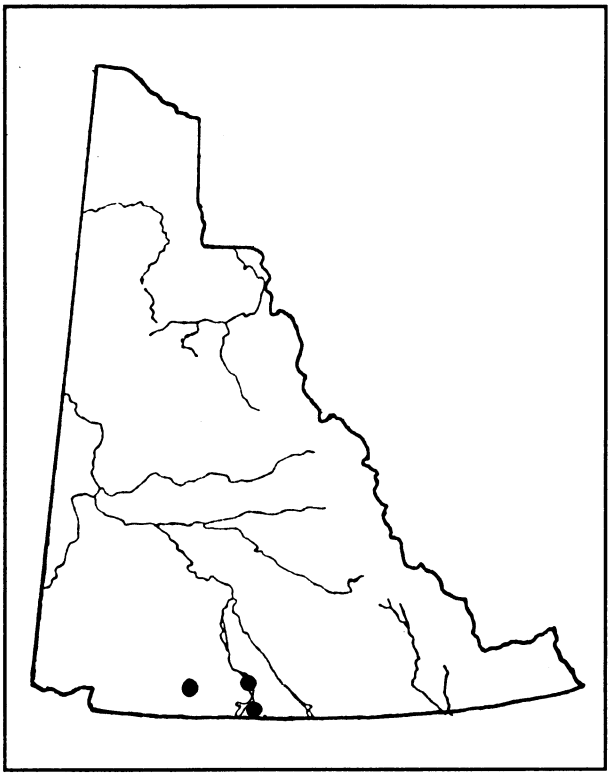
Angler harvests will be surveyed at Fox Lake, Braeburn Lake and the Tagish River bridge.

Publications and Reports: A summary report will be prepared in 1994.

Budget: Yukon Government: $24,000

Contact: Sue Thompson, Fisheries Technician, 667-5199

Index Netting Program on Marsh, Tagish and Kusawa Lakes



Project Description

This project is collecting information about fish stocks in Tagish, Marsh and Kusawa lakes.

These lakes are heavily fished by Whitehorse residents. Tagish and Marsh lakes are of special concern because their levels are controlled by a dam at the outlet of Marsh Lake. Little is known about the fish stocks in glacier-fed Kusawa Lake.

This three-year project will be completed in the winter of 1994-95. Current-year field work will be carried out June through August, 1993.

Progress to Date

About 500 lake trout were tagged in Tagish and Marsh lakes in 1992-93. The abundance of lake trout in these lakes was surveyed with a new live-sampling technique involving the use of trap nets.

Plans for 1993-94

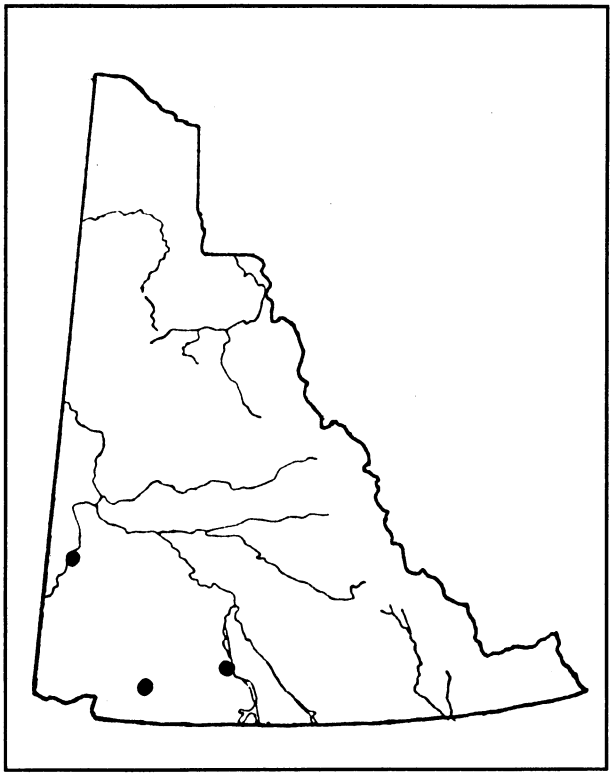
Information will be collected on catch composition, age and sex structure of the fish stocks, length-to-weight ratios and death rates.

Publications and Reports: The data report will be completed by December, 1994.

Budget: Yukon Government: $40,000

Contact: Sue Thompson, Fisheries Technician, 667-5199

Kokanee Brood Stock Development



Project Description

The Yukon fish stocking program provides outdoor recreation opportunities while conserving native fish stocks. The program is currently limited to two species: rainbow trout and arctic char.

This project aims to increase angling opportunities by expanding the stocking program to include Kokanee. A Kokanee brood stock is being developed from a stock of native Kokanee in the southwest Yukon.

This four-year project began in 1991. Current-year field work will be carried out on August 20 in Kluane National Park.

Progress to Date

Kokanee eggs were collected from native stocks in Kluane National Park in August of 1991 and 1992. Both collections were successful with good survival rates for the eggs. The eggs were hatched and the first brood stock was raised at the Icy Water Fisheries hatchery in Whitehorse. Two landlocked lake have been stocked with Kokanee fry from the hatchery.

Plans for 1993-94

The third egg collection effort will take place in August 1993. A Whitehorse-area lake large enough to support several year classes of Kokanee will be stocked. This lake will be used to develop a second brood stock and to provide a source of eggs in the future.

Publications and Reports

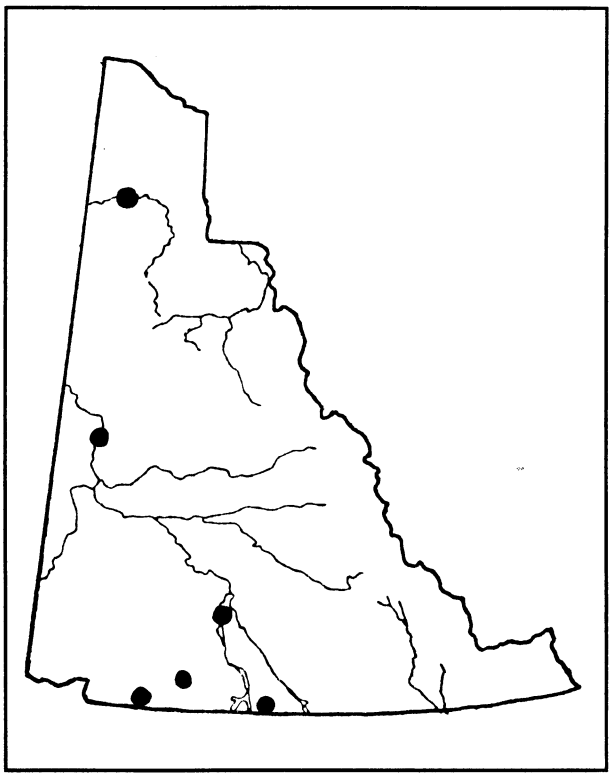
Icy Water Fisheries has provided monthly reports on the status of the stock contained in the hatchery. A report evaluating the success of this project will be completed in 1995.

Cooperating Agencies: Department of Fisheries and Oceans
Environment Canada, Parks Service
Icy Waters Fisheries

Budget: Yukon Government: $7,000 Cooperators: $0.0

Contact: Sue Thompson, Fisheries Technician, 667-5199

Sources, Pathways and Levels of Contaminants in Fish from Yukon Waters Supporting Subsistence, Domestic or Commercial Fisheries



Project Description

This project is studying contaminant levels in fish from selected Yukon waterbodies.

This ongoing project began in 1991. Current-year field work will be carried out at various locations from June through August, 1993.

Progress to Date

Health advisories related to the consumption of lake trout flesh and burbot livers from certain Yukon waters were issued on the basis of tissue samples collected in 1991 and 1992.

Some of the results from the 1992 sampling season have been received and forwarded to the Department of Health and Welfare for assessment. Depending on the results of this assessment, a detailed sampling strategy will be developed for 1993.

Plans for 1993-94

The Yukon Contaminants Committee has identified a number of priorities for the investigation of contaminants in fish. Tissue samples will be collected from salmon and freshwater species in Old Crow and a number of other food fishing sites in the Yukon. Re-sampling will also be conducted on various lake trout body parts, Lake Laberge grayling, Kusawa Lake species and Chinook salmon from the Tatshenshini and Yukon rivers.

Publications and Reports

A report summarizing the methods, sampling locations and contaminant levels detected to date has been produced by Environment Canada.

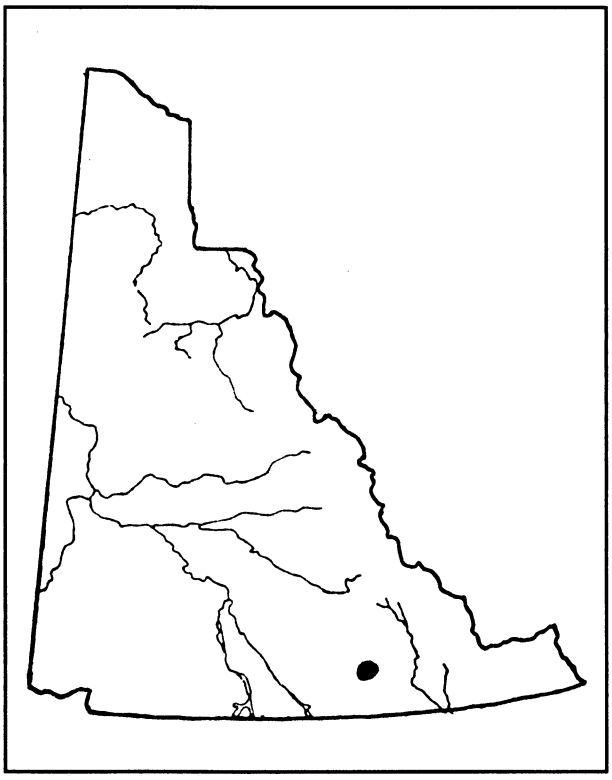
Cooperating Agencies:

Indian and Northern Affairs Canada
(Arctic Environmental Strategy)
Department of Fisheries and Oceans
Environment Canada
Health and Welfare Canada
Yukon Contaminants Committee

Budget: Yukon Government: $0.0 Cooperators: $20,000 (AES)

Contact: Yukon Contaminants Committee

Stream Classification For Placer Mining



Project Description

This project is assessing the fisheries values in Liard River tributaries scheduled for placer mining in 1994.

This two-week project will begin on July 15, 1993.

Progress to Date

First results will be available in early 1994.

Plans for 1993-94

Streams to be classified will be divided into sections or "reaches" exhibiting a consistent character. The fisheries habitat will be examined in each reach and the resident fish species will be identified using a variety of fish capture methods.

Publications and Reports

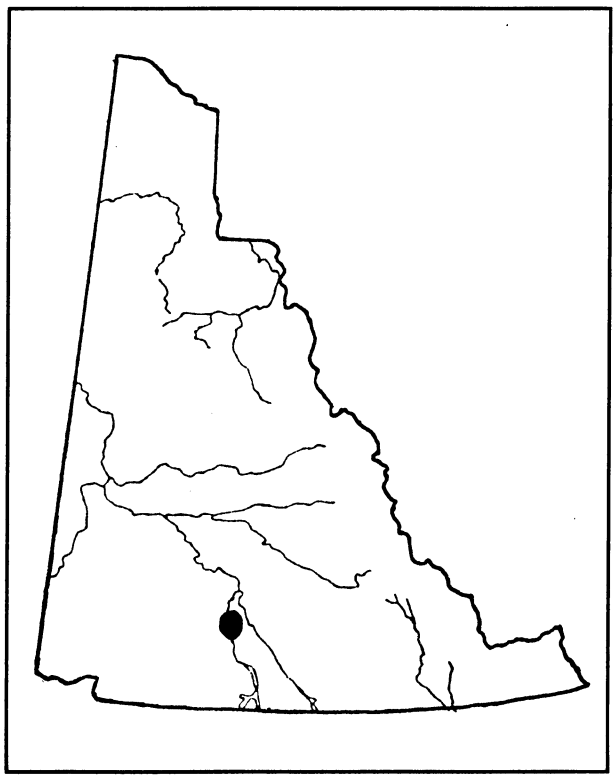
A classification rational for two streams will be submitted to the Placer Implementation Review Committee.

Cooperating Agencies: Placer Implementation Review Committee
Department of Fisheries and Oceans

Budget: Yukon Government: $9,000 Cooperators: $0.0

Contact: Nick deGraff, Fisheries Biologist, 667-3715

Lake Trout Recovery and Contaminant Management Program in Lake Laberge



Project Description

Recent studies have revealed the presence of toxaphene and other contaminants in lake trout muscles and burbot livers from Lake Laberge. This project is studying the impacts of those contaminants on Lake Laberge fish stocks. Changes in fish populations will be monitored along with trends in organochlorine concentrations in the lake's dominant fish species.

This two-month project will begin in July 1993.

Community Involvement

A member of the Ta'an Kwach'an First Nation was hired as a field worker on this project. Lake Laberge is located within the traditional territory of the Ta'an Kwach'an First Nation.

Progress to Date

The first results from this project will be available in 1994.

Plans for 1993-94

A standard fisheries survey will be conducted on Lake Laberge once every three years. Populations statistics will be generated and samples of lake trout muscle and burbot livers will be analyzed for organochlorines, fat, protein, water and ash content.

Publications and Reports

Fisheries Inventory Data Report - Results of 1993 Field Season

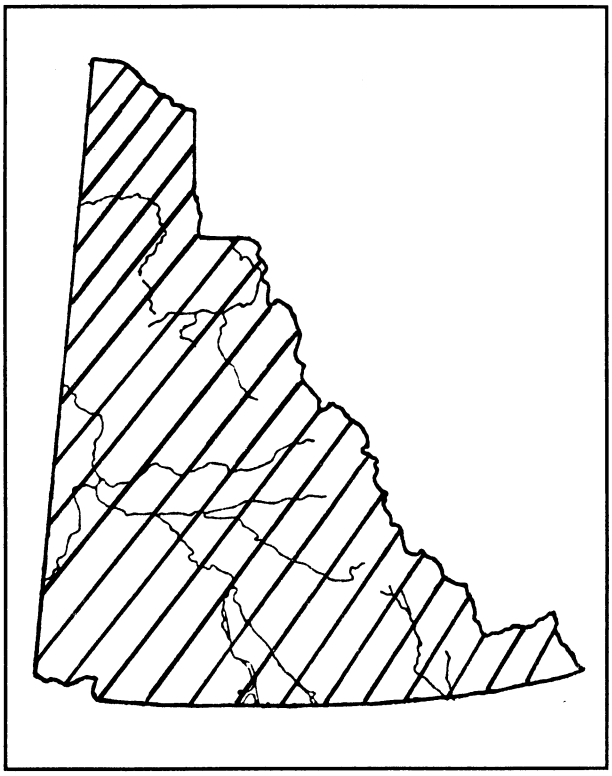
Cooperating Agencies: Environment Canada
Indian and Northern Affairs Canada (Arctic Environmental Strategy)
Department of Fisheries and Oceans
University of Alberta
Ta'an Kwach'an First Nation

Budget: Yukon Government: $0.0 Cooperators: $66,000 (AES)

Contact: Nick de Graff, Fisheries Biologist, 667-3715

Furbearers

Fur Harvest Enhancement Program



Project Description

This program provides financial support to help trappers replace leg-hold traps with quick-kill traps and make other capital improvements to their traplines.

The industry is being required to change and upgrade equipment to implement the latest humane trapping methods and to become more productive. The cyclical nature of the trapping industry, however, makes it difficult for trappers to obtain bank loans and invest in improvements to their traplines.

This program ensures that the Yukon trapping industry keeps up with changes in the international industry. It also helps hundreds of Yukoners maintain a traditional trapping lifestyle which contributes to the local economy.

Community Involvement

This program was developed in response to concerns expressed by the Yukon Trappers Association and the Council for Yukon Indians. These organizations were also involved in designing the program to ensure it meets the needs of their members.

Progress to Date

Since this program began in 1988, more than 125 trappers have received capital assistance and over 200 trappers have participated in the trap exchange program.

Plans for 1993-94

Capital grant applications for the current year will be reviewed in January, 1994.

The eligibility criteria for the trap exchange component of the program will be updated and the program will be advertised again. Although funding for this component ended in 1993, the exchange will continue until the department's supply of quick-kill traps is used up.

The success of the program will be evaluated in 1994.

Publications and Reports

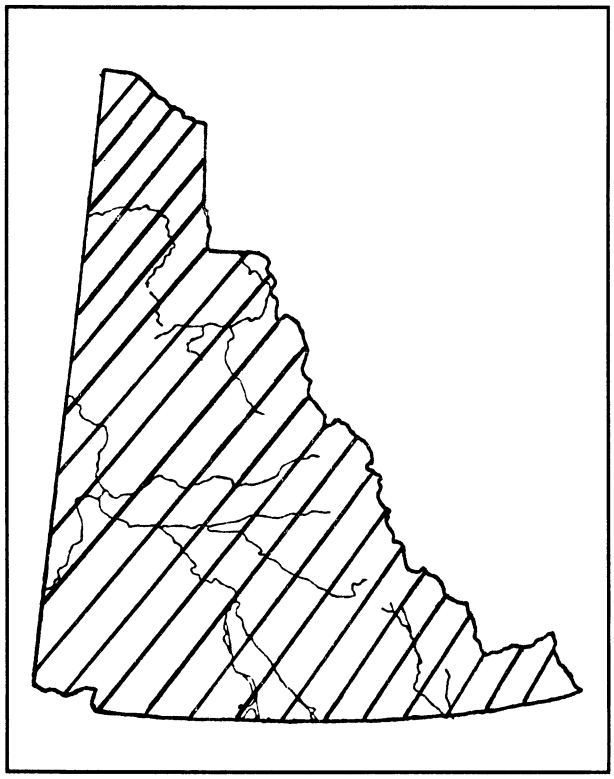
The program evaluation report will be available in the summer of 1994.

Cooperating Agencies: Yukon Trappers Association
Council for Yukon Indians
Department of Economic Development

Budget: Yukon Government: $25,000 Cooperators: $0.0

Contact: Harvey Jessup, Fur Harvest Manager, 667-5767

Fur Harvest Management



Project Description

The Yukon trapping industry includes about 700 licensed trappers who harvest 14 furbearer species from more than 400 registered trapping concessions. This program manages the fur harvest to ensure that furbearer populations which support the industry are harvested on a sustainable basis.

The basic management unit is the registered trapping concession. Information such as species distribution, population cycles, key habitat areas and relative abundance is collected and analyzed on a concession basis.

The department works with trappers to develop trapline management strategies for key furbearer species. Individual trappers then apply these strategies to furbearer populations on their concessions. Trappers actively manage local furbearer populations by deciding when, where and how to place traps to get the best sustainable fur yield.

Community Involvement

Changes to the trapping regulations are developed in close consultation with local fur councils and the Yukon Trapping Association. The broader public is notified of regulatory proposals through the media and is provided with 60 days to review and comment.

Progress to Date

Trapping season dates have been set for each species to prevent harvesting during birthing periods and during warmer weather when pelts are unprime. Muskrat trapping season dates north of the Arctic circle have been adjusted to respect the spring "ratting" traditions of the Vuntut Gwichin First Nation.

Marten quotas have been established for trapping concessions in the Marten Conservation Area of the southern Yukon.

Registered trapping concession boundaries were established in legislation in 1989.

A series of trapline management leaflets have been produced to help trappers manage six key furbearer species.

Plans for 1993-94

A number of trapping concession boundary issues will be resolved and the final boundaries will be established in regulation.

The trapline management series leaflets will be updated and reprinted.

Publications and Reports

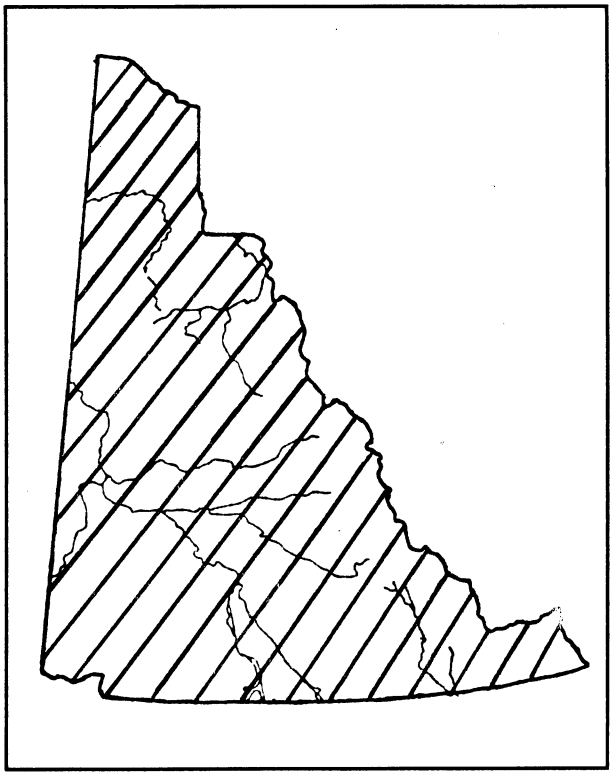
Managing Your Beaver Trapline
Managing Your Lynx Trapline
Managing Your Marten Trapline
Managing Your Muskrat Trapline
Managing Your Wolf Trapline
Managing Your Wolverine Trapline
Yukon River Basin Study
Yukon Trapping Regulations Summary (annual)

Cooperating Agencies: Yukon Trappers Association

Budget: Yukon Government: $10,000 Cooperators: $0.0

Contacts: Harvey Jessup, Fur Harvest Manager, 667-5767
Brian Slough, Furbearer Biologist, 667-5006
Helen Slama, Wildlife Technician, 667-8403

Fur Harvest Monitoring



Project Description

This project keeps track of the annual Yukon fur harvest by monitoring trapping licences, export permits, fur dealer records and pelt sealing certificates. Data obtained through these documents help the department detect changes in furbearer populations, examine long term harvests in specific areas, and estimate the economic value of the industry. The information is used to support fur harvest management decisions.

Community Involvement

Regulations requiring trappers and fur dealers to provide information are developed in consultation with the Yukon Trappers Association and individual trappers. The broader public also has an opportunity to comment during the regulation development process.

Progress to Date

Yukon fur harvest information has been collected on a territory-wide basis since 1920, and on a trapping concession basis since 1951. The records are now kept on computer files.

In 1992 three types of fur harvest records were combined into one to simplify the record keeping process for trappers, fur processors and fur dealers.

Plans for 1993-94

The fur harvest will continue to be monitored and analyzed on an annual basis. The updated information will be incorporated into a number of reports and will be also be provided to the Yukon Statistics Bureau and Statistics Canada.

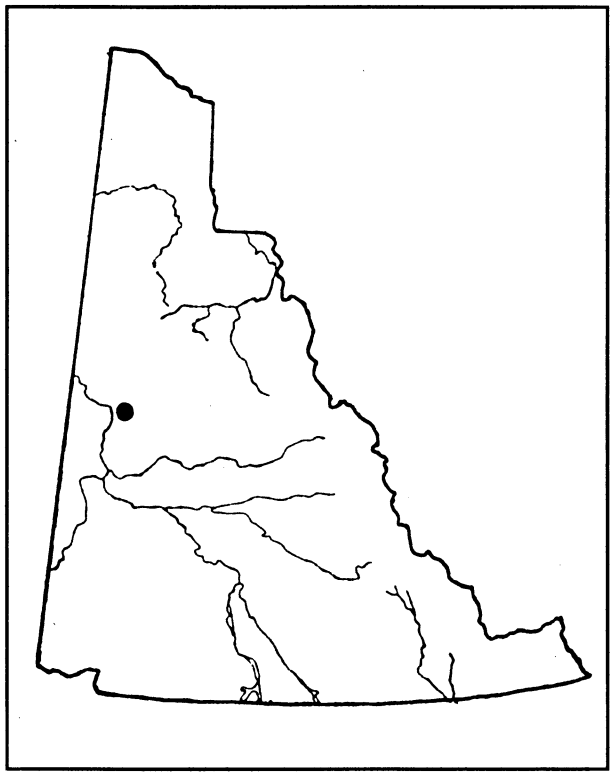
Publications and Reports

Annual fur harvest reports: 1920-1993. Archival records. Dept. of Ren. Res.

Budget: Yukon Government: $5,000

Contact: Harvey Jessup, Fur Harvest Manager, 667-5767
Helen Slama, Fur Harvest Technician, 667-8403

Klondike Valley Lynx Management Plan



Project Description

This project is developing a lynx management plan for the Klondike Valley planning area.

The Klondike Valley has been identified as key habitat for lynx and hare. The hares are able to maintain moderate numbers during the low phase of their 10-year cycle by exploiting the ideal food and cover in the valley. The lynx habitat is also exceptional because hares are always present and their numbers fluctuate less than in poorer habitats. The Klondike Valley lynx habitat and population are regionally significant and should be protected from land use activities that might have irreversible or long-range impacts.

This two-year project began in 1992.

Community Involvement

The lynx management plan is being prepared in consultation with a broad range of local stakeholders including the Dawson First Nation and the Dawson Fur Council. These groups are providing input which will be incorporated into the final lynx management plan.

Progress to Date

A draft lynx management plan for the Klondike Valley planning area has been prepared and distributed for comment to several stakeholder groups.

Plans for 1993-94

The final lynx management plan will be developed based on input received from stakeholder groups and the public.

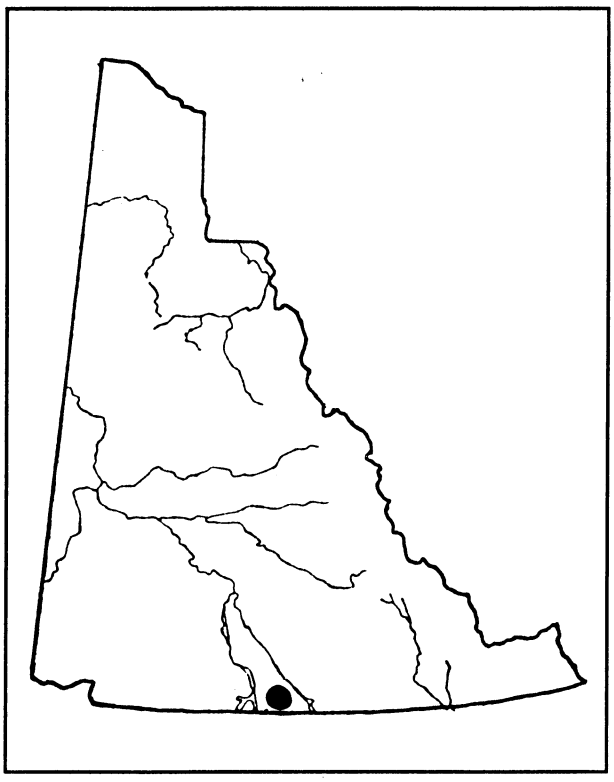
Publications and Reports

Draft Lynx Management Plan for the Klondike Valley Planning Area. August, 1993.

Budget: Yukon Government: $0.0

Contact: Brian Slough, Furbearer Biologist, 667-5006

Lynx Harvest Study



Project Description

This project is monitoring lynx populations and lynx harvest trends over the course of the 10-year snowshoe hare cycle. Study results will be used to assess the effectiveness of current lynx management strategies. The lynx management strategy used by most Yukon trappers involves a heavy harvest of lynx in trapped areas which are replenished from refugia, or untrapped areas. The population dynamics and movements of lynx under this strategy have never been studied.

This 10-year project began in 1986. Field work in 1993-94 will be carried out in the Teslin Burn from February through April and again in June.

Progress to Date

Since 1986, about 170 lynx have been live-captured during winter field work. Ninety-five of these animals were radio-collared. Another 180 kits from 37 litters have been ear-tagged in summer.

The lynx population increased from 2.8/100 km^2 in 1987 to 37.2/100 km^2 in 1991 and 1992. The hare population began to decline in 1990/91 and the lynx decline began 1992/93.

Movements, reproduction, mortality factors, habitat use, and monitoring methods are being investigated. Lynx carcasses from traplines surrounding the live-lynx study area have been collected. Harvest data and pelt measurements are obtained from all Yukon trapping concessions.

Plans for 1993-94

Live trapping will continue through the winter of 1993-94 along with the lynx carcass collection program.

Data analysis and the final report will be completed in 1994-95.

Publications and Reports

Slough, B.G. and R.M.P. Ward. 1980. Lynx Harvest Study: 1988/89 Progress Report. 74pp.

Poole, K.G., G. Mowat, and B.G. Slough. 1993. Chemical immobilization of lynx. Wildl. Soc. Bull. (in press).

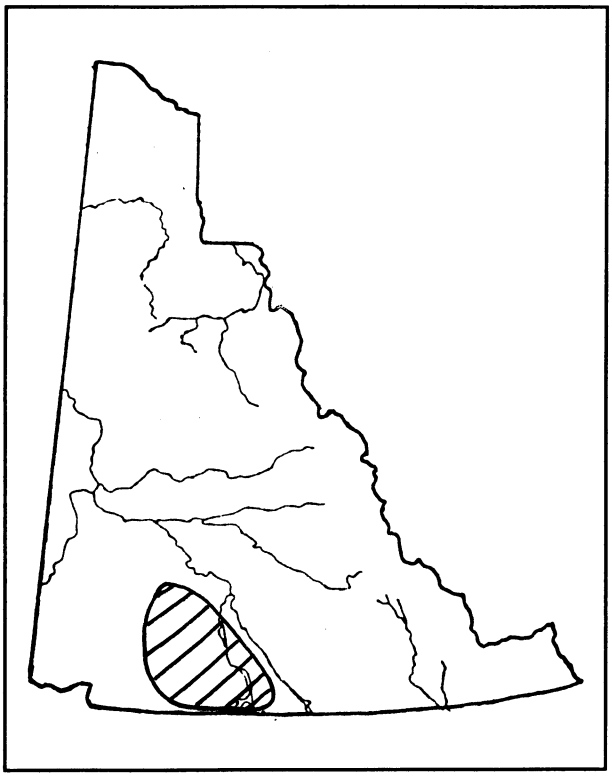
Breitenmoser, U., B.G. Slough, and C. Breitenmoser-Wursten. 1993. Predators of cyclic prey: Is the Canadian lynx victim or profiteer of the snowshoe hare cycle? Oikos. 66:551-554.

Mowat, G., and B.G. Slough. 1994. Capture efficiency of three live holding traps for lynx. Wildl. Soc. Bull. (in prep.).

Budget: Yukon Government: $40,000

Contact: Brian Slough, Furbearer Biologist, 667-5006

Marten Transplant Monitoring



Project Description

This project is measuring the long-term success of the marten transplant program. The program was conducted in the southwest Yukon between 1984 and 1987. About 171 marten were released in an attempt to establish populations in vacant habitats in the southwest Yukon.

This two-year project began in 1993. Field work in 1993-94 will be carried out during the winter.

Progress to Date

Initial post-release movements and survival of marten were monitored through radio-telemetry and trapper harvest information. Since then, incidental sightings, track counts, and reports by trappers have been used to assess the transplant success.

Plans for 1993-94

Systematic track-counts will be conducted in targeted release areas and in other potential habitats. Live-capture and mark/recapture techniques may be used to estimate densities of established marten populations.

Publications and Reports

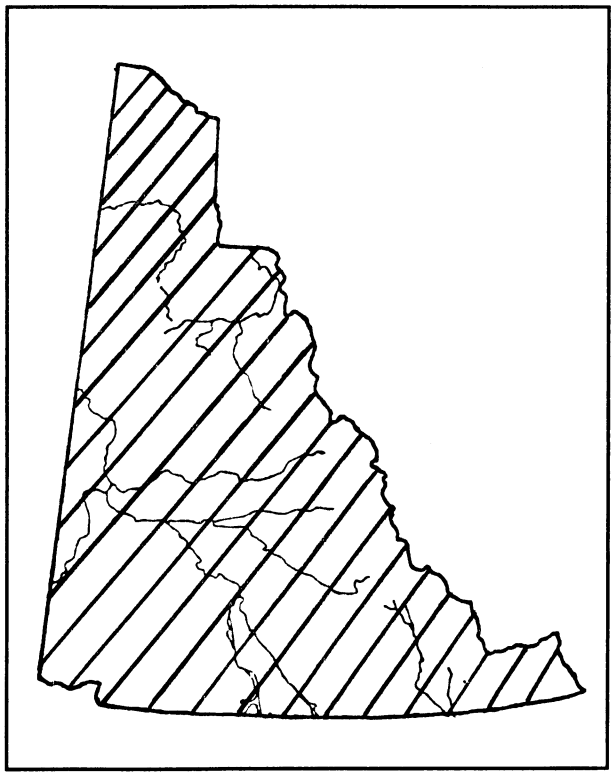
Slough, B.G. 1989. Movements and habitat use by transplanted marten in the Yukon Territory. J. Wildl. Manage. 53:991-997.

Slough, B.G. in press. Transplants of American martens:an evaluation of factors in success. In: The Biology of Management of Martens, Sables, and Fishers.

Budget: Yukon Government: $10,000 Cooperators: $0.0

Contact: Brian Slough, Furbearer Biologist, 667-5006

Public Education



Project Description

This program provides the public with accurate and up-to-date information about the Yukon trapping industry. Its goal is to help the industry retain public support in the face of international anti-trapping campaigns.

The Yukon trapping industry meets the goals of sustainable development laid out in the World Conservation Strategy and the Yukon Conservation Strategy. It provides a healthy lifestyle and financial support for about 700 Yukon families. It helps aboriginal people and other Yukoners maintain their cultural identity. And it has demonstrated a willingness to put effort and money into the replacement of leg-hold traps with quick-kill traps.

This kind of information is conveyed to the public to help people develop an informed understanding of the industry and its benefits.

Progress to Date

Yukon Trapping Awareness Week was established in 1990 to help promote media coverage of the industry and raise public awareness.

Funding has been provided to the Yukon Trapping Association to help deliver annual campground talks aimed at educating tourists about the importance of trapping to Yukoners.

Classroom presentations about the trapping industry are made on a request basis.

Support has been provided to the Fur Institute of Canada, an agency devoted to humane trap research and the promotion of trapping as a wise use of natural resources.

Plans for 1993-94

Trapping Awareness Week is scheduled to take place in February, 1994. Classroom presentations will continue along with support for the Fur Institute of Canada.

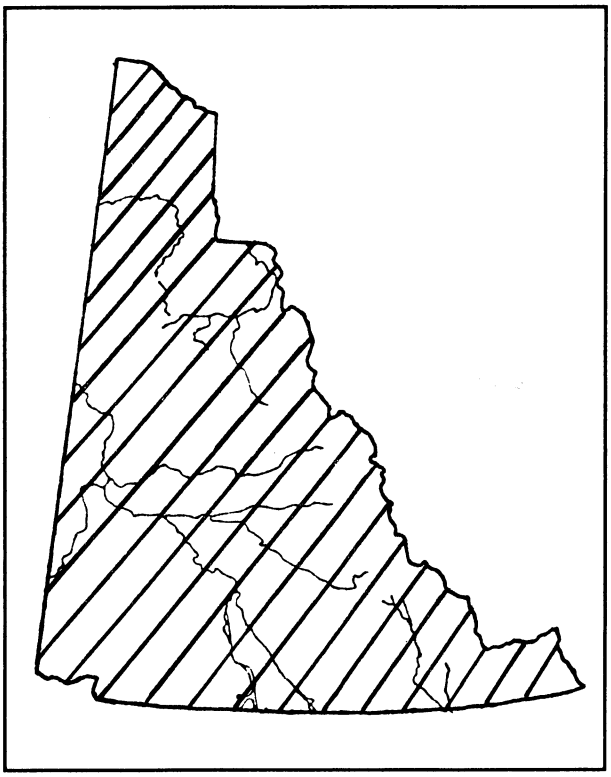
Publications and Reports: Fur Institute of Canada annual reports.

Cooperating Agencies: Yukon Trappers Association
Fur Institute of Canada

Budget: Yukon Government: $30,000 Cooperators: $0.00

Contact: Harvey Jessup, Fur Harvest Manager, 667-5767
Darlene Richardson, Yukon Trappers Association, 667-7091

Trapper Education



Project Description

This project is teaching trappers about the use of new techniques, equipment and management strategies.

Trapping equipment and techniques are continually changing along with public attitudes towards the industry. Regulations now require new trappers to take a recognized training course before applying for a trapping licence.

This ongoing project began in 1977. Trapper training workshops are held from October 1 to March 31 each year.

Community Involvement

Community input on the design of trapper training courses is provided through local fur councils and the Yukon Trappers Association which delivers the program. Courses are offered in each community at least once every two years. Local instructors are hired to teach the courses in most communities.

Progress to Date

About 370 Yukon trappers, roughly half of the trapping population, have graduated from the trapper training course to date. Approximately 40 per cent of the graduates are First Nation members.

Plans for 1993-94

Two intensive 7-day trapper training courses will be held at Silver City in the 1993-94 trapping season. Seven 5-day courses will be held in various communities through 1993-94.

Public education will continue to be promoted through activities such as school talks, the Dawson Fur Show and Trapping Awareness Week.

Publications and Reports

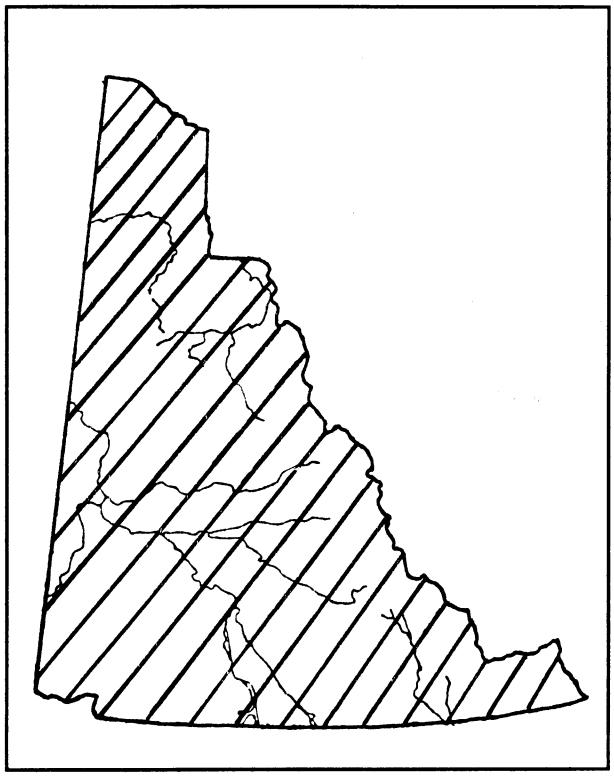
The Yukon Trappers Association prepares an annual report on the delivery of the program.

Cooperating Agencies: Yukon Trappers Association (YTA)
Indian and Northern Affairs Canada (INAC)

Budget: Yukon Government: $48,000 Cooperators: $26,000 (INAC)
$ 2,400 (YTA)

Contact: Helen Slama, Wildlife Technician, 667-8403

Trapper Questionnaire



Project Description

This project collects information from trappers about the status of furbearer, prey and other wildlife populations in their trapping areas. Detailed information is obtained from experienced observers at low cost by using the questionnaire method. The information is used along with other data sources as a basis for wildlife management decisions.

Trapper questionnaires have been mailed out each year since 1978.

Progress to Date

This project is currently monitoring the population levels and trends of 12 furbearers and three prey species (snowshoe hares, grouse and mice). The data has been used to track cyclic species such as hares and lynx and to determine the ranges of other species such as coyotes. Special questions have been asked about hare habitat, cougar and fisher sightings, and least weasel distribution. Questions about moose and caribou were added to the questionnaire in 1993. The response rate is roughly 40 per cent, or about 250, of trappers contacted.

Plans for 1993-94

The trapper questionnaire will be mailed out in April-May, 1993.

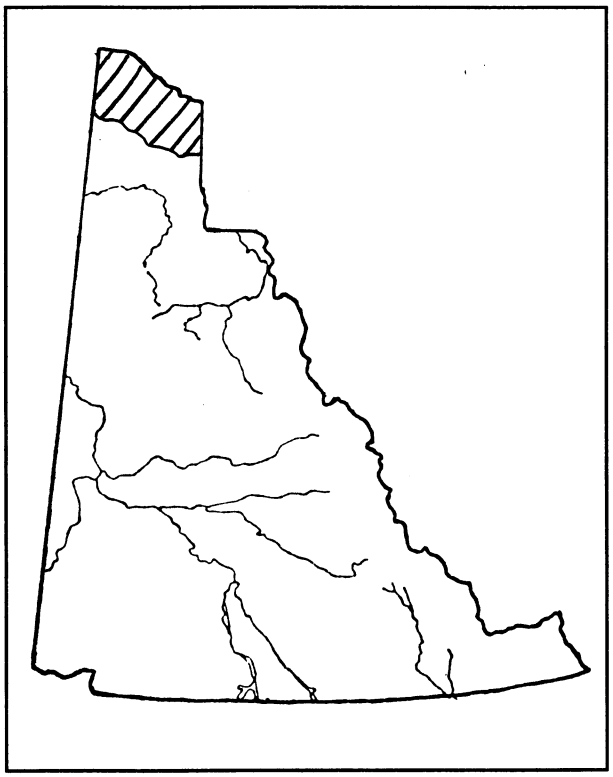
Publications and Reports

Annual reports were prepared from 1978 to 1987. Since 1987, the data has been incorporated into other studies such as the Lynx Harvest Study and the Klondike Valley Lynx Management Plan. Results are also presented at trapper education workshops.

Budget: Yukon Government: $500

Contact: Brian Slough, Furbearer Biologist, 667-5006

North Slope Wolverine Study



Project Description

This project will estimate the population size, determine home ranges, and examine harvest trends for the Yukon North Slope wolverine population.

The wolverine is an important furbearer to the Aklavik and Fort McPherson people who hunt and trap on the North Slope. Yet little is known about the status of the North Slope wolverine population.

This one-year project began in March 1993. Telemetry flights will be conducted year round.

Progress to Date

Thirteen radio collars were placed on wolverines during 1993.

Plans for 1993-94

Wolverine collars will be located by radio-tracking approximately twice each month for one year.

The wolverine population will be surveyed in late winter.

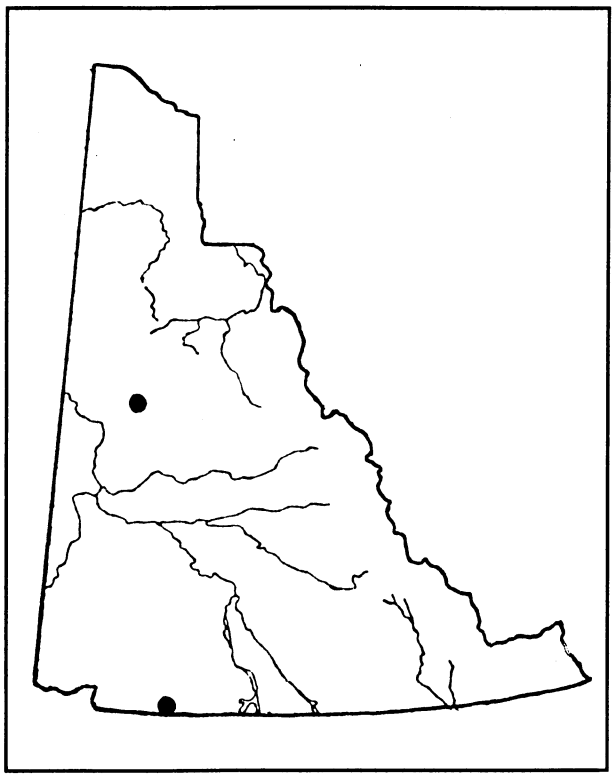
Cooperating Agencies: Government of the Northwest Territories

Budget: Yukon Government: $50,000 (provided by the federal government as part of the Inuvialuit Final Agreement)

Contact: Dorothy Cooley, Regional Biologist, Dawson City, 993-6461

Game Birds

Upland Game Bird Annual Census and Harvest Analysis



Project Description

This project monitors upland game bird populations and collects harvest information from hunters. Information about the status of representative game bird populations is used to develop management policies for the birds and for other species which depend on them.

This ongoing project began in 1973. Field work in 1993-94 will be carried out April 25 to May 12 at Chilkat Pass on the Haines Road, North Fork Pass on the Dempster Highway, and the Ogilvie Mountains.

Progress to Date

Yukon ptarmigan populations have demonstrated strong cyclic trends which are synchronized among populations from various locations. Populations in the south fluctuate less dramatically than those in the far north.

Although sharp-tailed grouse populations have not been monitored as closely as other game birds, harvest information suggests that numbers have declined markedly in the last year. While 13,272 grouse were harvested in 1990, only 7,349 were taken in 1991.

Grouse numbers will remain low through 1993. The next peak in the population cycle is expected in 1999.

Plans for 1993-94

Harvest data collected from 1973 to 1993 will be summarized.

Two ptarmigan counts will be carried out by total ground search using becking calls and a pointing dog. A 2 km^2 area will be searched at Chilkat Pass and North Fork Pass. A late winter sample of willow ptarmigan will be collected from the Ogilvie population, primarily through hunters, to determine age structure of the population.

Two sharp-tailed grouse leks equipped with observation blinds will be visited and attending males will be counted. Incidental observations of movements and habitat use will be made.

Harvest data will be summarized up to 1993 and reported by game management subzone.

Publications and Reports

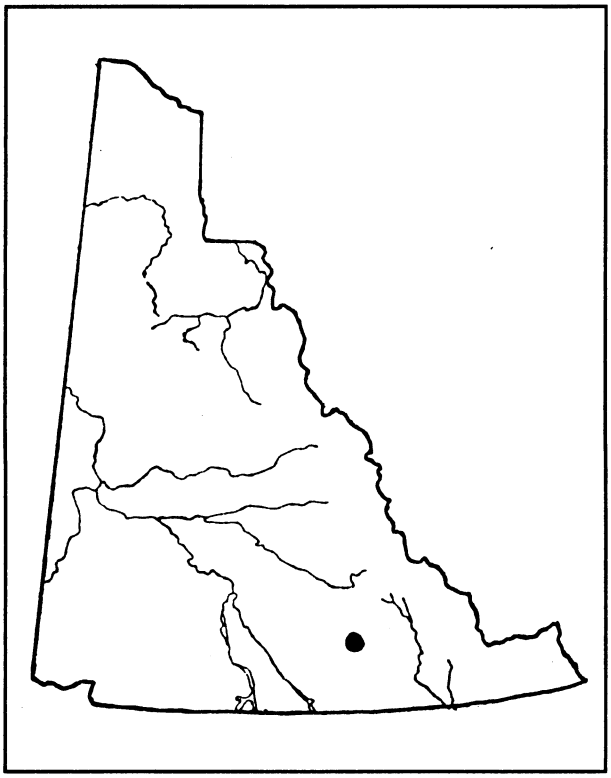
Yukon Territorial Government 1990-1991 Resident Hunter Questionnaire Analysis: Game Birds.

Mossop, D. 1984. Demography of willow ptarmigan in the Ogilvie Mountains.

Budget: Yukon Government: $1,500

Contact: Dave Mossop, Game Bird Biologist, 667-5766

Waterfowl Species Management, Research and Planning: Canada Goose and White-fronted Goose



Project Description

This project is collecting new information about the poorly understood "small" Canada geese and white-fronted geese that nest in, or cross, the Yukon.

Canada geese and white-fronted geese are thought to be in decline throughout the Pacific flyway. The "Arctic Goose Joint Venture" component of the North American Waterfowl Plan has identified both species as priorities for research. Flyway management plans being developed at the international level require better information from the Yukon portion of the flyway.

This ongoing project began in 1981. Field work in 1993 will be carried out August 15 to September 10 on a headwater tributary of the Liard River.

Progress to Date

Although few Yukon geese have been banded to date, preliminary results suggest that the Canada geese are faithful to the Pacific flyway during the fall migration.

The staging ecology of geese at Nisutlin Delta has been studied extensively and is now fairly well known.

The nesting ecology of Canada geese in the Yukon is being investigated through incidental observations. Information about white-fronted goose movements and breeding activity is also being collected through incidental observation.

Taxonomic measurements suggest at least three races of Canada geese inhabit the Yukon.

Plans for 1993-94

The breeding ecology and productivity of Canada geese will be investigated by a boat survey of one tributary of the Liard River.

Local knowledge will be used along with ground counts at Nisutlin Delta to develop an inventory of moulting and staging areas.

Sex, age, and taxonomic measurements will be taken from all birds handled during these studies.

Publications and Reports

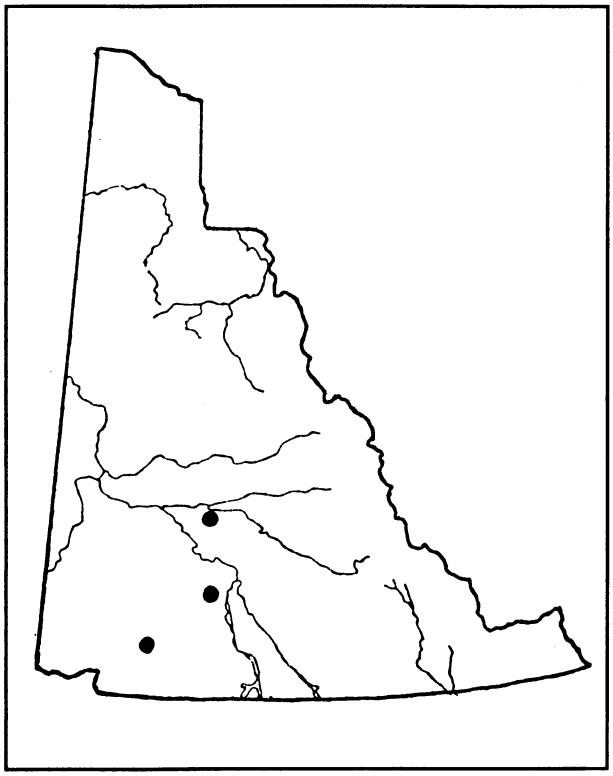
Mossop, D. and T. Coleman. 1984. Factors Affecting the Fall Staging of Waterfowl at the Nisutlin Delta, Yukon. Dept. of Ren. Res., YTG. A Yukon River Basin Project Report.

Cooperating Agencies: Ducks Unlimited Canada
Arctic Goose Joint Venture members

Budget: Yukon Government: $1,000 Cooperators: $0.0

Contact: Dave Mossop, Game Bird Biologist, 667-5766

Waterfowl Spring Pair Count



Project Description

This project carries out annual counts of waterfowl spring breeding pairs in selected roadway corridors and key wetlands. It is part of a larger program coordinated by the Canadian Wildlife Service in Whitehorse. The goal of this program is to obtain an annual index of waterfowl abundance along Yukon roadways.

The federal government uses information about waterfowl abundance to set bag limits and season dates throughout the Pacific flyway, which includes the Yukon.
This ongoing project began in 1985. Field work in 1993-94 will be carried out May 1-31 at Needlerock Wetland and along the Whitehorse-Carmacks highway corridor.

Progress to Date

A system of counting spring pairs with the use of a helicopter was developed in the early stages of this project. Helicopter counts and roadside pair counts have been carried out during two years following the initial surveys.

Species composition has remained unchanged during the course of these counts.
Numbers of individual species have risen slightly, probably because drought conditions in the provinces have forced more birds to summer in the north.

Plans for 1993-94

Spring pairs will be counted in a sample of roadside ponds along the Whitehorse-Carmacks corridor. The data will be analyzed by the Canadian Wildlife Service.

One-hundred ponds in the Needlerock Wetland will be surveyed on May 25. The data will be analyzed using the method developed during an earlier phase of this project.

Kloo Lake will be surveyed for spring breeding pairs in early June.

Publications and Reports

Mossop, D. Spring Survey of Waterfowl on the Needlerock Wetland, Yukon 1991.

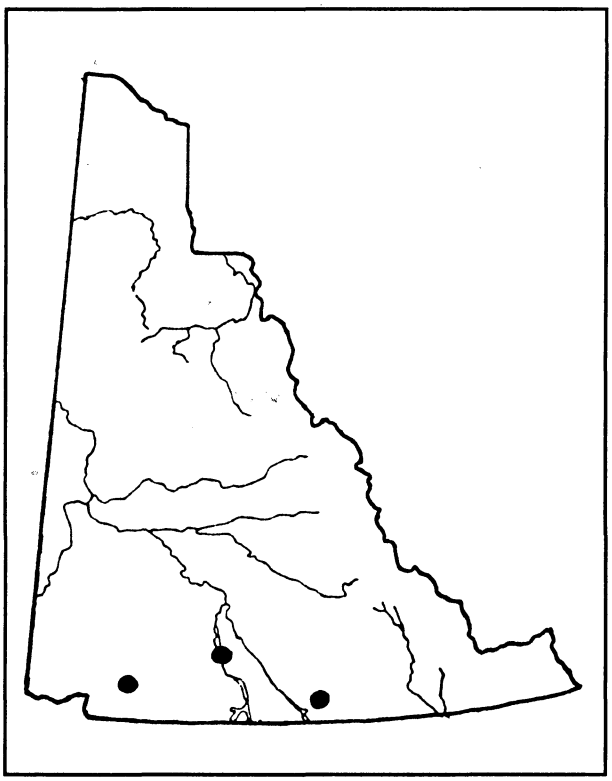
Mossop, D. and K. Egli. Helicopter survey of waterfowl, Needlerock Wetland, Yukon, Spring 1992.

Cooperating Agencies: Ducks Unlimited Canada
Canadian Wildlife Service

Budget: Yukon Government: $2,000 Cooperators: $2,000

Contact: Dave Mossop, Game Bird Biologist, 667-5766

Wetland Reconnaissance, Assessment and Development of Management Strategies



Project Description

This project is studying waterfowl use of selected Yukon wetlands. The information is used to develop management approaches for waterfowl and the wetlands they depend on.

This ongoing project began in 1974. Current year field work will be carried out May 30, June 25-30 and August 5-7, 1993.

Progress to Date

An initial inventory of Yukon wetlands important to waterfowl was completed in 1980. The inventory identified 40 key areas which are now scheduled for more detailed study.

Through an agreement signed with the Yukon government in 1984, Ducks Unlimited Canada has committed $2.2 million of funding to Yukon wetland management projects. These funds have supported detailed studies of wetlands at Old Crow Flats, Nisutlin Delta, Sheldon Lakes, Nordenskjiold Valley and Needlerock Creek.

Surveys of the Kloo Lake wetland have shown a high concentration of waterfowl use.

Plans for 1993-94

Field effort during 1993 will be concentrated on Shallow Bay, the Nisutlin Delta and Kloo Lake wetland.

The Kloo Lake study will assess waterfowl use throughout the open water season. A field camp will be active from June through to September. Breeding pairs will be banded and physical descriptions of the wetland waterbodies will be completed.

The Shallow Bay study will involve regular counts during the spring staging period. A bait station will be operated from April to June to capture dabbling ducks for banding. An educational component will also be delivered at the site to local school children.

The Nisutlin Delta study has a strong public education component which is delivered to Whitehorse and Teslin area students in September and October each year. A bait station will be active at the site in the 1993 season.

The presence of contaminants in spring waterfowl will be investigated as part of all three studies.

Publications and Reports

Mossop, D. and T. Coleman. 1984. Factors Affecting the Fall Staging of Waterfowl at the Nisutlin Delta, Yukon. Yukon Dept. of Ren. Res. A Yukon River Basin Project report.

Mossop, D. 1986. Needlerock Creek Study: An Analysis of Use by Waterbirds and Other Bird Species. In Yukon Waterfowl Working Group Report (Draft).

Yukon Government/Ducks Unlimited Canada. 1984. Yukon 10-year Wetlands Agreement.

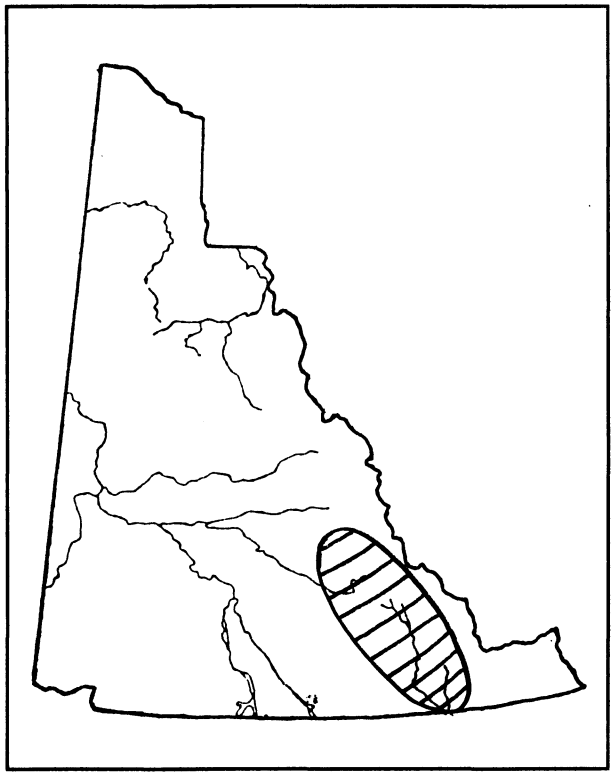
Cooperating Agencies: Ducks Unlimited Canada

Budget: Yukon Government: $3,000 Cooperators: $1,000-2,000

Contact: Dave Mossop, Game Bird Biologist, 667-5766

Habitat

Contaminants in Kaska Herbal Foods and Medicines



Project Description

This project is investigating the level of contaminants in vegetation species regularly used by members of the Kaska First Nations. It is an extension of an investigation into the contamination of local food sources which began by focusing on caribou. The study was expanded to include traditional herbal foods and medicines after Kaska First Nations expressed concern about the continued consumption of these items.

This is a one-year project. Field work will be carried out June through August, 1993.

Community Involvement

This project is being driven by the needs and concerns of Kaska First Nation peoples. A local working group was set up in January, 1993 to act as a forum for the two-way exchange of cultural and technical information related to the contaminants issue. The group was established through a Kaska Tribal Council resolution. It includes representatives from the Ross River Dene Council, Liard First Nations and the federal and Yukon governments.

Progress to Date

First Nation technicians were hired in Ross River and Watson Lake to conduct interviews and collect important plant species. Nineteen First Nation elders from Ross River and 20 from Watson Lake were interviewed to determine the plant species commonly used as food and medicine, the frequency of use, and collection locations. One hundred samples representing about 30 traditional foods and medicines have been collected and are awaiting analysis for heavy metal content.

Plans for 1993-94

Once the contracts are in place, the 100 samples will be sent to a laboratory for analysis. Results are anticipated in mid-March, 1994.

Publications and Reports

A final report will be produced by April, 1994.

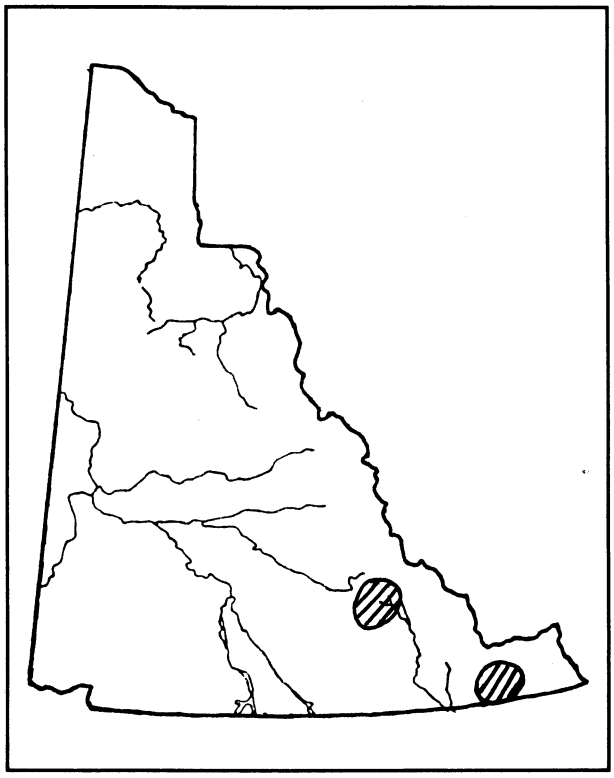
Cooperating Agencies

Kaska Tribal Council
Liard First Nations
Ross River Dene Council
Indian and Northern Affairs Canada (Arctic Environmental Strategy)
Yukon Department of Health and Social Services
National Department of Health and Welfare
Yukon Contaminants Committee

Budget: Yukon Government: $28,000 Cooperators: $10,420 (AES)

Contact: Rob Florkiewicz, Regional Biologist, Watson Lake, 536-7365

Fire Regeneration and Moose Habitat



Project Description

This project is studying the production and use of browse by moose in different aged burns.

Fire regeneration is recognized as a positive force in habitat rejuvenation. However, the connection between fire history and habitat use is not always clear. The results of this project will be used to develop policies and recommendations for managing natural and prescribed burns.

This two-year project began in 1992. No field work is scheduled for 1993-94.

Progress to Date

The distribution of willow species and other plants and the degree to which they have been browsed has been examined in 11 burns ranging from 10 to 30 years of age. The information has been entered into computer data bases for future analysis and summary.

Plans for 1993-94

The analysis of browse and tree regeneration data will be completed. A literature search will be conducted to evaluate the importance of burn and fire regeneration to wildlife in other jurisdictions.

Publications and Reports

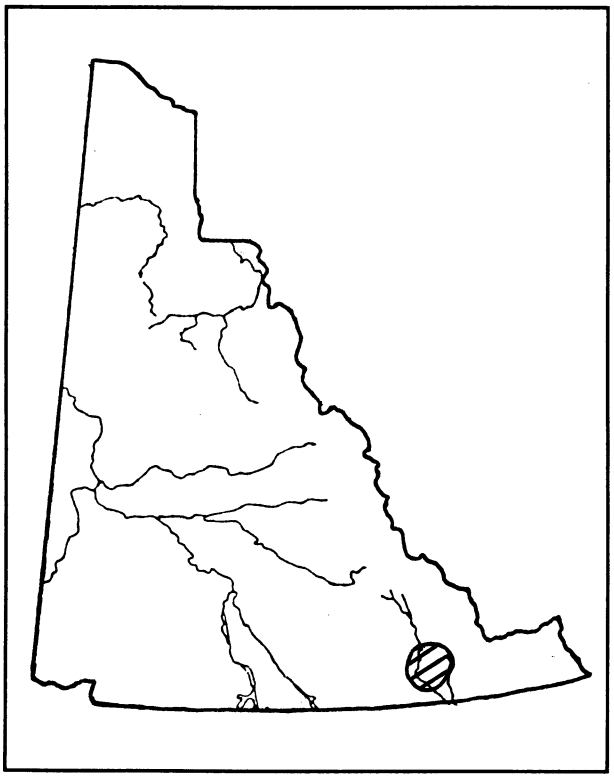
An interim report will be produced by the end of December, 1993 and recommendations will be prepared to support a prescribed burn policy for the Yukon.

Cooperating Agencies: Wildlife Habitat Canada
Northern Affairs Program, Forest Management

Budget: Yukon Government: $32,000 Cooperators: $52,000

Contact: Rob Florkiewicz, Regional Biologist, Watson Lake, 536-7365

Liard Basin Moose Habitat Study



Project Description

This project is studying the importance to moose of regenerating vegetation in white spruce forests that have been logged. Results will be used to make recommendations about logging practices which may impact on moose and other wildlife species in the Liard Basin.

This three-year project began in March, 1990. No field work is scheduled for 1993-94.

Progress to Date

Thirty-three radio-collared moose were followed through two complete annual cycles to determine their habitat preferences. Habitat availability was summarized according to vegetative units defined by the Northern Affairs Forest Program for use in planning logging operations. Habitats used

by moose, including cutblocks between five and 21 years of age, were assessed for browse production and use.

Plans for 1993-94

A final research report will be completed and submitted for internal review in November, 1993.

Project results will presented at a conference on forests and wildlife to be held in Halifax in August, 1993.

Publications and Reports

Department of Renewable Resources. Interim report: Moose and logging in the Liard Basin.

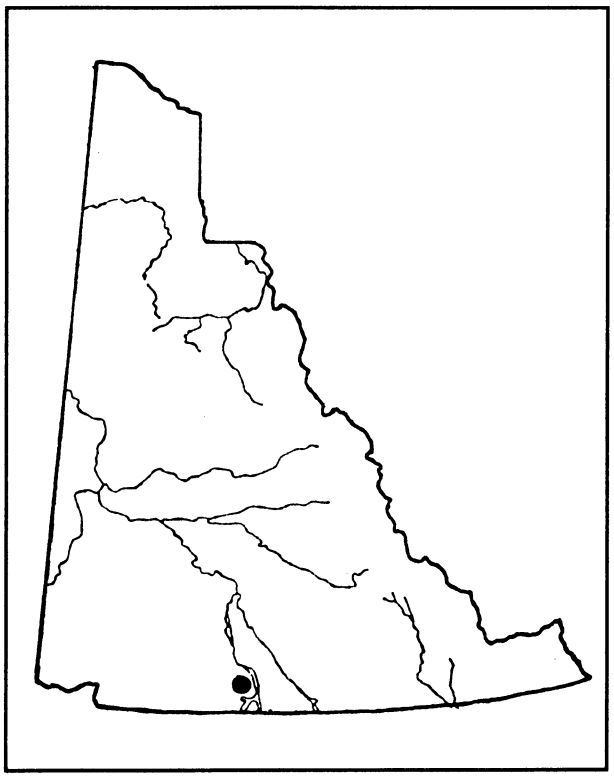
A final report will be available in January, 1994.

Cooperating Agencies: Wildlife Habitat Canada
Canada/Yukon EDA
Department of Indian Affairs and Northern Development

Budget: Yukon Government: $26,000 Cooperators: $192,000

Contact: Rob Florkiewicz, Regional Biologist, Watson Lake, 536-7365

Red Ridge Prescribed Burn



Project Description

This project is testing the use of prescribed burns in thinning out aspen and poplar to enhance wildlife habitat. The encroachment of aspen and poplar into sheep winter range, for example, can reduce the key habitat of this species.

This three-year project began in 1992. Field work in 1993-94 will be carried out in May-June and again in September.

Progress to Date

Vegetation samples were collected from Red Ridge in 1992 to provide baseline data. The prescribed burn proposal and plan was completed in 1993.

Plans for 1993-94

Controlled burns will be conducted in the spring and fall of 1993 depending on favourable weather conditions.

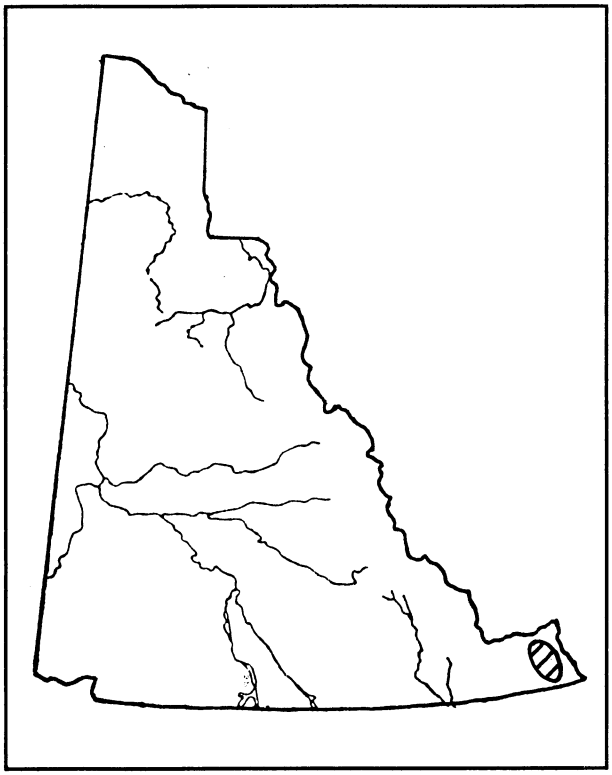
Vegetation samples will be collected from the spring burn plots in August, 1994.

Cooperating Agencies: Northern Affairs Program; Fire Management

Budget: Yukon Government: $5,000 Cooperators: $0.0

Contact: Ken Kiemele, Land Claims Selection Coordinator, 667-3647

Southeast Yukon Habitat Inventory



Project Description

This project is carrying out an inventory of wildlife habitat in the extreme southeast corner of the Yukon.

Little information is available about the wildlife and habitat of this region which has undergone exploration and development of oil and gas reserves. Better information is needed to ensure the impacts of future oil and gas activities can be assessed in advance.

This two-year project began in April, 1992. Current-year field work will be carried out in October, 1993.

Progress to Date

Waterfowl and sheep surveys were conducted in June, 1992. A beaver food cache survey was carried out in September, 1992. A moose distribution and composition survey was conducted in March, 1993.

Plans for 1993-94

A survey of the LaBiche Caribou Herd will be carried out in October, 1993 to determine abundance and the location of rutting areas. The results of all surveys will be summarized. A review of background literature will be completed for the study area.

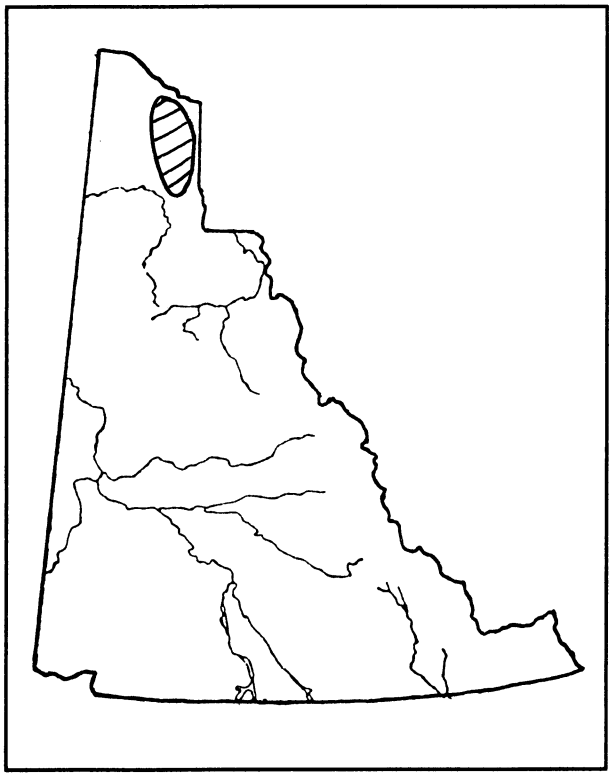
Publications and Reports: A final summary report will be produced by March, 1994.

Cooperating Agencies: Northern Oil and Gas Action Program

Budget: Yukon Government: $10,000 Cooperators: $50,000

Contacts: Val Loewen, Habitat Inventory Coordinator, 667-5281
Rob Florkiewicz, Regional Biologist, Watson Lake, 536-7365

Wildlife Habitat Mapping in the North Richardson Mountains



Project Description

This project is studying the location, distribution, and abundance of key wildlife habitats in the northern Richardson Mountains. The information will be used by Inuvialuit Game Council and other agencies to help make wildlife management decisions in the Inuvialuit Settlement Region.

Work on this project is carried out by Yukon government but is funded by the federal government because it fulfils a commitment to the Inuvialuit Land Claim. The Government of Canada agreed to fund an inventory of wildlife resources in the Inuvialuit Settlement Region to provide baseline information for wildlife management.

This two-year project began in 1992. Field work in 1993-94 will be carried out in July.

Community Involvement

This project is being driven by the needs and concerns of the Inuvialuit as expressed through two public management bodies: the Inuvialuit Game Council and the Wildlife Management Advisory Council (North Slope). Regular progress reports are provided to the Wildlife Management Advisory Council (North Slope) and a public presentation was made in Aklavik in May, 1993.

Local field workers have been hired in Aklavik and Fort McPherson to help carry out the project.

Progress to Date

A vegetation/land cover map is being developed for the northern Richardson Mountains. Satellite imagery has been acquired for the entire study area and ground information has been obtained from two-thirds of the study area. A maximum of 15 land-cover classes were identified when this information was analyzed.

Plans for 1993-94

Ground information will be obtained for the remaining one-third of the study area.

Preliminary land cover classes will be re-evaluated in an attempt to increase accuracy of the classification system. The ground information will then be analyzed and the land-cover classification will be completed.

All wildlife information will be overlaid on the land-cover map using the Geographic Information System. Key habitats will then be identified.

Publications and Reports

Department of Renewable Resources. Progress report to Canada Centre for Remote Sensing. June, 1993. Vegetation/land cover mapping in the Northern Richardson Mountains.

Cooperating Agencies: Canadian Wildlife Service
Polar Continental Shelf Project (PCSP)
Northern Oil and Gas Action Program (NOGAP)

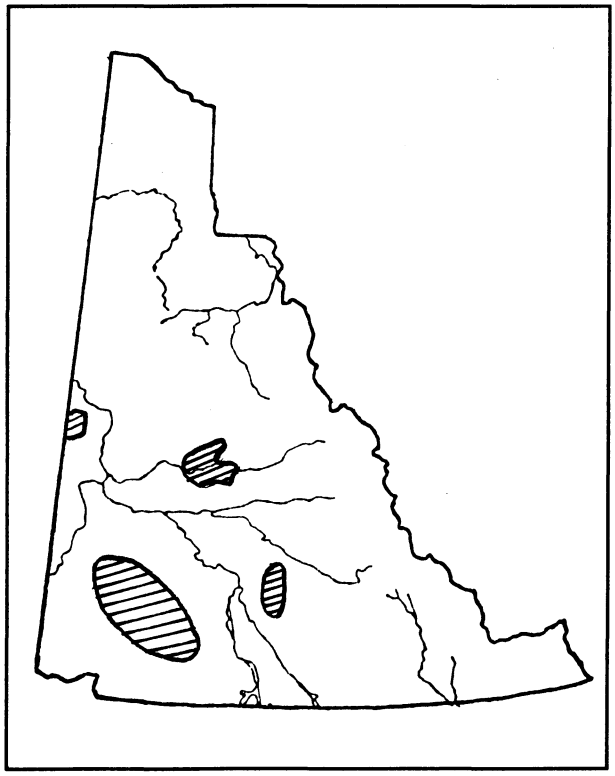
Budget: Funding was provided primarily by the federal government through its commitment to the Inuvialuit Final Agreement (IFA). Federal funds were allocated to this project by the Inuvialuit Game Council.

Yukon Government: $0.0 Cooperators: $205,000 (IFA)
$ 70,000 (NOGAP)
$ 15,500 (PCSP)

Contacts: Val Loewen, Habitat Inventory Coordinator, 667-5281
Jennifer Staniforth, North Yukon Habitat Biologist, 667-3649

Moose

Moose Population Composition Surveys



Mayo and Dawson areas.

Project Description

The objective of this project is to measure late winter recruitment in four areas in the Yukon concurrently in order to detect regional differences and to measure recruitment in consecutive years in order to detect temporal differences.

Another objective is to compare recruitment information in the Aishihik/Kluane area to areas not affected by wolf reduction. By comparing calf survival rates inside and outside the wolf reduction area, biologists will be able to determine if changes in Aishihik calf survival rates are the result of wolf reduction or some other environmental factor.

This is a minimum three-year project beginning in February, 1993. Field work in 1993-94 will be carried out in February and March in the Aishihik, Big Salmon River,

Progress to Date

The first surveys were carried out in March, 1993 to assess the over-winter survival rate of moose calves before wolf reduction. Calf survival rates were similar in all four areas surveyed. Calves made up 10% of the Aishihik and Big Salmon River area populations, 7% of the Dawson area population, and 12% of the Mayo area population. Comparable information on late-winter calf survival is limited but these values are within the range normally seen in stable or declining moose populations surveyed in the fall. Increasing moose populations generally contain at least 15% to 25% calves in the fall.

The fact that the Dawson, Laberge and Mayo areas also had relatively low proportions of calves in March, 1993 suggests wide-spread environmental factors had a negative impact on 1992 calf recruitment.

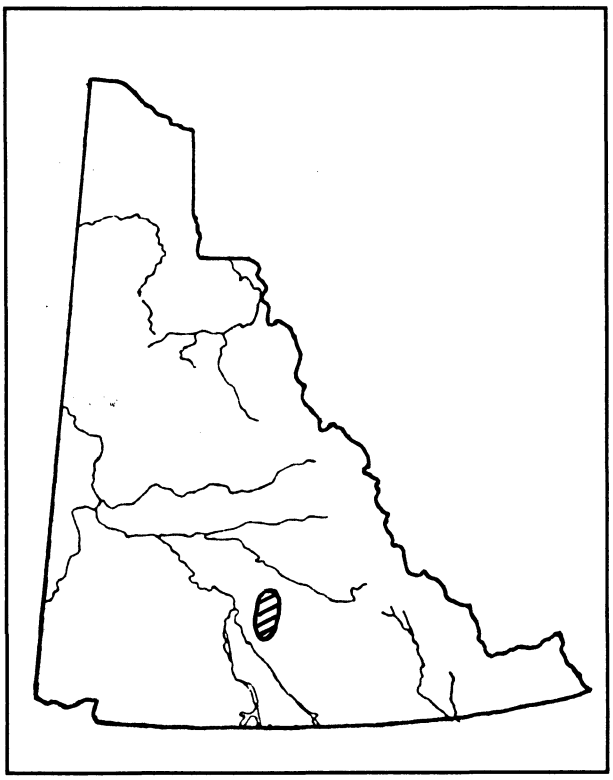
Plans for 1993-94

All four areas will be re-surveyed in February and March, 1994 after one year of wolf reduction at Aishihik. If the program has been effective in increasing moose calf survival we expect to see a significant increase in the proportion of calves in the late-winter Aishihik moose population. The proportion of calves in the other populations should remain relatively constant.

Budget: Yukon Government: $22,000

Contact: Rick Ward, A/Moose Biologist, 667-5787

Fall Moose Population Survey of the Big Salmon River Area



Project Description

The Big Salmon River area is an area that has not been previously surveyed for moose. As part of our ongoing inventory program, the density and composition of this population will be determined.

The Big Salmon River area is one of two "control areas" set up to compare to the Aishihik "experimental area" where a wolf reduction effort is underway. This project is monitoring the Big Salmon River moose population over the period of the Aishihik wolf reduction effort.

By comparing moose population trends inside and outside the wolf reduction area, biologists will be able to determine if changes in the Aishihik moose population are the result of wolf reduction or some other environmental factor.

In addition to acting as a control for the Aishihik experimental area, this project will improve our knowledge of the Big Salmon moose population.

This is the first year of this ongoing project. Current-year field work will be carried out in November, 1993.

Progress to Date

Initial results will be available in early 1994.

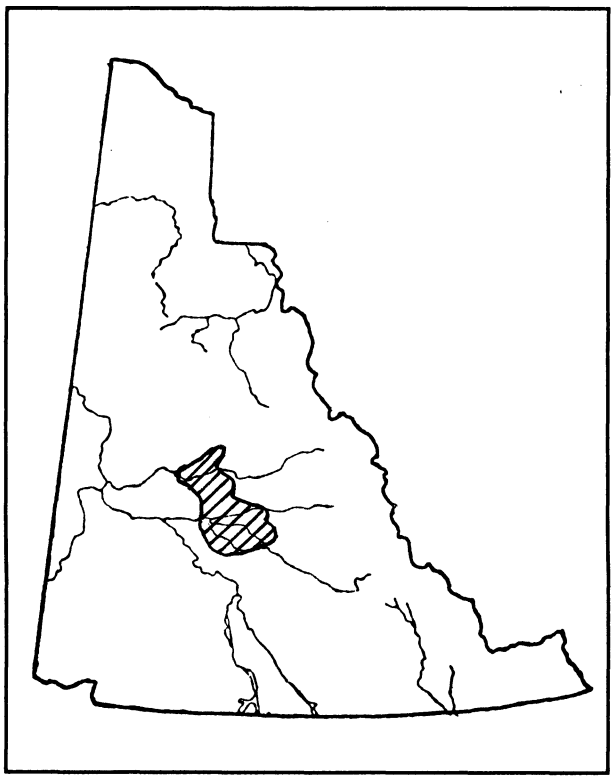
Plans for 1993-94

Moose populations in the Big Salmon River area will be surveyed to determine population abundance, composition and trend. The survey will be conducted in late October or November.

Budget: Yukon Government: $35,000

Contact: Rick Ward, A/Moose Biologist, 667-5787

Fall Moose Population Survey of the Mayo Area



Project Description

Mayo is a high moose management priority, which is periodically surveyed to track population performance. This area was last surveyed in 1988.

The Mayo Resource Council has requested current information on moose populations in the area.

Mayo is also one of two "control areas" set up to compare to the Aishihik "experimental area" where a wolf reduction effort is now underway. This project will be monitoring the Mayo area moose population over the period of the Aishihik wolf reduction effort.

By comparing moose population trends inside and outside the wolf reduction area, biologists will be able to determine if changes in the Aishihik moose population are the result of wolf reduction or some other environmental factor.

In addition to acting as a control for the Aishihik experimental area, this project will improve our knowledge of the moose population in the Mayo area.

This is the first year of this ongoing project. Current-year field work will be carried out in November, 1993.

Progress to Date

Initial results will be available in early 1994.

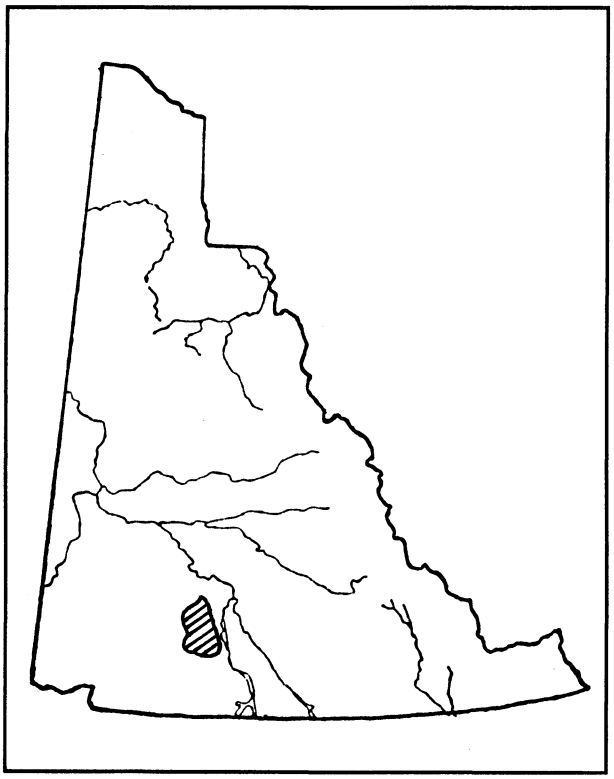
Plans for 1993-94

The Mayo area moose population will be surveyed to determine abundance, composition and trend. The survey will be conducted in late October or November.

Budget: Yukon Government: $50,000

Contact: Rick Ward, A/Moose Biologist, 667-5787

Fall Moose Population Survey of the Whitehorse North Area



Project Description

The Whitehorse North area was last surveyed in the fall of 1982. Since then, moose populations to the west and south have undergone dramatic declines. There is concern that a similar decline may have occurred in the Whitehorse North area.

This project will survey the Whitehorse North moose population to determine abundance, composition and trend. The updated information will be used to determine whether current regulations are strong enough to protect the population from over-harvest. It will also be used to help set harvest quotas when land claim agreements are implemented in the future.

This survey will also test the feasibility of using airplanes instead of helicopters to obtain population data (see p. 62).

Progress to Date

Initial results will be available in early 1994.

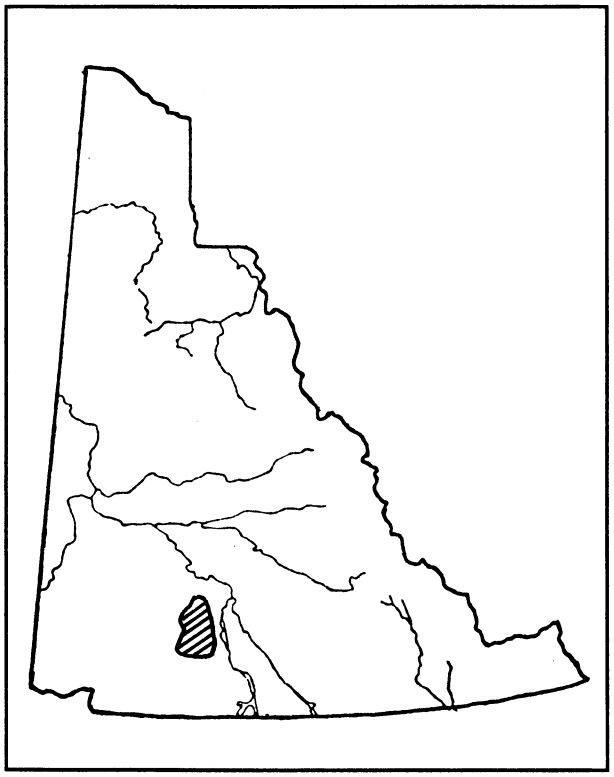
Plans for 1993-94

Piper Super Cubs will be used to survey the Whitehorse North area moose population in late October or November to determine population abundance, composition and trends.

Budget: Yukon Government: $50,000

Contact: Rick Ward, A/Moose Biologist, 667-5787

Development of a Cost-effective Procedure to Determine Moose Population Trends



Project Description

This project is investigating cost-effective survey methods that would enable the department to track moose populations more closely and manage the harvest more pro-actively.

The cost of the traditional aerial survey method used in the Yukon makes it difficult to conduct regular surveys of moose population trends. This situation increases the risk of a population decline going unnoticed until it is too late to respond quickly with hunting restrictions that might help stop the decline.

This ongoing project began in 1992. Current-year field work will be carried out in November, 1993 in the Whitehorse North area.

Progress to Date

The costs and accuracy of information obtained by using airplanes instead of helicopters has been explored through a computer simulation exercise. The simulation suggests that costs can

be reduced by 40 per cent by using slow-flying, high-performance airplanes with limited helicopter support to check the proportion of moose missed by the fixed wing observers.

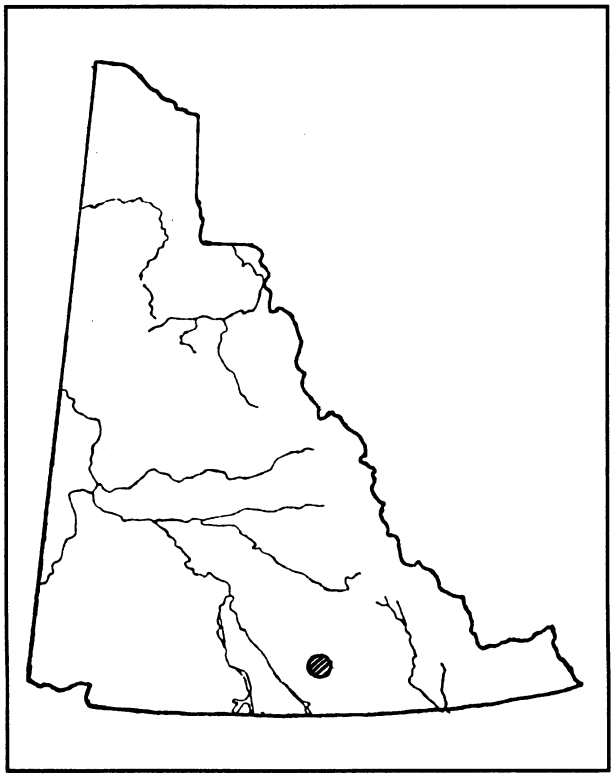
Plans for 1993-94

The proposed survey technique will be tested in a moose survey of the Whitehorse North area.

Budget: Yukon Government: $35,000

Contact: Cor Smits, Special Projects Biologist, 667-5087

Fish Lake Moose Population Trend Survey



Project Description

This project is experimenting with a lower-cost moose population survey technique. The need for up-to-date information on moose populations is increasing because of intense harvest pressure and impending land claim requirements. At the same time budgets are remaining fixed or declining.

To help meet the demand for more information at a lower cost, the department is testing an alternative survey technique in the Fish Lake and North Canol areas (see p. 65). The test involves carrying out annual trend surveys between the intensive aerial surveys which are conducted at five-year intervals. (Another type of lower-cost moose survey technique is being tested in the Whitehorse North area (see p. 61).

A trend survey is carried out in a small sample area with the hope that the results are representative of a larger surrounding survey area. An intensive aerial survey involves a complete search of the entire survey area. The results of intensive surveys can be used to check the accuracy of information obtained through trend surveys.

This long-term project began in 1989. Current-year field work will be carried out over a two week period in November, 1993.

Progress to Date

Trend surveys have been carried out in the Fish Lake area since 1989 and will likely continue for at least one more year. Results to date have been encouraging but inconclusive. Population estimates obtained through this technique vary considerably from one year to the next. The question of whether the results of these surveys can be extrapolated to a larger area also needs to be addressed.

Plans for 1993-94

The trend survey technique will be used to survey moose populations in the Fish Lake area in November, 1993.

Publications and Reports

Larsen, D.G. and R.M.P. Ward. 1990. Summary of Yukon moose population trend survey results 1988 and 1989. ST-90-4.

Larsen, D.G. and R.M.P. Ward. 1991. Summary of moose trend survey results 1990. SR-91-5.

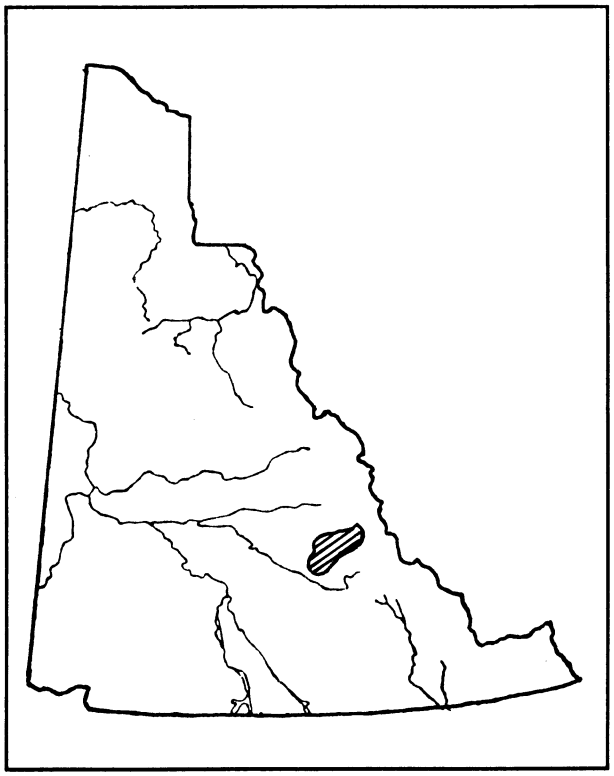
Smits, C., T. Hunter and D. Bakica. 1992. Summary of aerial trend survey for moose in 1991. PR-92-3.

Smits, C., D. Bakica and T. Hunter. 1993. Summary of aerial trend survey for moose in 1992. PR-93-2.

Budget: Yukon Government: $2,500

Contact: Rick Ward, A/Moose Biologist, 667-5787
Cor Smits, Special Projects Biologist, 667-5087

North Canol Moose Population Trend Survey



Project Description

To help meet the demand for more information at a lower cost, the department is experimenting with an alternative moose population survey technique. The alternative technique is being tested in the North Canol and Fish Lake areas (see p. 63). The test involves carrying out annual trend surveys between the standard intensive aerial surveys which are generally conducted at five-year intervals. The results of intensive aerial surveys will be used to check the accuracy of information obtained through the trend survey technique. (Another type of lower-cost moose survey technique is being tested in the Whitehorse North area (see p. 61).

This long-term project began in 1989. Current-year field work will be carried out in November, 1993.

Progress to Date

Trend surveys have been carried out in the North Canol area since 1989 and will likely continue for at least one more year. The results to date have been encouraging but inconclusive. Population estimates obtained through this technique vary considerably from one year to the next. The question of whether the results of these surveys can be extrapolated to a larger area also needs to be addressed.

Plans for 1993-94

The trend survey technique will be used to survey moose populations in the North Canol area.

Publications and Reports

Larsen, D.G. and R.M.P. Ward. 1990. Summary of Yukon moose population trend survey results 1988 and 1989. ST-90-4.

Larsen, D.G. and R.M.P. Ward. 1991. Summary of moose trend survey results 1990. SR-91-5.

Smits, C., T. Hunter and D. Bakica. 1992. Summary of aerial trend survey for moose in 1991. PR-92-3.

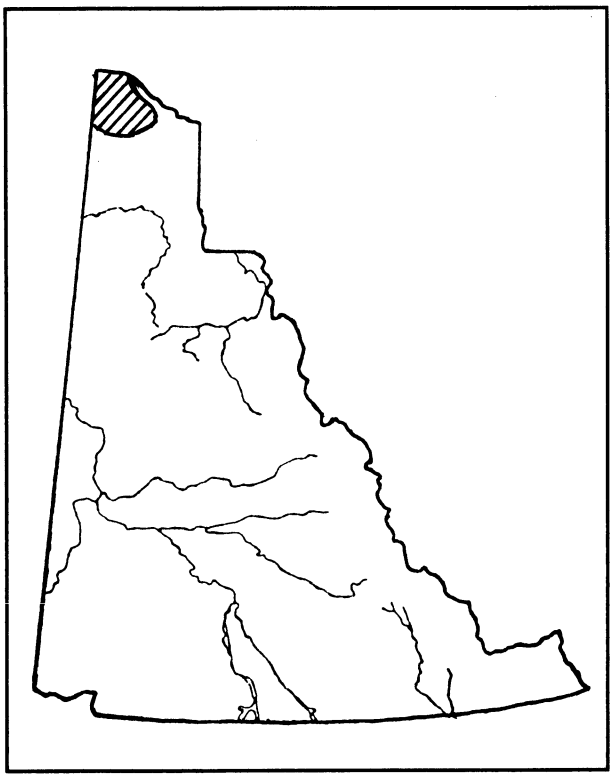
Smits, C., D. Bakica and T. Hunter. 1993. Summary of aerial trend survey for moose in 1992. PR-93-2.

Budget: Yukon Government: $4,500

Contact: Cor Smits, Special Projects Biologist, 667-5087

Muskoxen

Muskoxen Distribution and Habitat Use on the Yukon North Slope



Project Description

This project is collecting information about the size, composition, seasonal distribution, and habitat use of the Yukon muskoxen population. The data will be used to assess and mitigate the potential impacts of hydrocarbon development on muskoxen and their habitat.

A population of muskoxen became established in the western part of the Yukon North Slope in the 1980s. The animals moved in from the Alaska North Slope where they had been re-introduced in 1969-70. The Yukon population is currently expanding into unoccupied range to the east but little is known about its size or seasonal habitat use.

This two-year project began in 1992. Field work will be conducted throughout 1993 and 1994.

Progress to Date

The first survey of the Yukon muskoxen population was carried out in March, 1993. The survey revealed a population size of 157 animals.

Three adult cows were fitted with satellite collars to help determine their seasonal distribution and habitat use.

Plans for 1993-94

The locations of three satellite-collared muskoxen will be monitored throughout 1993-94. The collared muskoxen will be recaptured and their satellite collars will be removed at the end of this project.

A survey of muskoxen distribution during the summer season will be carried out. A ground count will be conducted in July to determine the sex and age composition of muskoxen herds.

Faecal samples will be collected at three-month intervals and analyzed for botanical composition. The snow characteristics of winter feeding sites will also be investigated.

Publications and Reports: The current-year report is due May 31, 1994.

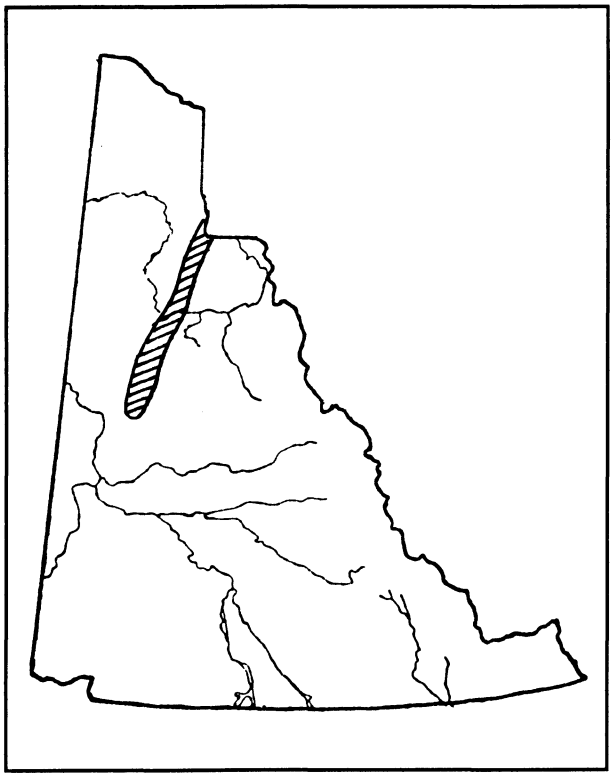
Cooperating Agencies: Government of Canada (Northern Oil and Gas Action Program)

Budget: Yukon Government: $0.0 Cooperators: $80,000

Contact: Cor Smits, Special Projects Biologist, 667-5087

Non-Game and Endangered Species

Dempster Corridor Wildlife Interpretive Project



Project Description

This project provides information about raptors and other Dempster corridor wildlife for the Dempster Highway Interpretive Centre. It also identifies viewing opportunities for the rarer birds of prey and provides protective surveillance for nesting raptors.

Raptors have a very high value as interpretive opportunities for tourists and other highway travellers. The birds are likely to disappear from the corridor unless specialized management is in place to protect them and their habitat.

This ongoing project began in 1983. Field work in 1993-94 will be carried out June 10 to August 31.

Progress to Date

The Dempster corridor has been thoroughly surveyed for nesting birds of prey. An unusual density of rare birds was identified during the surveys. A natural history interpretive program was developed for the corridor over the years of surveying work.

The interpretive centre has been operating through the summer season since 1987. Visitor expectations have been surveyed through questionnaires distributed at the centre. The results show that 90-100 percent of visitors are interested in seeing wildlife.

Most visitors need help to find and understand wildlife and ecological phenomenon. Experiments with organized hikes led by interpretive staff have been very successful. Although visitor interest in wildlife has ranged widely from insects to plants, large mammals continue to attract the greatest interest.

Experimental nesting structures will be monitored for use by small owls and great grey owls through the summer of 1993. Constant surveillance of human activity will be carried out near all vulnerable nesting sites and all young peregrines will be banded.

The Dempster Interpretive Centre will continue to provide interpretive services and materials to highway travellers through the summer season. New displays will be designed and a new interpretive trail at Moose Lake will be planned along with a format for interpretive signs.

Publications and Reports

Mossop, D. and R. Hayes. 1978. Birds of Prey and the Dempster Transportation Corridor.

McEwen, C. and J. Majiski. 1987. Dempster Interpretive Centre/Raptor Research Project.

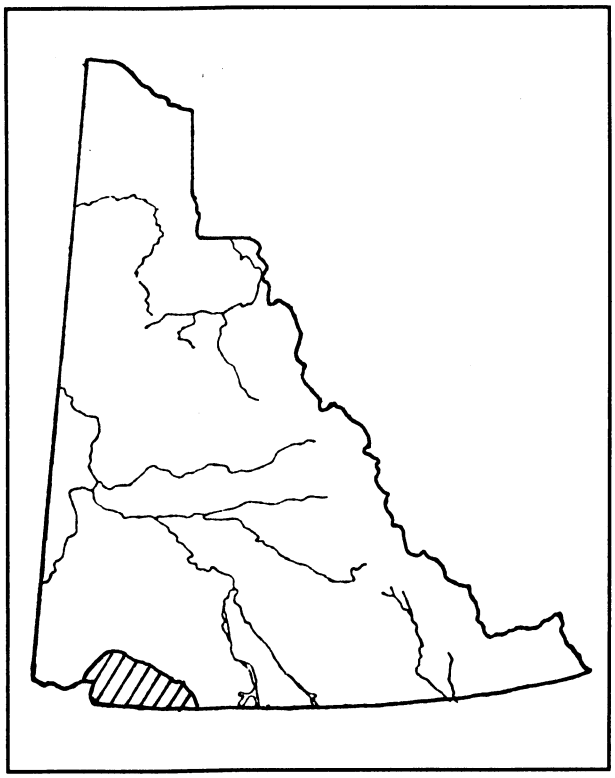
Pattimore, J. 1992. Dempster Interpretive Centre/Raptor Research Project.

Cooperating Agencies: Yukon Department of Tourism

Budget: Yukon Government: $8,000 Cooperators: $10,000

Contact: Dave Mossop, Coordinator, Non-Game Management, 667-5766

Gyrfalcon Breeding Ecology and Management



Project Description

This project carries out an annual survey of the gyrfalcon population in the BC-Yukon border region of the Coast Mountains.

The gyrfalcon is a rare and vulnerable northern raptor. Gyrfalcons in the Coast Mountains of the BC-Yukon border region are managed through a cooperative agreement between the governments of Yukon and British Columbia.

This ongoing project began in 1985. Field work in 1993-94 will be carried out in June in the Coast Mountains south of Whitehorse.

Progress to Date

It has been shown that the reproductive success of gyrfalcons follows a 10-year cycle which apparently tracks the population cycle of their most important prey, the ptarmigan. Gyrfalcon numbers hit an all-time low in 1992 and are expected to increase this year.

Plans for 1993-94

The reference population in the Coast Mountains will be surveyed in June, 1993.

Publications and Reports

Department of Renewable Resources. Annual reports: 1981-86.

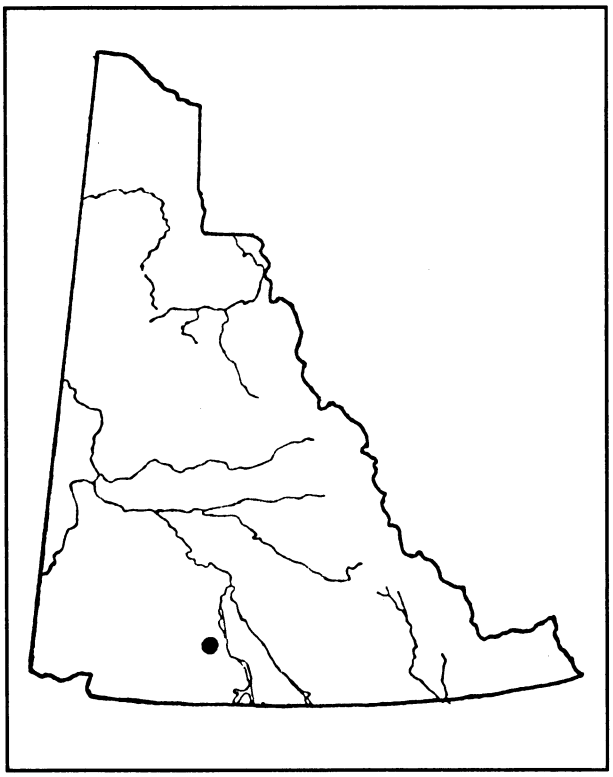
Mossop, D. and R. Hayes. Long-term trends in the breeding density and productivity of Gyrfalcon (Falco rusticolus) in the Yukon Territory.

Cooperating Agencies: Wildlife Branch, Government of British Columbia

Budget: Yukon Government: $1,500 Cooperators: $1,000

Contact: Dave Mossop, Coordinator, Non-Game Management, 667-5766

Migration Watch in Relation to Wind Turbine Towers in the Whitehorse Area



Project Description

This project is monitoring the flight paths of birds navigating the Yukon River valley at Whitehorse during the spring and fall migrations.

A preliminary assessment of the wind turbine project on Haeckel Hill identified a potential problem with bird collisions. The Whitehorse area acts as a corridor for large numbers of swans and other waterfowl during the spring and fall migration periods.

This one-year project began in April, 1993. Field work in 1993-94 will be carried out from April 15 to May 15.

Progress to Date

An initial survey was conducted during the spring migration period of 1993. The survey showed large numbers of waterfowl navigating the valley at Whitehorse and executing relatively complicated course changes near the turbine site. No obvious conflicts have been observed to date.

Plans for 1993-94

Intensive watches will be conducted in 24-hour periods from April 15 to May 15 at the Haeckel Hill lookout. All flocks and single birds will be mapped and their flight heights and lines will be charted. All towers, structures and ridge tops in the Whitehorse area will be examined for evidence of bird collisions at regular intervals throughout the year.

The fall migration will be monitored during September and October, 1993.

Publications and Reports

Mossop, D. 1993. Proposal: Bird strike potential, Haeckel Hill wind turbine.

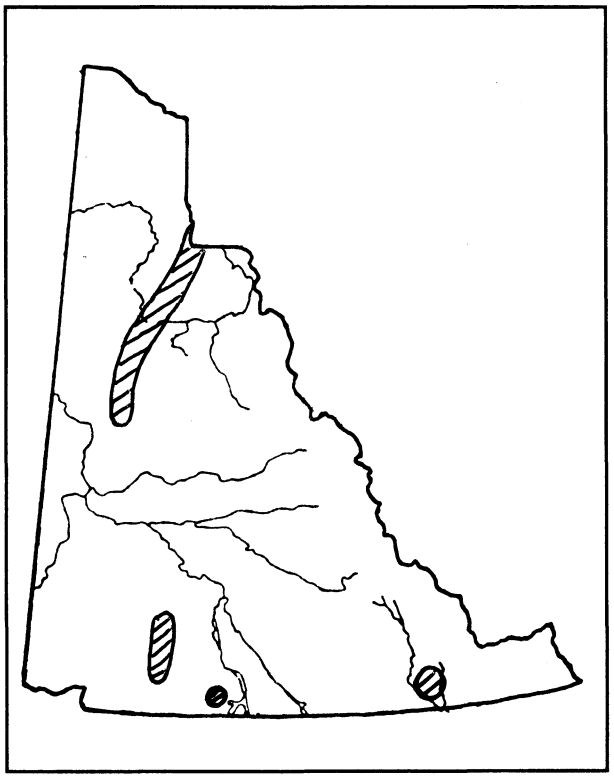
Mossop, D. and K. Egli. 1993. Bird Strike Monitoring, Haeckel wind turbine, Summer 1993. Interim report.

Cooperating Agencies: Yukon Electrical Company

Budget: Yukon Government: $500 Cooperators: $7,000

Contact: Dave Mossop, Coordinator, Non-Game Management, 667-5766

Non-game Bird Inventory and Monitoring



Project Description

This project is carrying out inventories of raptors and other non-game bird species in selected locations. Inventory results are used to support species management plans, land use decisions, and wildlife interpretive programs.

This is an ongoing project which began in 1974. Field work in 1993-94 will be carried out June 1-10 in the Dempster Highway corridor, Aishihik Road corridor and at Wye Lake near Watson Lake.

Progress to Date

Raptor species have been inventoried extensively in representative ecoregions throughout the Yukon. The results have provided a good picture of the distribution and abundance of these important species. Other non-game bird species have not been studied so extensively. They have been inventoried only as required by park or highway developments such as Herschel Island Territorial Park, Coal River Springs Territorial Park and the Dempster Highway.

Plans for 1993-94

Breeding bird surveys will be conducted in the Aishihik Road corridor and the Dempster Highway corridor.

Reconnaissance surveys will also be conducted in the proposed territorial park at the Carcross dunes.

Bird themes will be researched for an interpretive display to be installed at Wye Lake near the community of Watson Lake.

Publications and Reports

Annual Reports, 1975-1984.

Mossop, D., K. Guenter and R. Hayes. 1984. Raptor Inventory and Management Planning (North Slope).

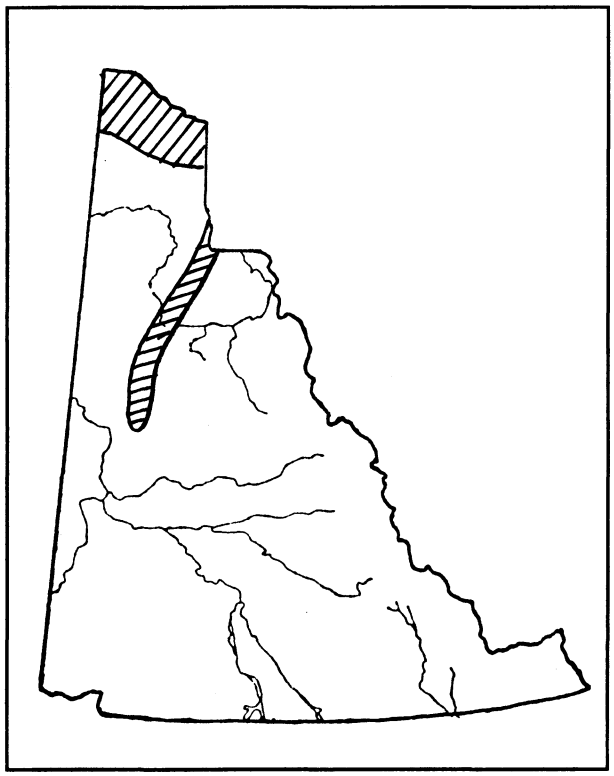
Mossop, D. 1987. Bird of Prey Inventory, Kusawa Lake Area.

Cooperating Agencies: Department of Tourism
Canadian Wildlife Service

Budget: Yukon Government: $1,000 Cooperators: $0.0

Contact: Dave Mossop, Coordinator, Non-Game Management, 667-5766

Peregrine Falcon Recovery Project



Project Description

This project is part of the Yukon contribution to the Canadian Peregrine Recovery Project. The peregrine falcon became an endangered species in the 1960s when it disappeared from most of its former range in Canada.

The Yukon project is monitoring the population status of two types of peregrines: the interior race and the arctic race. Attempts were made earlier in the project to supplement both populations with the introduction of captive-raised young.

This ongoing project began in 1978. Field work in 1993-94 will be carried out June 1 to August 10 on the North Slope and along the Dempster Highway corridor.

Progress to Date

When the peregrine disappeared from its former range in the 1960s, a small remnant population remained in the Yukon. This population was used to establish captive breeding programs which provided birds for re-introduction to former ranges in the Yukon and elsewhere.

The Yukon interior race of peregrine has recovered well since 1978 and continues to expand into vacated habitat. Over 100 pairs are now producing young each year.

The Yukon arctic race of peregrine has not recovered to date. One breeding pair has recently become established and another two are attempting to breed.

Plans for 1993-94

The project is now concentrating on locating and monitoring the arctic race birds. A survey of all potential habitat will be conducted in 1993 along with a search for breeding pairs and banded birds released in earlier attempts to re-establish the population.

The interior race will be monitored in the Dempster Highway corridor.

Publications and Reports

Annual reports since 1978.

Mossop, D. 1986. Peregrine Falcon Recovery Project 1986.

Mossop, D. 1990. The Status of the Peregrine Falcon in the Yukon Territory.

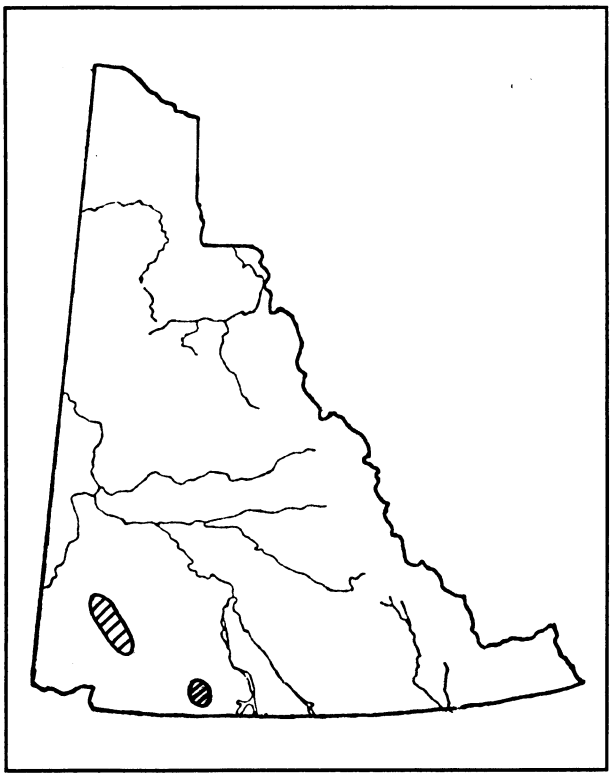
Cooperating Agencies: Canadian Peregrine Recovery Team
Polar Continental Shelf Project

Budget: Yukon Government: $2,000 Cooperators: $25,000

Contact: Dave Mossop, Coordinator, Non-Game Management, 667-5766

Sheep and Goats

Dall Sheep Population Monitoring



Project Description

The surveys being carried out for this project are important to the ongoing sheep management program because most of this area has not been surveyed since 1974.

This project also assesses what effect, if any, the Aishihik wolf reduction effort is having on sheep populations in the southwest Yukon.

The impacts of the Aishihik wolf reduction effort must be measured carefully to increase our understanding of how this type of program affects the broader ecosystem. Information obtained through the current program will provide an improved basis for decision making in the future.

This ongoing project began in 1992. Field work in 1993-94 will be carried out in the Ruby Range.

Community Involvement

The Kluane First Nation and the Champagne and Aishihik First Nations are providing observers to help with the sheep survey in their traditional territories. Additional community involvement is provided through the Aishihik Steering Group (see p. 106).

Progress to Date

In 1992, subzones 5-31, 5-34 , 5-36 (inside wolf reduction area) and subzones 7-23 and 7-30 (outside wolf reduction area) were surveyed for sheep as part of the ongoing management program. Sheep were counted, classified by sex and age class, and their distribution was recorded.

Plans for 1993-94

In 1993-94, sheep populations in subzones 5-31, 5-34, 5-36, 7-23 and 7-30 will be resurveyed. Populations in remaining parts of the Aishihik study area will be surveyed for the first time.

Publications and Reports

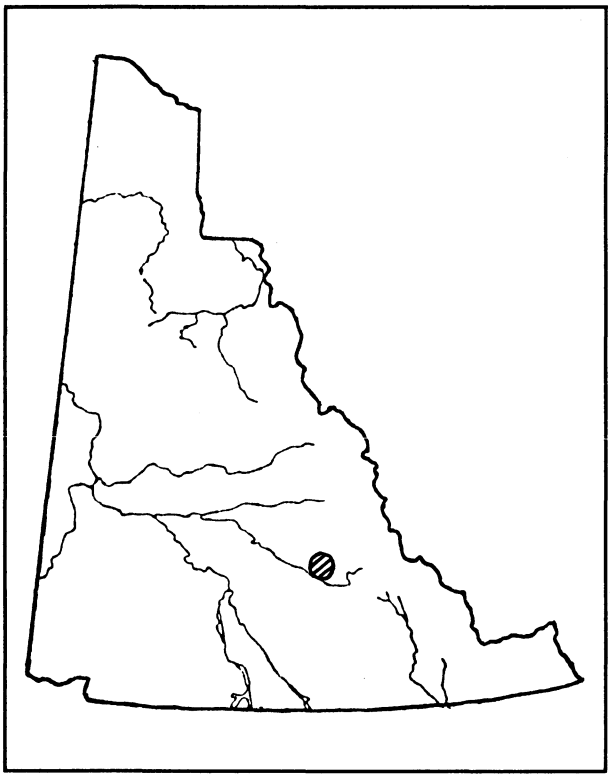
Aishihik and Kluane Caribou Recovery Program, Technical Progress Report, November 1992 to October 1993. (in prep.)

Cooperating Agencies: Champagne and Aishihik First Nations
Kluane First Nation

Budget: Yukon Government: $31,500 Cooperators: $0.0

Contact: Jean Carey, Sheep and Goat Biologist, 667-5849

Mount Mye Sheep Monitoring Project



Project Description

Curragh Resources' development of open pit mines on the Vangorda Plateau in the late 1980s raised concerns about impacts on the local Fannin sheep population. This project is monitoring those impacts.

This ongoing project began in 1986. Field work in 1993-94 will be carried out in July.

Community Involvement

The Faro Fish and Game Association and the Town of Faro are involved in planning and carrying out habitat improvement work related to this project. Wildlife viewing facilities are being constructed by Faro residents with funding provided by the Community Development Fund.

Progress to Date

Annual surveys of the Fannin sheep population have been conducted since 1986. So far, the population of 80 to 100 sheep has remained stable in spite of mining developments on the Vangorda Plateau.

Mount Mye was closed to sheep hunting in 1989.

Plans for 1993-94

The status and reproductive performance of the sheep population will be assessed through an aerial survey in July, 1993.

Habitat enhancement work will be carried out and wildlife viewing opportunities will be developed in the summer of 1993.

Publications and Reports

Hoefs, M. 1988. Management Plan for the Faro Sheep Population.

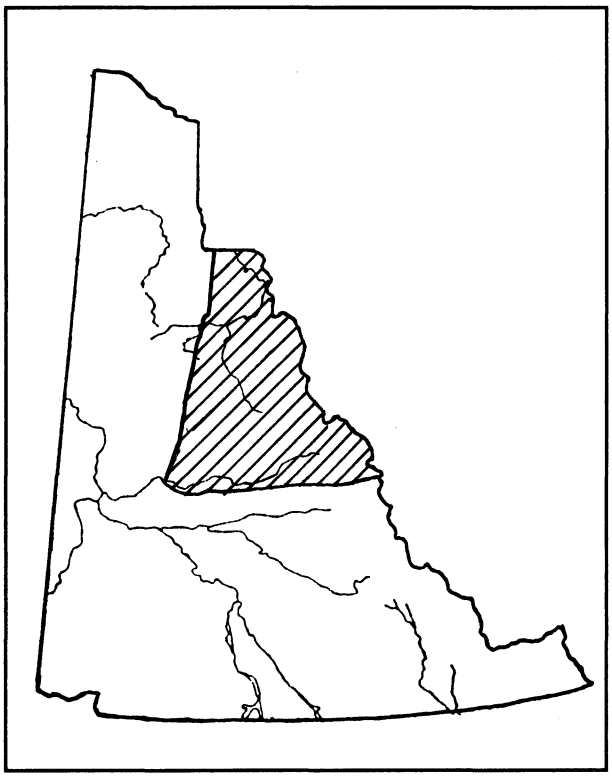
Cooperating Agencies: Faro Fish and Game Association
Town of Faro

Budget: Yukon Government: $8,000 Cooperators: $0.0

Contact: Manfred Hoefs, Chief, Habitat Management and Research, 667-5671

Special Projects

Mayo Wildlife Management Plan



Project Description

This project is developing a multi-species wildlife management plan for the Mayo region. It is part of a broader effort to begin implementing the wildlife management processes envisioned in the Umbrella Final Agreement (UFA) on land claims. Under the UFA and the Nacho Nyak Dun Final Agreement, wildlife will be managed cooperatively with First Nation governments. Local Renewable Resource Councils will be the "primary instruments" for this process.

Community Involvement

The Mayo District Renewable Resources Council (MDRRC) is playing a lead role in this project. One of the council's primary functions is to ensure local information and traditional management practices are incorporated into the Mayo wildlife management plan. The council will continue to act as a forum for local decision-making as the plan is implemented.

The Nacho Nyak Dun First Nation (NNDFN) is a full partner in this project.

Progress to Date

In 1991 a preliminary status report was prepared to summarize all of the technical information gathered on moose, caribou, sheep, grizzly bear, black bear and wolf populations. This report was reviewed by the MDRRC. It was also used as the basis for interviewing local resources users about their knowledge and perspectives on wildlife management issues in the Mayo area.

In 1992 the status report was revised and the local knowledge gathered through interviews was compiled and reviewed by the MDRRC. This background information formed the basis for a wildlife reference manual for the Mayo area. The manual will be updated as new information becomes available.

A format for the Mayo wildlife management plan was developed along with a mechanism for implementing the plan using the MDRRC as the "primary instrument" of implementation.

Plans for 1993-94

The Mayo wildlife management plan will be completed over the summer of 1993. Implementation will begin in the fall of 1993 through a series of workshops involving the MDRRC, the NNDFN and local outfitters.

Publications and Reports

Larsen, D. and D. Cooley. 1992. Wildlife Information for the Na-Cho N'Y'ak Dun Traditional Territory: A Status Report.

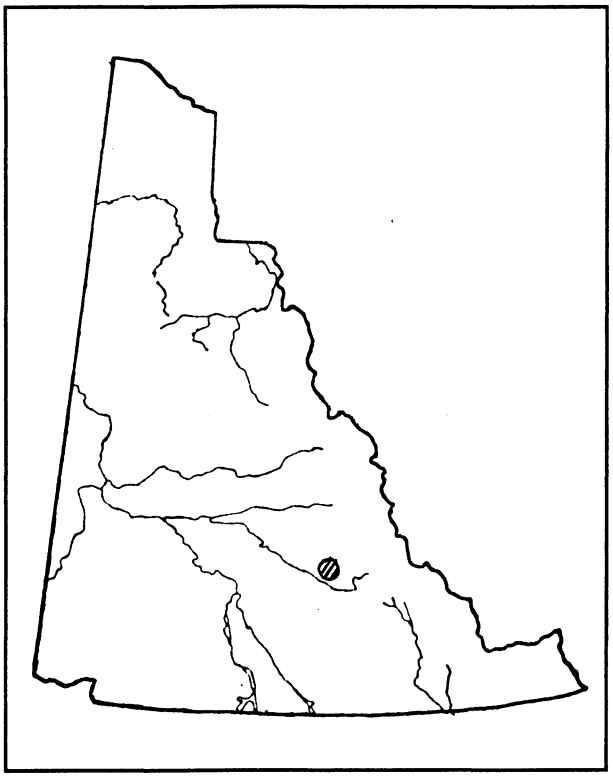
"Comments received from the Mayo Area Wildlife Resource Users (February - May, 1992)."

Cooperating Agencies: Na-cho Na'ak Dun First Nation
Mayo Renewable Resource Council

Budget: Yukon Government: $80,000 Cooperators: $0.0

Contact: Brian Pelchat, Chief, Regional Management Section, 667-5720
Dorothy Cooley, Regional Biologist, Dawson City, 993-6461

North Canol Hunter Check Station



Project Description

This project is monitoring traffic patterns and big game harvests on the North Canol Road. It was initiated after Ross River residents expressed continuing concern about harvest levels along the corridor.

This is the final year of the project which began in 1990.

Progress to Date

A hunter check station was set up at the Pelly River ferry crossing at Ross River. Since 1990, the check station has operated through two complete hunting seasons and one partial season.

Road traffic and the moose harvest peaked during the two middle weeks of September. Traffic levels and moose harvests vary considerably through the remainder of the season and from year to year.

The caribou harvest is moderate throughout the season and relatively consistent from one year to the next.

Plans for 1993-94

Traffic and harvest patterns will be monitored through the 1993 big game hunting season. Data obtained from 1991 to 1993 will be summarized and analyzed.

Publications and Reports: A final project report will be completed by Mar. 31, 1994.

Summary of hunting activity in the Ross River wildlife management area: The North Canol and air charter operations. Department of Renewable Resources. TR-92-8.

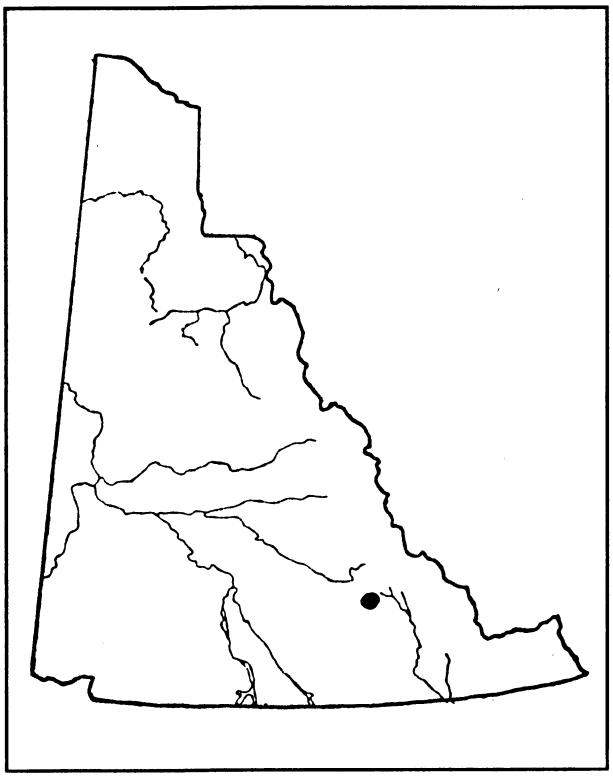
Cooperating Agencies: Ross River Dena Council

Budget: Yukon Government: $10,000 Cooperators: $2,000

Contact: Rob Florkiewicz, Regional Biologist, Watson Lake, 536-7365

Wildlife Viewing

Finlayson Lake Interpretive Project



Project Description

This project is developing a wildlife viewing site at a location overlooking Finlayson Lake on the Robert Campbell Highway. The completed viewing site will include a parking area, viewing deck and interpretive signs.

The goal of the wildlife viewing program is to promote nature appreciation and environmental awareness through provision of interpretative opportunities for both residents and visitors.

Community Involvement

The department consulted with the Ross River Dena Council to develop interpretive information based on Kaska place names and describes traditional use of the area.

Progress to Date

Site plans have been completed, interpretive signs have been produced, and development permits have been obtained from the Department of Community and Transportation Services.

Plans for 1993-94

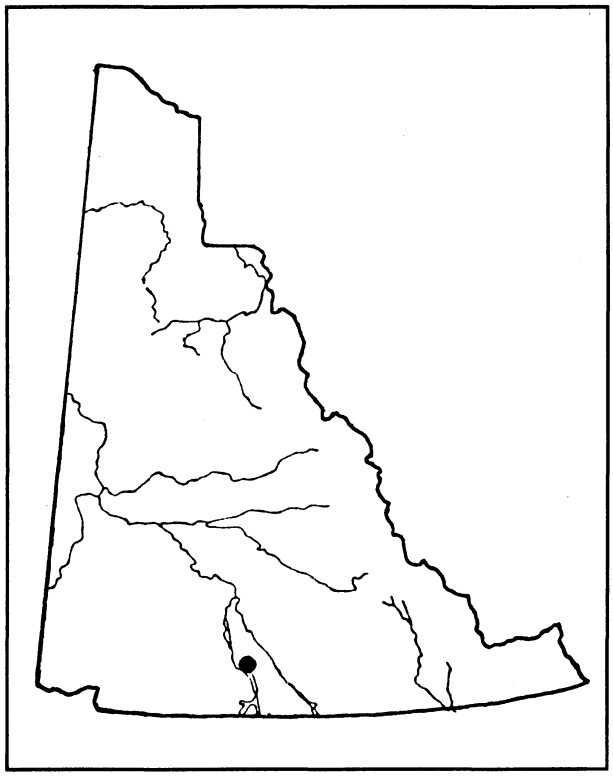
The pull-off site and viewing deck will be built in the summer of 1993. Highway and interpretive signs will be placed shortly afterwards.

Cooperating Agencies: Ross River Dena Council
Department of Community and Transportation Services

Budget: Yukon Government: $20,000 Cooperators: $0.0

Contact: Graham Baird, Wildlife Viewing Program Biologist, 667-8219

M'Clintock Bay Interpretive Centre



Project Description

This project involves the construction of a nature interpretation centre at the M'Clintock Bay waterfowl viewing site. The centre will enrich the viewing experience of visitors by providing information about the life history of waterfowl and their habitat use in the Yukon. At the same time, it will help control viewing activity at the site and protect the waterfowl from disturbance at a critical time of year.

M'Clintock Bay is a major spring waterfowl staging area in the southern Yukon. Whitehorse residents and school children have been travelling to this site to view swans and other waterfowl for many years.

Community Involvement

This is a joint project of Ducks Unlimited, Girl Guides of Canada, and the Yukon government. Each of the three partners contributed equity to the project and will share the use of the building. Members of the Yukon Bird Club volunteered to help paint the building.

Progress to Date

An architectural design has been completed for the interpretive centre and the construction materials have been purchased. The building site has been prepared for construction. The design of the interpretive display which will fixed to a kiosk outside the building has also been completed.

Plans for 1993-94

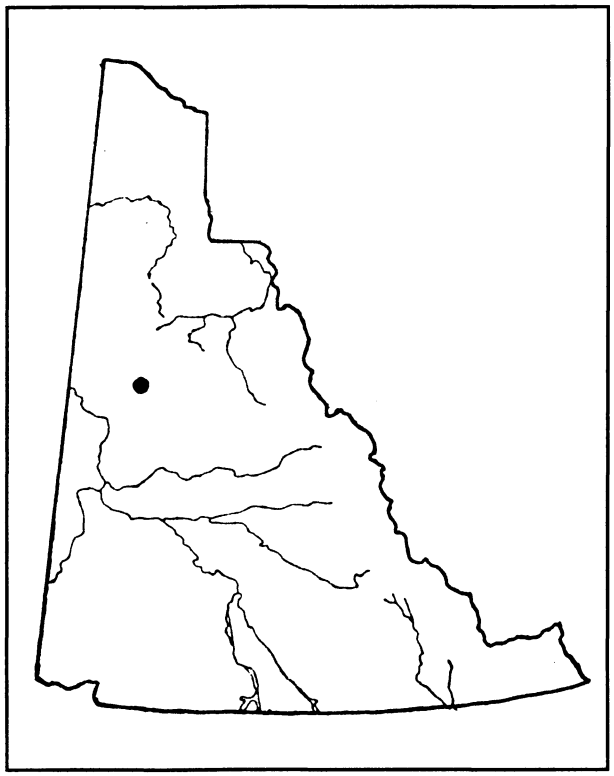
The interpretive centre will be built in the summer of 1993 and the interpretive display will be completed in the spring of 1994.

Cooperating Agencies: Ducks Unlimited
Girl Guides of Canada

Budget: Yukon Government: $42,000 Cooperators: $20,000

Contact: Graham Baird, Wildlife Viewing Program Biologist, 667-8291

Moose Lake Interpretive Project



Project Description

This project involves the development of a wildlife viewing site at Moose Lake (km 102) on the Dempster Highway.

The Dempster Highway attracts thousands of visitors to the northern Yukon every summer. The department is developing selected wildlife viewing sites along the highway to enrich the experience of visitors and to protect wildlife by providing controlled viewing conditions and educating the viewers.

Community Involvement

Discussions have been initiated with the Dawson First Nation to ensure interpretive signs reflect the perspective of the traditional inhabitants of the area.

Progress to Date

Construction of the pull-off site has been completed by the Department of Community and Transportation Services.

Plans for 1993-94

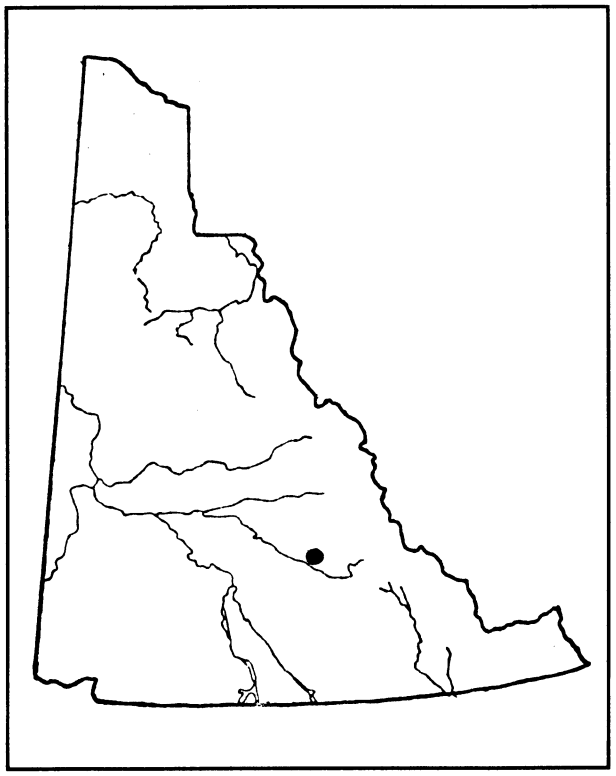
Consultation will continue with the Dawson First Nation and the research and writing component of the project will be completed. Interpretive signs will be produced and the viewing deck will be installed in the summer of 1994.

Cooperating Agencies: Department of Tourism
Department of Community and Transportation Services

Budget: Yukon Government: $15,000 Cooperators: $0.0

Contact: Graham Baird, Wildlife Viewing Program Biologist, 667-8291

South Bluff Viewing Site: Mount Mye



Project Description

This project is developing trails at the Fannin sheep viewing site on Mount Mye.

Easy road access combined with hunting closures and an active habitat enhancement project has created a rare viewing opportunity for this unique form of stone sheep.

Progress to Date

Viewing facility plans were developed in consultation with the Town of Faro and the Faro Fish and Game Association. Designs were completed for a foot trail to be built at the viewing site.

Plans for 1993-94

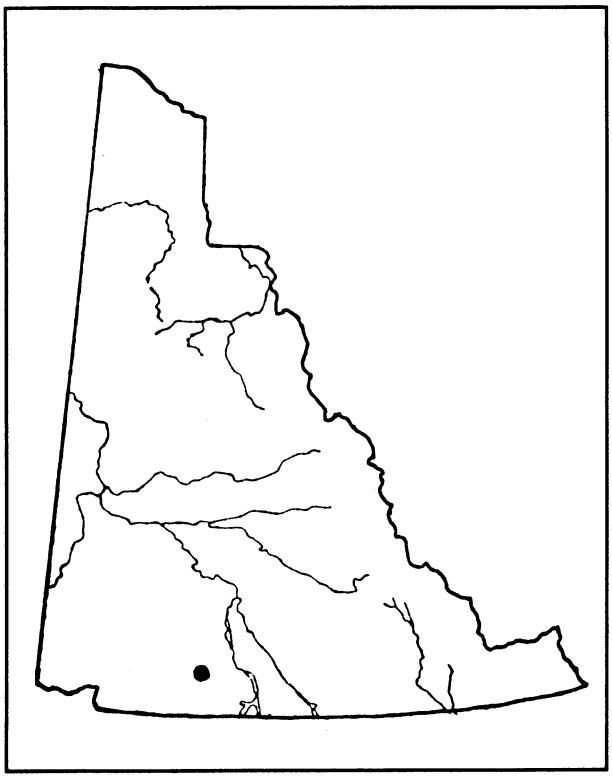
A trail to the viewing site will be brushed out by a crew from the Yukon Youth Conservation Corps.

Cooperating Agencies: Faro Fish and Game Association
Town of Faro

Budget: Yukon Government: $0.0 Cooperators: $0.0

Contact: Graham Baird, Wildlife Viewing Program Biologist, 667-8291

Takhini Burn Interpretive Project



Project Description

This project involves the development of a viewing deck and interpretive signs at the site of the Takhini Valley fire of 1958.

The objective of the wildlife viewing program is to promote nature appreciation and enrich the outdoor recreation experience of visitors and residents alike.

Progress to Date

The pull-off area and viewing deck were built in 1992. Four interpretive signs were produced and installed in 1992 but all of those signs were destroyed by vandals.

Plans for 1993-94

The damaged signs will be replaced and two additional signs will be produced and installed by the Department of Tourism.

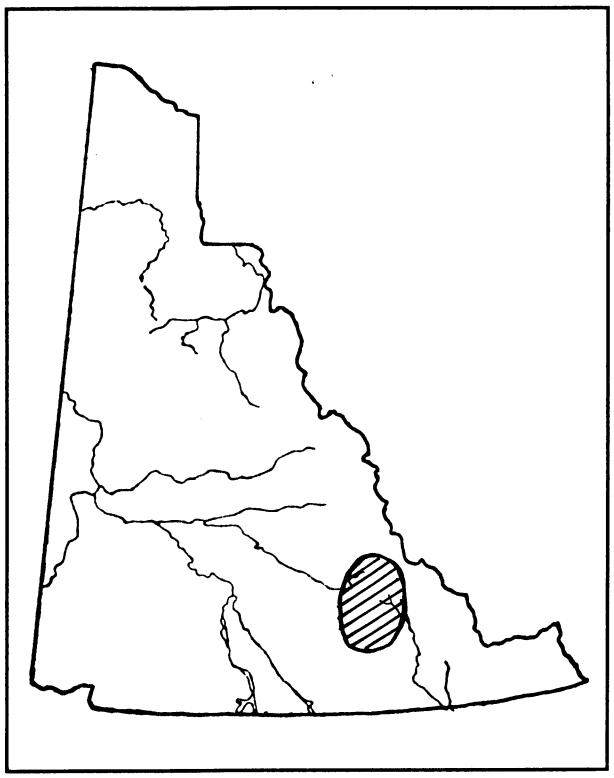
Cooperating Agencies: Department of Tourism
Department of Community and Transportation Services

Budget: Yukon Government: $35,000 Cooperators: $0.0

Contact: Graham Baird, Wildlife Viewing Program Biologist, 667-8291

Wolves

Finlayson Wolf/Ungulate Project



Project Description

A wolf reduction program was conducted on the range of the Finlayson Caribou Herd in the 1980s. This project is monitoring the recovery rate of the wolf population after the end of the seven-year reduction effort. It is also providing information about how wolves respond to increased numbers of prey.

This ongoing project began in 1983. Field work in 1993-94 will be carried out in February/March, May/June and September.

Progress to Date

The seven-year reduction effort held the wolf population to 15-20 per cent of its original size.

Between 1983 and 1989, the Finlayson Caribou Herd grew from 2,500 animals to 7-8,000. The area moose population is currently estimated to number about 10,000 animals, more than triple the 1987 population.

The wolf population has rebounded from a low of 30 in the spring of 1989 to the current estimate of 230-240 in the spring of 1993. When wolf reduction efforts began in 1983 there were 20-22 packs with an average of 8.6 wolves/pack. In 1993, there are 28 packs in the area with an average of 7.6 wolves/pack.

Plans for 1993-94

Four to five wolf packs will be intensively monitored over a one-month period in late winter to examine predation response at various moose densities. Packs will be selected based on differences in moose density between pack areas. A wolf population survey will be carried out again in late winter but radio-collaring will not occur.

Publications and Reports

Larsen, D. and R.M.P. Ward. Moose Population Characteristics in the Frances Lake and North Canol Areas, 1991 (Draft Stage).

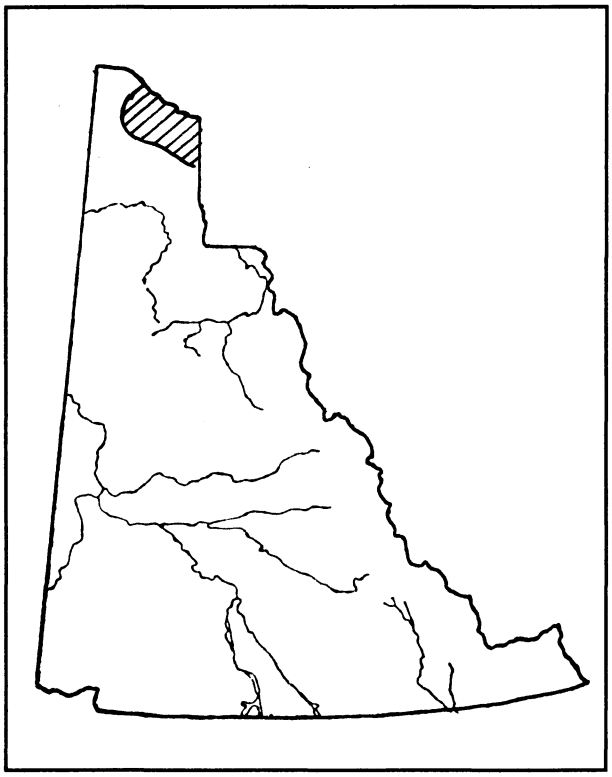
Farnell, R. and J. McDonald. The Demography of Yukon's Finlayson Caribou Herd 1982-1987.

Farnell, R. and R. Hayes. (In prep.) Results of Wolf Removal on Wolves and Caribou in the Finlayson Study Area, Yukon, 1983-1993.

Budget: Yukon Government: $59,000

Contact: Bob Hayes, Wolf Biologist, 667-5469

North Slope Wolf Studies: 1993-95



Project Description

A comparison of current harvest levels and population estimates from a 1987-1990 study suggest that wolf harvests on the Yukon North Slope may be high. This project involves the use of radio and satellite collars to provide an estimate of the wolf population change since 1987. Based on the updated information, recommendations will be made with regard to sustainable harvest levels for North Slope wolves.

Satellite collars are being used in this study because North Slope wolves migrate long distances as they follow the Porcupine Caribou Herd. Their movements are so great that radio-collared wolves are difficult and expensive to re-locate with aircraft.

This two-year project began in 1993. Current year field work will be carried out in April 1993 and March 1994.

Progress to Date

Seven conventional radio collars and eight satellite collars were placed on wolves in April, 1993.

The locations of satellite collars will be documented over the winter of 1993-94. Radio-tracking of the conventional collars will be carried out four or five times in 1993-94. All collars will be retrieved in April, 1994.

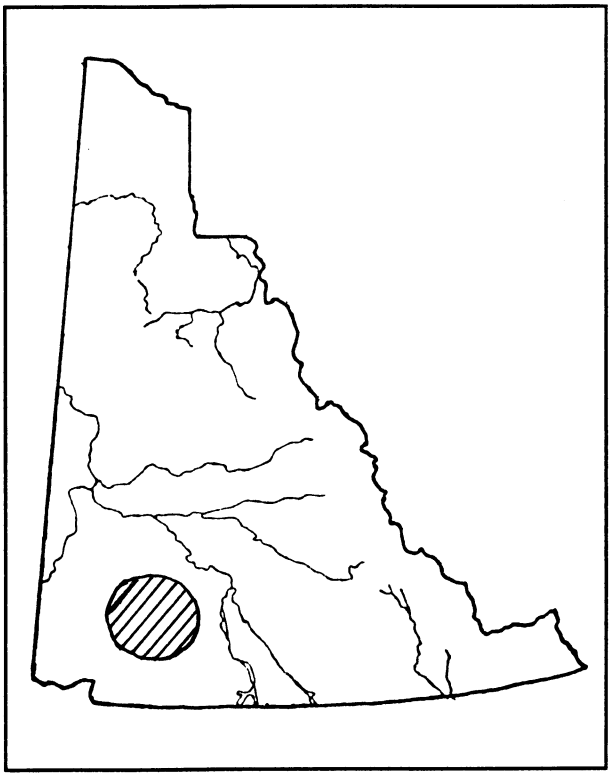
Cooperating Agencies: Government of Northwest Territories

Budget: Yukon Government: $80,000 Cooperators: $0.0

Contact: Dorothy Cooley, Dawson Regional Biologist, 993-6461

Wood Bison

Wood Bison Recovery Project



Project Description

This project is re-introducing wood bison to the Yukon as part of Canada's Wood Bison Recovery Program. The national program calls for the establishment of four wild, free-roaming wood bison herds to ensure the long-term survival of this threatened species.

The Yukon contribution involves a commitment to establish one wild herd numbering over 200 animals. Details of the project are provided in the Wood Bison Management Plan.

This ongoing project began in 1984. Aerial surveys will be carried out periodically throughout the year in 1993-94.

Progress to Date

The first group of 23 wood bison were released west of Carmacks in 1988. Additional releases and reproductive success has increased the herd size to 130-140 adults plus 20-30 calves.

Plans for 1993-94

The department will continue to use aerial surveys to monitor the locations and reproductive performance of free-roaming bison.

A progress report will be prepared and additional release sites will be assessed as requested by the Yukon First Nations.

Publications and Reports

Wood Bison Recovery Team. 1987. Wood Bison Status Report.

Hoefs, M. and H. Reynolds. 1989. Management Plan for Wood Bison in the Yukon.

Wood Bison Recovery Plan (in prep.)

Cooperating Agencies: Canadian Wildlife Service

Budget: Yukon Government: $20,000 Cooperators: $0.0

Contact: Manfred Hoefs, Chief, Habitat Management and Research, 667-5671

Community Wildlife Planning

Community Wildlife Planning

The Fish and Wildlife Branch was reorganized in 1992 to prepare for the new system of cooperative wildlife management laid out in the Yukon Indian land claim agreement. A new Regional Management Section was created within the branch to set up processes for community involvement and to provide technical support to public management bodies created by land claim agreements.

This section of the report lists the public management bodies and working groups supported by the Regional Management Section and describes their activities in 1993-94.

Public Management Bodies Set Up by the Yukon Indian Land Claim Agreement

One of the key principles of the Yukon Indian land claim Umbrella Final Agreement (UFA) is that Indian and non-Indian people of the Yukon will manage fish and wildlife together through a single management system. Cooperative management will be carried out through local Renewable Resource Councils and the Yukon Fish and Wildlife Management Board. These bodies will review fish and wildlife management proposals and make recommendations to the Minister of Renewable Resources. In general, the Fish and Wildlife Management Board will provide advice on Yukon-wide issues while 14 Renewable Resource Councils will address issues of local interest.

The Fish and Wildlife Management Board and the Mayo Renewable Resource Council were created before the passage of land claim legislation to serve as learning models for First Nations and the Yukon government. When the time comes to formally implement the UFA, Yukoners will have the experience they need to make the new system of wildlife management run smoothly.

Yukon Fish and Wildlife Management Board

The Yukon Fish and Wildlife Management Board has been operating since 1987 when it was set up to pre-implement the UFA. Half of the board's 12 members are nominated by the Council For Yukon Indians and half are nominated by the Yukon government. The board's mandate is to advise the Minister on all matters related to the management of fish and wildlife in the Yukon.

Since its inception, the board has reviewed and made recommendations on numerous wildlife issues. It has carried out major public consultation initiatives on game farming policies and regulations, the Aishihik Caribou Herd Recovery Project, and changes to the Wildlife Act and regulations. (For more detail, consult the board's annual reports which can be obtained by

writing: Yukon Fish and Wildlife Management Board, Box 5954, Whitehorse, Yukon, Y1A 5L7, 403-668-5547).

One of the board's major tasks in 1993-94 is to review the annual fish and wildlife regulation proposals. The board will begin its review of proposed regulation changes in December, 1993. Public consultation will take place through February-March and the board is expected to make its recommendations to the Minister in late March, 1994.

Another important task involves the board's participation in the development of a harvest quota system for the big game outfitting industry (see p. 108).

Mayo District Renewable Resources Council

The UFA allows for the establishment of a local Renewable Resource Council in each of the 14 First Nation traditional territories. Half of each council's six members will be nominated by the local First Nation and half will be nominated by the Yukon government. The councils will advise the Minister, the Yukon Fish and Wildlife Management Board and the appropriate First Nation on the management of renewable resources in the region.

The Mayo District Renewable Resources Council was set up in 1989 as a pilot project for implementing the UFA. It is the only Renewable Resources Council in existence at this time.

The council's major project in 1993-94 is the Mayo Region Big Game Management Plan (see p. 84). The council will facilitate local decision making with regard to the plan which is designed to incorporate local knowledge and traditional management practices. The plan will be completed by the fall of 1993.

Another important project is the Mayo River Salmon Enhancement Project, now in its third year. The council is trying to re-establish the Mayo River chinook salmon run which was damaged by the construction of the Mayo River hydro dam in the 1960s.

The Mayo council is also participating in the development of a harvest quota system for the big game outfitting industry and (see p. 108).

Public Management Bodies Set Up by the Inuvialuit Land Claim Agreement

The Inuvialuit Final Agreement (IFA), signed in 1984, covers a large section of the Western Arctic including the Yukon North Slope. The IFA sets up a number of public bodies to help manage wildlife in the settlement region. One of those bodies, the Wildlife Management Advisory Council (North Slope), is involved in managing wildlife on the Yukon North Slope. Unlike the public management bodies set up under the Yukon Indian land claim, this body includes government representatives in its membership.

Wildlife Management Advisory Council (North Slope)

The Wildlife Management Advisory Council (North Slope) has four members; two representing the Inuvialuit and one each representing the governments of Canada and the Yukon. The council is responsible for advising federal and Yukon government ministers on all wildlife and habitat issues on the Yukon North Slope.

The council develops management plans for North Slope wildlife, recommends harvest quotas, gives direction and sets priorities for North Slope wildlife studies, and participates in the management of Ivvavik National Park and Herschel Island Territorial Park.

In 1993-94 the WMAC (North Slope) approved the Ivvavik National Park Management Plan. The Council is currently directing wildlife studies of wolverines, muskoxen and wolves (see pp. 42, 72, 103). It is also working with its counterpart in the Northwest Territories to develop a grizzly bear management plan including harvest quotas. One of the Council's major projects is the production of a Wildlife Conservation and Management Plan for the North Slope area. The plan will be completed by January, 1994 and will be featured at the 1994 North Slope Conference to be held in Dawson City.

Public Management Bodies Set Up for the Porcupine Caribou Herd

The Porcupine Caribou Herd ranges from north-eastern Alaska across the north Yukon to the Mackenzie Delta in the Northwest Territories. The herd is hunted by Gwichin, Inuvialuit and Inupiat from 13 communities as well as non-native hunters from some of these communities and the larger centres such as Whitehorse and Fairbanks.

Two boards were set up in the mid-1980s to provide vehicles for public management and to coordinate management activities in the three jurisdictions. Both management bodies include First Nation representatives as well as government resource managers.

Porcupine Caribou Management Board

The Porcupine Caribou Management Board (PCMB) manages the Porcupine Caribou Herd and its Canadian habitat. The Board is made up of eight voting members representing the Inuvialuit, the Dene-Metis, the Council for Yukon Indians and the governments of the Yukon, Northwest Territories and Canada. Non-government members ensure that the interests of their communities, which depend on the herd, are paramount in the decision making process.

Since its creation, the board has been involved in a broad range of activities related to the management of the Porcupine Caribou Herd. One of its major accomplishments has been the development and implementation of a management plan which sets priorities for herd management and integrates the government and user activities. It has produced an educational

program including a video series for use in elementary schools; successfully lobbied against oil development in the 1002 calving grounds on the Alaskan North Slope; reviewed land use applications related to development proposals along the Dempster Highway,; made recommendations with regard to hunting regulations applying to the Porcupine Caribou Herd and the Dempster Highway, and; set up a scholarship through Yukon College to provide summer employment for renewable resource program student.

In 1993-94 the Board will finalize and publish its new Management Plan for the Porcupine Caribou Herd in Canada. This plan will be in effect from 1993 to 1996. Now that the immediate threat of oil development on Alaska's 1002 calving grounds has been dealt with, the Board is concentrating on lobbying for full wilderness protection of the area. Board members continue to work with the Dawson Regional Biologist to collect tissue samples from Porcupine caribou for heavy metal analysis. Cadmium contamination has been the most recent concern. Other issues of concern to the Board include renewed interest in oil and gas exploration at Eagle Plains and the need for community support of caribou research projects.

The Board is continuing its public communication initiatives which include bi-weekly radio bulletins and monthly newspaper columns focusing on Porcupine caribou issues.

International Porcupine Caribou Board

The International Porcupine Caribou Board provides advice and recommendations aimed at improving cooperation and coordination between Canada and the United States in managing the Porcupine Caribou Herd. The Board is made up of four members from Canada and four from the United States. Both federal governments are represented on the Board along with the Yukon, Northwest Territories and Alaskan governments and the Canadian and Alaskan communities that use the herd.

One of the Boards major activities has been the development of an International Conservation Plan. Completed in 1993, the plan is a framework for coordinating international aspects of managing the herd.

In 1993 the Board also completed a report on the herd's sensitive habitats. The report identifies habitat areas which deserve special consideration.

Local Working Groups Set Up to Address Single Issues

In 1993-94 the department is supporting five public working groups set up to coordinate action on specific fish and wildlife issues. Each working group is made up of Indian and non-Indian residents from communities affected by the issue and includes government officials working on the problem. These groups will remain in place until the issues are resolved or until Renewable Resource Councils are set up in their areas.

Public working groups provide an exciting opportunity for community residents and government staff to solve rather than just talk about long-standing problems. In a typical series of workshops, group members will identify the problem issues, brainstorm solutions, evaluate and select the best ones, and then monitor how well they work.

In some of these meetings, diverse people with different interests in wildlife are sitting down together to resolve problems for the first time. Participants learn how to work in groups as well as how to get action from the government. Biologists learn how to work with local and traditional knowledge.

Public working groups require a substantial effort and commitment from everyone involved. The payoff for participants is the progress that can be achieved when government representatives and resource users commit themselves to resolving the issues. And the new friendships and networks that develop in these groups create a positive climate for dealing with other community issues.

Aishihik Steering Group

This steering group was set up in February, 1993 after the government announced the start of a wolf reduction effort aimed at recovering the Aishihik Caribou Herd (see p. 6). The group is made up of nine community residents from Burwash Landing, Canyon, Champagne, Destruction Bay, Haines Junction and Silver Creek.

The Aishihik Steering Group meets regularly to review progress and recommend changes to the Aishihik Caribou Recovery Project. Members bring their community's concerns to the group meetings and return home with new program information to share with their neighbours.

The group has organized community meetings and developed a local approach to conservation education. Its recommendations have led to a greater emphasis on snaring as a means of reducing the wolf population and increased use of traditional knowledge in the program. The steering group has reviewed proposed changes to hunting regulations in the area and has participated in a sheep survey related to the program. Members also made arrangements for local youths and elders to visit the Aishihik field camp in March, 1993.

The Aishihik Steering Group will continue to meet regularly through 1993-94.

Carcross Caribou Recovery Working Group

This is an informal working group composed of Carcross/Tagish area residents concerned about the continuing decline of the Carcross caribou herd (see p. 8). After local residents raised this issue with department biologists, a community workshop was held in Carcross to discuss the problem and identify solutions. The Council for Yukon Indians coordinated the March, 1993 workshop which was attended by area residents, representatives of six First

Nations with interests in the southern lakes area, Yukon government officials and members of the Carcross planning team.

A five-year recovery plan for the Carcross Caribou Herd was developed at a second community workshop in May, 1993. The recovery plan led to the hiring of a First Nation field worker who will interview elders for historical information about the herd and educate First Nation hunters about the importance of not harvesting from this herd. The field worker will also encourage trappers to snare wolves in the herd's winter range and will make arrangements to bring in wild meat from other areas for Carcross elders.

This group does not have any formally appointed members or a separate budget. It is anticipated that a more formal steering group will be set up in the winter of 1993-94 to secure funding and guide the implementation of the recovery plan.

Tagish Fisheries Working Group

This working group is made up of Tagish area residents concerned about the lake trout fishery at the Tagish River bridge and the ethics of snagging cisco for use as bait fish at the site. A public workshop to address these issues was held in June, 1993 in the Tagish Community Centre. The workshop was chaired by Patricia Denison, a member of the Yukon Fish and Wildlife Management Board. About 30 area residents attended and helped to identify problems and solutions for the Tagish River trout fishery.

Based on the community input, fisheries biologists developed a proposed management plan and new fishing regulations for the Tagish River. The draft plan was brought back to the working group for review and revision. This was followed by additional consultation with the Carcross/Tagish First Nation. The final management proposal will be submitted to the Fish and Wildlife Management Board which will make its recommendation to the Minister.

The Tagish Fishery Working Group is an informal, short-term group pulled together to carry out grass-roots problem solving and ensure local knowledge is incorporated into the fishery management plan.

An ongoing study of the Tagish River fishery and adjoining water bodies (see p. 21) will continue to document harvest trends and investigate changes in the fish stocks.

Kaska Contaminants Study Group

This working group was set up in January, 1993 to deal with the issue of contaminants in the traditional territory of the Kaska First Nations. It was created by a Kaska Tribal Council resolution following the discovery of significant cadmium levels in the Finlayson Caribou Herd.

The Kaska contaminants study group is a forum for the two-way exchange of cultural and technical information. It channels local input into the Kaska contaminants study (see p. 49)

and provides information to the Kaska people about the presence of contaminants in their traditional foods and medicinal plants.

The working group includes representatives from the Kaska Tribal Council, Liard First Nations, Ross River Dene Council, Yukon departments of Renewable Resources and Health and Social Services, the National Department of Health and Welfare, and the Arctic Environmental Strategy's Yukon Contaminants Committee.

Outfitter Harvest Quota Committee

The Outfitter Harvest Quota Committee was set up in April, 1993 to develop a harvest management system for the entire Yukon outfitting industry. Committee members include representatives from the Yukon Fish and Wildlife Management Board, the Yukon Outfitters Association, the Mayo District Renewable Resources Council and the Yukon government. Initial public input is provided through representatives of the Fish and Wildlife Management Board and the Mayo Renewable Resources Council. All Yukoners will be provided an opportunity to comment on the draft principles and recommendations emerging from the Outfitter Harvest Management Workshop.

Outfitter harvest quotas have been in place for grizzly bears since 1985. In 1991 the Fish and Wildlife Management Board recommended that multi-year harvest quotas for moose and caribou should be established for all outfitting concessions to give the industry more security in booking clients and to give the public more confidence in harvest levels.

The Outfitter Harvest Management Workshop of November 22-24, 1994 was a watershed event in Yukon wildlife management. For the first time, all parties with an interest in outfitter harvests sat down together to share their concerns and lay the groundwork for an outfitter harvest management system based on the needs of the industry as well as the communities in which it operates. Representatives of the outfitting industry, Yukon First Nations and the Fish and Game Association helped draft a set of principles which will guide the development of harvest quotas. The draft principles will be reviewed in a series of community meetings scheduled to take place in the spring of 1994.

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