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Yukon North Slope Research Updates

This newsletter gives an update on several IFA-funded wildlife and ecology studies that occurred on the Yukon North Slope in 1999 and early 2000. Each of these studies have been reviewed by WMAC(NS) and recommended to the appropriate government for funding. Together they will help us understand more about the environment, wildlife and habitat of the Yukon North Slope.

Moose Survey

A survey of moose on the Yukon North Slope was recently completed. Hunters from Aklavik had been reporting increased moose sightings, and there was interest in moose harvest. The population was last surveyed in 1989, and there was interest in reassessing the moose population. A serious decline in moose has been observed on the Alaskan North Slope in the 1990's, and though moose numbers are reported to be relatively

abundant around Aklavik, people were curious whether this decline (thought to be caused by over-hunting) had extended onto the North Slope of the Yukon.

The survey was flown in late March, using a helicopter. Susan Westover, a YTG biologist, was accompanied by an observer from Aklavik and a Parks Canada representative from Inuvik. The team surveyed the same area that had been covered in 1989. Again, moose were found in suitable habitat along main river drainages. However, the number of moose counted has increased from about 266 moose in 1989 to about 445 moose this spring.



Photo by Michael Houghton

Yukon North Slope Land Use and Wildlife Atlas

WMAC(NS) has completed the Yukon North Land Use and Wildlife Atlas. This atlas was designed to provide review boards, committees and councils with a wide range of land use and wildlife maps. The atlas contains over 40 maps, including maps of vegetation and terrain, geopolitical areas, wildlife habitat, coastal areas, and cultural and traditional land use. Copies of the atlas can be found in the offices of the Aklavik Hunters and Trappers Committee, the Parks Canada office in Inuvik and the Joint Secretariat.

Porcupine Caribou Satellite Collar Program

The Porcupine Caribou Satellite Collar Program continues to track the movements of the wide-ranging herd.



Ten caribou were initially collared; seven of these are still alive. In March and June of 1999, the worn collars were replaced with new ones that will last for three years. Several of the new collars have a transmitting error and these will be replaced this spring.

WMAC(NS) recommended funds for the initial purchase of two collars in 1997, and supported the continuation of the program. The caribou locations are mapped weekly and can be seen at <u>www.taiga.net/satellite</u>. *Photo courtesy Yukon Territorial Government*

Herschel Island Vegetation Studies



Vegetation studies are continuing on Herschel Island in an effort to understand and monitor changes in plant life on the island. In the summer of 1999, several long-term vegetation transects were set up on the island in different vegetation areas. These plots are part of the International Tundra Experiment (ITEX), which is designed to monitor the effects of global climate change on tundra ecosystems. A preliminary survey was also done by YTG biologists and a soil scientist to try to make some comparisons with vegetation and permafrost work that was done over a decade ago. Striking changes have been observed in vegetation on Herschel Island, including increased grasses and

lupines. Rangers on the island will continue to monitor the ITEX sites. Photo courtesy Parks Canada

Richardson Mountain Grizzly Bear Study Concludes

A six-year study of grizzly bears in the Richardson Mountains concluded in 1999. Fifteen female grizzlies were radio collared in 1993 and tracked each spring since then to see if they have young with them and if so how many. This information will help find out how many cubs are born and survive, and how long they stay with their mother. It will also give some knowledge as to how old the females are when they first have young, and how long they keep reproducing. All of this information, once it is put together and analyzed, will be used to decide how many bears can be killed annually without causing the population to decline.

Muskox Ecology Studies

Biologists have been counting muskox on the Yukon North Slope since 1993. The survey continued in April 1999, and 135 muskox were counted. This is up from the 1998 count of 116 muskox. In order to learn more about the ecology of muskox on the North Slope, ten satellite collars were put on muskox during the April 1999 count. The collared muskox were then located in June. The use of satellite collars allows researchers to locate the muskox more often, and make checks on reproduction rate and calf survival. It will also give more of an idea of where the muskox are and how much their habitat use overlaps with that of the Porcupine Caribou herd.



The satellite collar project is a joint effort between YTG and Parks Canada. The muskox are located by an airplane which flies along transects. The locations are then passed on to a team in a helicopter, who land and perform the composition count, which assesses the age and sex of members of the herd. Ralph Papik, Mervin Joe, Dennis Arey and Judy Arey from Aklavik have participated as spotters in the muskox surveys. The muskox count will take place again in mid April 2000.

Photo courtesy Government of the Northwest Territories

Wildlife Management Advisory Council (North Slope)

- Inuvialuit Game Council: Danny C. Gordon; Herbert Felix; Alternates: Billy Archie, and Carol Arey
- **Government of Canada**: Joan Eamer, Canadian Wildlife Service; Alternate: Alan Fehr, Parks Canada
- **Government of Yukon**: Brian Pelchat, Renewable Resources; Alternate: Dorothy Cooley, Renewable Resources
- Chairperson: Lindsay Staples
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