

December 2010

Boreal Caribou Traditional Knowledge Collection Study



Sahtu Settlement Area

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The Sahtu Settlement Area

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For the Canadian Wildlife Service

Environment Canada

December 2010

Cover Photo: Hammar Mountain, Norman Wells - Boreal Woodland Caribou

Photo taken by Boyan Tracz- GNWT

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1. Executive Summary

As their name implies, boreal woodland caribou reside in old-growth boreal forest environments that stretch across Canada's northern regions and rely upon predictable food reserves during winter months to survive. Negative impacts to this environment, whether through meteorological or humanly induced changes, are of great concern to the people of the Sahtu Settlement Area (SSA). While these animals played a larger role in the past as a prey species (principally due to modern human distribution), they remain an important harvest species. The elders and hunters of the SSA have long known that boreal woodland caribou were different from the vast barren-ground herds and are often referred to as the "Secret" animals, as they are stealthy and often opportunistic kills. Boreal woodland caribou habitat supports many other important harvest species including marten, fox, wolverine and wolf. Disturbances to this habitat will lead to reduced productivity. This will have a serious impact on subsistence trapping practices of the Sahtu Dene and Métis peoples and could lead to economic instability in many households. Moreover, boreal forest habitat supports watersheds that are necessary for clean water and healthy subsistence fish species. There is a general consensus that boreal woodland caribou populations in the SSA are currently healthy. However, they caution that many changes are occurring that could impact these populations and cite climate change and industrial activities as causes for concern. Boreal woodland caribou do not like noise or activity and all attempts should be made to avoid disturbing the animals and their habitat.

2. Introduction

2.1 Description of Project

Boreal woodland caribou are found throughout Canada and are currently listed as a threatened species under the Species at Risk Act (SARA). The following study was undertaken to gain traditional knowledge from the Aboriginal people living in the Sahtu Settlement area in the Northwest Territories of Canada. The traditional knowledge obtained from this study is crucial as it will be used to help with the development of the national recovery strategy and future recovery planning for the boreal woodland caribou.

There are 5 communities located in the Sahtu Settlement area, Colville Lake, Fort Good Hope, Norman Wells, Deline (formerly Fort Franklin) and Tulita (formerly Fort Norman). This study consists of fourteen participants, including elders, harvesters and key knowledge holders from the Sahtu communities. Interviews were conducted in Norman Wells, NT with an interpreter present to translate and relay information gathered back to the interviewer. The participants were asked a series of questions to gain knowledge about the boreal woodland caribou and its habitat. Maps were also available for participants to identify important areas related to caribou distribution.

3.3 Legends related to Boreal Woodland Caribou

There were no legends provided by interviewees

3.4 Place Names and trails related to Boreal Woodland Caribou

There were no place names or trails provided by interviewees

3.5 Physical Description

The participants described boreal woodland caribou as being smaller in size than mountain woodland caribou and larger in size than the barren-ground caribou. The elders said that long ago, “They did not call the caribou either mountain woodland or boreal woodland.” “They just knew they were different in their markings, color and hoof prints.” (Tulita elder)

3.6 Distribution within the Sahtu Settlement Area

Tulita District

Boreal woodland caribou can be found in two general areas on each side of the Mackenzie River. The east side of the river includes areas around Kelly Lake, Lennie Lake and Oscar Lake. Boreal woodland caribou are also found on the west side of the Mackenzie River between Stewart Lake, Tate Lake and Rusty Lake to the south along the Keele River. Participants identified two other lakes by name (Clarke Lake and Fish Lake). However, their locations were not provided so they cannot be included with the others. Both, elders and active hunters stated that these groups tend to stay away from cut lines and roads.

Deline District

Small groups of boreal woodland caribou have been observed around the community of Deline on occasion. Several groups have also been seen along the North Shore of Great Bear Lake. These boreal woodland caribou have been observed in association with the Bluenose-east barren-ground caribou herd in the late fall and early winter months. At least one small group, if not more, have always lived on Ehdaila (Caribou Point) along the northeast end of Great Bear Lake.

K'asho Go'tine District

Boreal woodland caribou in the K'asho Go'tine District occur mostly in small groups and occupy the area along the Mackenzie River on the west side from the Ramparts south of Fort Good Hope, down river to McBride Lake, and then east towards Muskeg Lake past Colville Lake. This area seems to be the prime habitat for boreal woodland caribou in the Sahtu Settlement Area and an area where the majority of the opportunistic kills occur. Elders from Colville Lake reported seeing signs of boreal woodland caribou south and west of Lac de Bois on a regular basis.

3.7 Habitat

According to the participants, the primary food consumed by boreal woodland caribou includes willow tips, grasses, white lichen, and spruce tree moss. Salt licks are also actively sought out by the caribou. The Sahtu boreal woodland caribou groups do not migrate very far during any time of the year. Primary habitat has remained fairly stable in recent years due to the low incidence of disturbance by fire and the populations have remained fairly stable. In the mid 1990's however, there were drastic habitat losses due to abundant forest fires. Old habitat that was burnt has now been taken over by new and expanded moose populations.



Glen Guthrie (SRRB), 2006

Small populations can be observed within the Tulita area during the summer months. These are located in open meadows on high ground, where they forage for mosses. They are also found near rivers and lakes during times of high insect infestation. Elders reported that there is a resident group of 10-15 animals in the Kelly Lake area that are present throughout the year. They are seen near rivers in the spring when they seek out salt licks. During winter, they travel wherever there is adequate cover provided by forest growth and hard ground. During the fall time, they go to the high ground and come together for the annual rut, but not in large numbers.

3.8 Population size and trends

The general consensus of the people interviewed is that there are more caribou within the region now. All interviewees reported seeing more signs of groups of caribou. This is attributed to a decrease in industrial activities throughout their habitat in recent years; as caribou tend to avoid developed areas including roads and seismic lines. Lots of tracks are evident throughout the year and caribou are only hunted when opportunistically encountered by hunters.

3.9 Limiting factors and threats

a) Habitat

Noise is given as a major factor that impacts boreal woodland caribou. These disturbances include drilling, seismic cut-line activities, slashing, and machines including helicopters and All-terrain vehicles that conduct work during the summer. Caribou prefer old growth areas and have a tendency to stay away from winter roads because of noise pollution. Weather also plays a significant role in the health and well-being of boreal woodland caribou. Increasing extremes in annual temperatures and flooding negatively impact herds.

b) Forest Fires

Forest fires lead to the destruction of the boreal woodland caribou habitat and seriously impacts their ability to acquire food. These events force caribou to relocate to more desirable locations. Some interviewees stated that boreal woodland caribou return to burned areas once there is new growth; while others stated that caribou will never return to these sites again.

c) Industry & Development

Industry and general development are major factors that affect caribou. Noise pollution produced by these activities precludes animals from taking advantage of resources in these areas.

d) Predation

People from all SSA communities have observed an increase in wolf populations in recent years. This increase appears to be linked to a decrease in wolf trapping activities by SSA residents in recent years. Other observations include a general increase in the abundance of moose, muskox and beavers. The elders are adamant that there is a connection between the numbers of kinds of

prey species and the availability of food resources. Muskox are a fairly new inhabitant in many parts of the SSA. An increase in the number of prey species like muskox and moose results in less caribou being taken by predators. This is definitely having an effect on the boreal woodland caribou populations. If there is a decrease in the number of prey species like muskox, then predators will hunt caribou.

e) Caribou Parasites & Disease

Participants noted a change observed on collard caribou. The area around the neck where the collar sits is worn raw and may become infected.

f) Noise & Light Disturbance

Noise and lights disturb caribou. Any development should not occur during the calving season or near caribou habitat.

g) Over Harvesting

Over harvesting is not a concern in the SSA as they are mostly opportunistically harvested.

h) Vehicle Collisions

Boreal woodland caribou are typically found in old growth forested areas and stay away from winter roads because of the noise pollution. Therefore motor vehicle collisions with boreal woodland caribou do not occur in the SSA.

i) Climate Change

Recent changes in climate are significant which include warmer temperatures, increased rain in November, milder winters and increasing summer storms. Boreal woodland caribou food sources are affected by precipitation. During colder times, food becomes less accessible as it is covered by more snow, making it harder for caribou to access.

j) General Threats

Several general threats were identified. Both winter road and boat access to the SSA by non-resident hunters' may impact populations. However, climate change, development, industry and predation were cited as the most significant impacts to boreal woodland caribou populations. Suggested mitigations include less development, encouraging trapping of predators, regulations, and avoidance.

3.10 Animal Health

The boreal woodland caribou populations are healthy according to the participants. The caribou have also been observed to have a healthy fat content.

4. Management of Boreal Woodland Caribou

4.1 Subsistence use of boreal woodland caribou

Boreal woodland caribou are used as a subsistence food source throughout the Sahtu region. However, not many people actively pursue these animals and most are harvested opportunistically when encountered while hunting other species.

4.2 Traditional management practices

When groups of boreal woodland caribou are encountered, only a few caribou from each group are harvested. More bulls are harvested than cows and calves.

5. Acknowledgements

Environment & Natural Resources, Government of the Northwest Territories

Aurora College

Sahtu Renewable Resource Board

Colville Lake Renewable Resource Council

Deline Renewable Resource Council

Fort Good Hope Renewable Resource Council

Norman Wells Renewable Resource Council

Tulita Renewable Resource Council

6. Literature Cited

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7. Knowledge Experts Consulted

Frank Pierrot, Fort Good Hope

Clayton MacCauley, Tulita

Julie Lennie, Tulita

David Etchinelle, Tulita

Richard Kochon, Colville Lake

Edward Oudzi, Norman Wells

Sahtu GIS Project, GNWT Department of Environment and Natural Resources

8. Maps

