

FISH AND WILDLIFE PROJECTS

1995 - 96

Department of Renewable Resources

October, 1995

MR-95-2

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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 1995-96 fiscal year. Each description includes a contact name and number for those who want more information.

The final section describes the public management bodies and local working groups that bring 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 1995-96. 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 1995-96.

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.

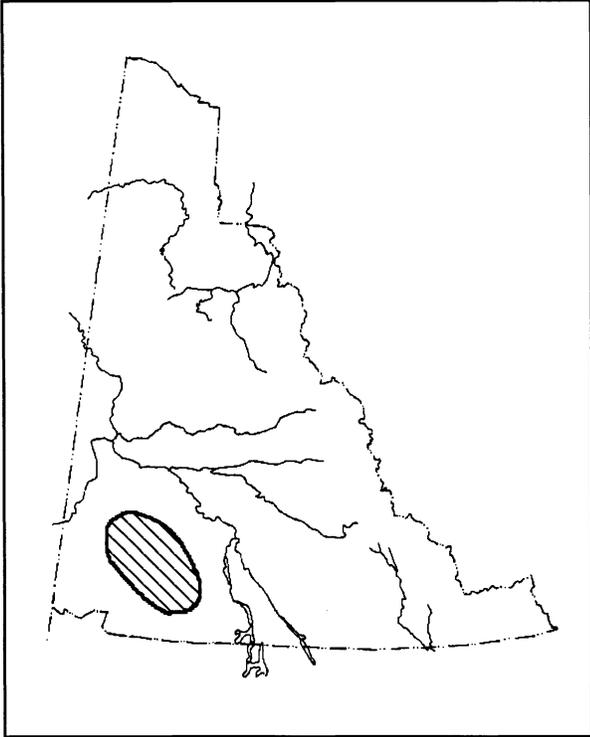
Fish and Wildlife Projects 1995-96

Caribou

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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 have been 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 periodically through 1995-96.

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 page 138).

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. Calf survival was very poor during 1991 and 1992 (8.6 calves/100 cows and 7.3 calves/100 cows in October, 1991 and 1992 respectively). Adult mortality may have been high because many collared caribou died from natural causes (20-6% in 1991 & 50% in 1992). Body condition indicators for the Aishihik herd suggested the animals were in good health. Pregnancy rates were 92-96% in 1992. Climate and habitat conditions do not appear to have caused the herd to decline.

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

Calf survival in the Aishihik herd increased after wolf control began (39 calves/100 cows in October, 1993; 46 calves/100 cows in July, 1994; 38 calves/100 cows in October, 1994). Pregnancy rates were 94% in 1993 and 93% in 1994. Presently there are 35 collared caribou in the Aishihik herd that are relocated five times per year.

In February 1993 and 1994, 18 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.

During late winter of 1994 a minimum total count was taken of the Aishihik and Kluane herds. A minimum population estimate for the two herds combined totalled 912 caribou. The herds were intermingled at the boundary of their ranges so it wasn't possible to get separate counts for each herd.

Wolf numbers in the Aishihik study area were reduced to about 45 wolves by the end of March, 1994. The pre-reduction population in February, 1992 numbered about 178 wolves.

Plans for 1996-97

All radio-collared caribou from the Aishihik, Kluane, Wolf Lake and Klaza 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. Additional relocation flights for the Aishihik herd only will take place in November, February, April, August and September. Composition counts will be carried out on the Aishihik, Kluane and Wolf Lake herds during late winter (March), post-calving (July) and rut (October) to monitor calf survival. Additional radio collars will be added to these herds as needed to maintain sufficient sample sizes.

Wolf numbers will be surveyed and reduced again during the winter of 1995-96. The goal is to maintain a total wolf population level of 30 to 35 wolves in the area, or 1.5-3 wolves/1000 km².

Publications and Reports

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

Southwest Yukon. December, 1992.

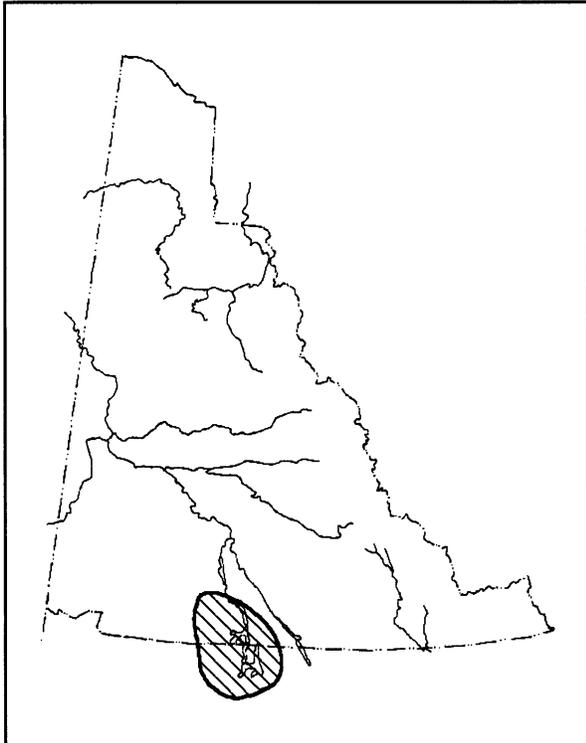
Technical Progress Report. Aishihik and Kluane Caribou Recovery Program. Anonymous.
November 1992 to October 1993.

Cooperating Agencies: Environment Canada, Parks Service

Budget: Yukon Government: \$ 153,000 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

Southern Lakes Caribou Herd Recovery Project



Project Description

This project is a joint YTG-CYFN initiative to conserve, manage, and recover the Southern Lakes Caribou herd (SLCH) from the present population of 570 to 2,000 animals.

Herd recovery will be achieved through the Carcross Caribou Herd Recovery Plan 1993-1998. Some of the objectives are to eliminate harvest of the caribou within the herd's historic range in the Yukon and B.C., to develop recommendations to moderate the effects of land use on the critical habitat, to monitor the caribou composition, distribution and trends, and to interview elders and document traditional knowledge.

Traditional knowledge suggests that the Carcross Caribou herd may have numbered in the thousands during the early part of this century. Today, this herd exists in small subherds including Ibex,

Lorne/Nares, Montana, Jubilee, Squanga, and Teslin Burn numbering 570 animals (1994). Non-native hunting of these animals has been closed since 1989.

Community Involvement

This project was initiated in response to concerns expressed by elders and other residents of the Southern Lakes region. Community workshops held in February and May 1993 were attended by representatives of the Carcross-Tagish, Kwanlin Dun, Ta'an Kwach'an, Teslin Tlingit, Champagne and Aishihik, and the 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 herd was developed. The affected First Nations agreed to voluntarily eliminate the caribou harvest.

A Steering Committee of 4 members has been established to review progress and make recommendations. The Committee met June 8, 1995.

Five hundred posters, 1,000 stickers and magnets are available for distribution to schools, band offices, gas stations, and other outlets. An audio message is being broadcast on CHON-FM encouraging first nations to voluntarily not hunt caribou. A one minute television public service announcement is broadcast on TVNC and CBC informing people of the SLCH program and encouraging a no hunting situation.

Sixteen local pilots, trappers and non-native residents and 29 First Nation elders were interviewed

and the caribou distribution and critical habitat information was mapped.

The Southern Lakes Wildlife Hotline (1-800-661-0447) has provided an opportunity for the public to report wildlife sightings in the area and has helped increase public awareness and involvement in the recovery effort.

Progress to Date

A total of 20 (all females) were captured and collared in January to March 1995 (5 were in the Ibex area, 5 in the Squanga Lake area, and 12 in the Gladys Lake area east of Atlin Lake). Body condition indicators suggest the animals were in good health.

Pregnancy rates were 87%. Blood samples are presently being tested for disease agents. The caribou were relocated in January, March (late winter), May, June (calving), and July (post calving).

A late-winter composition count of the herd was conducted in March 1995 which classified 504 caribou. Calf survival averaged 29.5 calves per 100 cows. Five composite fecal pellet samples were collected for food habit selection and snow was measured on the winter range. Lichen biomass sampling and habitat classification has been conducted by YTG Habitat to assess the condition of the winter range.

Five cows have died of the 42 collared and when calculated against the estimated number of collared animal/periods, it provides an estimate of the adult natural mortality rate at 15.2%. There were a total of 8 caribou killed by vehicle collisions in 1994 and 1995 along the Alaska Highway, Tagish Road, and Skagway Road.

The harvest monitoring program involves a person to patrol the roads, lakes, and backcountry trails in the study area to monitor the activities, document any kills of moose and caribou, and inform all people about the program. There were 34 days from January to March 1995 spent patrolling 16 snowmobile trails and 54 days from April to September spent patrolling trails and roads.

A pilot project was funded by the Arctic Environmental Strategy for the Carcross/Tagish Nation to establish a 24 hour 1-800 hotline (housed by CYFN) to report big game wildlife sightings in the Southern Lakes area. The distribution information identified movement corridors and areas of winter concentration.

Plans for 1996-97

The 37 radio-collared caribou will be relocated during October (rut), November and December 1995 and January, February and March 1996. These relocations will provide information about seasonal movements and distribution and adult mortality. Winter range distribution surveys will be flown twice a month from January to March to document the winter concentration areas. Ground surveys will be conducted to determine the habitat selection and to measure the snow parameters. A rut composition count will be conducted in October 1995. Two large caribou silhouette reflective signs will be put up between Judas Creek and Jakes Corner to caution motorists to slow down in this area in order to reduce the caribou collisions. The Wildlife hotline will be available

until April 1996. More school and public presentations are planned for the winter of 1995-96. The Southern Lakes Caribou Recovery Implementation Plan will be reviewed.

Publications and Reports

Kuzyk, G. and D. Cresswell. 1995. Yukon's Carcross Caribou Herd, A Case History in Co-Management. Arctic Ungulate Symposium poster session.

McDonald, J. and D. Cresswell. 1995. Rationale behind the proposed caribou closure in GMZ 8-12 to 8-17, 8-26, and 8-27.

Quock, R., B. Smith, and R. Farnell. 1993 Revised Carcross Caribou Herd Recovery Plan, 1993-1998.

Cooperating Agencies:

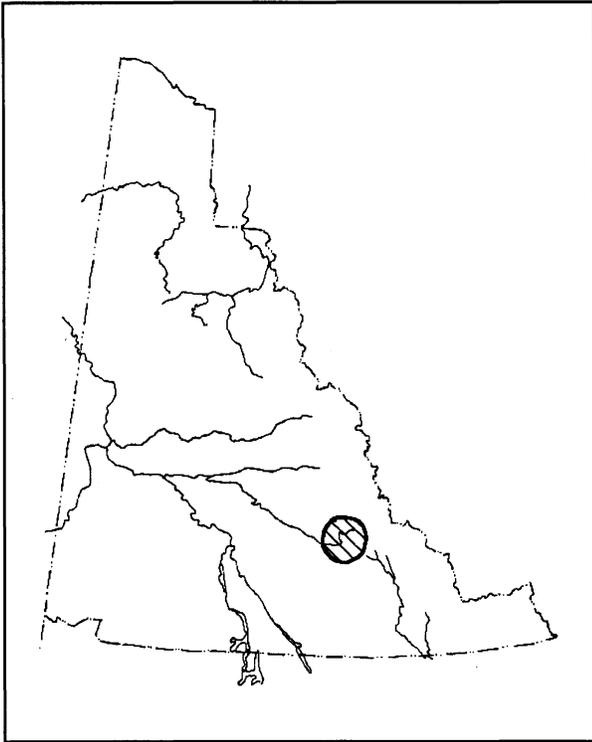
Carcross-Tagish First Nation
Kwanlin Dun First Nation
Ta'an Kwach'an First Nation
Teslin Tlingit First Nation

Taku River Tlingit First Nation
Champagne and Aishihik First Nations
Council for Yukon First Nations
BC Fish and Wildlife Branch

Budget: Yukon Government: \$86,000 BC Government: \$12,000
Canada/Yukon Economic Development: Agreement \$89,500

Contacts: Janet McDonald, Dan Creswell, Council for Yukon First Nations 633-5861
Rick Farnell, Caribou Biologist 667-5465
Rick Marshall, Regional Biologist, Smithers (604) 847-7274

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 1995-96 will be carried out in October.

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 1996-97

A composition count of the 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.

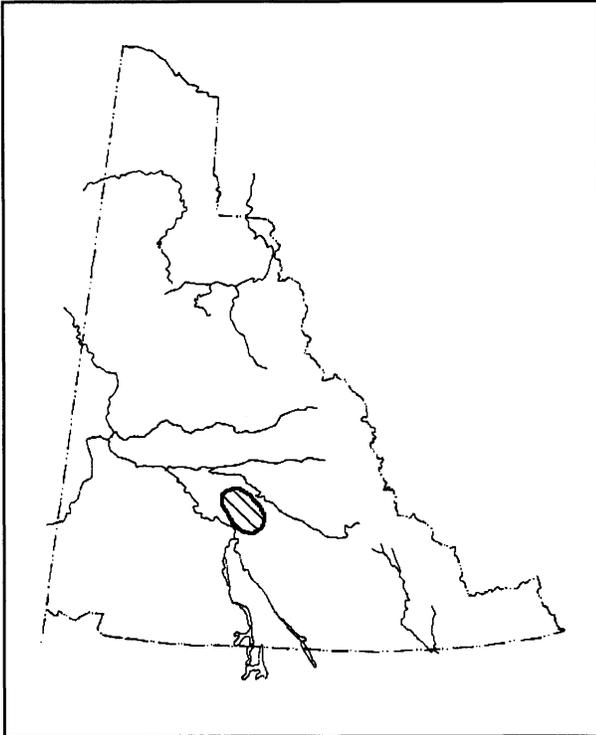
Farnell, R. and R. Hayes (In prep.) Results of Wolf Removal on Wolves and Caribou in the Finlayson Study Area, Yukon, 1983-92.

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.

Progress to Date

Ten 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 five females in the winter of 1993 and 1994 revealed a 100 per cent pregnancy rate. Blood samples are presently being tested for disease agents.

Plans for 1996-97

Caribou movements, distribution and survival rates will be monitored during relocation surveys to be conducted on June 1, Oct. 1, Dec. 15, and March 1, 1995-96.

A rut-count of herd composition was carried out in early October, 1995.

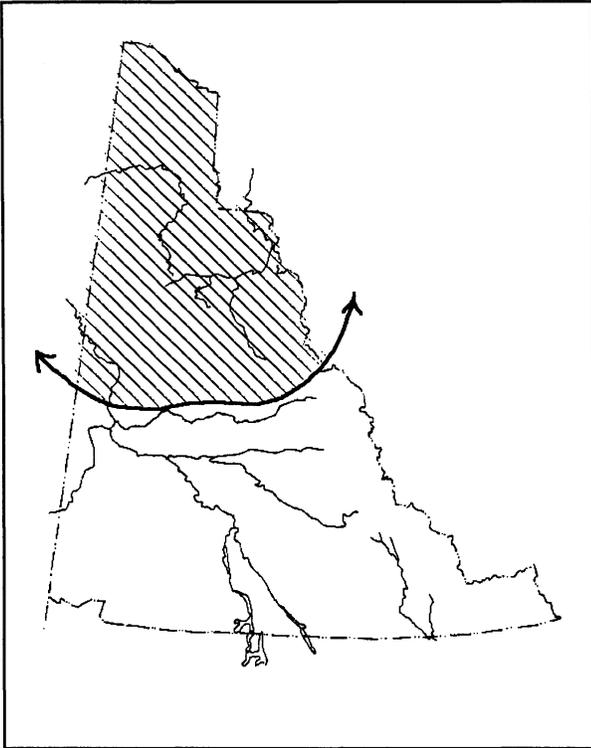
The department will incorporate community involvement in this study and the impact of winter subsistence hunting will be examined.

Publications and Reports: File data only.

Budget: Yukon Government: \$31,200

Contact: Rick Farnell, Caribou Biologist, 667-5465

Porcupine Caribou Herd Program



Project Description

The Yukon Government is one of five cooperating agencies on the management of Porcupine Caribou. The other agencies are Government of the Northwest Territories (GNWT), Canadian Wildlife Service (CWS), Alaska Department of Fish and Game (ADFG), and U.S. Fish and Wildlife Service (USFWS). Management is guided by the Porcupine Caribou Management Plan produced by the Porcupine Caribou Management Board within Canada, and the International Porcupine Caribou Agreement between Yukon and Alaska.

Progress to Date

The Yukon Government's ongoing projects include operating a hunter check station each year on the Dempster Highway to record harvest, body condition monitoring three times a year to keep track of the general health of the caribou,

composition count each year (twice in years when a census is done), contributing to telemetry flights and collaring activities over the year, helping with a photo-census every 3 years, and measuring the snow depth and density along the Dempster Highway each year. There are also other projects such as gathering the reported total harvest on the herd and supervision of a summer student. Most of these projects have progress reports. For more information, please call the phone number below.

Plans for 1996-97

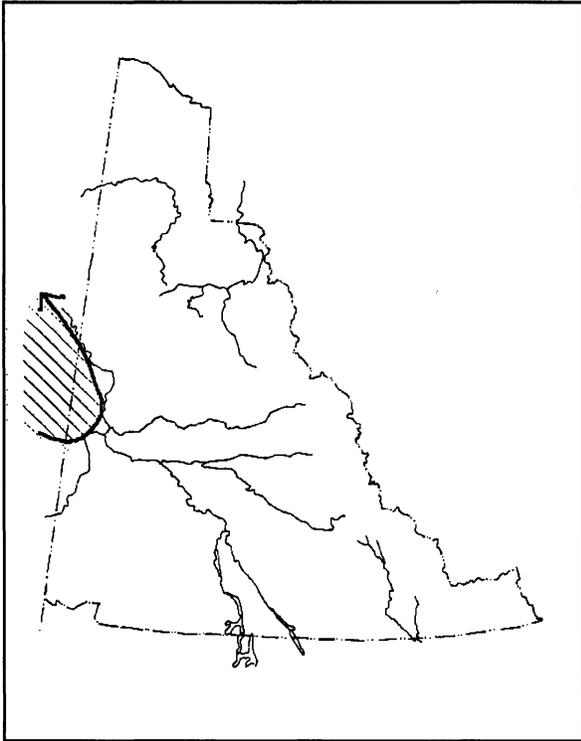
Annual projects such as the body condition monitoring and composition counts will be done. The next planned census is 1997

Cooperating Agencies: GNWT, CWS, ADFG, USFWS

Budget: Yukon Government: \$32,000

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

Fortymile Caribou Herd Program



Project Description

The Fortymile Caribou Herd is an international barrenground herd, with wintering grounds in the Yukon. This herd has a history of great population fluctuations, and may have once numbered up to 500,000 animals, and ranged from Fairbanks to Whitehorse. In 1976, the herd was at a low of 5,000. Today, the herd appears to be stable at about 23,000 caribou.

A working team has been set up to produce a management plan for Alaska.

Progress to Date

There have been three meetings of the management planning team. So far, the team has identified the need to make the plan comprehensive, identified other groups that should be included in the process and approached those

groups, developed draft team and management plan goals and objectives, responded to a military development proposal, and interim harvest plan for Alaska, covering the 1995/96 season only, has been accepted by the Alaska Board of Game. As well, four public meetings have been held to solicit public concerns and comments.

Plans for 1996-97

The team will continue to meet as often as needed. The next major step in the process is to determine population and harvest objectives. The final management plan is expected to be complete by November 1995.

Cooperating Agencies:

Example groups represented on the planning team are: Dawson First Nation, Yukon Government, Alaskan state and federal government agencies, Tanana Chief's Conference, local villages, sportsman, and wildlife advocacy groups.

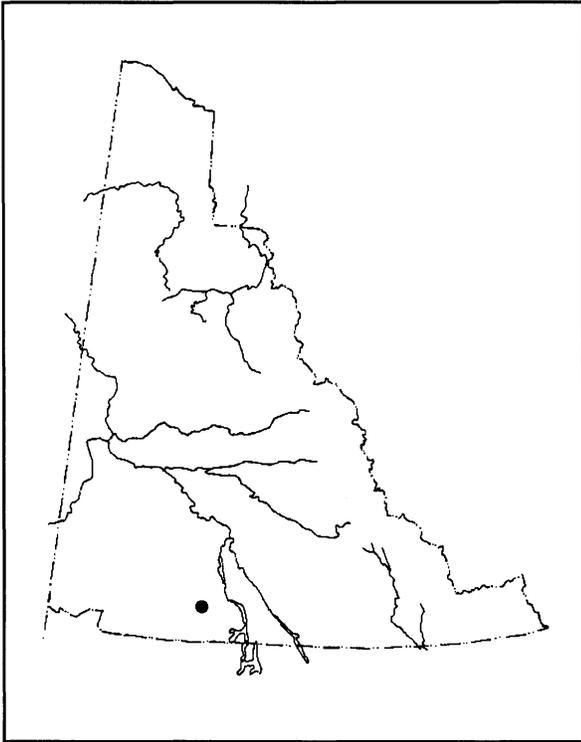
Budget: Yukon Government: \$10,500

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

Elk

Elk Enhancement Project..... 20

Elk Enhancement Project



Project Description

This project aims to build up 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 recruitment 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 and early 1990s 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 in

1995-96.

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 40 elk have been released to build up the Hutshi herd. The management objective is to build each herd up to about 100 elk. Current estimates are 40 for the Takhini herd, and 70 for the Hutshi herd, but calf survival continues to be low. At this time, it appears doubtful that the objective of building of these herds to 100 elk each can be realized. Most calves are killed by predators before they reach yearling age.

Plans for 1996-97

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: \$17,000
Cooperators: \$0.0

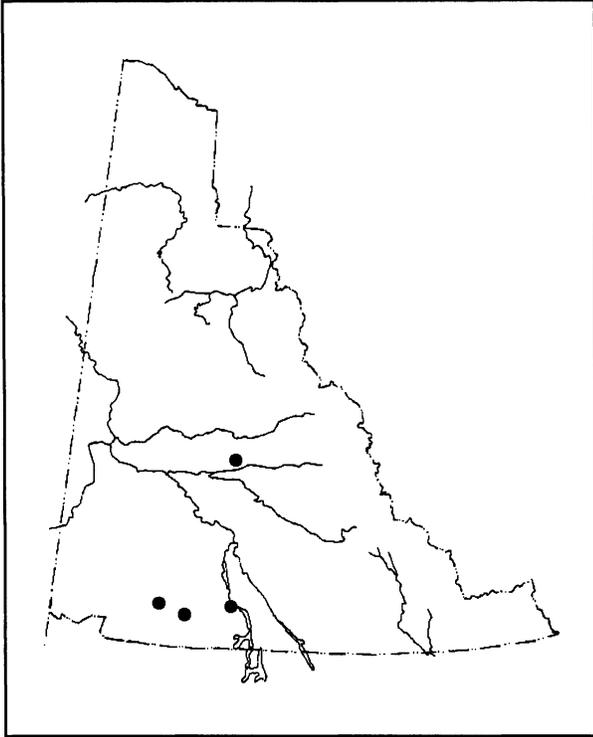
Contact: Manfred Hoefs, Chief, Habitat Management and Research, 667-5671

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Angler Harvest Survey

Project Description



The objective of this ongoing project is to collect information on the angler harvest from popular fisheries. This year the fisheries at Tagish Lake, Tagish Bridge, Kathleen River, Kathleen Lake, Ethel Lake, and Dezadeash Lake were surveyed. Data on effort, harvest, angler origin, and year type usage will enable fisheries staff to assess the status of fish stocks and trends on angling quality. Harvest levels will be compared with indices of lake productivity and regulations can be implemented to conserve 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.

Progress to Date

Field work was conducted during the period June 1 - September 15, 1995. Personnel contacted anglers on scheduled dates selected at random throughout the field season. Data input and analysis commenced following the end of the field season. To date, results from the Tagish Lake survey have been determined. Analysis for the other surveys will be completed by the end of the calendar year.

Plans for 1996-97

Write up reports on past angler harvest surveys for the past 2 years.

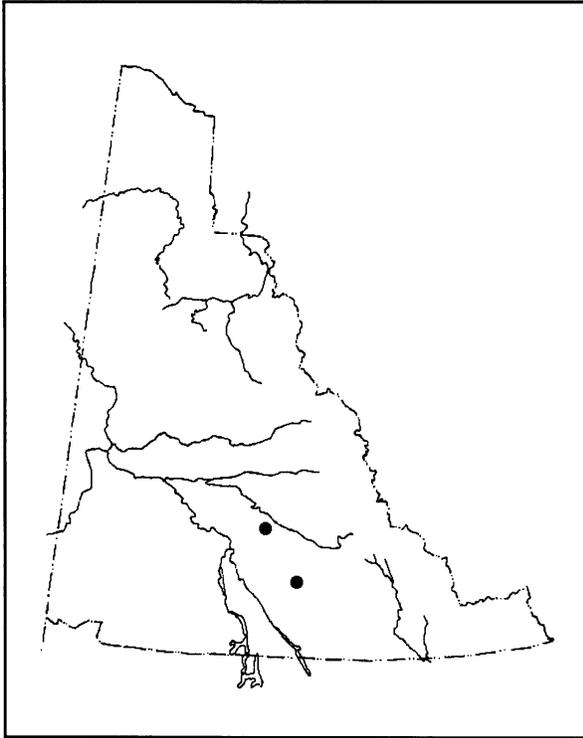
Publications and Reports:

The results for Tagish Lake and the Tagish Bridge will be incorporated into a report on harvest surveys of the Southern Lakes from 1990 to 1995. The Kathleen Lake survey was undertaken with funding support from Parks Canada and a report will be produced in the spring of 1996.

Budget: Yukon Government: \$68,000
Parks Canada: \$5,000

Contact: Clive Osborne, Fisheries Technician, 667-8031

Index Netting Program on Little Salmon and Quiet Lakes



Project Description

This project is to collect information about fish stocks in Little Salmon and Quiet lakes.

Both these lakes are fished primarily by the residents of Faro and Ross River. Little Salmon has a small cottage population who fish the lake year round. Both lakes have road access and government campgrounds

The project will be completed in the winter of 1996-97. Current-year field work will be carried out in July 1995.

Progress to Date

Field work is now complete.

Plans for 1996-97

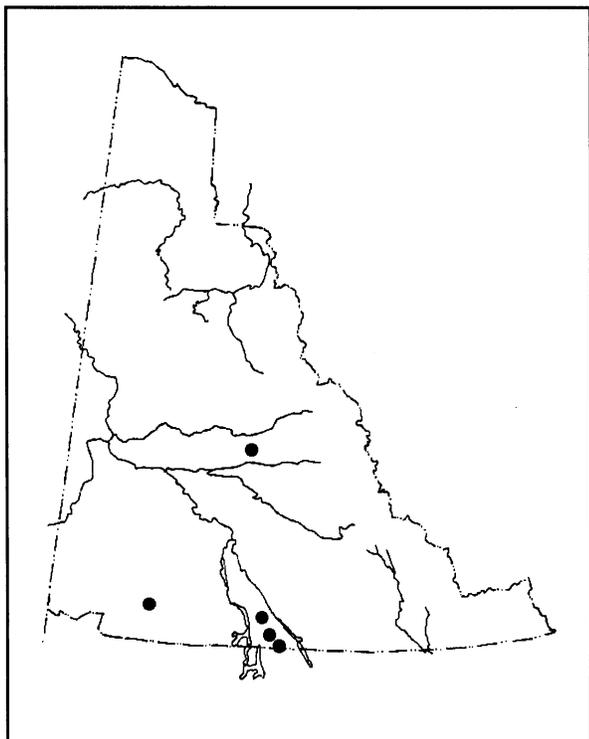
Information will be collected on catch composition, age and sex structure of the fish stocks, length-to-weight ratios and maturity.

Publications and Reports: The data report will be completed by April, 1997.

Budget: Yukon Government: \$35,000

Contact: Susan Thompson, Fisheries Technician, 667-5199

Small Mesh (CPUE) Netting on Snafu, Tarfu, Little Atlin, Ethel, and Dezadeash Lakes



Project Description

This project is conducted to collect data on the relative abundance of Lake trout in these small productive lakes. This is a non-destructive method of sampling.

The project will be completed in the winter of 1996-97. Current-year field work will be carried out in May/June 1995.

Progress to Date

Field work is will start in the summer of 1995.

Plans for 1996-97

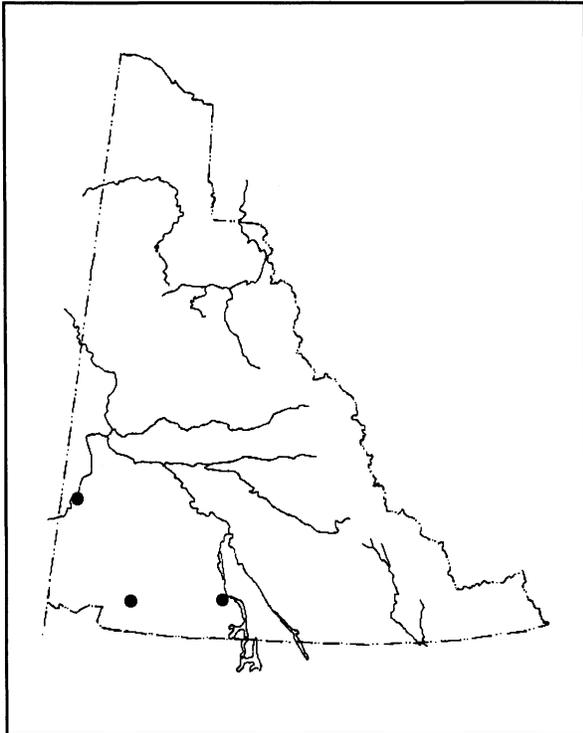
Information will be collected on catch composition and length-to-weight ratios.

Publications and Reports: The data report will be completed by April, 1997.

Budget: Yukon Government: \$5,000

Contact: Susan 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 22 in Kluane National Park.

Progress to Date

Kokanee eggs were collected from native stocks in Kluane National Park in August of 1991, 1992, 1993, and 1994. The first three collections were successful with good survival rates for the eggs. The 1994 eggs were accidentally killed. The eggs were incubated and reared at the Icy Water Fish hatchery in Whitehorse. Two landlocked lakes have been stocked with Kokanee fry from the hatchery.

Plans for 1996-97

The fourth egg collection effort will take place in August 1995. A Whitehorse area lake will be used to provide a source of eggs.

Publications and Reports

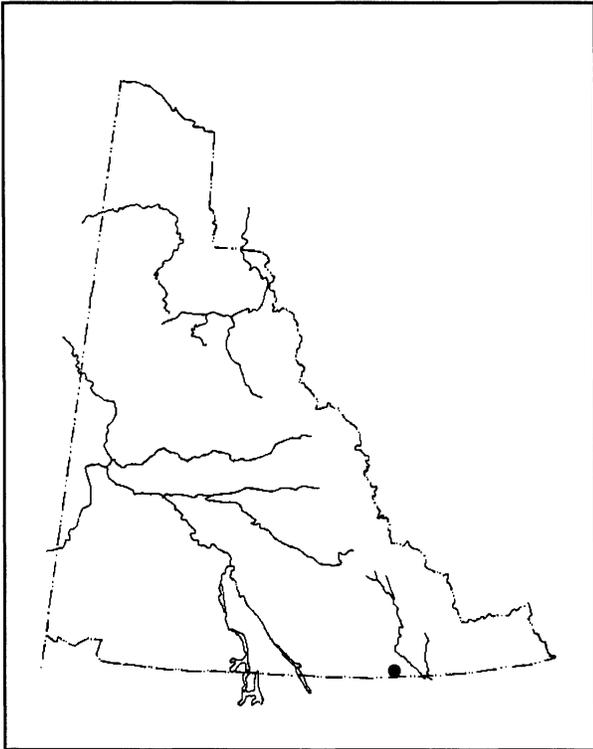
Icy Water has provided monthly reports on the status of the stock contained in the hatchery. A report evaluating the success of this project will be completed in 1996.

Cooperating Agencies: Department of Fisheries and Oceans
Parks Service , Kluane Park
Icy Waters Ltd.

Budget: Yukon Government: \$8,100 Cooperators: \$0.0

Contact: Susan Thompson, Fisheries Technician, 667-5199

Dolly Varden Brood 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 Dolly Varden. A Dolly Varden brood stock is being developed from a stock of native Dolly Varden in the Liard area of the Yukon.

This will be the second year of a three year project.

Progress to Date

Dolly Varden eggs were collected from stock in Shilsky Lake, in 1994. The egg take was small with only 2,000 eggs obtained. The eggs were

transported to an incubation box near Rancheria. Eggs hatched out in April and are currently being reared at Rancheria Hydro Plant. The fry will be stocked in the fall in a lake near Watson Lake.

Plans for 1996-97

The second egg collection effort will take place in September 1995. These eggs will be incubated and reared at Rancheria.

Publications and Reports

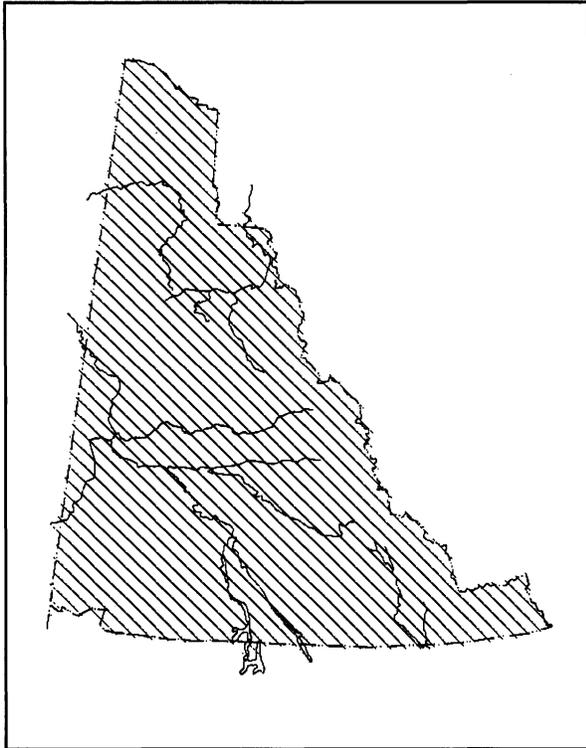
None to date.

Cooperating Agencies: Art Semmler, Hydro Plant, Rancheria

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

Contact: Susan 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 5-year program monitors contaminant levels in fish from selected Yukon waterbodies. It is carried out by a consultant, in collaboration with northern contaminants program of Indian and Northern Affairs Canada.

This ongoing project began in 1991. Current-year field work will be carried out at various locations from June through August, 1995.

Progress to Date

Samples are analyzed by a contract lab and results are forwarded to Health Canada for health-risk assessments. The program ends in 1996.

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.

Plans for 1996-97

Priorities for sampling are set by the Yukon Contaminants Committee with input from First Nations and interested parties in communities. This year, some of the lake previously sampled (e.g., Watson lake) will be resurveyed to increase the sample size and fill in data gaps.

Publications and Reports

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

Cooperating Agencies: Department of Fisheries and Oceans
Environment Canada
Indian and Northern Affairs Canada
Health and Welfare Canada

(Arctic Environmental Strategy)
Yukon Contaminants Committee

Budget: Yukon Government: \$0.0 Cooperators: Arctic Environmental Strategy \$19,500

Contact: Yukon Contaminants Committee

Furbearers

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Fur Harvest Enhancement Program



Project Description

This program provides 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 First Nations. 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 150 trappers have received capital assistance and over 275 trappers have participated in the trap exchange program.

Plans for 1996-97

Moneys for the capital grant assistance program were not identified in the 1995-96 budget.

The eligibility criteria for the trap exchange component of the program was 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 depleted.

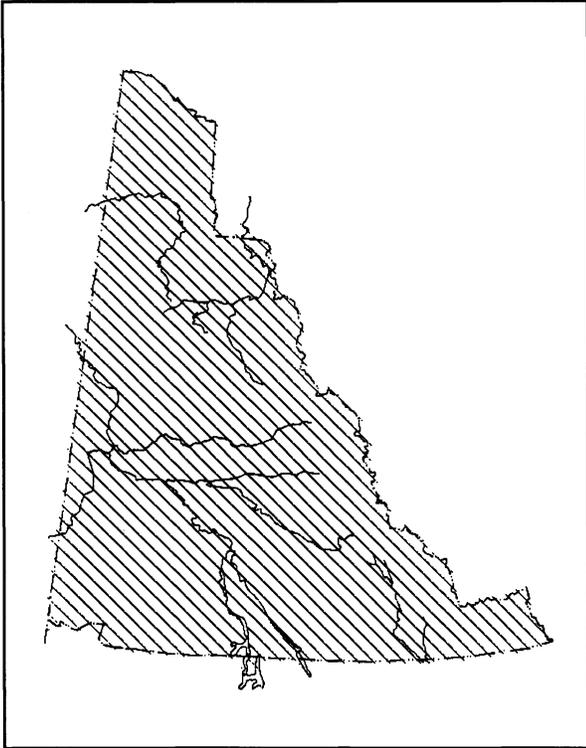
Prior to redirection of this program, an evaluation must be carried out. The evaluation should be completed by the fall of 1995.

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

Budget: Yukon Government: \$0.0 Cooperators: \$0.0

Contact: Helen Slama, Fur Harvest Technician, 667-8403

Fur Harvest Management



Project Description

The Yukon trapping industry includes about 450 licensed trappers who harvest 14 furbearer species from more than 370 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

With the finalization of individual First Nation Final Agreements, local Renewable Resource Councils and First Nations will have greater involvement in the management of the trapping industry.

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 1996-97

An important focus will be implementing the provisions of the Final Agreements that relate to the management and allocation of traplines.

The trapline management series leaflets will be reviewed for updating and reprinting.

Publications and Reports

Managing Your Beaver Trapline
Managing Your Lynx Trapline
Managing Your Marten Trapline
Managing Your Muskrat Trapline

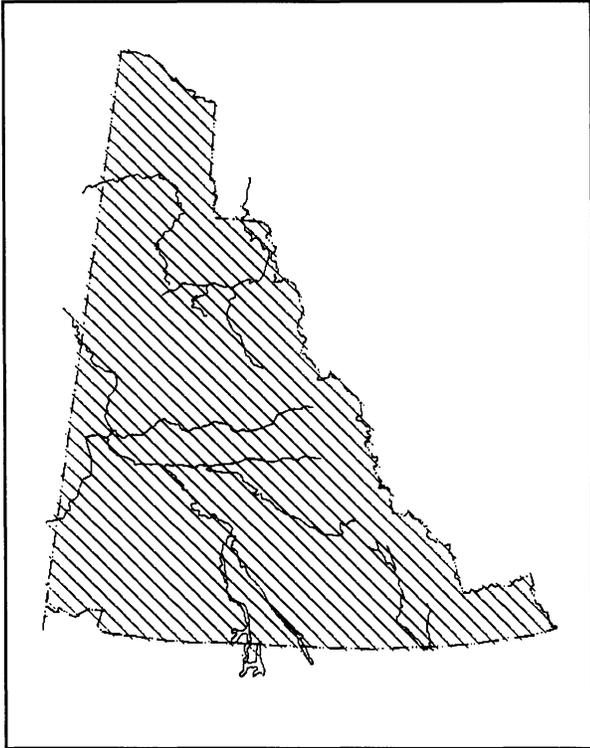
Managing Your Wolf Trapline
Managing Your Wolverine Trapline
Yukon River Basin Study
Yukon Trapping Regulations Summary (annual)

Cooperating Agencies: Yukon Trappers Association

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

Contacts: Brian Slough, Furbearer Biologist, 667-5006
Helen Slama, Fur Harvest 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. Since the 1980's, the harvest documents and records have been computerized. Several changes over the years have helped to create a more accurate and efficient harvest monitoring system.

Plans for 1996-97

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. A 10-year fur harvest trend report is planned for the near future.

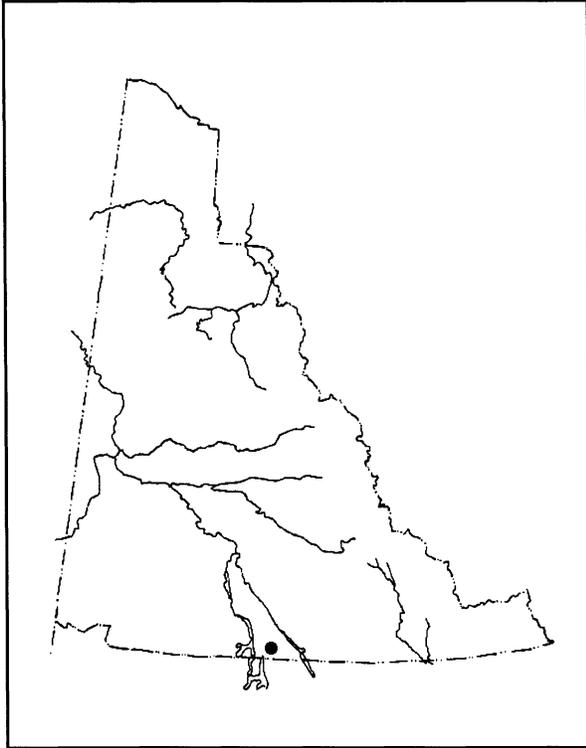
Publications and Reports

Annual fur harvest reports: 1920-1994. Archival records. Dept. of Ren. Res.

Budget: Yukon Government: \$5,000

Contact: Helen Slama, Fur Harvest Technician, 667-8403

Lynx Harvest Study



Project Description

This project monitored 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.

Progress to Date

Between 1986 and 1994, about 170 lynx were live-captured during winter field work. Ninety-five of these animals were radio-collared. Another 189 kits from 39 litters were ear-tagged in summer.

The lynx population increased from 3/100 km² in 1987 to 50/100 km² 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 (800) 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 1996-97

Field work is completed. Data analysis and the final report will be completed in 1995-96.

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.* 22:136-140

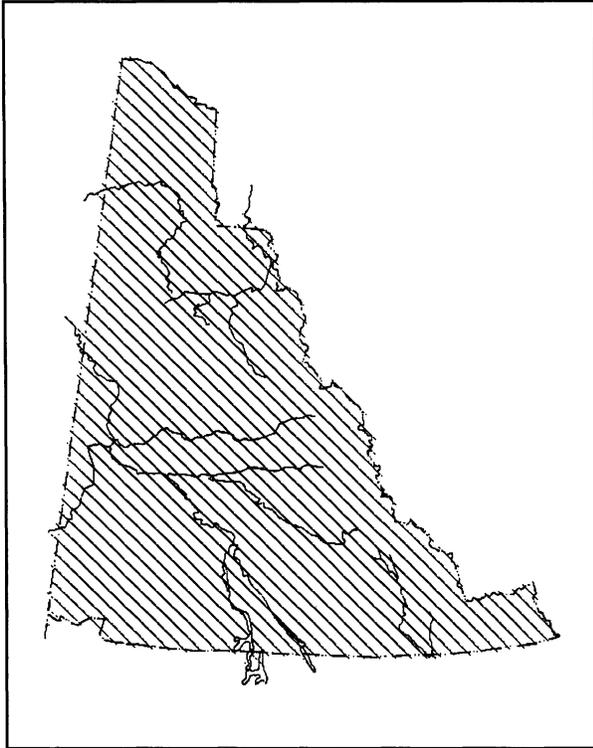
Breitenmoser, U., B.G. Slough, and C. Breitenmoser-Wursten. 1993. Predators of cyclic prey: Is the Canadian lynx victim or profiteer of the snowshoe hare cycle? *Oikos*. 66:551-554.

Mowat, G., B.G. Slough, and R. Rivard. 1994. A comparison of three live capturing devices for lynx: capture efficiency and injuries. *Wildl. Soc. Bull.* 22:644-650.

Budget: Yukon Government: \$2,000

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 450 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.

In the past, funding had 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 1996-97

Trapping Awareness Week is anticipated during the fall of 1995. Classroom presentations will continue along with support for the Fur Institute of Canada.

Publications and Reports:

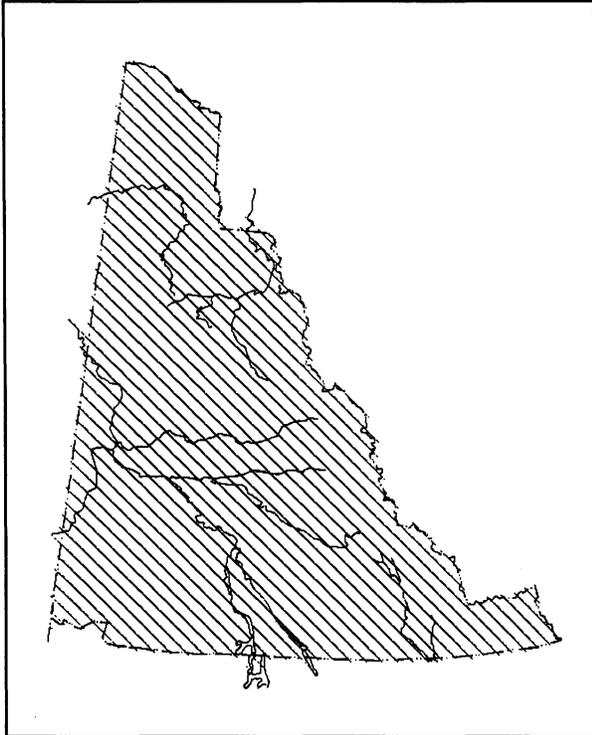
Fur Institute of Canada annual reports and promotional publications.

Cooperating Agencies: Yukon Trappers Association
Fur Institute of Canada

Budget: Yukon Government: \$0.0 Cooperators: \$0.00

Contact: Helen Slama, Fur Harvest Technician, 667-8403
Darline 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. Government Policy now requires new trappers to take a recognized training course before applying for a trapping licence.

This ongoing project began in 1977. Mandatory training for first time trappers was implemented in 1991. The Yukon Trapper Manual was developed in cooperation with the Yukon Trappers Association and released in 1991. 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 530 Yukoners, which includes roughly half of the currently active trapping community, have graduated from the trapper training course to date. Approximately 40 per cent of the graduates are First Nation members.

Plans for 1996-97

A variety of training workshops will be offered in the communities for both first-time trappers to meet the mandatory requirements and for experienced trappers wishing to upgrade their skills.

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.

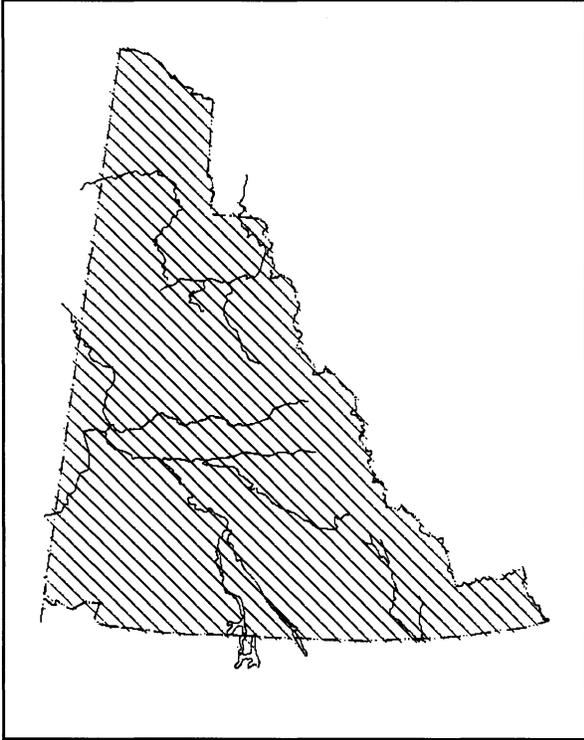
Cooperating Agencies: Yukon Trappers Association (YTA)

Indian and Northern Affairs Canada (INAC)

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

Contact: Helen Slama, Fur Harvest Technician, 667-8403
Darline Richardson, Yukon Trappers Association, 667-7091

Trapper Questionnaire



Project Description

This project collects information from trappers about the status of furbearer, prey and other wild-life 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 1996-97

The trapper questionnaire will be mailed out in May-June, 1996.

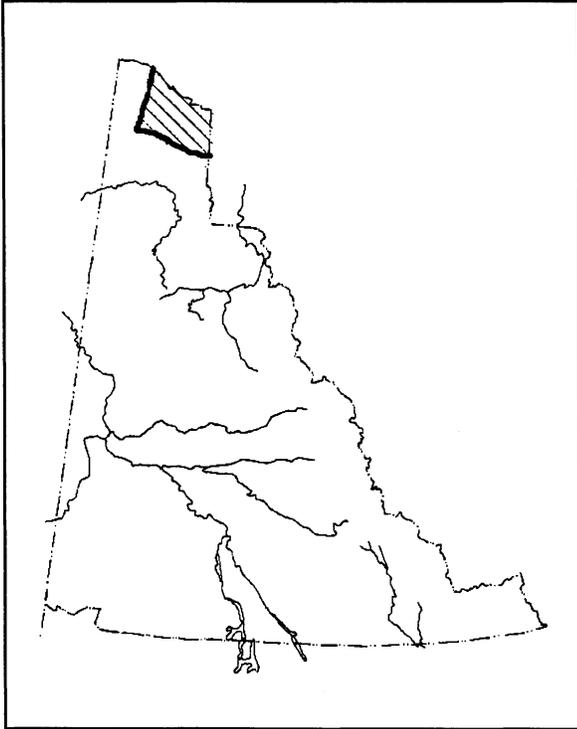
Publications and Reports

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

The wolverine is an important furbearer to the Inuvialuit people who hunt and trap on the North Slope, yet little is known about the status of the North Slope wolverine population.

This is a one-year project, approved by the Wildlife Management Advisory Council, North Slope (WMAC/NS).

Progress to Date

Field work began in March 1993. Thirteen collars were placed on wolverines and telemetry flights were flown about twice a month.

A population count was attempted twice but had to be abandoned both times.

Plans for 1996-97

A project report will be ready by spring. Wolverine carcasses may be collected again during the winter of 1995-96.

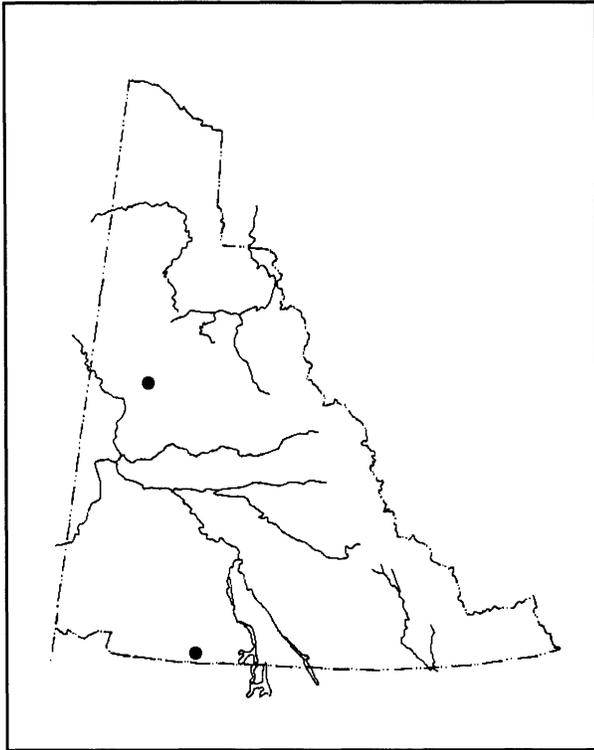
Budget: Yukon Government: \$0.0

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

Game Birds

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Waterfowl Spring Pair Count	47
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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 the current year will be carried out April 25 to May 12 at North Fork Pass on the Dempster Highway.

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.

Harvest data collected from 1973 - 1993 were summarized and published in the 1994 proceedings of the N.A. Wildlife and National Resource Conference.

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

Publications and Reports

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

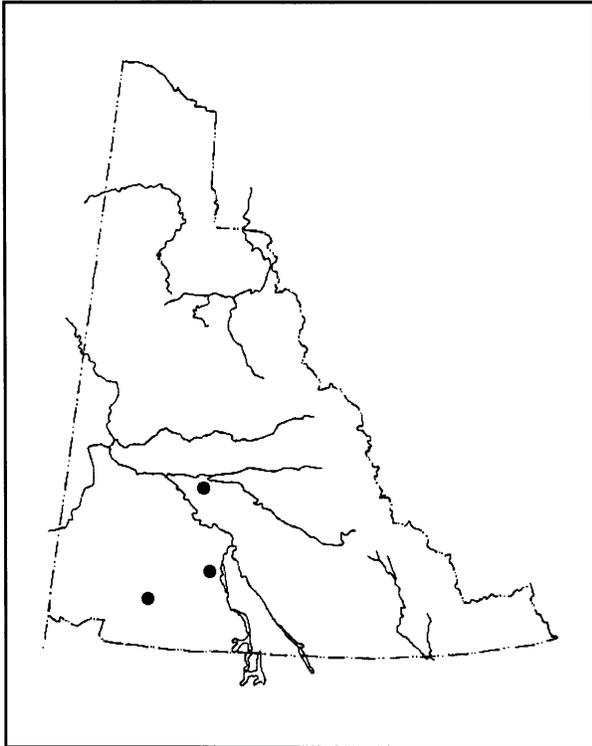
Mossop, D. 1984. Demography of willow ptarmigan in the Ogilvie Mountains.

Mossop, D. 1994. Trends in Yukon upland game bird populations from long-term harvest analysis.

Budget: Yukon Government: \$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 the current year 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.

Publications and Reports

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

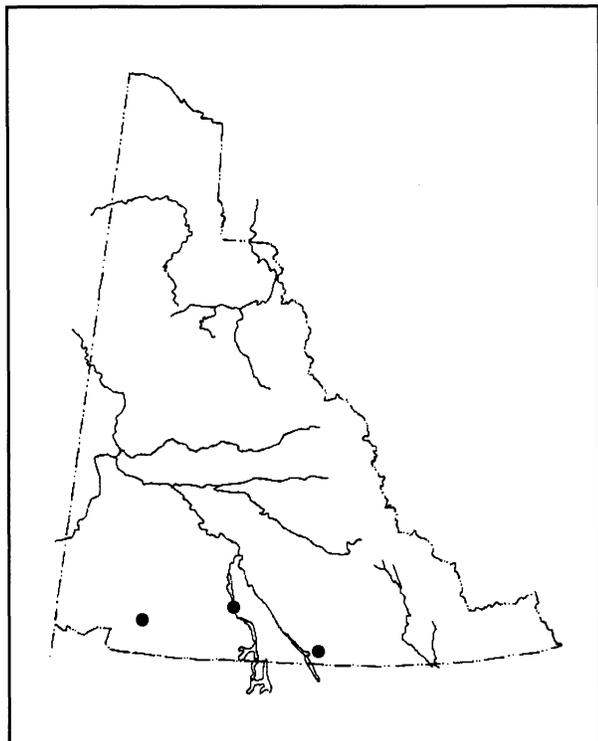
Mossop, D. Helicopter survey of waterfowl, Needlerock Wetland, Yukon, Spring 1994.

Cooperating Agencies: Ducks Unlimited Canada
Canadian Wildlife Service

Budget: Yukon Government: \$0 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 on which they depend.

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

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 \$3.2 million of funding to Yukon wetland management projects. These funds have supported detailed studies of wetlands at Old Crow Flats, Nisutlin Delta, Sheldon Lakes, Nordenskiöld Valley and Needlerock Creek.

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

Plans for 1996-97

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 as well as one other fall staging area (Sekulmun wetland) in the 1996 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: \$0 Cooperators: \$5,000

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

Habitat

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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 was a one-year project. Field work was 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 analyzed for heavy metal content.

Plans for 1996-97

Publish final report.

Publications and Reports

Florkiewicz, R., L. Allan, and M. Gambert. 1995. contaminants in plants used as traditional food and medicine by Kaska First Nations in the Yukon (in prep.).

Cooperating Agencies

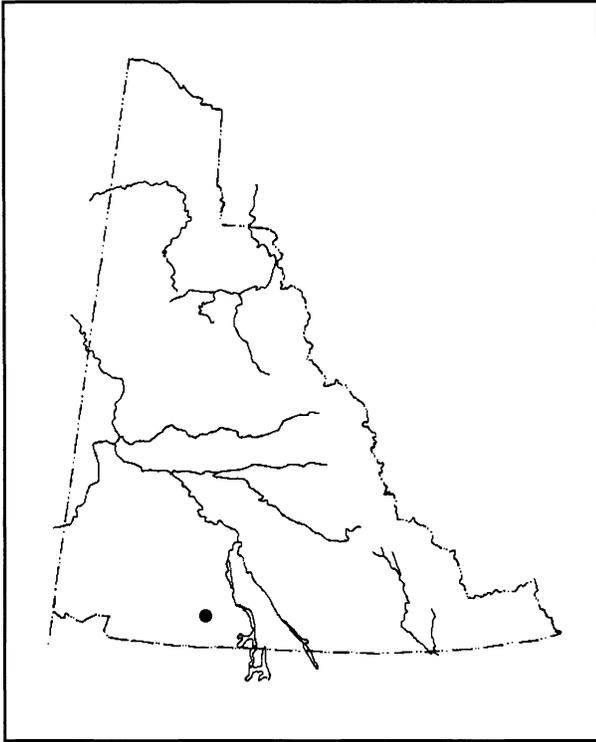
Kaska Tribal Council Yukon Department of Health and Social Services
Liard First Nations National Department of Health and Welfare
Ross River Dene Council Yukon Contaminants Committee
Indian and Northern Affairs Canada (Arctic Environmental Strategy)

Budget: Yukon Government: \$0 Cooperators: \$0

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

Moose Habitat Assessment in the Jarvis River Valley

Project Description



This project is mapping vegetation and assessing moose habitat quality in the upper Jarvis River valley, north of the Alaska Highway. Concerns about habitat loss and disturbance have been raised in response to potential road development for mining access and timber harvesting of spruce beetle-killed trees.

A vegetation map that included this area was produced through air photo interpretation in the early 1980's for the East Kluane Land Use Planning project. Our first objective was to assess the accuracy and usefulness of this map for moose habitat evaluation. Satellite imagery and ground truthing will be used to refine the vegetation map or construct a new one. Various techniques, including browse and pellet sampling, aerial surveys and local knowledge will be used to assess moose use of the habitats mapped. Several years

will be required to complete the assessment.

Community Involvement

This is a cooperative project with the Champagne Aishihik First Nation. They provided technical assistance, as well as field support and a local guide and horses for the work this summer. The local outfitter provided use of a cabin for accommodation of the field crew.

Progress to Date

A week of field work was conducted in late June. Vegetation and physical characteristics were described at each site and moose browse use was assessed and pellet sampling was conducted. Preliminary results indicate that the vegetation map produced for the east Kluane Plan contains significant inaccuracies and is probably not suitable for moose habitat mapping.

Plans for 1996-97

Examine the data gathered so far and obtain additional vegetation information from the Arctic Institute. Determine how much more sampling will be required to complete the map. Consult further with the First Nation on continuing the moose habitat use work.

Cooperating Agencies

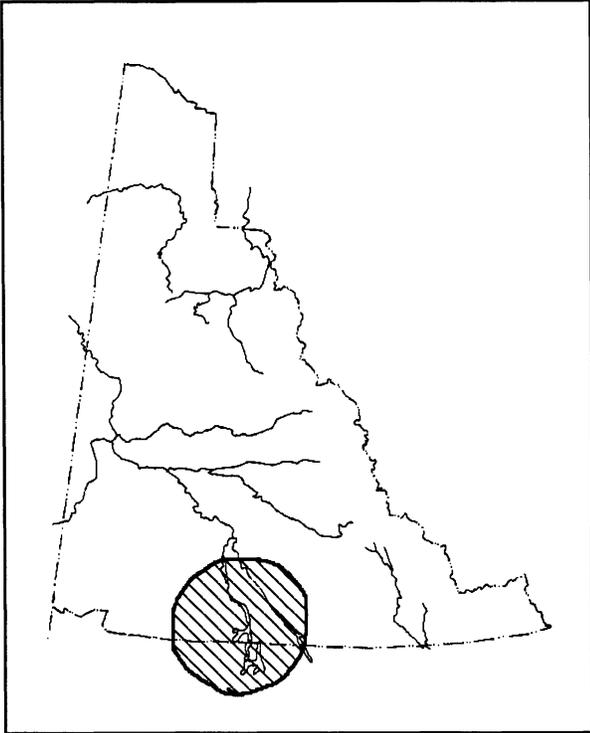
Champagne Aishihik First Nation

Budget: Yukon Government: \$2,000 Cooperators: \$5,000

Contact: Val Loewen, Habitat Inventory Coordinator, 667-5281
Linaya Workman, Champagne aishihik First Nation, 634-2288
Bob Hayes, Haines Junction Regional Biologist, 634-2247

Range Assessment of the Carcross Caribou Herd

Project Description



This project was designed to contribute to the Southern Lakes Caribou Herd Recovery Program (See page 9). The Steering Committee had concerns about the quality and quantity of available habitat for the caribou herd. The committee wanted key habitat for the herd to be identified so that appropriate measures could be taken to protect these important areas. Similarly, the interim land management guidelines produced by the Department of Renewable Resources for the range of the Carcross Caribou had called for habitat inventory to assess caribou habitat use and requirements.

The objectives of this project are to assess the quality of the winter range of the Carcross caribou herd, using lichen abundance as an indicator and to examine land use patterns to assess their impacts on current and future caribou use of their

traditional range.

Progress to Date

The Southern Lakes vegetation map is being used as a basis for sampling lichens. The vegetation types mapped within the winter range are being sampled using a technique developed for range assessment of the Porcupine Caribou herd. Of the 16 vegetation types mapped in the area, 10 occur fairly commonly and are being sampled.

Maps of land uses in the area have been obtained.

Plans for 1996-97

As many sites as possible will be sampled prior to snowfall. During the winter, lichen samples will be cleaned, dried, identified, and weighed to determine the relationship between cover estimates and dry weight. Lichen abundance will be calculated for each vegetation type.

All available caribou location information will be put on a GIS. Regular aerial surveys will occur during winter to map caribou locations. This data will be used to determine the vegetation types used by the caribou.

Time permitting, land uses will be assessed for their impact on caribou range and this information will also be put on a GIS to determine the amount of caribou range that is no longer available.

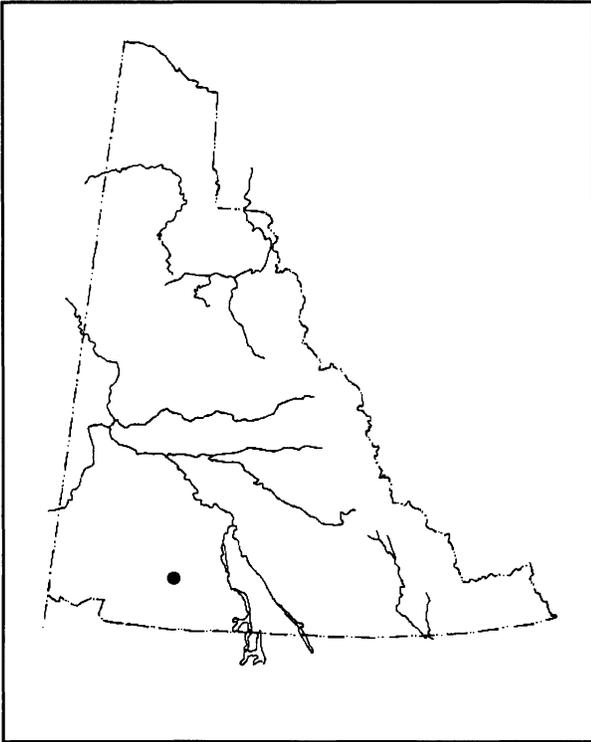
Cooperating Agencies

Council for Yukon First Nations
Malaspina College, Nanaimo, B.C. (student project)

Budget: Yukon Government: \$5,000 Cooperators: Canada/Yukon Economic Development Agreement (See page 9)

Contact: Val Loewen, Habitat Inventory Coordinator, 667-5281
Janet MacDonald, CYFN, 633-5861
Rick Farnell, Caribou Biologist, 667-5465

Aishihik/Kluane Caribou Recovery Program - Habitat Mapping



Project Description

This project maps habitat within the range

of the Aishihik Caribou Herd. The objective of this project is to identify the important habitat types used by the caribou during post-calving and in the winter. Once these habitats are known, the quality of the range will be assessed.

It is proposed to use analysis of satellite imagery to map the habitat types and to use GIS to examine the relationship between caribou distribution and the habitats.

Progress to Date

Satellite imagery and air photos for the study area were purchased. Plans were made for ground-truthing the imagery in the area from Killermun Lake to Kluane Lake. Scheduling problems prevented this field work from occurring during the summer of 1995.

Field work will occur in 1996 subject to budget availability and the relative priority of this project within the Branch.

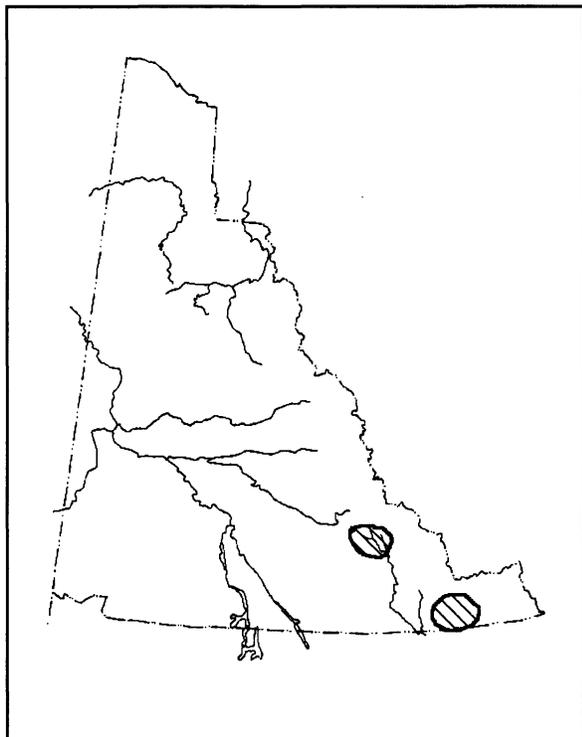
Community Involvement

This project was developed in response to concerns of the Aishihik/Kluane Caribou Recovery Steering Group about the identification and protection of key caribou habitats and the capacity of the range to support the herd as it recovers. The presence of mineral exploration in the post-calving range of the herd was partly responsible for the high level of importance that the Steering group attached to the habitat work.

Budget: Yukon Government: \$20,000

Contact: Val Loewen, Habitat Inventory Coordinator, 667-5281
Bob Hayes, Regional Biologist, Haines Junction, 634-2247
Doug Larsen, Chief, Wildlife Management Section, 667-5177

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 ongoing program began in 1992.

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 in 1992. The information has been entered into computer data bases for future

analysis and summary. Six additional burns and associated unburned sites were sampled in the Whitehorse area in 1994.

Plans for 1996-97

Evaluate sampling project and revise sampling designs following consultation with scientists currently conducting research in this area.

Publications and Reports

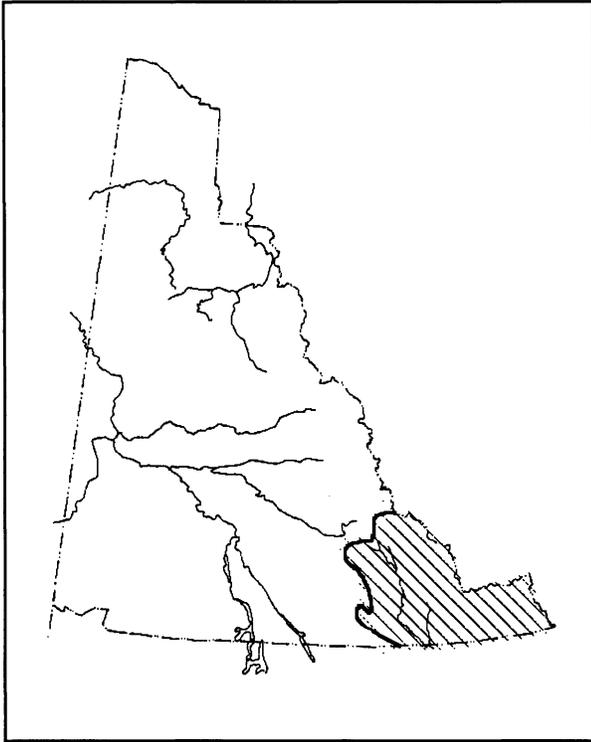
An interim report and recommendations will be prepared to support a prescribed burn policy for the Yukon.

Cooperating Agencies: Wildlife Habitat Canada, Northern Affairs Program, Forest Mgt.

Budget: Yukon Government: \$5,000 Cooperators: \$0

Contact: Rob Florkiewicz, Regional Biologist, Watson Lake, 536-7365
Rick Ward, A/Moose Biologist, Whitehorse, 667-5787

Ecosystem Classification and Management Interpretations for the Southeast Yukon



Project Description

The terrestrial ecosystems of southeast Yukon (treed and non-treed) are being described and classified in a major ecological inventory initiated in 1993. The study encompasses Ecoregions 1 (Beaver River), 2 (Liard River) and 3 (Logan Mountains) as delineated by Oswald and Senyk, 1977. More recently, these original ecoregions have been revised into portions of the Hyland Highland, Liard Basin, Selwyn Mountains and Muskwa Plateau Ecoregions, by the Yukon Ecoregions Working Group, 1995.

The purpose of the Classification is to provide a framework through which values of wildlife, recreation, timber harvesting, road construction and other development activities will be weighed

and integrated. This project is unique in Canada because it incorporates non-forested ecosystems.

The data from field samples of soil and vegetation from all elevations in the study area is analyzed, classified and described.

A field guide will be developed for identifying the vegetation and soil types. It will include detailed descriptions and simple keys for vegetation and soil that can be applied in the field by non-specialists with a minimum of training.

The vegetation types and their associated soils will be grouped into management units, based on ecological similarity. These units shall be easily identified in the field, and represent broad landscape entities that respond similarly under various management regimes.

Management interpretations regarding wildlife values, silviculture practices and geotechnical properties will be made on these units, based on interviews with Yukon resource managers, as well as relevant research.

The project is administered by an inter-agency Scientific Advisory Committee.

The first approximation describes 77 vegetation and 29 soil types. It is based on over 500 plots sampled in 1994 and 1995, supplemented by data from YTG Renewable Resources and Forest Resources, DIAND. These vegetation types are grouped into 18 management units.

Several workshops were held in Whitehorse (February '95, April '95, August '95) and Watson Lake (August '95) to incorporate comments from the Government agencies, industry and interested individuals.

Progress to Date

A first approximation of the Ecosystem Classification for the Southeast Yukon was produced by Geomatics International Inc. The vegetation types (and their associated solids) are grouped in 22 treatment units for management purposes.

Plans for 1996-97

The Ecosystem Classification and the Management Interpretations will be revised, based on comments received by the consultants from the Advisory Committee, agencies and individuals. Management interpretations will be completed with additional information from workshops. Workshops are scheduled for November '95 and February '96, to review the second and final approximations of the Ecosystem Classification and the Management Interpretations.

Publications and Reports

Geomatics International. 1995. Ecosystems Classification for the Southeast Yukon. First Approximation.

Geomatics International. 1995. Management Interpretation for the southeast Yukon. First Approximation.

Cooperating Agencies:

Forest Resources, Northern Affairs Program
Agriculture Canada

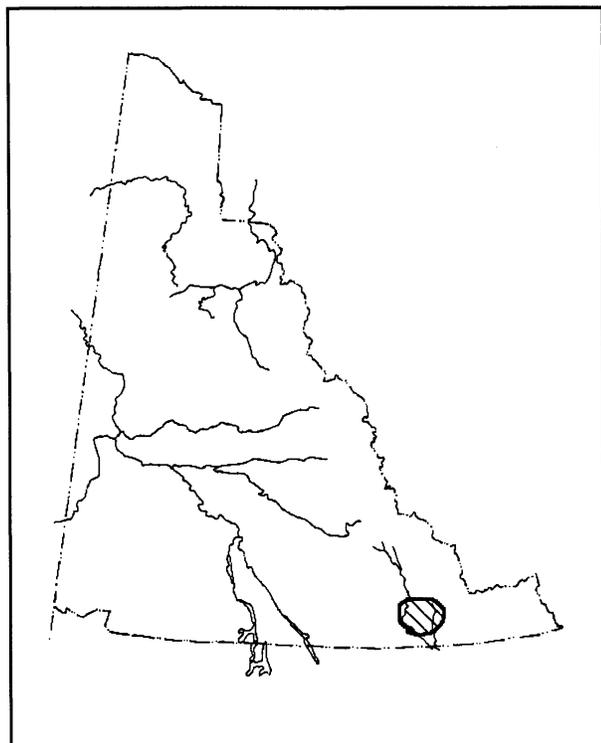
Budget:

Canada/Yukon Economic Development Agreement \$426,000 (for 3 years ending 1995/96)

Contact:

Catherine Kennedy, Vegetation Specialist, 667-5407 (Project Manager)
Rob Florkiewicz, Regional Biologist, Watson Lake, 536-7365
Deb Worley, Project Forester, Forest Resources, 667-3308
Scott Smith, Head, Canada-Yukon Soil Survey Unit, Agriculture Canada, 667-5272
Don White, Forest Management Technician, Forest Resources, DIAND, 667-3335

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 1994-95.

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 5 and 21

years of age, were assessed for browse production and use.

Plans for 1996-97

Review comments and edit final report for distribution.

Publications and Reports

Department of Renewable Resources. Interim report: Moose and logging in the Liard Basin. A final report will be available in 1995.

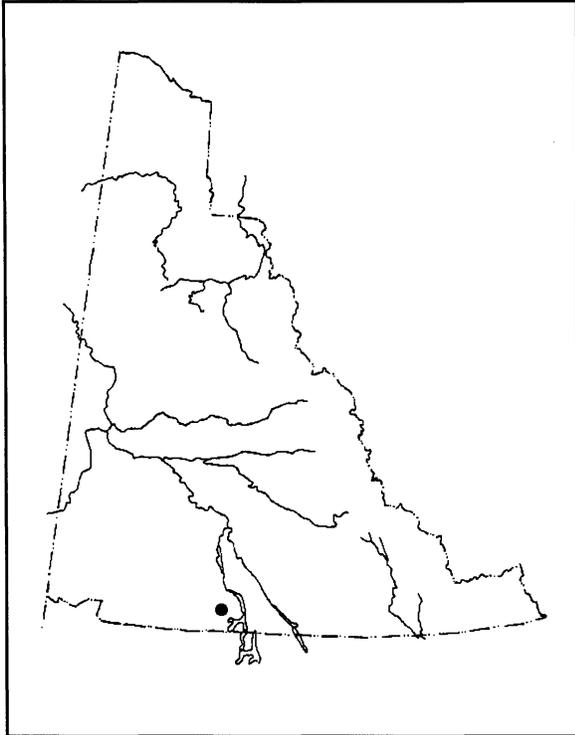
Florkiewicz, R.F. and P.D. Henry. 1993. Moose habitat characteristics relative to logging in the Liard River Basin, S.E. Yukon. Proc. I.U.g.B. Congress. pp. 211-216

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 continuing project began in 1992. Field work in 1993-94 was carried out in May-June.

Progress to Date

Vegetation samples were collected from Red Ridge in August, 1992 to provide baseline data. The proposed spring burns for 1993 and 1994 were completed. Vegetation sampling was repeated in August, 1994. A progress report was completed in 1995.

Plans for 1996-97

Vegetation samples will be collected from two of the prescribed burn plots in August, 1995, to evaluate the one year post-burn successional growth and relative success of the prescribed burns. Vegetation sampling will continue indefinitely every 3 years. Photographs will be taken from permanent photo pins to maintain the time-series observation.

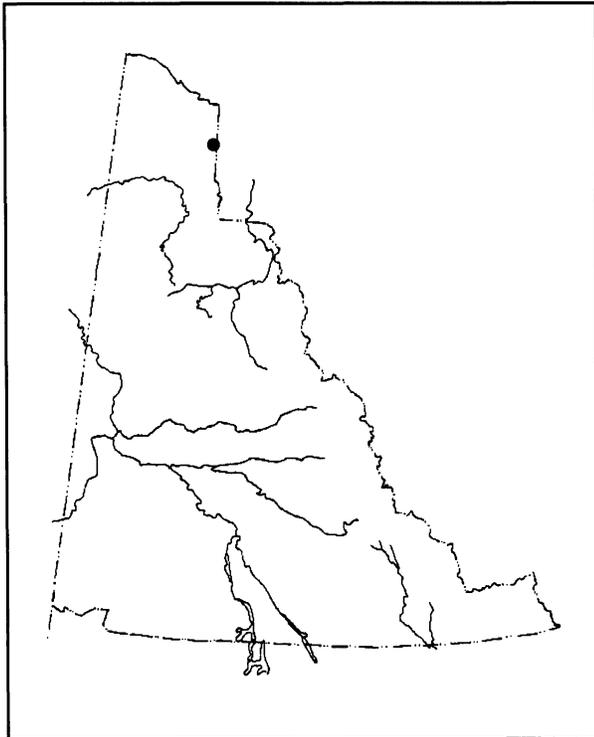
Cooperating Agencies: Northern Affairs Program; Fire Management

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

Contact: Marcus Waterreus, Habitat Technician, 667-3739

Habitat Mapping in the Northern Yukon

Project Description



This project is made up of two parts:

1. production of a vegetation/land cover map of the Northern Richardson Mountains.
2. Production of maps of used or preferred habitats for a variety of wildlife species, including thinhorn sheep, moose, muskox, grizzly bear, snow geese, and other migratory birds. These important habitats will be identified using the Departmental GIS to analyze the relationships between land cover (habitat) and wildlife distribution. The maps will be used by co-management groups and government agencies to help make land management decisions in the Inuvialuit Settlement Region.

This is a co-operative project with major funding for the land cover map and the GIS application having been provided by the Inuvialuit Game

Council (through the Inuvialuit Final Agreement) and NOGAP (Northern Oil and Gas Action Program), respectively.

The project began in 1992 but will continue to be improved as more information becomes available.

Progress to Date

A preliminary vegetation/land cover map was produced and field tested. Problems with some cover classes were identified and the computer analysis was improved and repeated. Technical equipment problems were encountered which has slowed completion of the final map.

Existing information on wildlife distribution was gathered and put on the GIS. GIS procedures and habitat models have been developed for some species and areas.

Plans for 1996-97

The accuracy of the new land cover classification will be tested using previously gathered field information. The classification will then be improved if necessary and possible. The final map will be produced.

The GIS analysis of preferred wildlife habitats will be completed using the final Northern

Richardson Mountains map and the Yukon Coastal Plain map recently produced by the Canadian Wildlife Service.

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.

Progress reports for the Wildlife Management Advisory Council (North Slope).

NOGAP progress reports

A manual on how to use the GIS system is being developed by RRGIS

Cooperating Agencies: Canadian Wildlife Service
Renewable Resources Geographic Information

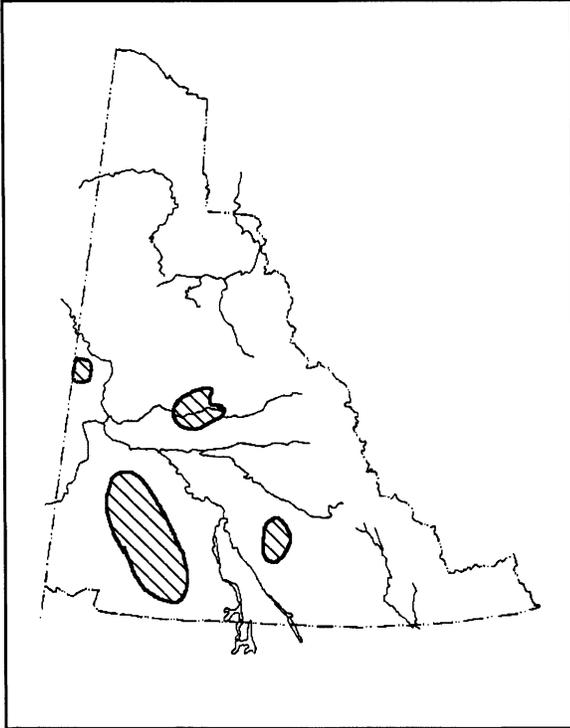
Contacts: Val Loewen, Habitat Inventory Coordinator, 667-5281
Beth Hawkings, Manager Geographic Information, 667-8137

Moose

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Moose Population Composition Surveys

Project Description



The objective of this project is two-fold. First, late-winter recruitment in to four areas of the Yukon will be measured concurrently in order to detect regional differences. Secondly, recruitment will be measured in consecutive years in order to detect temporal differences.

The information will be used to compare recruitment 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 1995-96 will be carried out in February and March in the Aishihik, Big Salmon River, Mayo and Dawson areas.

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/Kluane 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.

In 1994, all areas, except Dawson, showed high recruitment rates, ranging from 21% calves in the Big Salmon area to 17% calves in the Mayo area. Calves made up only 6% of the Dawson population. The Aishihik area continued to have high (18%) recruitment in 1995 while rates in the Big Salmon and Mayo areas declined to approximately 1993 levels (9% and 10% respectively). Recruitment in the Dawson area remained low in 1995.

The fact that all areas had relatively low proportions of calves in 1993 and all but Dawson area had high recruitment in 1994 suggests wide-spread environmental factors had a negative impact on calf survival in 1992. High calf survival rates 3 of the 4 areas in 1993 may have been due to exceptionally good spring, summer, and fall weather. High calf recruitment in the Aishihik/Kluane area again in 1994 should result in strong population growth.

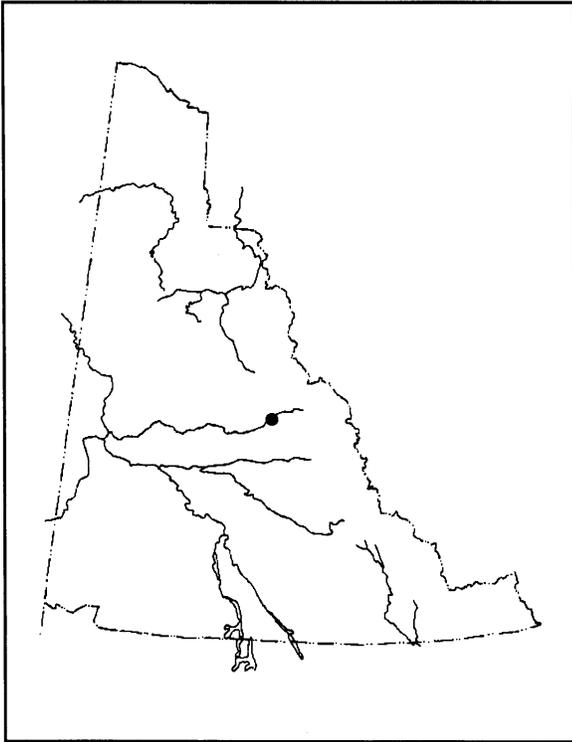
Plans for 1996-97

All four areas will be surveyed again in February and March, 1995 to assess the effect of the wolf population reduction on recruitment into the Aishihik/Kluane moose population. 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/Kluane moose population. The control populations should not show a similar response.

Budget: Yukon Government: \$30,000

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

Fall Moose Population Survey of the Pelly River Area



Project Description

Only small portions of the Pelly River area have been previously surveyed. Local knowledge suggests the hunting pressure has been increasing in this area in recent years.

This project will survey the Pelly river moose population to determine abundance, composition and trend. The 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.

Progress to Date

The area will be surveyed in November, 1995 using our standard intensive survey technique.

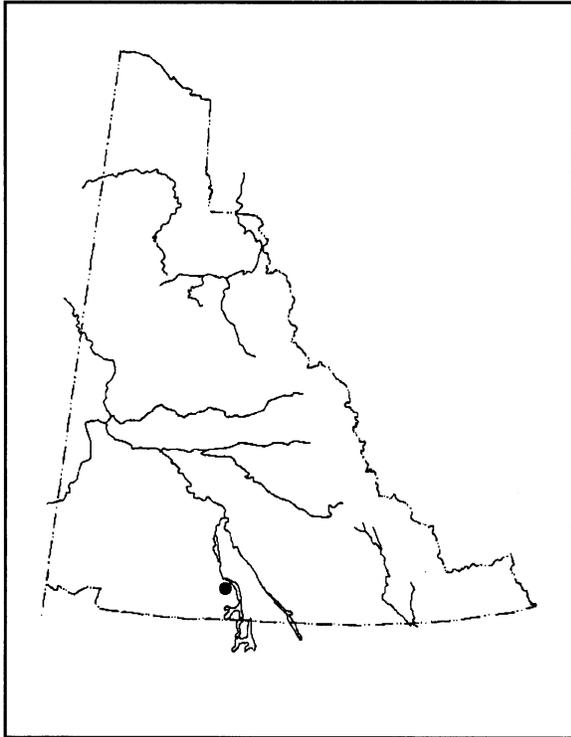
Plans for 1996-97

Initial results will be available in early 1996.

Budget: Yukon Government: \$70,000

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

Fall Moose Population Survey of the Mount Lorne Area



Project Description

The Mount Lorne area was surveyed in 1982, 1983, and 1994.

The project was conducted to determine change in moose population 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.

Progress to Date

Preliminary analysis suggests that moose abundance in the Mount Lorne area declined by about 40% between 1983 and 1994. Local

knowledge suggests that excessive hunting may be at least partially responsible for the decline.

The area will be surveyed in November, 1995 using our standard intensive survey technique.

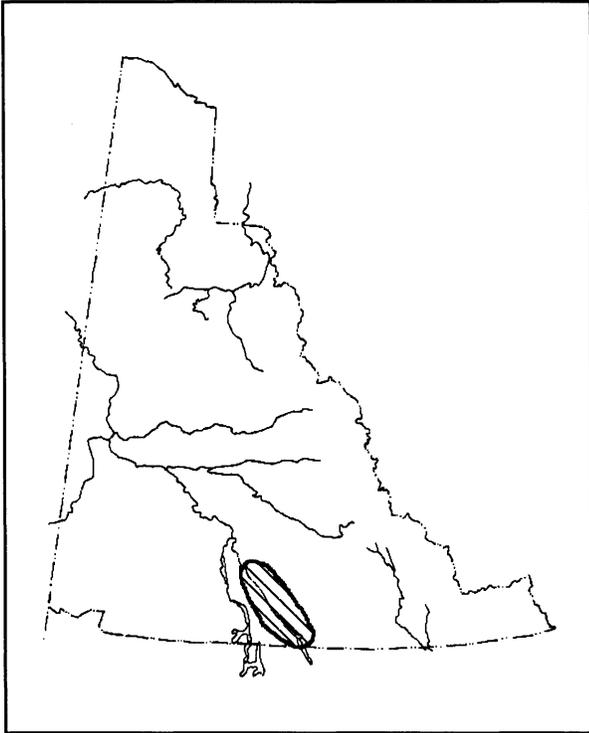
Plans for 1996-97

Initial results will be available in early 1996.

Budget: Yukon Government: \$70,000

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

1994 Fall Moose Population Survey of the Nisutlin River Area



Project Description

The Nisutlin River area was surveyed in 1986 and 1994.

The project was conducted to determine changes in moose population abundance, composition, and trend. The 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.

Progress to Date

A preliminary summary of the survey results is now available. Moose abundance increased by about 55% between 1986 and 1994. Age and sex composition suggest that the population should

presently be stable or increasing.

The area will be surveyed in November, 1995 using our standard intensive survey technique.

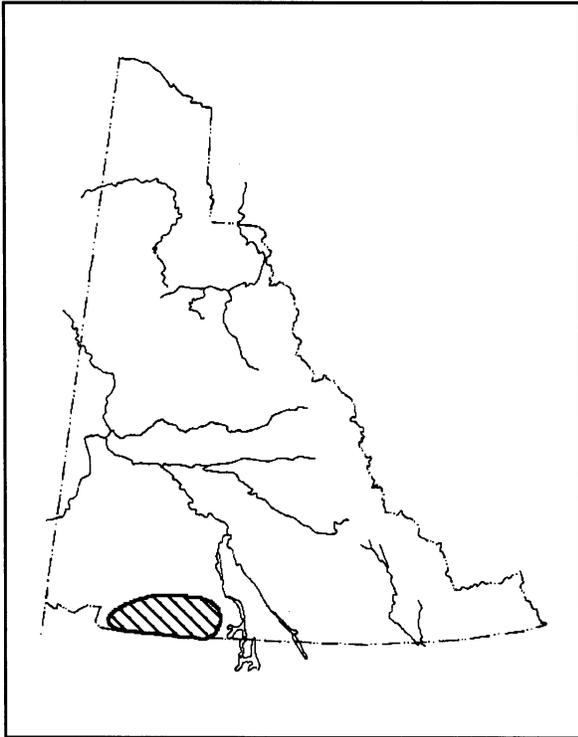
Plans for 1996-97

Initial results will be available in early 1996.

Budget: Yukon Government: \$70,000

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

Assessment of Effectiveness of Forest Fires in Producing Moose Browse



Project Description

There is considerable evidence that forest fires can result in higher browse abundance for moose. Little is known, however, about how much more browse is produced after a fire, how many years the increase in browse lasts for, or what pre-fire conditions result in the greatest increase in browse.

This project measures brows abundance in burned and adjacent unburned areas throughout the territory to address these questions. The information will be used to predict what type of sites will benefit most from prescribed burning to improve moose habitat, how much the habitat will be improved, and how long.

Progress to Date

The area will be surveyed in November, 1995 using our standard intensive survey technique.

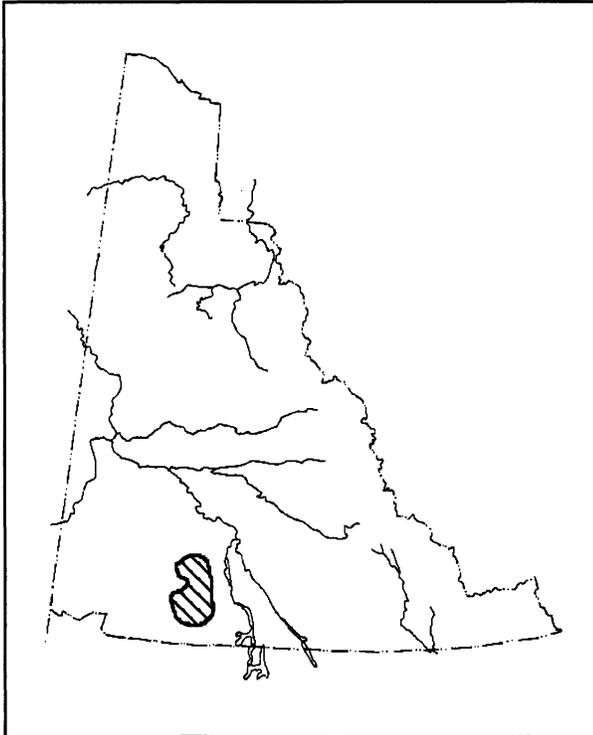
Plans for 1996-97

Initial results will be available in early 1996.

Budget: Yukon Government: \$70,000

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.

During the fall of 1993, the costs and accuracy of information obtained by using airplanes instead of helicopters was field tested. Computer

simulations suggested that costs could 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.

Progress to Date:

Fixed wing aircraft were not as efficient as helicopters for spotting and counting moose. As a result, the anticipated cost savings were not realized.

Plans for 1996-97

No further tests of this technique modification are planned.

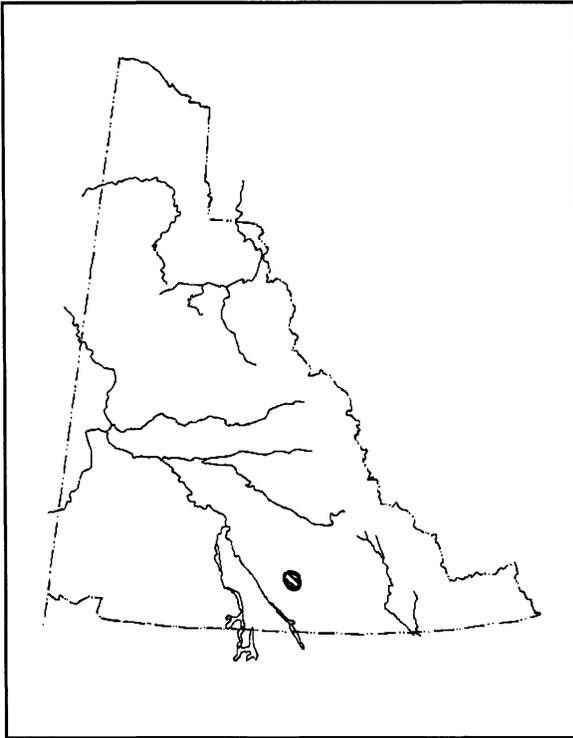
Publications and Reports:

Smits, C.M.M., R.M.P. Ward, and D.G. Larsen. 1994. Helicopter or fixed-wing aircraft: a cost-benefit analysis for moose surveys in Yukon Territory. Submitted for publication in ALCES.

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. The test involves carrying out annual trend surveys between the intensive aerial surveys which are conducted at five-year intervals.

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, 1994.

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 will be assessed by comparing the results of the trend survey with the results of the census which has been conducted in 1994.

Plans for 1996-97

No further trend surveys are planned for 1995. An analysis comparing standard moose survey technique with trend survey techniques once the North Canol trend survey has been completed in 1996.

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.

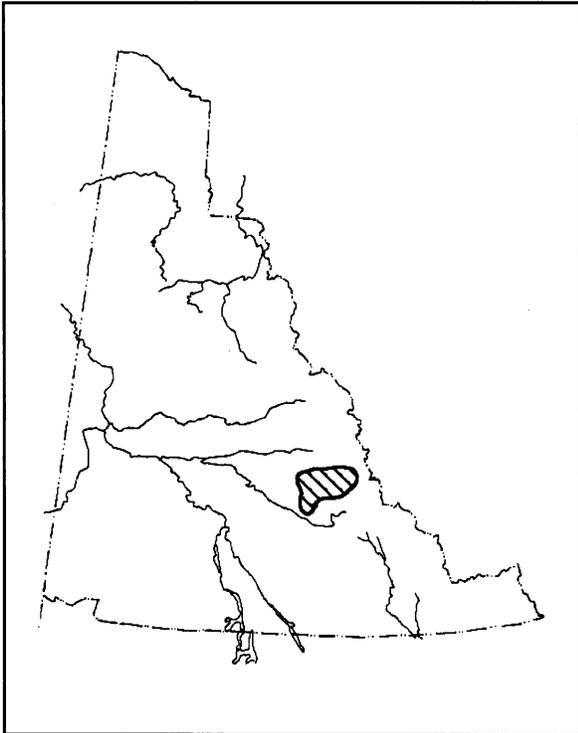
Larsen, D.G. and R.M.P. Ward. 1991. Summary of moose trend survey results 1990. SR-91-5.

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.

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

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 page 77). 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.

This long-term project began in 1989. Current-year field work will be carried out in November, 1995.

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 1996-97

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.

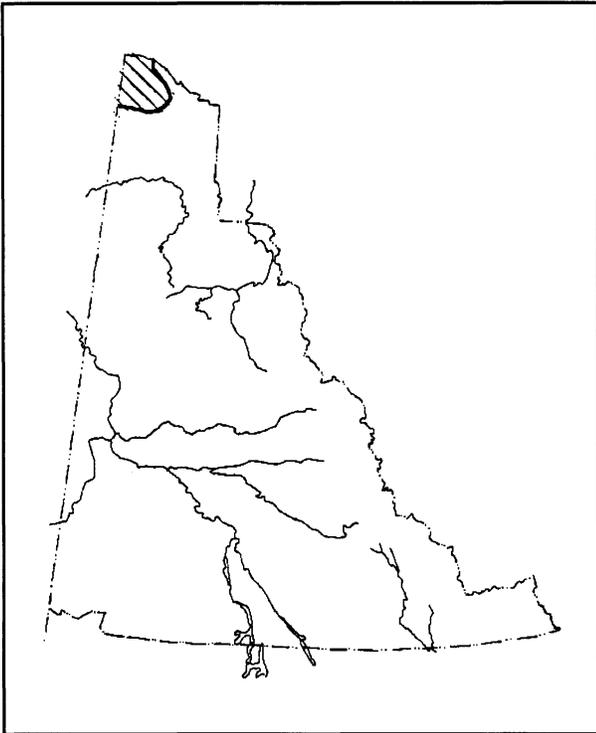
Budget: Yukon Government: \$4,500

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

Muskoxen

Muskoxen Distribution and Habitat Use on the Yukon North Slope 80

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 project began in 1992. Field work was conducted throughout 1993, 1994, and 1995. Reports are scheduled to be prepared during 1995/96.

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. Their locations were monitored throughout 1993-94 and their satellite collars removed in March 1994.

Ground counts to determine the sex and age composition of muskoxen herds were conducted in July 1994 and March 1995.

Faecal samples were collected at three-month intervals and analyzed for botanical composition.

A second survey was done in March 1995 and 146 muskoxen were observed.

Plans for 1996-97:

A poster on the status of muskoxen on the North Slope will be presented at the Arctic Ungulates Conference in Fairbanks, August, 1995.

Publications and Report:

A final report on status, seasonal distribution, and habitat use of muskoxen is due March 1996.

Cooperating Agencies: Government of Canada; Canadian Parks Service

Budget: Yukon Government: \$10,084.00 Cooperators: \$85,979.85

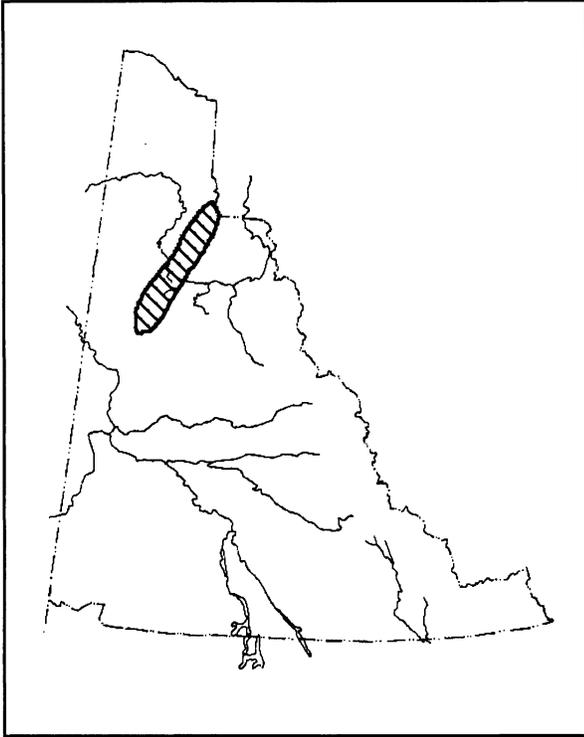
Contact: Cor Smits, Special Projects Biologist, 667-5087
Dorothy Cooley, Regional Biologist, Dawson City, 993-6461

Non-Game and Endangered Species

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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 the current year 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.

The Dempster center visitation has increased steadily; 1986 - 1,445, 1990 - 3,480, 1993 - 3,624.

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.

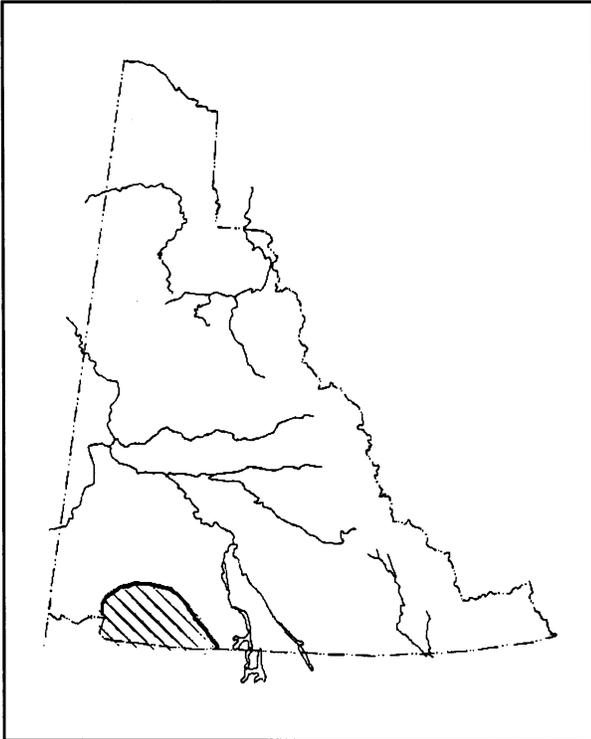
Pattimore, J. 1993. Dempster Interpretive Centre/Raptor Research Project.

Cooperating Agencies: Yukon Department of Tourism

Budget: Yukon Government: \$5,000 Cooperators: \$10,000

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

Gyr Falcon 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 the current year 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 1996-97

The reference population in the Coast Mountains will be surveyed in June, 1995.

Publications and Reports

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

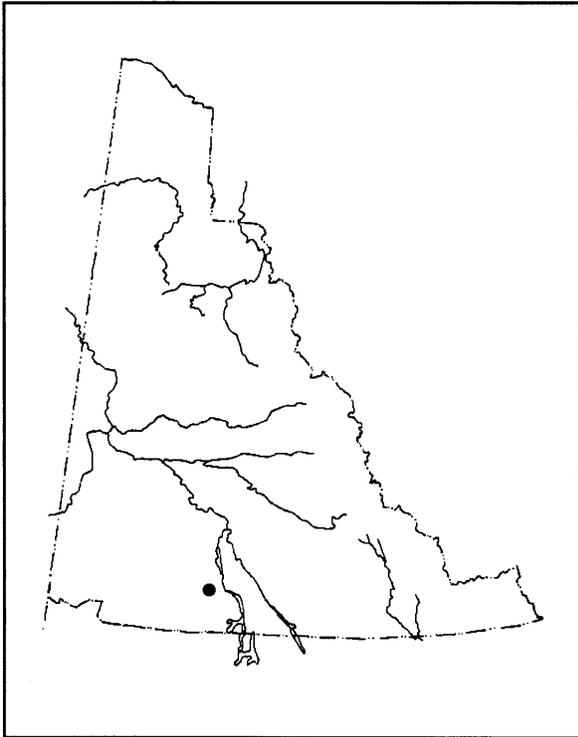
Mossop, D. and R. Hayes. Long-term trends in the breeding density and productivity of Gyrfalcon (*Falco rusticolus*) in the Yukon Territory.

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 five-year project began in April, 1993. Field work in the current year 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.

The fall migration will be monitored during September and October, 1995.

Plans for 1996-97

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.

Publications and Reports

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

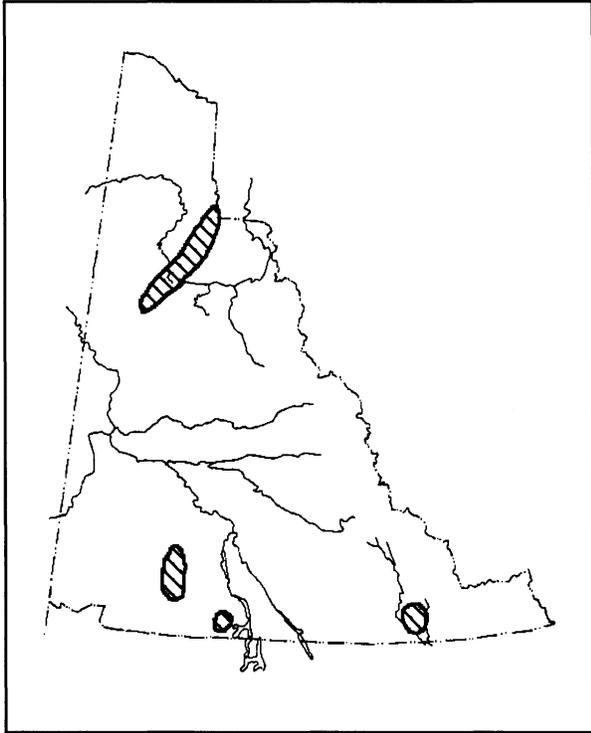
Mossop, D. and K. Egli. 1993. Bird Strike Monitoring, Haeckel wind turbine, Summer 1993. Interim report.

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 the current year 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

Song birds and 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.

Publications and Reports

Annual Reports, 1975-1984.

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

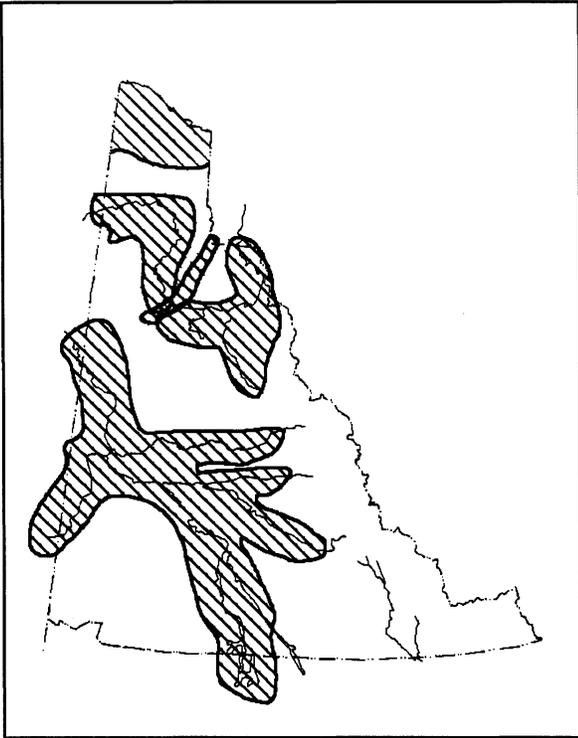
Mossop, D. 1987. Bird of Prey Inventory, Kusawa Lake Area.

Cooperating Agencies: Department of Tourism
Canadian Wildlife Service
World Wildlife Fund (Can)

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 the current year 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 1996-97

In 1995, a major survey will cover all the known historic breeding habitat. A survey of all potential habitat will be concluded along with a search for breeding pairs and banded birds released in earlier attempts to re-establish the population. Both the arctic and interior races will be involved.

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: \$25,000 Cooperators: \$10,500

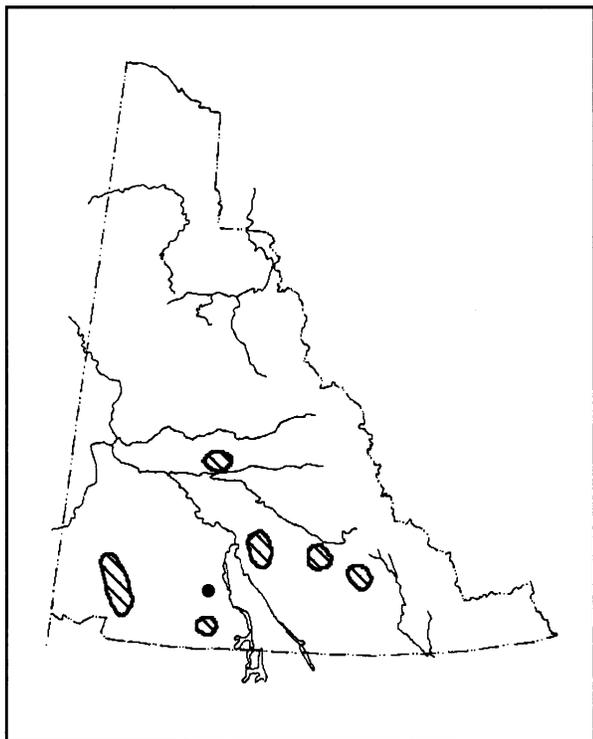
Contact: Dave Mossop, Coordinator, Non-Game Management, 667-5766

Sheep and Goats

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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. In other areas, the surveys are intended to assess the long-term effects of mining activity.

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

Members of each First Nation, as well as other community members, act as observers for the sheep survey in their traditional territories. Additional community involvement is provided through the Aishihik Steering Group (see p. 113).

Progress to Date

In 1992 - 1995 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 1996-97

In 1996-97, sheep populations in subzones 5-31, 5-34, 5-36, 7-23 and 7-30 will be resurveyed.

Publications and Reports

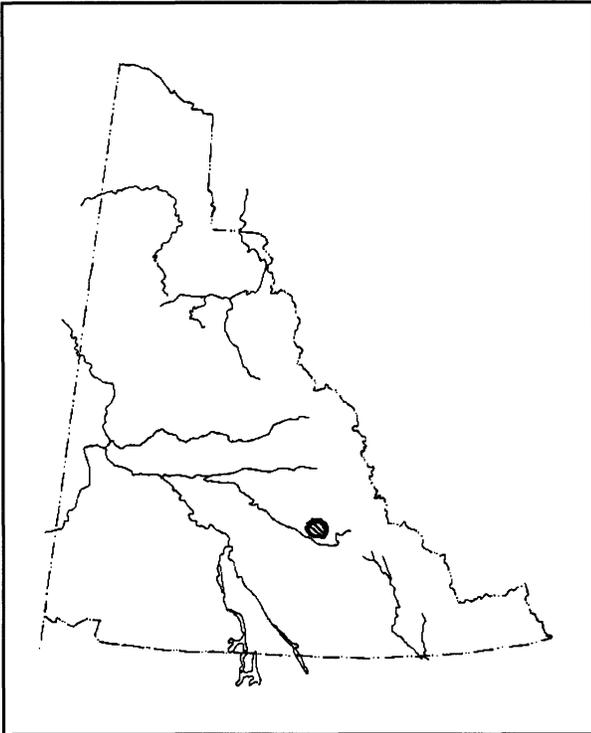
Aishihik and Kluane Caribou Recovery Program, Technical Progress Report, November 1992 to October 1993. (in prep.)

Cooperating Agencies: Kluane First Nation , Na Cho Ny'ak, Ta'an Kwachan, Ross River
Dena Council

Budget: Yukon Government: \$28,500 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 and the effectiveness of the mitigated measures implemented.

This ongoing project began in 1986. Field work in 1995-96 will be carried out in July and October.

Community Involvement

The Faro Fish and Game Association and the Town of Faro have been involved in planning and carrying out habitat improvement work related to this project. Wildlife viewing facilities were 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 1996-97

The status and reproductive performance of the sheep population will be assessed through an aerial survey in July, 1996.

Winter monitoring will be carried out in cooperation with the Faro Fish and Game Association.

Burning of the brush piles (left from the Habitat Enhancement Project in 1994) will be conducted in October 1995.

Publications and Reports

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

Cooperating Agencies: Faro Fish and Game Association
Town of Faro

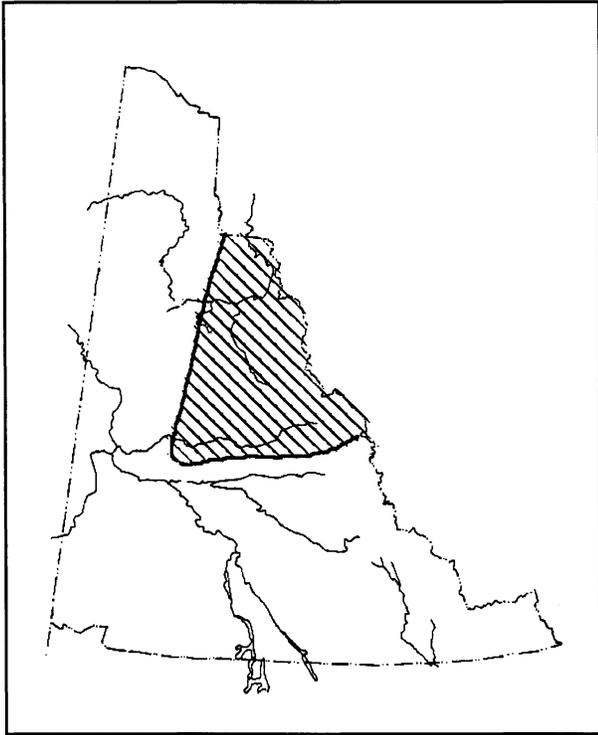
Budget: Yukon Government: \$10,000 Cooperators: \$0.0

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

Special Projects

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Mayo Big Game Management Plan



Project Description

This project is implementing a big game 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 big game management plan. The council will continue to

act as a forum for local decision-making as the plan is implemented.

Initially, six species of big game are included in the plan. More species will be added in the future.

The Nacho Nyak Dun First Nation (NNDNFN) 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 public meeting with wildlife users in the Mayo area and biologists was held at Ethel Lake in June 1993. At this meeting, items of concern were identified and agreement was reached on possible

remedies. This formed the management plan which identifies actions to be carried out by the MDRRC, the NNDFN and YTG until 1996.

The 1995-96 plan has been produced and is available.

Plans for 1996-97

The Plan will be renewed for the 1997-1999 period.

Publications and Reports

Larsen, D. and D. Cooley. 1992. Wildlife Information for the Na-Cho Ny'a'k Dun Traditional Territory: A Status Report.

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

Cooperating Agencies: Na-cho Ny'a'k Dun First Nation (996-2265)
Mayo District Renewable Resource Council (996-2721)

Budget: Yukon Government: \$11,300 Cooperators: \$0.0

(portions of projects summarized elsewhere in this report are intended to meet YTG commitments in the Mayo Big Game Management Plan)

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

North Canol Hunter Check Station

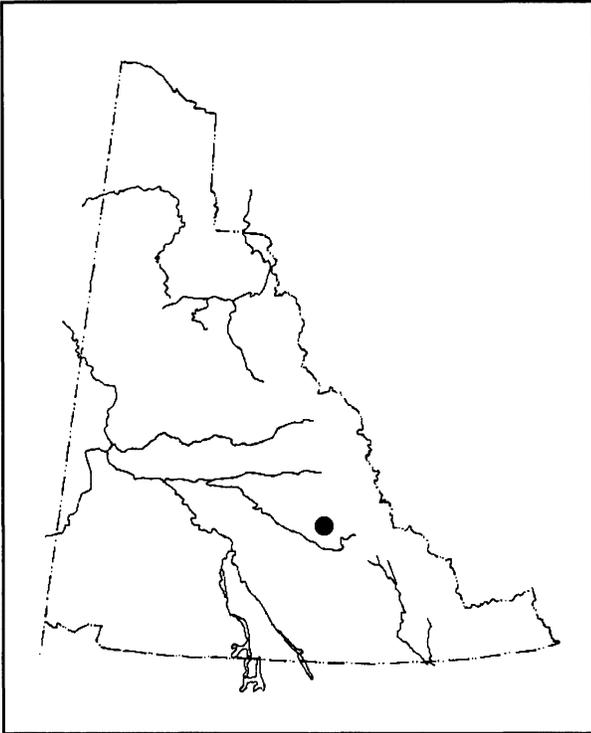
Project Description

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.

Community Involvement

This project is operated and funded jointly by the Ross River Dena Council and the Department of Renewable Resources. Local concern regarding hunting pressure and traffic patterns on the North Canol has resulted in continuation of this station through the 1994-1995 season.



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 three 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 1996-97

Traffic and harvest patterns will be monitored through the 1996 big game hunting season. Data obtained from 1991 to 1995 will be summarized and analyzed.

A final project report will be completed by June, 1996

Publications and Reports:

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: \$25,000 Cooperators: \$8,000
(project life)

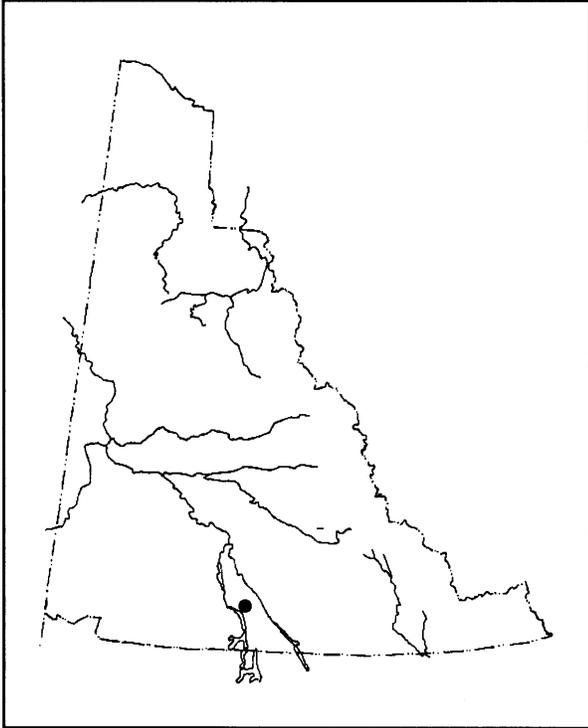
Contact: Rob Florkiewicz, Regional Biologist, Watson Lake, 536-7365

Wildlife Viewing

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M'Clintock Bay Interpretive Centre

Project Description



This project involved the construction of a nature interpretation centre at the M'Clintock Bay waterfowl viewing site. The centre enriches 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 helps 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 was 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

The interpretive centre and display were completed in 1993. A barrier free toilet, boardwalk, and landscaping were completed in 1994

Plans for 1996-97

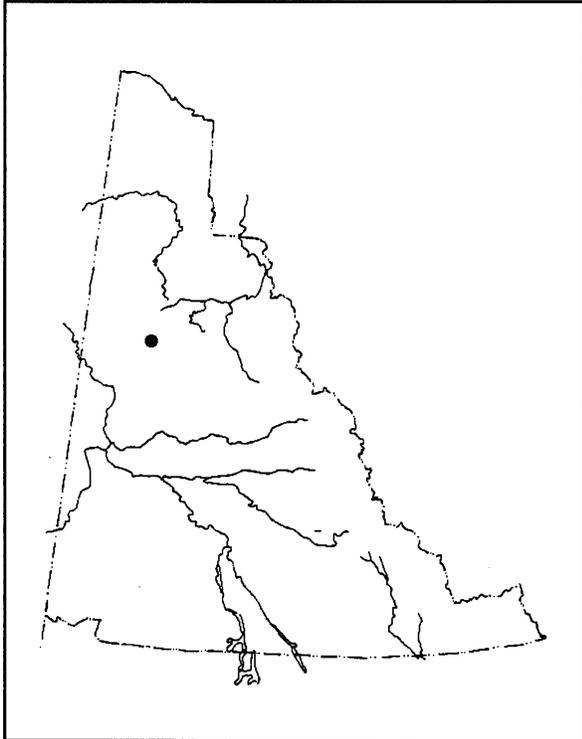
Continue development of interpretive programs. See page 114 for program details.

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.

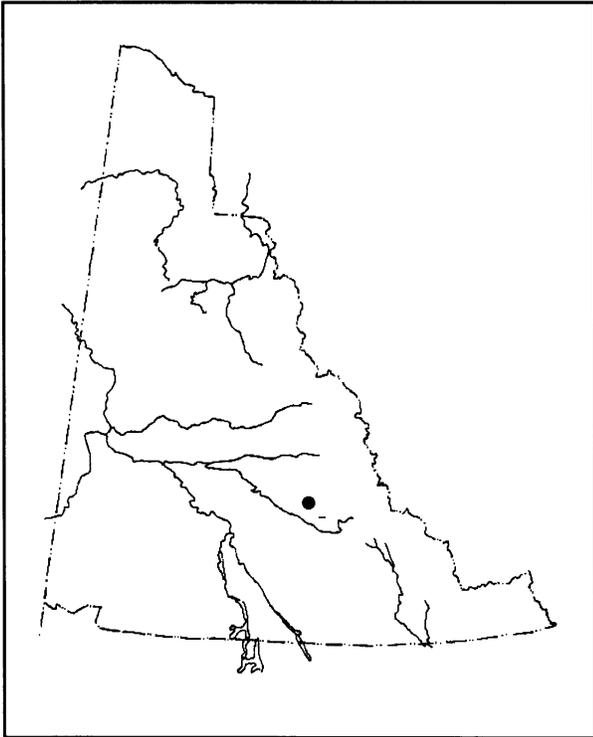
A deck was built at the pull-out in 1994 and interpretive signs were produced and will be installed in 1995.

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.

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

Cooperating Agencies:

Faro Fish and Game Association
Town of Faro

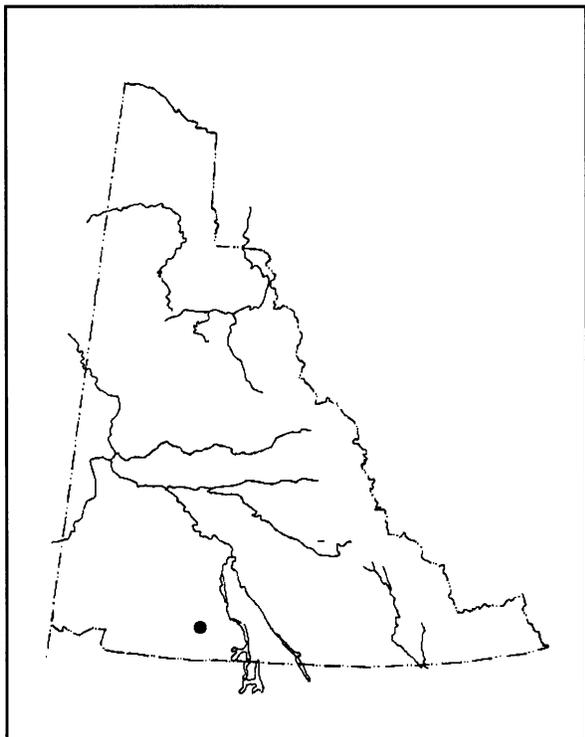
Budget:

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.

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

Cooperating Agencies:

Department of Tourism

Department of Community & Transportation Services

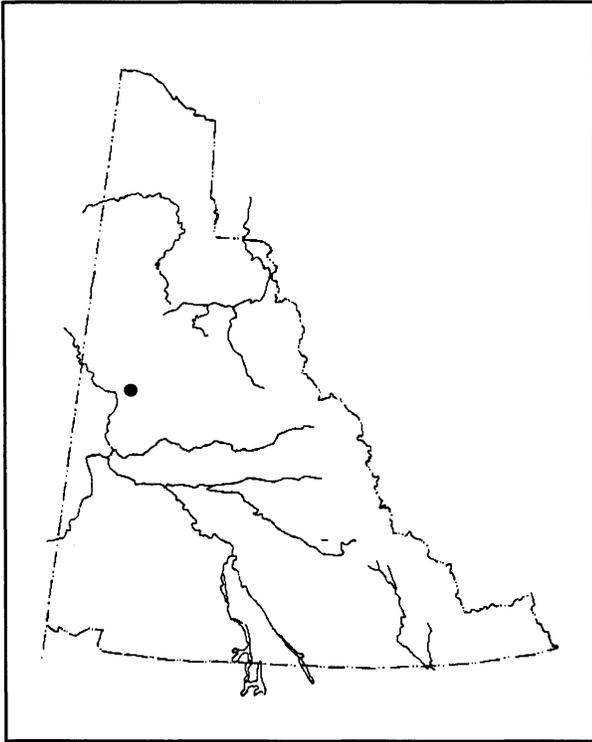
Budget:

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

Contact:

Graham Baird, Wildlife Viewing Program Biologist,
667-8291

Top of the World Highway Interpretive Project



Project Description

This project involves the development of a wildlife viewing site at an existing rest stop (km 14) on the Top of the World Highway. A viewing deck with interpretive signs will be built overlooking the Yukon River Valley. The signs will tell the story of the Forty Mile Caribou herd.

Community Involvement

The Wildlife Viewing Program contracted the Dawson First Nation to provide text and illustrations for a sign presenting information on the importance and traditional use of the caribou to Indian people.

Progress to Date

The location for the deck has been chosen. Text and illustrations for the signs have been completed. A deck was built and interpretive signs produced and installed.

Plans for 1996-97

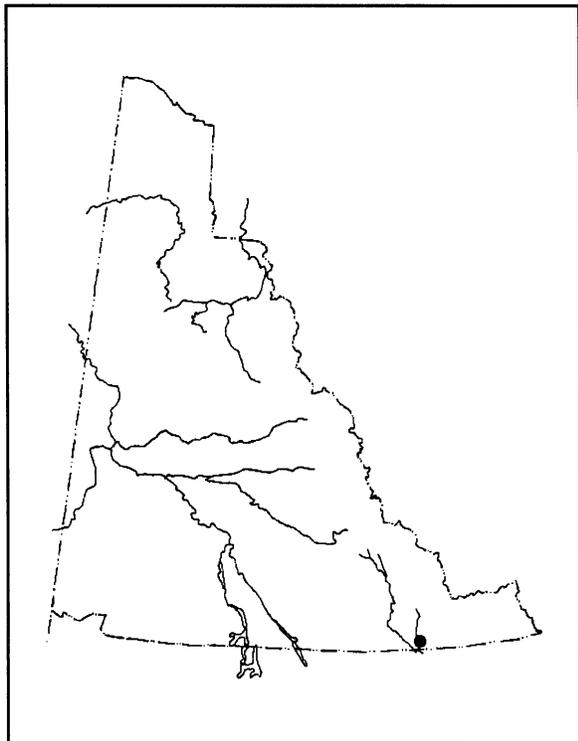
Completing landscaping of pullout area.

Cooperating Agencies: Dawson First Nation

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

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

Wye Lake Nature Trail



Project Description

The Wye Lake nature trail and visitor centre at Watson Lake was developed by the Friends of Wye Lake. The area has been developed for recreation and nature appreciation for residents and tourists. Many interpretive signs placed along the trail present information on vegetation.

Community Involvement

The department held discussions with Friends of Wye Lake regarding the need for more nature interpretation.

Progress to Date

The Wildlife Viewing Program contracted a local artist to produce interpretive signs for the trail and a poster for the centre providing illustrations and text about bird life in the area.

This work was completed in the spring of 1994.

Friends of Wye Lake had signs installed on the trail during the summer of 1994.

Cooperating Agencies: Friends of Wye Lake

Budget: Yukon Government: \$3,000 Cooperators: \$1,000

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

M'Clintock Bay Interpretive Program

Project Description

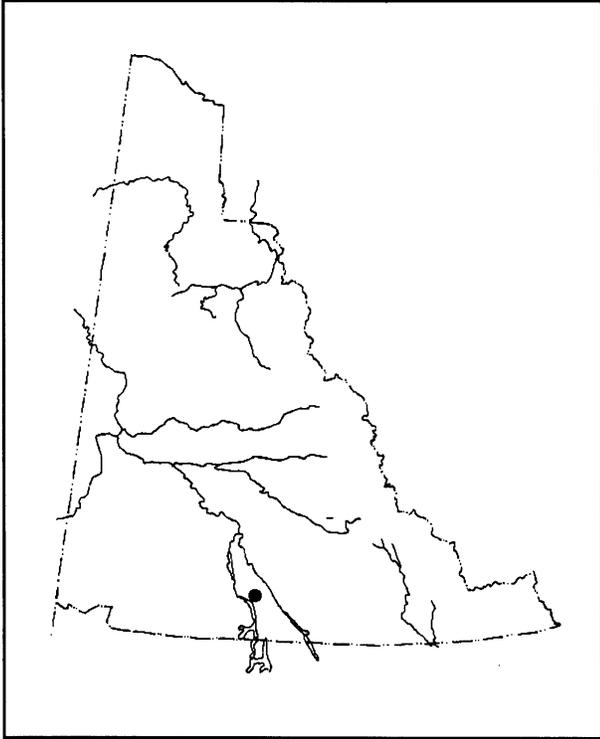
This project, held at the Swan Haven nature interpretive centre provides information about waterfowl staging in the spring at Marsh Lake and the importance of habitat to the migrating waterfowl at this site.

The intent of the project is to also control visitor activity to reduce disturbance to the birds and to raise public awareness of the importance of this site for wildlife.

Community Involvement

Many school groups visit the site and make use of the interpretive services.

The public was invited to attend opening ceremonies on April 17, 1994. First Nations elders and interpreters were consulted to translate



Swan Haven in the Tagish language.

Progress to Date

Interpretive services were provided by a contractor for a month during the spring of 1995. A display, field guides, and spotting scopes are available to assist visitors to view and learn about the waterfowl and the habitat at M'Clintock Bay. Over 3,000 visitors were recorded during opening hours at the centre. The interpreter also records daily waterfowl counts from Swan Haven.

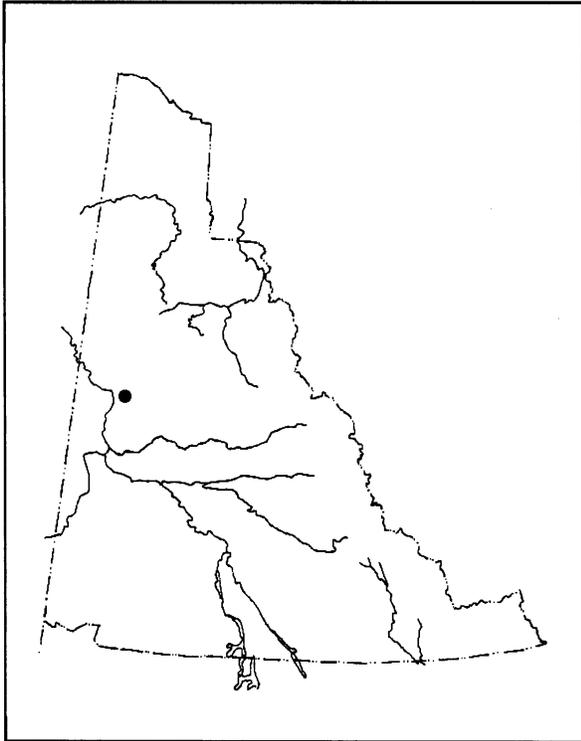
Plans for 1996/97

Year-round interpretive programs are offered at Swan Haven in cooperation with the City of Whitehorse, Department of Parks and Recreation.

Budget: Yukon Government: \$3,500

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

Yukon River Campground Interpretive Site



Project Description

A site will be developed in the Yukon River Campground to interpret Peregrine Falcons which nest on cliffs along the river. There are many nest sites above and below Dawson City on the river. The campground provides a good opportunity for interpretation as there is a cliff with a falcon eyrie directly across the river.

The project will provide information to visitors and increase interest and awareness of the Peregrines and in this way help to prevent poaching at nests.

Progress to Date

A viewing deck has been constructed in the campground. Interpretive signs have been produced.

Interpretive signs were installed in the spring of 1995.

Budget:

Yukon Government: \$8,000

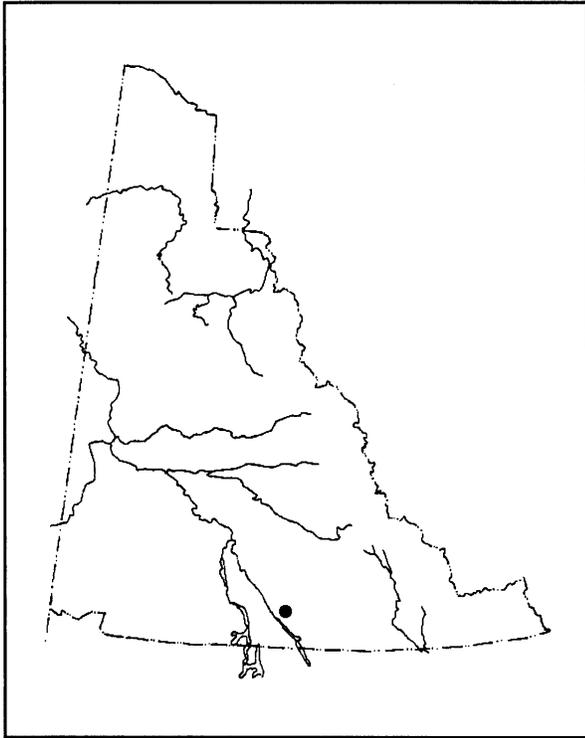
Cooperators: \$0.0

Contact:

Graham Baird, Wildlife Viewing Program Biologist,
667-8291

Julie Lefebvre, Wildlife Viewing Program Technician,
667-8291

White Mountain Viewing Site



Project Description

The purpose of this project is to develop a wildlife viewing site at km. 7.6 on the Atlin Road where mountain goats can often be seen.

The site will be enhanced with the development of a parking facility and interpretive signs which will present information on mountain goats and other natural history features.

Progress to Date:

An access road leading to a borrow pit was upgraded. The borrow pit was improved for parking.

Plans for 1996/97:

Develop and install interpretive panels.

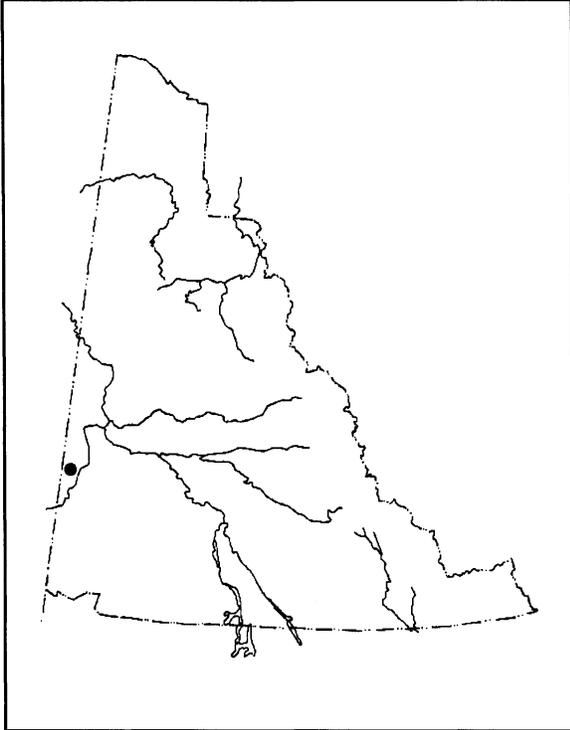
Budget:

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

Contact:

Graham Baird, Wildlife Viewing Program Biologist,
667-8291
Julie Lefebvre, Wildlife Viewing Program Technician,
667-8291

Pickhandle Lake Viewing Site



Project Description

A viewing site will be developed on Pickhandle Lake at km. 1864 on the Alaska Highway. this large shallow lake supports a good muskrat population and attracts many water birds. Development of this site will provide the opportunity for people to view and learn about the wildlife of this wetland in the Shikwuk Valley.

Community Involvement

Interpretive signs were developed with assistance from members of the Kluane First Nation.

Progress to Date

Interpretive signs were produced in 1992.

The access road and parking area were upgraded. Toilets, garbage cans, and picnic tables were installed. A viewing deck was constructed and interpretive signs attached. This work was completed in summer of 1995.

Budget:

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

Contact:

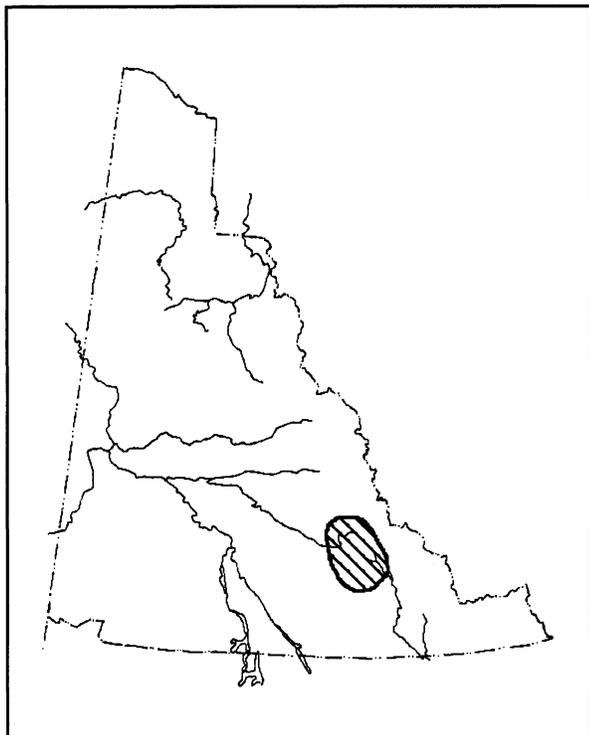
Graham Baird, Wildlife Viewing Program Biologist,
667-8291
Julie Lefebvre, Wildlife Viewing Program Technician,
667-8291

Wolves

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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 will be carried out in February/March, 1995-96

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 moose population is currently estimated to number $\approx 10,000$. 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 were 28 packs in the area with an average of 7.6 wolves/pack.

Plans for 1996-97

A wolf population survey will be carried out again in late winter but radio-collaring will not occur. Caribou census is also planned for late-winter with moose census in the following year.

Publications and Reports

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

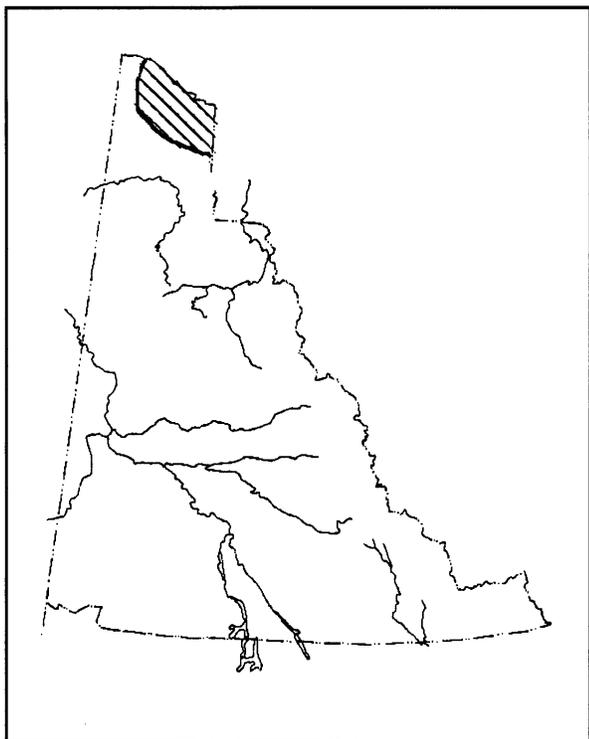
Farnell, R. and J. McDonald. The Demography of Yukon's Finlayson Caribou Herd 1982-1987.

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

North Slope Wolf Studies: 1993-95



(WMAC/NS).

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 was approved by the Wildlife Management Advisory Council, North Slope

Progress to Date

Seven conventional radio collars and eight satellite collars were placed on wolves in April, 1993. Satellite locations were documented over the year and seven of the satellite collars were removed by March 1994.

Plans for 1996-97

A project report will be produced.

Cooperating Agencies: Government of Northwest Territories

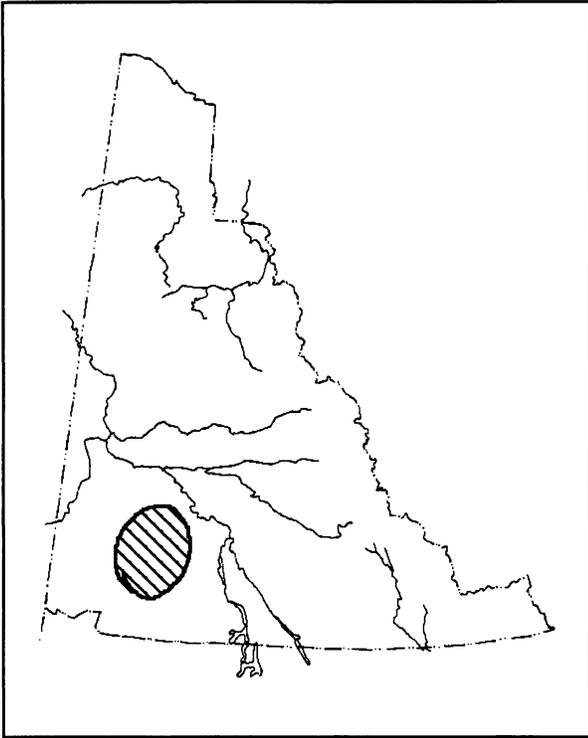
Budget: Yukon Government: \$0

Contact: Dorothy Cooley, Dawson Regional Biologist, 993-6461
Bob Hayes, Wolf Biologist, Whitehorse, 667-5469

Wood Bison

Wood Bison Recovery Project 122

Wood Bison Recovery Project



Project Description

This project's objective is to reintroduce 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 1995-96, local trappers will be involved in recording bison observations. Additional bison will be equipped with transmitters.

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 about 150 adult plus 30 to 40 calves.

Plans for 1996-97

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

A committee has been established to oversee the management of the captive bison herd held at C. LaPrarie's Ranch.

A new 5-year bison management plan will be drafted in the winter 1995/96.

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: \$19,200 Cooperators: \$0.0

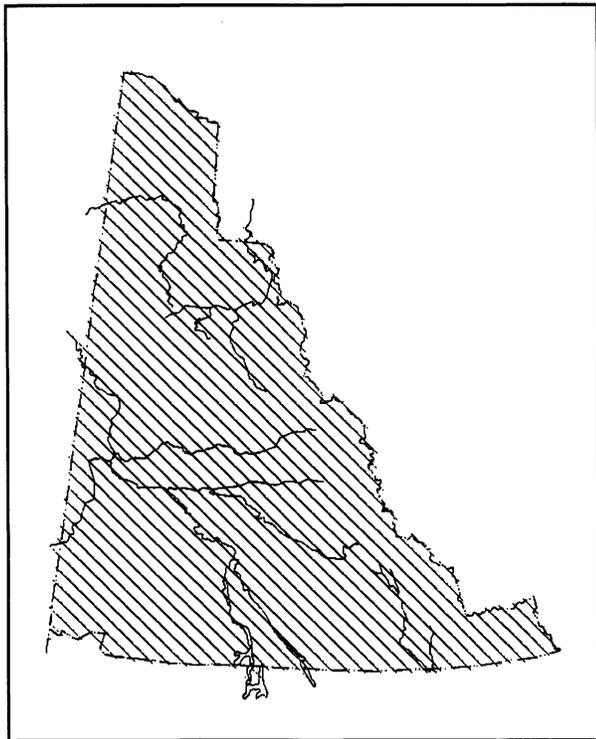
Contact:

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

Contaminants

Survey of Contaminants in Yukon Country Foods 126

Survey of Contaminants in Yukon Country Foods (Territory Wide)



Project Description

Liver, kidney, and muscle samples will be extracted from moose, caribou, and selected small game species for analysis to determine environmental-contaminant levels. Fat tissue will also be extracted from small mammals. The age of animals from which samples are taken will be determined, as contaminant levels can vary with age. Organic (pesticide and industrial-chemical residues) and inorganic (metals) contaminants are of interest. Samples will be taken from animals killed by hunters and trappers. Initially, only kidney and fat samples will be analyzed, as most of the contaminants of interest occur in these tissues in higher concentrations than elsewhere in the body. Liver and muscle tissue samples may be analyzed if elevated levels of contaminants are detected in the initial analysis. Plants that are of

interest for dietary or medicinal importance will be sampled. Analytical data will be reviewed by health officials to determine whether contaminant levels pose a risk to human health.

This is a multi-year project, following up on work completed in southeastern Yukon during 1992-93 and 1993-94. Funding for northern contaminant studies is provided under the federal government's Arctic Environmental Strategy (AES).

Community Involvement

First nations' interests are primary focus of AES contaminant studies. Community input is sought throughout the project, starting with a list of animals and plants that are to be tested and continuing on to the hiring of a resident in each community to assist with specimen collection. Consultation continues after sample collection to inform residents about the results of the analysis and to seek input on public disclosure of the results of health risk assessments.

AES-sponsored workshops are held to obtain input from first nations and the general public on contaminant studies and to inform them of results.

Progress to Date

In 1992-93, the Finlayson caribou herd was sampled and elevated levels of cadmium were found in liver and kidney tissues. A human health risk assessment was done from a review of the data by Health and Welfare Canada and consumption guidelines were issued. In 1993, the project was expanded to include other woodland caribou (Bonnet Plume and Tay herds) and other big game, small game species that are hunted for food, and plants.

Plans for 1996-97

The target is to obtain small game, moose and caribou , and plant samples from participating first nations. Samples will be pooled when feasible to reduce analytical costs.

Publications and Reports

A report on work completed in 1992-93 has been published and reports for 1993-94 and 1994-95 are in preparation. Progress reports are published annually in the compendium of northern contaminants studies. These studies will also be published in the Arctic Monitoring and Assessment Program Report for ministers of circumpolar nations, due to be released in 1996.

Cooperating Agencies: Yukon Contaminants Committee
Health and Social Services (Yukon)
Yukon First Nations
Health and Welfare Canada
Indian Affairs and Northern Development

Budget: Arctic Environmental Strategy: \$56,000

Contact: Len Mychasiw, Land Use Specialist, 667-5798
Mary Gamberg, Gamberg Consulting, 536-2157/536-2159 (fax)

Community Wildlife Planning

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Community Wildlife Planning

The Fish and Wildlife Branch began to reorganize in 1992 to prepare for the new system of cooperative wildlife management laid out in the Yukon Indian Umbrella Final Agreement and the implementation of the Final Agreements with the Champagne & Aishihik First Nations, Na-Cho Nyak Dun First Nation, Vuntut Gwitchin First Nation and Teslin Tlingit Council. 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 Advisory Structures 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 1995-96.

Public Management Advisory Structures 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 the community-based Renewable Resource Councils will address issues of local interest.

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 First Nations 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. In early 1995, new members were appointed and the Board became fully operational under the terms of the Umbrella Final Agreement.

Since its inception, the Board has reviewed and made recommendations on numerous fish wildlife issues. It has carried out public consultation initiatives on game farming policies and regulations, the Aishihik and Kluane Caribou Herd Recovery Project, Outfitter Quotas 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, 403-667-3754).

One of the board's major tasks in 1995-96 is to review the annual fish and wildlife regulation proposals and to develop effective working relationships with the Government of Yukon and the Renewable Resource Councils to implement the provisions of the 4 completed First Nation Final Agreements in a useful, practical, and consistent way.

Another important task involves the board's participation in the completion of a harvest quota system for the big game outfitting industry (see p. 140).

Renewable Resources Councils

The UFA allows for the establishment of a local Renewable Resource Council within 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 within the respective First Nation's traditional territory.

The Mayo District Renewable Resources Council was set up in 1989 as a pilot project. The council's major project in 1995-96 is implementing the integrated Big Game Management Plan for the Mayo region (see p. 140). The Council is also a member on the Bonnet Plume Steering Committee, which is responsible for preparing a management plan for the Bonnet Plume River drainage. Once this plan is completed and filed with the Canadian Heritage River Board, the Bonnet Plume River will be designated as a Canadian Heritage River. Other activities of the Council include re-establish the Mayo River chinook salmon run which was damaged by the construction of the Mayo River hydro dam in the 1960s, and participating in the development of a harvest quota system for the big game outfitting industry.

Renewable Resource Councils have recently been established in the communities of Haines Junction, Teslin, and Old Crow. Priorities for all Councils focus on getting organized and trained in this first year.. The Teslin Renewable Resources Council, Yukon Government and the Canadian Wildlife Service will create a management plan for the Nisutlin Bay National Wildlife Area.

Management Advisory Structures Set Up by the Inuvialuit Final 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 Government/Inuvialuit councils to help manage wildlife in the settlement region. One of these councils, 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 is an active participant in the development of management plans for North Slope wildlife, recommends harvest quotas, gives direction and sets priorities for North Slope wildlife studies, and makes recommendations regarding the management of Ivvavik National Park and Herschel Island Territorial Park.

The Council is currently directing wildlife studies of wolverine, muskoxen and wolves. 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 in 1995 and was featured at the 1994 North Slope Conference held in Dawson City.

Management Advisory Structures 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 Gwitchin, Inuvialuit and Inuit 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, the Board published its new Management Plan for the Porcupine Caribou Herd in Canada. This plan will be in effect until 1996. The Board' primary activity this year is to lobby for full wilderness protection of the 1002 lands in the Arctic National Wildlife Refuge. Board members continue to work with the Dawson Regional Biologist to collect tissue samples from Porcupine caribou for heavy metal

analysis and to monitor the physical condition of animals in the herd. 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 which identifies and explains the importance of calving and post-calving areas to the well being of the herd.

Local Working Groups Set Up to Address Single Issues

In 1995-96 the department is supporting four 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 a community-based environment for local 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 problems, 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 specific actions needed in resolving the problems. And the new friendships and networks that develop in these groups create a positive climate for dealing with other community issues and smooth the transition to Renewable Resource Councils.

Aishihik Kluane Caribou Recovery 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 and Kluane Caribou herds. The group is made up of nine community residents from Burwash Landing, Canyon, Champagne, Destruction Bay, Haines Junction and Silver Creek.

The Aishihik Kluane Caribou Recovery Steering Group meets regularly to review progress and recommend changes to the Aishihik Kluane 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 participated in wildlife surveys.

The Aishihik Steering Group will continue to meet regularly through 1995-96.

Southern Lakes Caribou Recovery Steering Committee

This committee is composed of 2 Carcross/Tagish area residents, 1 Yukon Government, and 1 First Nation representative. The objectives of the Committee is: to make recommendations on management of the Southern Lakes Caribou Herd and its habitat to insure the recovery and conservation of the herd; to coordinate the involvement of First Nations and their community interests; and ,to improve public communication concerning this conservation program.

The Steering Committee oversees the work of the Southern Lakes Caribou Technical Committee, which is comprised of government and First Nation technical staff working on the Southern Lakes Caribou Recovery Program, and the delivery of the Southern Lakes Caribou Recovery Plan (see page 9). The Committee is currently looking at ways to protect critical habitat from human-caused activities and developments, and to completely eliminate harvesting from this herd. This year's focus will be to update the Recovery Plan and to more formally include the Government of British Columbia .

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. 128) 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. 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, 1993 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 Outfitter Quota Committee completed its work in 1995 and presented its recommendations to the Yukon Fish and Wildlife Management Board. These recommendations will ensure that the Outfitting industry works towards providing local jobs and benefits and be valued in the Yukon. Specifically, they address the need for: consistency with First Nations Final Agreements; a community process for establishing harvest quotas for moose and caribou; guidelines for determining the need for sheep quotas; and, the security of allocations needed by Outfitters to manage their business. Implementation, following Cabinet consideration, is scheduled for 1996.

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