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# Yukon North Slope Research 2004 – 2005

WMAC(NS) reviews proposals for research projects related to wildlife management and ecological monitoring on the Yukon North Slope. Some of these projects are funded through the Inuvialuit Final Agreement.

Projects supported by the Council are recommended to Parks Canada, the Yukon Government's Department of Environment, and the Canadian Wildlife Service. Recommendations are based on research priorities identified in the Yukon North Slope Long Term Research Plan, the Yukon North Slope Wildlife Conservation and Management Plan, the draft Canadian North Slope Muskox Management Plan, the Muskox Management Workshop (Aklavik, October 2001), the Porcupine Caribou Management Plan, the ISR Grizzly Bear Management Plan, meetings with the Aklavik Hunters and Trappers Committee, the Aklavik HTC research priority list, community consultation at public meetings in Aklavik and research priorities identified at the Arctic Borderlands Ecological Knowledge Co-op Annual Gatherings. Reports on the Council's recommendations are conveyed to the Inuvialuit Game Council, the Aklavik HTC, WMAC(NWT), the Government of the Northwest Territories' Department of Resources, Wildlife and Economic Development and the Environmental Impact Screening Committee.

WMAC(NS) monitors the progress of all recommended projects by requesting status reports and final reports from all agencies that receive funding. This newsletter summarizes research projects that were supported and recommended by the Council for 2004-2005.

## **Grizzly Bear Research**

The Yukon Government (Department of Environment), Parks Canada, the Aklavik Hunters and Trappers Committee and WMAC(NS) are involved in a six-year study to learn more about grizzly bears on the Yukon North Slope. The study will focus on bears between the Firth and the Blow Rivers. Projects included in the study will provide information on population size, birth rate, death rate, harvest levels, where bears can be found at different times of the year and how much they move around. It is important for wildlife managers to have this information when they are determining the



conservation requirements of this population and in reviewing harvest quotas.

Information will come from local residents as well as from science-based projects. WMAC(NS), government representatives and the Aklavik HTC have held meetings to discuss the project proposal and the involvement of local residents in the field work, and collecting information about bear activity and harvesting.

The collaring and tracking of bears will begin in the summer of 2004. Radio collars will be used to follow bear movement and to find out what habitat the bears are using at different time of year. This part of the study is designed to learn more about bear distribution and determine how changes in habitat can influence population size and movements. The habitat work can also provide population estimates based on the amount of good habitat for grizzly bears.

A DNA mark-recapture study will provide information on movement and population size by collecting hair samples from bears using special traps. This part of the study will start in the summer of 2005.

The collars will be removed from all the bears at the end of the study. All the information gathered over the years will be used to design a program for long-term monitoring of grizzly bears on the Yukon North Slope. Long-term information is critical for understanding anything that could cause changes in bear population size, behavior or movement, including human activities. *Grizzly bear photo* © *Chris Humphreys* 

#### **Muskox Management**

A muskox satellite program was begun on the North Slope in 1999. The objective of this research is to learn more about where the muskox like to live at different times of the year and how much they move around. There are 3 muskox fitted with satellite collars right now. The collars send signals to a satellite that automatically records the locations of the muskox throughout the year. The collars are also used to help locate groups of muskox when it is time to count the population. All the collars will be taken off the muskox in 2005.



For several years biologists have completed aerial surveys of the muskox in the spring and summer. These surveys provide information on the size of the muskox population, the numbers of males and females, how many calves are born each year and how many live to be a year old. An aerial survey was completed in April 2004. The number of muskox counted in the survey was added to the number seen in another group outside the area for a total population count of 144 animals.

All of this information helps biologist make decisions about managing the muskox and assists in determining a sustainable harvest quota. YTG and Parks Canada coordinate these projects. A representative of the Aklavik HTC participates in the field work on a regular basis. *Muskox photo Ken Madsen* 

### Arctic Borderlands Ecological Knowledge Co-op and Community-base Monitoring in Aklavik

The Arctic Borderlands Co-op was founded ten years ago when representatives from several different community groups, agencies and governments started an ecological monitoring program. This program was set up to cover areas of the Yukon, Alaska and NWT within the range of the Porcupine caribou herd but has recently expanded to include parts of the Mackenzie River valley and delta as well. The focus of the monitoring is on climate change, contaminants and regional development. Co-op activities include the tracking of ecological indicators and community projects. A Gathering is held each year to report on the Coop's findings and exchange information. *Arctic Tern photo courtesy www.corbis.com* 



The Co-op's annual community-based monitoring project will continue for its eighth in Aklavik. Other participating communities are Old Crow, Fort McPherson, Inuvik, Tuktoyaktuk, Tsiigehtchic, and Arctic Village in Alaska. A local researcher in each community will conduct interviews with community experts to find out about the conditions and changes observed during the year. The Canadian Wildlife Service coordinates this project in partnership with community and government agencies in the region. A summary of the Co-op's activities can be found at **www.taiga.net/coop** 

### **Aklavik Harvest Data Collection**

The objective of this project is to collect information on the Aklavik Inuvialuit harvest of moose, caribou, sheep, swans and furbearers in the Yukon and NWT. Regular harvest reporting is important to assist in the management of wildlife. It is also important to assess wildlife compensation claims in the ISR.

This program in Aklavik was started by the Yukon Government in 2002 after the Inuvialuit



Harvest Study stopped operating. Reporting for some species is done using other means, such as the mandatory reporting of the harvest of a species under quota. But harvest information needs to be collected on a number of other species as well.

YTG will again contract a local person, in partnership with the Aklavik HTC, to conduct recall interviews twice during 2004. The surveys will be conducted during freeze up and break up. Harvest information recorded will include species, date, location, sex and maturity of the animal, and the hunter's name. All identifying information will be confidential, however summary information on total harvest will be made public. Information collected will be added to the data that was collected in previous years, primarily through the Inuvialuit Harvest Study. *Wolverine photo* © *Helen Thayer* 

### **Studies on the Porcupine Caribou Herd**

Caribou are being located using two different types of collars. Fourteen caribou have been fitted with satellite collars. These collars automatically report the location of the animals and provide biologists with regular information about the timing and routes of the migrations. The location of these caribou can be followed on **www.taiga.net/satellite/index.html** 



There is also a program to maintain between 80 and 100 conventional radio collars on the herd. These collars are used to locate the caribou during the composition counts and censuses. They also help researchers locate and identify individual caribou and are used to document winter range use. The collars have been very important in showing how important the Arctic National Wildlife Refuge is to calving caribou. Many agencies are co-operating in funding and maintaining these two collaring programs.

The Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service are coordinating calving surveys of the herd, as well as a photocensus and composition count. The object of the calving surveys is to get more information about the size of the herd, the number of calves that are born and where they are being born. The photocensus and composition count is done early in the summer to estimate the total number of animals in the herd and to find out how many bulls, cows, calves and yearlings are. A photocensus is usually done on the herd every 3 years. The last one was completed in 2001. *Caribou photo Ken Madsen* 

Wildlife Management Advisory Council (North Slope)			
•	Inuvialuit Game Council: Members: Danny C. Gordon; Herbert Felix; Alternates: Evelyn Storr, and Carol Arey Government of Canada: Member: Vacant; Alternate: Ron Larsen, Parks Canada	•	Government of Yukon: Member: Doug Larsen, Dept. of Environment; Alternate: Dorothy Cooley, Dept. of Environment Chairperson: Lindsay Staples Secretariat: Aileen Horler

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