

MANITOBA

For metadata associated with mapping products found in the following reports, please refer to Annex 2: Metadata Information for Maps in ATK Summary Reports for Manitoba, Saskatchewan, Alberta.

Black River First Nation Acknowledgement

Environment Canada would like to acknowledge Black River First Nation for the Aboriginal traditional knowledge they shared to support the development of the national recovery strategy for Woodland caribou, boreal population (boreal caribou). The knowledge shared in their report was used to inform the recovery strategy for boreal caribou but has not been presented in this public compilation report.

Bloodvein First Nation Acknowledgement

Environment Canada would like to acknowledge Bloodvein First Nation for the Aboriginal traditional knowledge they shared to support the development of the national recovery strategy for Woodland caribou, boreal population (boreal caribou). The knowledge shared in their report was used to inform the recovery strategy for boreal caribou but has not been presented in this public compilation report.

Bunibonibee Cree Nation Acknowledgement

Environment Canada would like to acknowledge Bunibonibee Cree Nation for the Aboriginal traditional knowledge they shared to support the development of the national recovery strategy for Woodland caribou, boreal population (boreal caribou). The knowledge shared in their report was used to inform the recovery strategy for boreal caribou but has not been presented in this public compilation report.

God's Lake First Nation Acknowledgement

Environment Canada would like to acknowledge God's Lake First Nation for the Aboriginal traditional knowledge they shared to support the development of the national recovery strategy for Woodland caribou, boreal population (boreal caribou). The knowledge shared in their report was used to inform the recovery strategy for boreal caribou but has not been presented in this public compilation report.

Hollow Water First Nation Acknowledgement

Environment Canada would like to acknowledge Hollow Water First Nation for the Aboriginal traditional knowledge they shared to support the development of the national recovery strategy for Woodland caribou, boreal population (boreal caribou). The knowledge shared in their report was used to inform the recovery strategy for boreal caribou but has not been presented in this public compilation report.

Little Grand Rapids First Nation Acknowledgement

Environment Canada would like to acknowledge Little Grand Rapids First Nation for the Aboriginal traditional knowledge they shared to support the development of the national recovery strategy for Woodland caribou, boreal population (boreal caribou). The knowledge shared in their report was used to inform the recovery strategy for boreal caribou but has not been presented in this public compilation report.

Manitoba Metis Federation – Environment Canada

Metis Traditional Knowledge workshop 2010-11

To provide Aboriginal – and in this case, Metis specific – Traditional Knowledge in order to assist Environment Canada in their development of a recovery strategy for woodland boreal caribou, the Manitoba Metis Federation held interviews with selected Metis Elders, Harvesters and other Knowledge Holders in September 2010.

Holding a Metis Elders and resource users gathering was critical for obtaining information crucial to the development of Environment Canada's National Boreal Caribou Recovery Strategy in the following ways:

- 1) it provided Environment Canada with access to Metis Knowledge on woodland boreal caribou and its habitat, which it must endeavor to do under the Species at Risk Act; and
- 2) it allowed Environment Canada to receive feedback on how to involve the Metis Nation within Manitoba on the development of the Boreal Caribou Recovery Strategy.

Approximately 800 members of Manitoba's Metis community attended Environment Canada's presentation on the process to develop the woodland boreal caribou national recovery strategy at MMF Regional AGM's in The Pas, Dauphin, Hodgson, Thompson and St. Adolphe, Manitoba in Phase One of this project in early 2010.

Phase Two of the caribou/sturgeon information gathering was during the MMF Annual General Assembly (AGA) in Brandon, Manitoba on September 11 – 12, 2010. During this process, 40 Metis Elders and Harvesters were interviewed, including a mapping exercise. This is the first time the Manitoba Metis Federation has undertaken traditional knowledge gathering specifically related to caribou.

Traditional knowledge varied among those interviewed. Some participants had knowledge of both sturgeon and woodland boreal caribou, while the rest had knowledge of either one or the other. Most participants did not specify Aboriginal names for boreal caribou, but a few of the Elders called them either "Atteek a quok" (a lot of caribou) or Atak. There was no special significance specified for boreal caribou among those interviewed, other than to acknowledge that all species are important to the Metis. There were no specific legends or place names/trails related to boreal caribou among those interviewed.

Those interviewed described boreal caribou as being bigger, and having longer legs and bodies as well as different antlers. A few also mentioned that their coats seemed to be darker than barren ground caribou. Their distribution varied, from Berens River and Manigotagan, to Cranberry Portage, Knee Lake, Wabowden and Kississing. These areas specified are marked on the maps. All interviewees characterized the boreal caribou as having a varied diet, depending on their surroundings, but listed primarily moss, berries, brass, tree bark and saplings as their main food sources.

Most interviewees mentioned that there are significantly less boreal caribou, especially in certain areas, such as Kississing and Wabowden, than in prior years. Also, although boreal caribou seem to have small herds anyway, they seem to have become even smaller. Contributing factors were listed as new access to the habitat of the boreal caribou, leading to increased predator and human access. There was no mention of significant changes to boreal caribou health.

Generally, the Manitoba Metis Community seems to be aware that the boreal caribou are threatened, and have taken initiative to avoid taking caribou for subsistence. While there has been no official communiqué to the Metis Community on this issue, and a sample size of 40 knowledge holders is not a significant measure of province-wide Metis TK, there is a definite understanding among those interviewed that boreal caribou should be protected.

Metis are known as Conservationists, and the Metis Laws of the Harvest have been handed down through generations. These Laws, whether written or oral, include protecting species that are threatened. The Manitoba Metis Federation looks forward to further conversation on this issue – whether it be further discussion toward a consultation process, or opportunities to be involved in the recovery strategy.

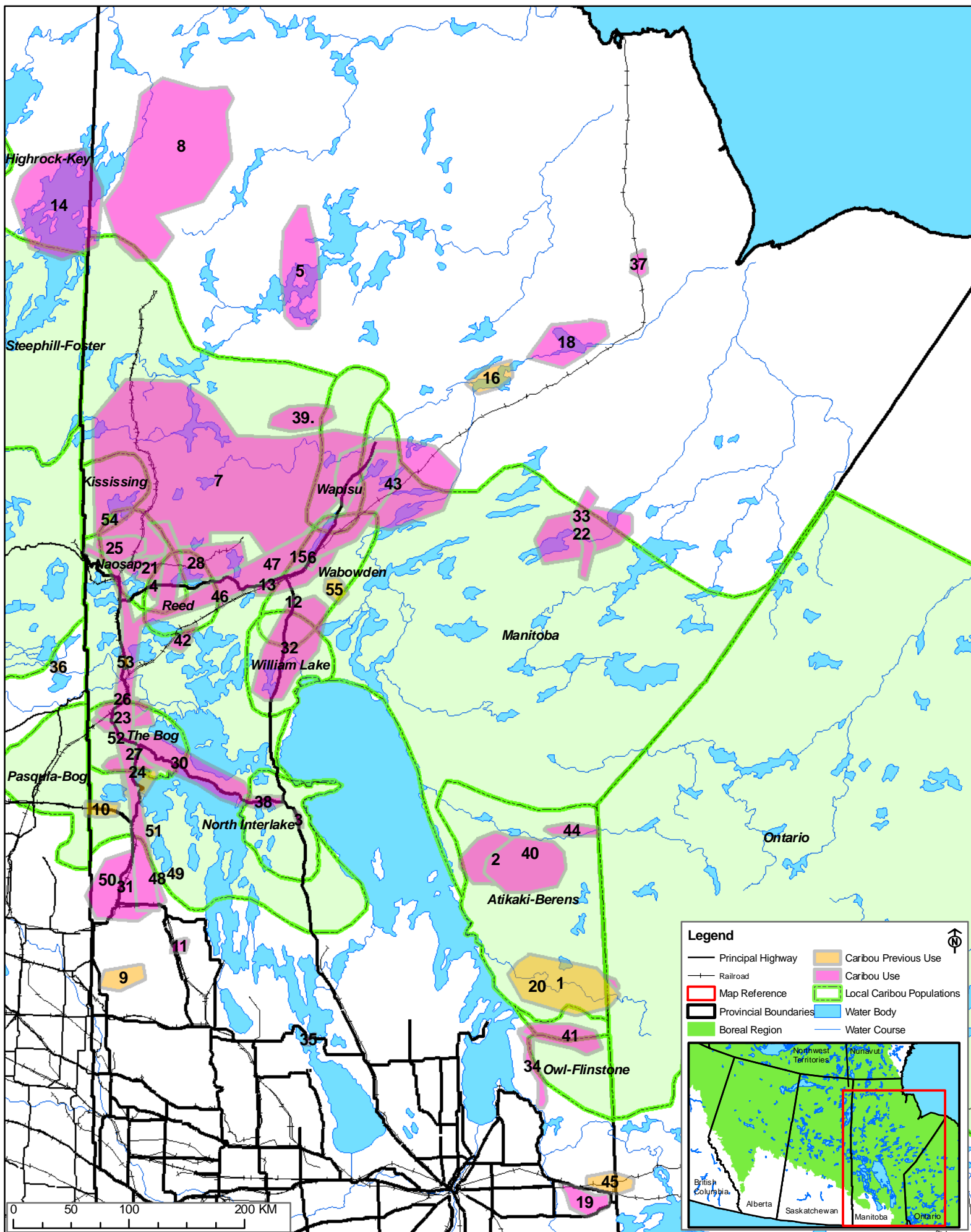
Boreal Caribou Input Summary Form		
Background and Experience Development		Summary
	Have you always lived here?	Majority Yes
	How much time do you spend on the land each year?	Min 6 Months
	What months do you usually spend on the land?	Most of the Year
	What types of activities do you do on the land now?	Hunt, Fish and Trap
	What types of activities did you do on the land when you were younger?	Hunt, Fish and Trap
	When/how/what time of year do you usually encounter/observe caribou?	All Seasons
	What is the name for boreal caribou in your language?	Caribou
1.0	Range Boundaries	
1.1	What herds or populations or “groups of lake caribou” do you know of in your area?	North of Sheridan and The Pas. Manigotagan - Berens River
1.2	How do you differentiate these from others?	Woodland and Boreal are identified by region more than physical traits
1.3	If there is more than one herd, do they intermix or overlap?	Unknown
1.4	Could you draw the ranges of local populations that you are aware of?	Refer to Maps
1.5	Have you seen boreal caribou outside the known or mapped range shown on this map?	No
2.0	Habitat Use	
2.1	What types of plants and features of the land do caribou use?	Moss, Berries, Forest
2.2	Do they use different plants and landscape features at different times of the year?	Grass, moss summer / Tree Bark and Saplings winter
3.0	Population Trends	
3.1	Have the number of boreal caribou in your area changed over time?	Less
	a) Do you see more or less caribou now than you did when you were younger?	Less
	b) Compared with what your parents/grandparents said, would you say there are more or less caribou now?	Less

3.2	Do you prefer to hunt for other species – which ones and why?	Deer, moose, birds
4.0	Calf Survival	
4.1	Do you agree with this? Why or why not?	Yes, high wolf population
5.0	Habitat	
5.1	What kinds of activities alter or destroy caribou habitat in your area?	Logging, Fires, Wolves, Flooding
5.2	What changes have you observed on the land in your lifetime that may have changed the way caribou use the land?	Forest Fires, Increased infrastructure
6.0	Forest Fires	
6.1	How do forest fires change the way boreal caribou use the land?	They move because no resources are present
6.2	Do caribou return to burned areas? How long does it take?	Yes, timeframe varies
6.3	How do they use these areas when they come back?	Feeding, Calving
7.0	Industry and Development	
7.1	What types of development/industrial activity are in the area? In the future?	Mining, Forestry, Hydro projects
7.2	Have you observed caribou avoiding areas altered by industrial activity/development? Can you provide examples?	Yes - caribou congregate where it
8.0	Predation	
8.1	Are there more predators now in areas where there are boreal caribou than there were in the past?	Yes
8.2	Have you seen any cougars in your area?	Yes, bobcats as well
8.3	Have you seen changes in the number of prey species where there re boreal caribou?	Yes, more predators and prey.
8.4	Are any of these prey species new to your area?	No
8.5	Do you think these changes are having an effect on the boreal caribou?	Possibility
9.0	Caribou Parasites and Disease	
9.1	Have you seen a change in caribou health in your region?	No

9.2	If you have noticed a change in caribou health, what do you think is the cause.	No
9.3	Relationship between caribou health and the arrival of new species?	No
10.0	Noise and Light Disturbance	
10.1	Have you observed noise and light disturbance affecting caribou?	Somewhat
10.2	If so, what are more of a problem for boreal caribou and how is it affecting them?	Road Development, ATV's
10.3	Are there areas where it is more of a problem?	Hydro projects, forest fires
10.4	Do you have suggestions for how this should be addressed?	N/A
11.0	Cumulative Effects	
11.1	Are boreal caribou being over-harvested in your area?	No
11.2	Have there been changes in hunting pressure on boreal caribou in your area?	No
12.0	Vehicle Collisions	
12.1	From your experience, are vehicle collisions occurring with boreal caribou in your area?	Somewhat
12.2	To what extent are these collisions occurring? For example, how many or how often are they occurring?	N/A
13.0	Climate Change	
13.1	Have you observed any changes related to climate change such as changes in snow condition temperature, or precipitation in your area?	Less snow, more rain
13.2	If so, have you noticed if these changes have affected boreal caribou or their habitat in your area? How? For example, distribution, habitat types, calving periods?	Herds moving further north
14.0	Cumulative Effects	
14.1	Have you noticed an effect of multiple threats on boreal caribou in your area?	Yes
15.0	Threats- General	
15.1	Are there any threats that we have not identified?	More Hunters
15.2	Which of these threats occur in your area?	<i>More People, Mining, Forest Fires</i>
15.3	Which of these threats stand out to you as having the most impact upon boreal caribou in your region? Why?	Mining, Forestry, More predators
15.4	What activities or measures have been used, or could be used, to reduce the impact of these threats?	Education, Limit Road Access

16.0	Other observations or Beneficial Practices	
16.1	Do you know of any conservation practices or activates that your people, or others, have used to conserve boreal caribou now or in the past?	from hunting caribou
17.0	Comments and Suggestions on the consultation Process	Involve more people in process
17.0	Other comments (traditional use of caribou, concerns for other species, concerns with province, etc)	Concerns with East Side Caribou

Manitoba Métis Federation: Boreal Caribou ATK Information (September 2010)



ID	Shape *	ConsultName	ConsultID	Type	Season	CaribouUse	DisturbanceType	CWSRegion	Date	Notes
0	Polygon	MMF Workshop - Brandon, MB	1	Caribou Use				PNR	September-10	Seen within 3 years - Model Forest Video
1	Polygon	MMF Workshop - Brandon, MB	2	Caribou Use				PNR	September-10	Seen Within 3 Years
2	Polygon	MMF Workshop - Brandon, MB	3	Caribou Use				PNR	September-10	Seen in 2007
3	Polygon	MMF Workshop - Brandon, MB	4	Caribou Use				PNR	September-10	Boreal Caribou Trail
4	Polygon	MMF Workshop - Brandon, MB	5	Caribou Use				PNR	September-10	Barren Ground Caribou
5	Polygon	MMF Workshop - Brandon, MB	6	Caribou Use				PNR	September-10	Woodland Caribou
6	Polygon	MMF Workshop - Brandon, MB	7	Caribou Use				PNR	September-10	Bush Caribou
7	Polygon	MMF Workshop - Brandon, MB	8	Caribou Use				PNR	September-10	Barren Caribou
8	Polygon	MMF Workshop - Brandon, MB	9	Caribou Previous Use				PNR	September-10	No Observations Since 1999
9	Polygon	MMF Workshop - Brandon, MB	10	Caribou Previous Use				PNR	September-10	No Observations Since 1999
10	Polygon	MMF Workshop - Brandon, MB	11	Caribou Use				PNR	September-10	3 Caribou Observed 2000 - present day
11	Polygon	MMF Workshop - Brandon, MB	12	Caribou Use				PNR	September-10	Caribou Crossing Road
12	Polygon	MMF Workshop - Brandon, MB	13	Caribou Use				PNR	September-10	Seen Around Hydro Camp
13	Polygon	MMF Workshop - Brandon, MB	14	Caribou Use				PNR	September-10	Large Herds of Barren Caribou
14	Polygon	MMF Workshop - Brandon, MB	15	Caribou Use				PNR	September-10	9 Tagged Caribou
15	Polygon	MMF Workshop - Brandon, MB	16	Caribou Previous Use				PNR	September-10	Observed 30 Years Prior
16	Polygon	MMF Workshop - Brandon, MB	17	Caribou Use				PNR	September-10	1 Caribou Observed 2010 - Winter
17	Polygon	MMF Workshop - Brandon, MB	18	Caribou Use				PNR	September-10	Herd of 1000
18	Polygon	MMF Workshop - Brandon, MB	19	Caribou Use				PNR	September-10	Observed in 1940's
19	Polygon	MMF Workshop - Brandon, MB	20	Caribou Previous Use				PNR	September-10	Observed 6 Years Ago
20	Polygon	MMF Workshop - Brandon, MB	21	Caribou Use				PNR	September-10	
21	Polygon	MMF Workshop - Brandon, MB	22	Caribou Use				PNR	September-10	
22	Polygon	MMF Workshop - Brandon, MB	23	Caribou Use				PNR	September-10	
23	Polygon	MMF Workshop - Brandon, MB	24	Caribou Previous Use				PNR	September-10	Previously Observed
24	Polygon	MMF Workshop - Brandon, MB	25	Caribou Use				PNR	September-10	
25	Polygon	MMF Workshop - Brandon, MB	26	Caribou Use				PNR	September-10	
26	Polygon	MMF Workshop - Brandon, MB	27	Caribou Use				PNR	September-10	
27	Polygon	MMF Workshop - Brandon, MB	28	Caribou Use				PNR	September-10	Current Observations
28	Polygon	MMF Workshop - Brandon, MB	29	Caribou Previous Use				PNR	September-10	Assumed to be Gone
29	Polygon	MMF Workshop - Brandon, MB	30	Caribou Use				PNR	September-10	4 - 8 Observed
30	Polygon	MMF Workshop - Brandon, MB	31	Caribou Use				PNR	September-10	2 Interviewees
31	Polygon	MMF Workshop - Brandon, MB	32	Caribou Use				PNR	September-10	Woodland Caribou
32	Polygon	MMF Workshop - Brandon, MB	33	Caribou Use				PNR	September-10	Barren Caribou
33	Polygon	MMF Workshop - Brandon, MB	34	Caribou Use	S		Rd	PNR	September-10	Small Groups most years - last 15-20yrs
34	Polygon	MMF Workshop - Brandon, MB	35	Caribou Use				PNR	September-10	2005-06 Small Groups (5 or 6) Observed
35	Polygon	MMF Workshop - Brandon, MB	36	Caribou Previous Use	F			PNR	September-10	Observed in 1970's. 20-30 per herd
36	Polygon	MMF Workshop - Brandon, MB	37	Caribou Use	W	Migration		PNR	September-10	Herd Observations
37	Polygon	MMF Workshop - Brandon, MB	38	Caribou Use				PNR	September-10	
38	Polygon	MMF Workshop - Brandon, MB	39	Caribou Use				PNR	September-10	
39	Polygon	MMF Workshop - Brandon, MB	40	Caribou Use				PNR	September-10	
40	Polygon	MMF Workshop - Brandon, MB	41	Caribou Use				PNR	September-10	
41	Polygon	MMF Workshop - Brandon, MB	42	Caribou Use				PNR	September-10	Observed in 2000
42	Polygon	MMF Workshop - Brandon, MB	43	Caribou Use				PNR	September-10	Observed movement since 1945 until present
43	Polygon	MMF Workshop - Brandon, MB	44	Caribou Use				PNR	September-10	Barren Caribou
44	Polygon	MMF Workshop - Brandon, MB	45	Caribou Previous Use				PNR	September-10	Movement not observed since 1940's
45	Polygon	MMF Workshop - Brandon, MB	46	Caribou Use		Calving Area		PNR	September-10	
46	Polygon	MMF Workshop - Brandon, MB	47	Caribou Use				PNR	September-10	Caribou Trail
47	Polygon	MMF Workshop - Brandon, MB	48	Caribou Previous Use		Grazing		PNR	September-10	1 Small Antler Obsv. 1997 (Female)
48	Polygon	MMF Workshop - Brandon, MB	49	Caribou Previous Use				PNR	September-10	2 Small Antler Obsv. 1997 (Female)
49	Polygon	MMF Workshop - Brandon, MB	50	Caribou Previous Use				PNR	September-10	6 Caribou Obsv. 1994 - 1995 (Female)
50	Polygon	MMF Workshop - Brandon, MB	51	Caribou Previous Use				PNR	September-10	Fire in 1989 - Antler Sheds 1997
51	Polygon	MMF Workshop - Brandon, MB	52	Caribou Use	W			PNR	September-10	Jan-Mar 2010 25-30 Tracks Observed
52	Polygon	MMF Workshop - Brandon, MB	53	Caribou Previous Use	S			PNR	September-10	1 Caribou seen crossing Hwy
53	Polygon	MMF Workshop - Brandon, MB	54	Caribou Previous Use	W			PNR	September-10	6 Woodland Caribou Obsv.
54	Polygon	MMF Workshop - Brandon, MB	55	Caribou Previous Use	S			PNR	September-10	2 Obsv. mid-1990

Manto Sipi Cree Nation Acknowledgement

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Misipawistik Cree Nation, MB summary report:
Traditional knowledge interviews on boreal woodland
caribou

August 13, 16, 17 & 18, 2010

Introduction and methods

Six interviews were conducted with knowledge holders from Misipawistik Cree Nation as part of Environment Canada's engagement of Aboriginal peoples to help inform the national recovery strategy for boreal woodland caribou. Six males were interviewed from Misipawistik Cree Nation. One interviewee is between 40 and 50 years old, one is between 50 and 60 years old, three are between 60 and 70 years old and one is between 70 and 80 years old. Four of the interviewees have lived in the community their entire lives. One moved there from somewhere else and has lived in the community for 40 years. One interviewee left the community for 14 years but otherwise has lived there his whole life. All six interviewees hunt, five interviewees trap and four fish.

Heidi Cook was contracted by Environment Canada to conduct interviews with knowledge holders. Interviews were based on a questionnaire developed by Environment Canada. Maps were provided by Environment Canada to assist in capturing spatial information during interviews. Original marked-up maps were digitized by Environment Canada and returned to Misipawistik Cree Nation along with original interview summaries.

This summary report was prepared by Linnea Mowat on August 11, 2011 and represents a synthesis of all the information provided in the individual interviews.

RESULTS FROM THE INTERVIEWS

Population Size and Trend -

All interviewees stated that the number of boreal caribou in their area have changed over time and, more specifically, that their numbers have declined. Two knowledge holders specified that when they see caribou now they are observed in groups of 6-7 animals whereas in the past a group commonly consisted of at least 20-25 animals. This is consistent with stories passed on by elders and grandparents describing large numbers of caribou in the area.

Grandparents described caribou populations as being so large that a herd would take an entire day to cross the lake as the caribou would travel across the lake in a row. Elders also talked of how there were many caribou around when they went hunting. There was little ammunition available so hunters would need to have good aim and would have to travel to the caribou summer habitat. One interviewee thought that few caribou remained in the Long Point area but was uncertain of population numbers further north.

Hunting Practices -

Of the 6 interviewees, 4 traditionally hunted caribou and 2 had never hunted caribou. Of those interviewees that traditionally hunted caribou, 2 have now stopped. Both of these hunters specified that there was no longer a need to hunt caribou because meat could be bought at the

store, and 1 explained further that there are no longer enough caribou to sustainably harvest them. Caribou have become harder to hunt because there are fewer of them. One hunter shot a caribou as recently as 3 years ago.

All of the knowledge holders prefer moose meat to caribou. Moose is what many community members were raised on and therefore have acquired a taste for. It is also what they were taught to hunt. Some interviewees suggested that they prefer moose because it tastes better and because there is more meat available. Moose are considered easier to hunt than the caribou, although 2 hunters felt that caribou are very easy to hunt because they congregate in groups and will stand around looking at you after you have shot one. Deer, elk, geese, and ducks are also hunted.

Some knowledge holders discussed how caribou were traditionally important to the community. Caribou were a source of meat but were also important for fabricating other goods. The caribou hide is thought to be very good quality and soft – good for making clothing and moccasins. Bones were used for scraping hides and for making tools, while antlers were used to make knife handles.

Threats -

Habitat Change and Loss

Widespread development (e.g. road construction), industrial activity (e.g. resource extraction/mining, smelting, pulp mills), hydro power generation and forestry were identified most often as causes of caribou habitat change and loss by knowledge holders. Forest fires were also mentioned as a source of habitat destruction. Loss of habitat is thought to be having a negative effect on caribou health. Flooding for hydro power generation and habitat destruction from other activities were both specified to be causing a loss of the lichens and caribou food source. Interviewees frequently mentioned caribou avoiding disturbed areas, especially power lines and roadways, and suggested that the caribou are running out of suitable habitat and places to go. Their movements and migrations have been altered as a result of all the development.

Factors that could reduce habitat quality were also a concern. All of the anthropogenic activity in the area was thought to be having major impacts on the quality of the environment and interviewees were concerned about pollution and contamination of the air, water, land, and animals – everything. Knowledge holders also thought climate change was negatively affecting habitat and one interviewee specified that changes in solar radiation was harming plant growth and quality.

Forest Fires

All interviewees agreed that forest fires destroy boreal caribou food and habitat. As a result, boreal caribou will be forced out of a burned area or will avoid it. A few interviewees talked of how the traditional food of caribou burns very easily – like paper, while some interviewees mentioned that boreal caribou like wetlands/muskeg because it protects them from fire and does not burn like other parts of the forest. They especially like wetlands/muskeg in the summer [when forest fires are more common]. Some interviewees felt that caribou would return to burnt areas within a few years, while some suggested it might take as many as 50 years. Caribou can find

protection in the burnt areas and can find food once it starts growing again. Other interviewees stated that the caribou will not return to the burnt areas because vegetation growth in burned areas is different than what caribou need and they must therefore relocate to more suitable habitat.

Industry and Development

Industry and development was identified as one of the biggest threats to boreal caribou. Hydro development, power lines, forestry, mining, drilling, and traffic were all listed as industrial activities and/or development in the area. Knowledge holders noted that caribou typically avoid areas altered by industrial activity/development. Boreal caribou are thought to avoid noise associated with development and to avoid open areas created by industrial activities like forestry and power transmission. Caribou are scared by traffic and do not cross the highway.

Predation

Predation was most commonly identified as the greatest threat to boreal caribou (along with industrial activity and development). Most interviewees stated that the number of predators in the area has increased; however, one interviewee felt that the number of predators has not changed much over time. Coyotes and wolves were the most commonly identified predators and their populations are thought to be increasing. Wolves are thought to be the main predator of boreal caribou and there are many in the area, especially timber wolves. One interviewee suggested populations are increasing because trapping of these animals is no longer occurring. The number of bears in the area is also thought to be increasing, except at Long Point where the spring bear hunt has caused a decrease in the population size. Cougars are not found in the area.

Interviewees have also noticed changes in the number of prey species in the area. Beaver, muskrat, and deer populations seem to be increasing whereas the moose population is decreasing. A decline in trapping practices is thought to be causing the rise in numbers of beaver and muskrat. Deer used to be very uncommon in the area but now there are a lot of them in the area, especially to the south. It is unclear whether it is the wolves or people that are having an impact on the moose. Many other animals are also declining in numbers, like rabbits and 'chickens' (Stikpanow – black spruce hen). One interviewee reported that groundhogs are new to the area.

Some interviewees felt that the increased number of wolves was having an effect on boreal caribou. Increases in the number of predators and prey in the area may be chasing caribou away and causing them to get more ticks. Alternatively, some interviewees felt that changes in other population numbers were not having any effect on caribou.

Caribou Parasites and Disease

Most interviewees have not noticed a change in caribou health. Others stated that caribou are smaller and losing their fur. Some interviewees said that ticks are negatively affecting caribou health and might be transmitting Lyme disease. One calf was observed in the spring completely covered in large ticks. The mother had ticks too but not as bad. It is thought that the ticks are coming from the increased deer population.

Over-Harvesting

Almost all of the interviewees stated that either caribou weren't hunted or that no overharvesting occurred. One interviewee mentioned hearing of a few caribou being shot the previous year, but stated that this was not common as most people in the community don't eat caribou. All interviewees stated that hunting pressures on caribou had either declined in recent years due to decreasing numbers of caribou and less hunting in general or that hunting pressures on boreal caribou had never been high in the area.

Vehicle Collisions

Most interviewees had never heard of a vehicle collision with boreal caribou. Other interviewees said that vehicle collisions with caribou are common in the spring and occur every year. There are 3-4 places on the way to The Pas on highway 60 where it occurs. The most recent occurrence was just past Katimik Lake.

Noise and Light Disturbance

Some of the knowledge holders noted that noise disturbance can impact caribou. There was no mention of light disturbance. Noise from highways and vehicles was mentioned most often and thought to be having the biggest impact. Highway 6 is the highway of greatest concern in the local area. One interviewee described how vehicle noise can be heard from 15-20 miles away on a calm day. Noise from big machinery and forestry equipment were also mentioned. It was suggested that highways should be closed and development stopped (stop signing forestry permits and abolish mining) within the caribou range to minimize noise and light disturbance and to provide caribou with more habitat.

Weather

All knowledge holders agreed that the weather is changing in their area. Temperatures are higher year round and winters in particular are warmer now with less snow. The fall seems to be arriving earlier and winters are shorter. Some interviewees suggested that the changing weather is affecting animal behavior and that rutting season and migrations are starting earlier. The warmer weather might also be negatively affecting fur quality. A few knowledge holders felt that caribou might have an easier time accessing and digging for food in years with less snow, while another suggested that food spoils more quickly and is not good for caribou health. It was also suggested that it is easier for wolves to hunt caribou and moose when there is less snow. Cows are at risk of aborting calves if they are chased a lot by wolves.

Other Threats

Pollution was regularly mentioned by knowledge holders as a threat to caribou health and survival. Large smokestacks in Thompson and Flin Flon as well as the paper mill in The Pas were identified as main sources of air pollution in the area. These pollution sources were also thought

to be affecting a large area and causing contamination as far as 50 miles away. One interviewee specified that nothing grows east of Thompson due to the pollution. Cumulative effects of all of the above mentioned threats were a concern to some of the interviewees.

Efforts to Recover Boreal Caribou

The interviewees provided a number of suggestions that could help conserve caribou. The most common suggestion, and one put forth by 4 of the interviewees was to change hunting practices. It was suggested by 2 knowledge holders that there should be no hunting of caribou at all, while the other 2 suggested that only bulls should be hunted – no cows. Taking fewer caribou, or only 1 at a time, and not wasting any part of the animal were also suggestions. Another suggestion was to create protected areas or caribou ranches. Teaching fire safety, putting tighter regulations on pollution and emissions, and trapping wolves in the winter were also suggested as possible solutions.

Other Comments

Interviewees felt that everything that was left needed to be protected. In addition to comments and concerns directly related to caribou, the knowledge holders were also concerned about over-harvesting of moose. They expressed that too many people are hunting moose and are concerned that many people are also hunting cows and calves. They felt that this was especially true of other First Nations that came to hunt in their local area. They were concerned that these hunters had less respect for traditional practices and also that with so many outsiders coming to hunt in their area that they were unable to keep track of how many animals were being harvested. Some First Nations are thought to be coming in and taking more than 50 bulls in 1 season.

Working together to Recover Boreal Caribou Opaskwayak Cree Nation

The purpose of this gathering is to gather Aboriginal traditional knowledge about the Boreal Caribou and to implement into the Western Science. Many of the First Nations people have knowledge of the lands.

Aboriginal Traditional Knowledge

*Citizens of Opaskwayak Cree Nation say publicly that any type of Caribou is not our main source of food. The main food source of Opaskwayak is moose, this is the main subsistence. Many have tasted caribou, tastes like spruce."

You will not find much caribou in our traditional territory, but either going north on Highway 10 or south Highway 10. This is where they are mostly found. Many have seen big herds back in the day of Elders; many children know of this by the way of elders speaking to them. Deer was also common, but that too is not our food supply. Seen mostly up north of The Pas/Opaskwayak Cree Nation. There are many in abundance, they will eat almost anything. Boreal Caribou will eat not only lichen but the tip of the spruce and of the tip of willows. They will eat only when the snow is high.

Around 1950-1980, many of the caribou were eaten by wolves, diseased, and over populated. When we saw caribou, they only took what they can. There was never an over kill. Fur was not good; it had no use for us. There are big changes happening out in the forest, we are always trying to save species but we can't.

We will always continue to unbalance the animals; we want to save one species but what about the other animals. What we need to be doing is leaving them alone; they will survive instead of man always bothering these animals. We get fur protesters now because we trapped animals for food and money, and then Ducks Unlimited came along, which made it even worse for any species to survive. It is not only man's fault but other animals that survive on this for food. You cannot save one species, it cannot be done. You can see signs of disease on all animals, lesions on the liver.

Migration

Back in the day, many were seen to be migrating, they were healthy. Migration is based on food/habitat, if there's food, they won't move. They have big trails, but Elders say they were around 30-40 years, they went in circles. If they aren't migrating, then you know that something is wrong, not right. If a herd is not moving or staying in one place too long, then we need to be finding out why they aren't moving. Predators will come in and kill them if they don't move. If you upset the balance then you will have problems.

Predators

Many species such as bears, wolves, and coyotes, etc. are also the main factors of caribou killings. Such predators kill for food, as their habitat is slowly disappearing. We talked about how we must balance all species, not one specific species, in order to bring up the amount in any species. Bears are considered "brothers" to first nations, they do not hunt them. Timber wolves are the most to hunt Caribou, as they will attack for food. Even coyotes are out in abundant as they are searching for food also.

Man is also on the list as they are opportunist; they have logging in the forests, hydro lines, roads, etc. Many hunters (not first nation's people) are out looking for "trophies" as they are not killing for subsistence. They only take the heads, antlers, and such for tagging. They leave the rest of the body, whereas First nations use all of carcass. Over population of species will result in habitat shortage, disease, and cannibalism (in some species).

Diseases

The land is becoming a place where all species, plants, etc are being exposed to filth. If the vegetation is not clean, species will eat anything from the land, but then they are exposed to sickness. What needs to be done is to start testing plant life, water, animals. What kind of garbage are they eating. We do not over kill. Disease is what is killing animals. Then man will get sick as they eat the animal that they kill, you are at risk yourself, not just species. You also see the big difference in the weight of the animal; you used to see a 1200 pound animal, now you are lucky to see them at a weight of 800 pounds.

We as first nation's people, live off the land. People of the city, don't love the land. We love the land. White man makes a lot of rules and regulations, leave, and leave us to fix the problem. This is all destined to fail.

Scientific vs. Traditional knowledge

We feel like you are coming in too late, how come you did not come 15 years ago. If you are going to start something, come and ask us. First Nations have always understood the land; this land was previously uncorrupted and undisturbed. We are nomadic. Animals have to have their pattern, but we are not allowing them to. There needs to be more appreciation for the circle of life.

There should have been more people here but when welfare came out, they won't be here. First nations need to be working together more than ever, let us not blame industries. We need to work together to get something done. We are glad that you are coming to the table, no one has ever come to us, and we are the ones that live off the land. Your science is just coming out, but we have been here longer. We know what's out there, government has to take this seriously; no one wants to listen to us. Humbly come and ask us, maybe we will help.

Resource Users of the land

Suggestion made to cut off private lands, there is no such things as private lands. It is all native land, we did not give it away, and we share it with others. Farmers need to be involved with talks with the Government and with First nations. There are restrictions as to where first nations can hunt as they are threatened to be charged if

they hunt on their lands plus the fence that they have around their land. Farmers also tend to put fertilizers and illegal pesticides into our main river system, which comes all the way down into town. We better start saving this habitat down river.

Environmental Damage

There are many logging camps and roads that are being built, logging companies coming in and seriously damaging the forest, the destruction that it caused. But what they do is that they come about it all the wrong way. Target conifers but end up taking everything when clear cutting, sustainable logging is possible and would fall more in line with the natural order of things.

Our livelihood has been taken away, we need to work now to survive, and there was a time when we lived off the land in abundance. Are we that ignorant that we are going to hurt the environment? One thing that is do not have open pits/mines here, it will destroy everything.

Many of the animals are diseased; we now have to pick and choose which animal to hunt. We never in our life time had to do that, we lived off this land, now we can't. Think about what's being destroyed, maybe it's only one plant life but can be more. Times are changing, less and less animals. Animals are doing things they haven't done before; we completely confused the balance of this world. It is out of your control, you can't do anything now. Why are we not taking better care to manage the resources. There is more that needs to be done. Suggestion made to presenters, that we hope that they will send the same people to start the process of talking.

Questions for Aboriginal Traditional Knowledge

Background information

1. When are you typically on the land each year?

Happens always in the spring and fall, really depends what you are doing.

2. What is the name for boreal caribou in your language?

3. How did you come to learn about caribou? Do you hunt caribou?

The grandparents and Elders of the community taught us. No, we do not hunt caribou as it is not our food supply, moose is our main subsistence.

4. Could you describe the importance of boreal caribou to you and your community?

We were taught to respect animals, we would leave them alone. It is not our food supply, but there were a few that would hunt and there were never any overkill. We are taught to take only what we need, same as with moose or any other animal.

Mapping Exercise

There was a mapping exercise done after the meeting on Feb 3rd 2011.

Habitat Use

1. What types of plants and features of the land do caribou use? Do they use different plants and landscape features at different times of the year?

They eat lichen, but at times tips of spruce and willow.

Population Trends

1. Have you noticed a change in numbers of boreal caribou in your area over time?

Yes, many years in the day of our elders, there were huge amounts of herds. Now, today, you see very little.

2. Have you noticed a change in the survival of calves?

Many predators out there those are hungry as they can't get their own habitat. Over populations in other species such as coyotes, wolves, and bears they hunt caribou.

Threats (ex) habitat change, predation, disease, over harvesting, vehicle collisions, noise and light, disturbance, climate change.

Habitat Change

1. What changes have you observed on the land in your lifetime that may have changed the way caribou use the land?

There is more contamination on the land; disease is in everything, animals, plants, water, and ground.

Industry and Development

1. Have you observed boreal caribou using or avoiding areas that have been altered by industrial activity or developments?

Yes, they still use areas regardless of hydro poles up, roads, loggings. Animals will always roam to find better habitat. They roam onto highways too for the salt lick.

Predation

1. Are there more predators (such as wolves, bears, or lynx) in areas where there are boreal caribou than there were in the past in your area?

Oh yes, more than ever before. All animals that are in the forest are starving and will go to great lengths to hunt for food, any kind of food. There is that

disruption in their own habitats. There is fewer and fewer food supply and not only in the animals but also in humans.

2. Have you seen changes in the abundance of prey species, such as beavers, deer, musk ox, bison, moose, or barren-ground caribou, in areas where there are boreal caribou?

Deer are not common around here, along with bison, musk ox, and barren-ground caribou. We have beavers and moose, but those are slowly on the decline too. One day we will see that day when there are not animals at all, also with fish too. We seriously need to look at everything, not certain species but all as a whole.

3. If there is a change, do you think these changes are having an effect on boreal caribou?

Oh yeah, most definitely, but keep in mind that it will affect all animals. We need to start thinking as a whole.

Caribou Parasites and Disease

1. Have you seen a change in caribou health in your region? For example, body condition, size, behavior, parasites, or increased mortality?

Yes we do. You can tell the difference in size, where as they were seen as 800 pounds now you're lucky to see them at 400 pounds. When you kill and start to skin the animals, lesions are visible in the lung, the liver have cysts, and know they are not good to eat. Now you have to pick and chose your animal. Yes also with the behavior as they are doing things that they haven't done before. Yes high mortality. There is also an increased movement of other animals.

Over-harvesting

1. Are boreal caribou being over-harvested in your area?

No, we do not hunt caribou.

Noise and Light Disturbance

1. Have you observed noise or light disturbance from aircraft, skidoos, ATV's, or industry affecting boreal caribou in your area?

Not really a problem, of course you will have your atv's and skidoos out there, but the caribou are probably used to it by now. They are not easily spook as people believe and they are not shy. They will just come up to you. Also with the helicopter, they won't run away, they will stand there.

Climate Change and Weather

1. Have you observed any changes related to climate change such as changes in snow condition, temperature, or precipitation in your area? If so, has it affected caribou?

Yes winters are warmer, hardly have any snow. We used to see weather as normal when we were kids. You see a lot of changes now, very strange weather. Snow is good for the animals. Temperature climbs, one day it's cool, next day is hot. This is not normal, there is huge variation. If it affects caribou, then we know that it will everything.

Traditional Practices

1. Are there stories, rules, or traditional practices that would help us protect and conserve caribou?

We must maintain balance and order in nature. Community members of OCN do not hunt caribou, they are left alone. Some areas are worth protecting, some areas should be set aside and left alone by everyone, a particular value to preserve would be areas of old growth.

Respectfully prepared by,

Diane Ballantyne
Project Coordinator

This map illustrates the Lake Winnipeg Basin, highlighting local caribou populations and their use areas. The map includes the following features:

- Local Caribou Populations:** Eight numbered pink areas (1-8) represent local caribou populations. Area 1 is located near Reed Lake, Area 2 near Cross Lake, Area 3 near Hargrave Lake, Area 4 near Wamless, Area 5 near Rocky Lake, Area 6 near William Lake, Area 7 near Westray, and Area 8 near Kelsey Lake.
- Caribou Use and Previous Use:** Pink shaded regions indicate areas of caribou use, while yellow shaded regions indicate areas of previous use.
- First Nation Land:** Grey shaded areas represent First Nation land, including Opaskwayak Cree Nation, Mosakahiken Cree Nation, and Chemawawin Cree Nation.
- Towns:** Orange dots represent towns, including Bakers Narrows, Cranberry Portage, Simonhouse, Reed, Cormorant, Moose Lake, and Westray.
- Water Bodies and Courses:** Blue areas represent water bodies, and blue lines represent water courses.
- Transportation:** Black lines represent local roads, principal highways, and secondary highways. Dashed lines represent limited use roads, trails, and cut lines. Grey lines represent railroads.
- Geographic Labels:** Major regions labeled include Naosap, Wabowden, William Lake, Manitoba, and The Bog.
- Legend:** A legend in the bottom right corner defines the symbols used on the map.
- Scale and Orientation:** A scale bar at the bottom left indicates distances from 0 to 40 km. A north arrow is located in the bottom right corner.
- Inset Map:** A small inset map in the bottom right corner shows the location of the study area within the province of Manitoba, relative to neighboring provinces and territories.

FID	Shape *	ConsultName	ConsultID	Type	Season	CaribouUse	Disturbance	Class	CWSRegion	Date	Notes
0	Polygon	OpaskwayakCN	2	Caribou Use					PNR	2/3/2011	20 caribou in area
1	Polygon	OpaskwayakCN	1	Caribou Use					PNR	2/3/2011	75 caribou in area
2	Polygon	OpaskwayakCN	3	Caribou Use					PNR	2/3/2011	15 caribou in area
3	Polygon	OpaskwayakCN	4	Caribou Use					PNR	2/3/2011	20 caribou in area
4	Polygon	OpaskwayakCN	5	Caribou Previous Use					PNR	2/3/2011	Small herd - haven't seen in a few years
5	Polygon	OpaskwayakCN	6	Caribou Use					PNR	2/3/2011	25 caribou in area
6	Polygon	OpaskwayakCN	7	Caribou Use					PNR	2/3/2011	10 caribou in area
7	Polygon	OpaskwayakCN	8	Caribou Use					PNR	2/3/2011	

Poplar River First Nation Acknowledgement

Environment Canada would like to acknowledge Poplar River First Nation for the Aboriginal traditional knowledge they shared to support the development of the national recovery strategy for Woodland caribou, boreal population (boreal caribou). The knowledge shared in their report was used to inform the recovery strategy for boreal caribou but has not been presented in this public compilation report.

St. Theresa Point First Nation Acknowledgement

Environment Canada would like to acknowledge St. Theresa Point First Nation for the Aboriginal traditional knowledge they shared to support the development of the national recovery strategy for Woodland caribou, boreal population (boreal caribou). The knowledge shared in their report was used to inform the recovery strategy for boreal caribou but has not been presented in this public compilation report.

Wasagamack First Nation Acknowledgement

Environment Canada would like to acknowledge Wasagamack First Nation for the Aboriginal traditional knowledge they shared to support the development of the national recovery strategy for Woodland caribou, boreal population (boreal caribou). The knowledge shared in their report was used to inform the recovery strategy for boreal caribou but has not been presented in this public compilation report.