

KUGLUKTUK ANGONIATIT ASSOCIATION



BLUENOSE EAST COMMUNITY CARIBOU MANAGEMENT PLAN

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EXECUTIVE SUMMARY

This management plan was prepared by Kugluktuk Angoniatit Association, Government of Nunavut and Nunavut Tunngavik Inc.

ACKNOWLEDGMENTS

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Kitikmeot Inuit Association had participated and assisted in the early stages of the development of this plan.

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ACRONYMS

ACCWM	Advisory Committee on Cooperation of Wildlife Management
BNECH	Bluenose East Caribou Herd
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
DOE	Department of Environment, Government of Nunavut
ENR	Environment and Natural Resources, Government of the Northwest Territories
GN	Government of Nunavut
GNWT	Government of the Northwest Territories
HTO	Hunters and Trappers Organization
KIA	Kitikmeot Inuit Association
KRWB	Kitikmeot Regional Wildlife Board
NA	Nunavut Agreement
NTI	Nunavut Tunngavik Inc.
NQL	Non-Quota Limitation
RWO	Regional Wildlife Organization
TAH	Total Allowable Harvest
TK	Traditional Knowledge

CO-MANAGEMENT PARTNERS & ROLES

KUGLUKTUK ANGONIATIT ASSOCIATION the Kugluktuk HTO will be responsible for allocating the TAH; collection of TK; monitoring; regulating the members and fulfilling obligations in accordance with the Nunavut Agreement; reviewing and updating the plan as required.

NUNAVUT TUNNGAVIK INC will be responsible for ensuring all processes adhere to the Nunavut Agreement. NTI will also provide support as needed.

KITIKMEOT REGIONAL WILDLIFE BOARD will provide support to the HTO.

GOVERNMENT OF NUNAVUT, DEPARTMENT OF ENVIRONMENT will be responsible for scientific monitoring; conducting research; providing reports when required; providing information and support as required.

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1. PLAN DEVELOPMENT

The purpose of this plan is for the Kugluktuk Angoniatit Association to manage harvesting at the local level, as per the Nunavut Agreement under Section 5.7.3 "The Powers and functions of HTOs shall include the following: (a) the regulation of harvesting practices and techniques among members, including the use of non-quota limitations; (b) the allocation and enforcement of community basic needs levels and adjusted basic needs levels among members; (c) the assignment to non-members, with or without valuable consideration and considerations, of any portions of community basic needs levels and adjusted basic needs levels; and (d) generally, the management of harvesting among members."

2. SPECIES INFORMATION

Barren-ground caribou (*Rangifer tarandus groenlandicus*) occupies the Territories of Nunavut and Northwest Territories. This caribou is known to occupy a vast range and can occur at high numbers. Due to the migration and behavioral differences of each herd, different herds are recognized and managed. Thomas (1969) first introduced the name of the “Bluenose herd” for the caribou that wintered northwest of Great Bear Lake and calved around Bluenose Lake. In mid-1990s, based on distribution data and telemetry surveys done between 1966 and 1993, there was some evidence that three herds of caribou could be distinguished within the range of the “Bluenose herd” (Nagy *et al.*, 2005). The name Bluenose-East herd was attributed to the barren-ground caribou subpopulation in which the females show a strong annual spatial affiliation to the calving ground east of Bluenose Lake (ACCWM, 2014; Nagy *et al.*, 2011).

The numbers of Barren-ground caribou population is known to follow a 60-year cycle. Because of the length of this cycle, traditional knowledge provides critical information on the long-term population trend that is not possible from the available recent aerial surveys. For example, Government biologists started to monitor the Bluenose East caribou in 2000 where the herd estimate totaled 120,000 caribou. The peak in population was recorded at 122,697 animals in 2010 before a decline was detected in 2013, when the herd was estimated to number 68,295 caribou. In 2015, the population was estimated to number 38,592 animals (Boulanger *et al.*, 2016).

The rapid decline in the Bluenose-East herd size triggered a conservation concern, and an urgency to develop management actions among the users. Nine communities: Wrigley, Norman Wells, Tulit’a, Deline, Whati, Gameti, Bechoko, Paulatuk in the Northwest Territories and Kugluktuk in Nunavut are depending on this herd as a reliable source of food (ACCWM, 2014). However, caribou represent more than food security. People of the north and the caribou have developed a deep relationship over thousands of years, where caribou are at the root of the Inuit culture, normative values, and the foundation of social relationship in the community. Caribou is an essential part of the richness of Inuit culture.

2.1. Caribou Health

Disease, parasites and other pathogens, are known to affect the survival, fecundity of the individual host, which might lead to an impact caribou at the population level. Inuit needs to have access to healthy animal to maintain their cultural well-being and dependence on healthy country foods (Carlsson *et al.*, 2016; Jenkins *et al.*, 2015). Therefore, establishing a health baseline and monitoring program are important to understand the affect of pathogens in population dynamism and to secure food safety for northern communities.

Diseases pose a moderate threat to the Bluenose-East herd through effects on body conditions, pregnancy rate, and survival. The Bluenose-East samples collected during community-based monitoring programs and community hunts from 2004 to 2014 were used to test against the most predominant pathogens known to affect caribou. The Bluenose-East caribou have a

seroprevalence for Alphaherpesvirus (Herp), Pestivirus (Pesti), and Parainfluenzavirus type 3 (PI3), *Brucella suis biovar 4* (Bru) and *Toxoplasma gondii* (Toxo). They have no seroprevalence for *Neospora caninum* (Neo), West Nile Virus (WNV), and Bovine respiratory syncytial virus (BRSV) (Table 1) (Carlsson *et al.*, in press.; Kutz *et al.*, 2001).

Table 1: Seroprevalence of screened pathogens in adult Bluenose-East caribou.

Pathogens	Female Sample seroprevalence (%)	Male Sample seroprevalence (%)
Herp	56	46
Pesti	35	33
PI3	31	13
Neo	--	--
Bru	2	0
Toxo	0	14
WNV	--	--
BRSV	--	--

Bluenose-East herd was found to be positive for *Brucella suis biovar 4* and *Toxoplasma gondii* and these pathogens are known to be zoonotic to human. The *Brucella* bacterium, which causes Brucellosis, is currently affecting a very low percentage of individual from this herd. Hunters can recognise an infected caribou by observing swollen joints or limping behavior. The prevalence of antibodies to *T. gondii* indicate that caribou meat may contain viable *T. gondii* (Kutz *et al.*, 2001). In both cases, traditional food preparation techniques should include cooking the meat very well and handling of wild game should be done with additional precautions.

Continuing this Bluenose-East health surveillance program will help to detect risk for wildlife population and the northern communities. However, health has become more than qualifying wildlife in the absence of disease and the apparent normality of their behavior (Boorse, 1977). The definition of a healthy caribou herd could be enlarged to encompass the notion of population sustainability and resilience, habitat quality, and the presence of stressors (Macbeth and Kutz. in press.). This lead to revisit our current approach in understanding the Bluenose-East herd health in a more holistic approach.

2.2 Migration, Seasonal Range, Habitat Use

Barren-ground caribou is known for their long-scale terrestrial migration and their predictable use of different geographic areas to meet their seasonal requirements. Geographic locations that facilitate caribou travel, shallow or hard snow and frozen water bodies, are favored during their migration. These successful migration routes are then learned by younger caribou that follow experienced adult animals and these paths become traditional routes (Nicholson *et al.*, 2016). Through the year, the seasonal ranges have been divided by biologists into eight periods: calving/post calving, early summer, mid-summer, late summer, fall/rut, fall/post rut, winter, spring migration and pre-calving (Nagy *et al.*, 2005). Driven by environmental conditions (temperature, precipitation, snowpack, environmental productivity) or presence of predators, caribou can use

their habitat differently in response to these factors. For example, a factor affecting negatively the productivity of new vegetation can cause a range shift in spring (Nicholson *et al.*, 2016).

Satellite tracking data obtained for the female Bluenose-East from 1996 to 2004 were analysed to define their eight specific seasonal ranges (Table 2) (Nagy *et al.*, 2005). The calving ground of the Bluenose-East caribou has encompassed from the east of Bluenose Lake to the community of Kugluktuk. When the herd is abundant, Kugluktukmiut recall the presence of female caribou in the community. During the early summer, the female and their calves moved closer to the shore of the Dolphin and Union Strait, before starting to move south spreading from the coast to the north side of Great Bear Lake in mid-summer. They will aggregate at this location from early August to October (late summer). At the time of the fall/rut, the distribution of the female caribou covers the north and east side of the Great Bear Lake, the Mctavish Arm, reaching up to the Dehcho Region. The fall/post rutting is the period where the female caribou seems to aggregate between the south side of Great Bear Lake and Dehcho Region and will be also wintering at this location. The winter range of the Bluenose-East caribou is known to generally overlap with the adjacent Bathurst caribou herd. Finally, at the time of spring and pre-calving, the caribou begin a northward migration back to the calving ground location and come relatively close to Kugluktuk. However, current biological understanding of the Bluenose-East caribou herd's habitat use is limited, as it relies mostly on a small number of adult female caribou that have been collared.

Table 2: Bluenose-East Seasonal classification time frame based on Nagy *et al.*, (2005).

Seasonal ranges	Period
Calving/ post-calving	June 1 to 25
Early Summer	June 26 to July 15
Mid Summer	July 16 to August 7
Late Summer	August 8 to October 7
Fall/rutting	October 8 to 31
Fall/ post-rut	November 1 to 31
Winter	December 1 to March 31
Spring, spring migration, pre-calving	April 1 to May 31

Determining the extent of the Bluenose-East seasonal ranges is important to guide the conservation of the species by identifying important habitat. Future special management or protected areas should show a degree of flexibility to accommodate behavioral response to unsuitable environmental conditions that might result in a distribution shift within the herd's range (Nicholson *et al.*, 2016). Such flexibility could be achieved through adaptive-management approach, where the best short-term management recommendations are revisited frequently to respond to changes in the system.

3. THREATS

Many definitions of a threat exist, but according to the one used by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), threats are defined as the proximate activities or process that directly and negatively affect each population. Predator interactions (problematic native species), hunting pressure, climate change and severe weather, habitat changes, parasites and diseases, and energy production and mining constitute potential direct threats. Threats can also be organized and evaluated based on the IUCN-CMP (World Conservation Union-Conservation Measures Partnership) unified threats classification system (Master *et al.*, 2009). This classification is yet to be completed for the Bluenose-East herd and such an exercise could be undertaken by communities.

3.1 Human Disturbance

Resource exploration and development, recreational activities can affect directly caribou behavior and impact caribou negatively. Indirect effect from these human activities can also cause changes in the access, quality and quantity of forage or fragment the habitat, which might make a particular location unsuitable for the caribou and cause a range shift or displacement (Nicholson *et al.*, 2016). When the herd is at low numbers, they are less resilient to human disturbance and this can impair the recovery of the herd.

Within the Bluenose-East caribou range, there are proposed exploration and mining projects. In the Northwest Territories, the Mackenzie Valley is rich in shale oil and extensive exploration of the area is taken place. Proposed project such as the Mackenzie Gas Project (MGP) natural gas pipeline and the Mackenzie Valley Highway extension will interact with the Bluenose-East caribou (ACCWM, 2014). The Northwest Territories and Nunavut have also a rich mineral potential for diamond and other valuable minerals that overlap with the range. Both exploration and mining projects can impact the Bluenose-East caribou depending on their location and severity. Cumulative impacts should also be considered.

3.2 Predators

Wolf (*Canis lupus arctos*), Grizzly Bear (*Ursus arctos*), Wolverine (*Gulo gulo*) and Golden Eagle (*Aquila chrysaetos*) are known predators. Caribou are prey to wolves, grizzly bears, and wolverines, where wolves had the greatest proportion of caribou in their diet (90%) (L'Herault *et al.*, 2016). Even though, wolf is the main predator of barren-ground caribou, the extent in which wolves influence the decline and recovery of caribou herd is unknown. The predator-prey relationship suggests a regulatory mechanism where wolf pup recruitment decrease at low caribou availability (Klaczek *et al.*, 2016). Due to a delay in the predator population response to a caribou decline, the effect of predation might become proportionately greater at that time (ACCWM, 2014). This could explain why hunters and community members have great concerns about wolf numbers and are very proactive in creating predator management programs to reduce predation pressure.

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Up to this day, biologists are still questioning the effectiveness of wolf control programs. Previous lethal wolf control programs, such as the Finlayson and Aishihik areas in the Yukon, have shown to be an effective short-term solution to increasing ungulate population where benefits lasted under 10 years. However, the program is intensive and as soon as the program stops, the wolves can recover rapidly, (Hayes, 2010).

According to Traditional Knowledge, the number of grizzly bears within the Bluenose-East caribou range has increased considerably, with numerous sightings of this predator in the calving and post-calving range (Kugluktuk HTO, pers. comm.). Grizzly bear usually targets young caribou, particularly newborn calves, but are also found to kill adults. Grizzly bear has developed different methods to kill caribou: charging caribou group, chasing moving bands of caribou, exploiting caribou at traditional river crossing, scenting calves (Reynolds & Garner, 1987). Although observations of Grizzly bear killing caribou have been documented, the grizzly bear-caribou interrelationship is not well understood (Skoog 1968; Murie 1981).

Golden eagle predate on small ungulates, such as sika deer (*Cervus nippon*) and Dall's sheep (*Ovis dalli*) (Kerly, 2013; Nette *et al.*, 1984). In Finland, Golden eagle is known to contribute to the mortality on semi-domesticated reindeer (*Rangifer tarandus fennicus*) calves (Nybakk *et al.*, 1999). Golden eagle nests on the south facing cliffs of the Rae Richardson river valley, which bifurcate the Bluenose-East calving ground. This implies the possibility of golden eagle to predate on newly born Bluenose-East caribou calves contributing to a percentage of the mortality. This paucity might happen in the event that the usual preys, ground squirrels and smaller mammals, become scarce forcing them to attack alternative species (Nette *et al.*, 1984; Nybakk *et al.*, 1999). Current work is in process to determine golden eagle-caribou interrelationship, and the results of this study should become available to further inform predator pressure on the Bluenose-East caribou.

4. HARVEST LEVELS & PRACTICES

4.1 Communities that Harvest Bluenose East Caribou in Nunavut

Kugluktuk is the only community in Nunavut that harvest caribou from the Bluenose East herd. There are other communities that harvest from this herd in the NWT.

4.2 Use of the Population and History of Harvest Management

The Bluenose East Caribou Herd (BNE) have always been an important staple in the Inuit diet/lifestyle. Caribou were harvested at different times of the year for different uses. Caribou was used for food, clothing, shelter, tools. Inuit harvested only what was needed. There was never wastage of the animal.

Today, harvesters use machines and rifles to hunt caribou. It is much faster and easier to find the animals.

Season:

- *During migration, leave the leaders along, as harvesting/disturbing them may alter migration.*
- *January to March – mostly females*
- *April to June – bulls*
- *July to August – mix but little harvest*
- *September to October – bulls*
- *November to December – young bulls and females*

In 2007, the Kugluktuk HTO had made a motion to stop all sport hunting and commercial hunting of all caribou herds in the Kugluktuk area. This was also supported by the local outfitter at the time.

5. MANAGEMENT/IMPLEMENTATION/MONITORING

5.1 Management Goals

The tools in the ICCMP includes:

- 1) Setting a limit on KHTO member harvest which is controlled by the KHTO;
- 2) Mandatory BNECH harvest reporting to the KHTO by members;
- 3) Establishing a 'No Caribou Hunting Zone' to reduce BNECH harvest in an area that has easy access by trails and all-terrain vehicles;
- 4) The establishment of an KHTO controlled enforcement system regarding BNECH harvest rates and zones, mandatory reporting, and harvest practices;
- 5) Creation of a program and looking for partners to create a predator management program to reduce predation pressure on the BNECH;
- 6) Continuing and improving education of KHTO members about caribou, respectful harvest practices, and alternate species to harvest; and
- 7) Increased effort to increase the fair quota to the KHTO regarding muskox in the Kugluktuk harvest area to relieve harvest pressure on the BNECH.

5.2 Plan Implementation

The KHTO Approved Integrated Community Caribou Management Plan.

Setting a limit on KHTO member harvest which is controlled by the KHTO

The KHTO estimates that from May 2015 to May 2016 that about 190 BNECH were harvested in this one-year period. The KHTO estimates the seasonal breakdown of the annual BNECH harvest was about: 20 in the summer; 20 in the fall; 100 in winter, and 50 in April. Of the 100 BNECH harvested in winter, these were harvested at Napaktolik, which is about 200Km south- east of Kugluktuk where it appeared that a large herd of caribou wintered in the rocky hills in the area. There was discussion about whether these were the BNECH, but it was generally believed to be this herd from the KHTO.

Even if the KHTO harvest was underestimated by 75%, the total harvest is less than the 340 TAH. There have been years when the harvest has been much higher and it is related to the BNECH population being higher, or the BNECH was close to town for a period of time.

The reason for the reduced harvest in this May 2015-May 2016 period are many, and include:

- a. many Inuit do not have the resources, or skills to harvest caribou;
- b. the BNECH population is on a decline and the opportunity to find and harvest BNECH is reduced as a result (a natural feedback loop);
- c. there are no winter roads, or airplanes used to hunt caribou around Kugluktuk, so

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unskilled hunters, and those without resources to travel far from town cannot harvest BNECH.

Thus, the KHTO is willing to enforce its own limit of 340 caribou harvested in 2016-17 using mechanisms the KHTO already has in place. The KHTO will develop its own methods for distributing the right to KHTO members to harvest the 340 animals from the BNECH. There was not enough time offered by the NWMB to more fully develop the details of this KHTO enforced plan, but the KHTO is confident that it can do it.

The HTO made a motion to allow the harvesters to hold on to tags for two weeks prior to resolving them back to the HTO. The HTO has also made a motion to not allow harvesting for a one-month period from June 1-July 1st. The Wildlife Act states that no edible pieces of meat can be wasted and is thus an infraction of the Wildlife Act. Caliber Act is a .223 and larger for big game.

5.3 Monitoring and Reporting

In addition to mandatory reporting, the KHTO and the GN are working together to submit biological samples to further manage and monitor the health of the herd. As part of a KHTO enforced limit on its members of 340 BNECH to be harvested, the KHTO will implement a system of monitoring the harvest of BNECH. This will provide feedback as to whether the ICCMP has been effective in achieving its goal. If harvest results are over the KHTO enforced limit, the KHTO can use adaptive management to adjust the ICCMP to meet the limit. As part of this harvest reporting, there will also be feedback sought from hunters on the health and population of the BNECH to be used as a mechanism to assess the state of the BNECH. For example, the number of calves, the number of pregnant females and other relevant information as we have successfully done to document the increased population of muskox on the mainland east of Kugluktuk which resulted in an increased TAH for this species. The KHTO is confident it has the mechanisms available to enforce reporting of the BNECH harvest.

KRWB and KHTO are working to implement a traditional knowledge program with Trailmark to record observations, harvesting, climate change into a database.

5.4 No Hunting Zone

- 1) Establishing a 'No Caribou Hunting Zone' to reduce BNECH harvest in an area that has easy access by trails.

The BNECH often comes relatively close to Kugluktuk during the spring and fall migration. Access to the south-west of Kugluktuk for a distance of about 5-10 miles is facilitated by the lack of river or stream crossings and the development of trails. This allows for rapid access of hunters with limited resources or skills to a relatively small area near Kugluktuk that the BNECH sometimes passes

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through. A lot of BNECH harvesting can happen if the BNECH passes through this area.

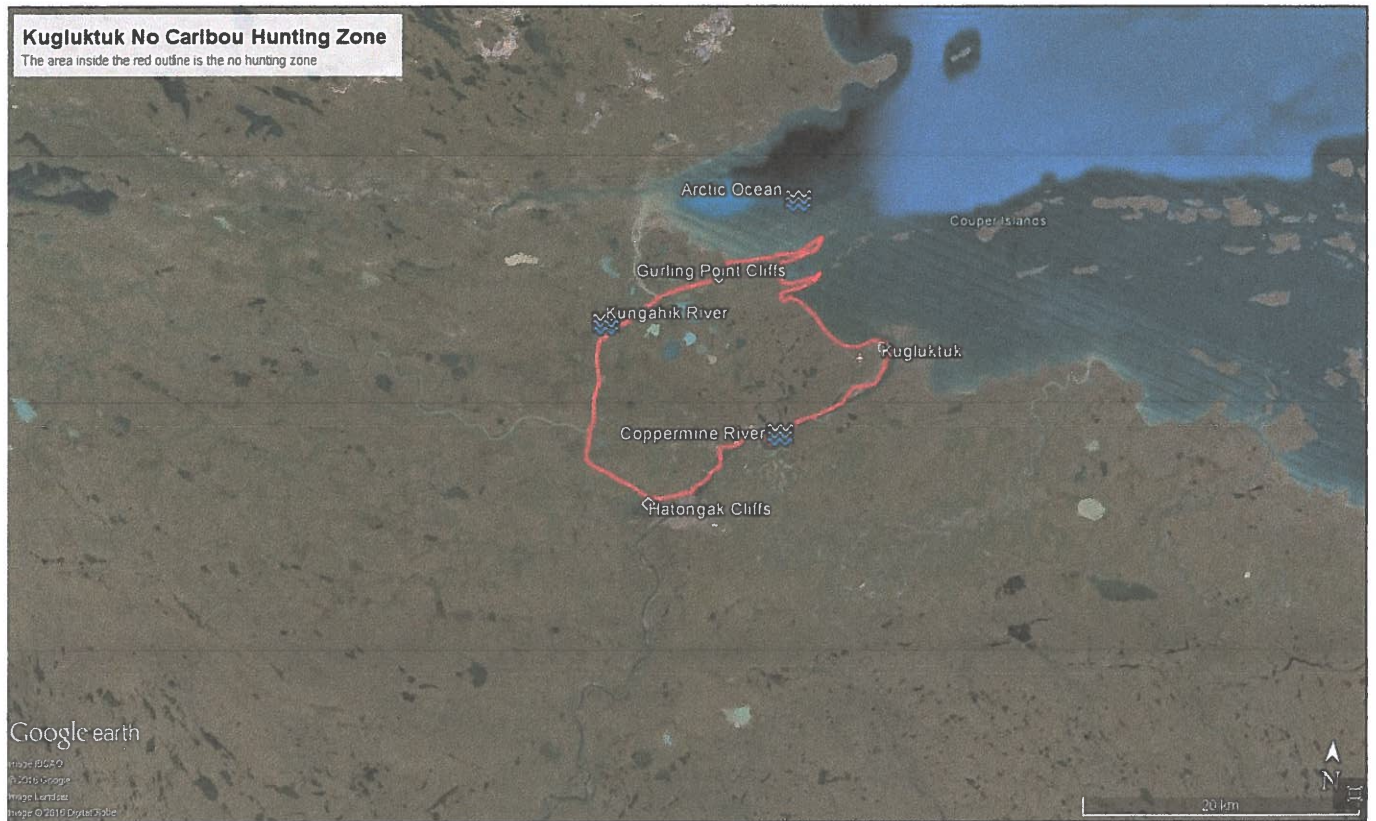
The KHTO implemented an Article 5.7.3 non-quota limitation at its Annual General Meeting on June 12, 2017 on harvesting that prohibits caribou harvesting in this area, which is shown in Figure 1 and Figure 2. This area is about 300 square kilometers of the most easily accessible hunting areas from the Hamlet of Kugluktuk. There are clear land marks in this area that can be used to establish this no hunting zone for caribou that include major rivers and cliffs. The establishment of this zone will result in significant reduction in caribou harvest in years and seasons when the BNECH migrates close to town through this area. Further, many hunters are not adequately resourced or trained to harvest caribou respectfully, and too many hunters in this area can pose a human and hunter safety issue. This no hunting zone was put in place based on IQ (include the names within the text). Include dates when this area is effectively closed to harvesting.

Figure 1. The KHTO “No Caribou Hunting Zone” outlined in red. This zone is bounded by the Kugluk (Coppermine) and Kuungnahik (Richardson) River, the arctic ocean, and a set of well-known cliffs in the Hatongaat area to the southwest and the Gurling Point Cliffs to the northeast.



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Figure 2. The same Proposed KHTO “No Caribou Hunting Zone” outlined in red, but in a regional setting.



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**SITUATION: POPULATION IS
HIGH (120,000 +)**

**OBJECTIVE: MAINTAIN
HEALTHY POPULATION**

POSSIBLE TOOLS

- Education about sustainable harvest
- Predator Monitoring
- Harvest Monitoring
- Traditional Knowledge collection
- No-Hunting Zone Implemented
- Sample collection – optional

**SITUATION: POPULATION IS
INTERMEDIATE &
DECREASING (60,000 +)**

**OBJECTIVE: PROMOTE HERD
RECOVERY**

POSSIBLE TOOLS

- Increase monitoring
- Limit harvest
- Predator Management
- Mandatory Reporting
- Mandatory Sample collection
- Traditional knowledge collection
- Education about sustainable harvest
- Hold Regular Meetings with co-management partners, governments, organizations, community
- Calving Ground/Habitat Protection
- No Hunting Zone Implemented
- No sports and commercial harvests
- Encourage mainly bull harvest
- Encourage other species harvests
- Encourage aerial/population/cow-calf ratio; calf survival rate; adult composition surveys every year

**SITUATION: POPULATION IS
LOW (20,000 -)**

**OBJECTIVE: PROMOTE HERD
RECOVERY**

POSSIBLE TOOLS

- Smaller/No Harvest
- Bull Harvest Only
- Establish a Season
- Mandatory Reporting
- Increase monitoring
- Predator Management
- Mandatory Sample collection
- Traditional Knowledge collection
- Education about sustainable harvest
- Calving Ground/Habitat Protection
- No Hunting Zone Implemented
- No sports and commercial harvests
- Hold Regular Meetings with co-management partners, governments, organizations, community
- Encourage other species harvests
- Encourage aerial/population/cow-calf ratio; calf survival rate; adult composition surveys every year
- Increase Monitoring

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6. ENFORCEMENT

1) The establishment of an KHTO controlled enforcement system regarding BNECH harvest rates and zones, mandatory reporting, and harvest practices.

The KHTO believes that it has the respect of the community, and the capacity to enforce compliance to its proposed ICCMP. There was not enough time afforded by the NWMB to put into place formal enforcement mechanisms as part of this submission, but it will not be hard to complete. Enforcement mechanisms include limiting future opportunities related to: BNECH harvest opportunities, access to KHTO subsidized goods; KHTO sponsored community hunts, and KHTO partnerships with government and industry on various wildlife and environment activities. Loss of these privileges is a loss of harvesting opportunity and a loss of economic potential to members who do not follow the rules, in addition to the moral shame involved in breaking locally enforced rules and values.

When the KHTO has made rules, or voiced opinions in the past they have been respected. It makes sense that rules made more locally are better adhered to and respected than rules enforced by authorities that are seen to be further away, or not related to the community.

As an example, the KHTO passed a resolution many years ago that there should be no more cabins built on the Coppermine River north of Bloody Falls, because there was concern that too many cabins would disturb wildlife, including caribou that use the area. This part of the river is part of the border with the 'No caribou hunting zone' proposed above. Even though the KHTO had no legal authority to enforce this resolution (because it is not a landowner), the community, by and large, has respected this KHTO resolution and few or no new cabins have been built in this area on the Coppermine River. This is an example of how both Inuit and non- Inuit in Kugluktuk respect the desires of the KHTO.

Further, local enforcement of an ICCMP will be more effective as there is a stronger moral obligation of KHTO and Kugluktuk community members to follow the rules. If one has to account to their grandparent, parent, uncle, aunt or friend for why they broke the rules, this is a much stronger reason to comply than to worry about a government rule that may appear to be distant and unreasonable. There are new provisions for cross bow hunting.

GN can enforce the interim of 340 and the HTO will enforce the sex selective NQL by imposing the no hunting zone during calving season.

7. MOVING FORWARD

1) Creation of a program and looking for partners to create a predator management program to reduce predation pressure on the BNECH.

For years, the KHTO has expressed to the GN-DOE the observations of the high number of predators, such as wolves and grizzly bears that are present in the range of the BNECH. Traditionally, Inuit have harvested wolves and grizzly bear in this area as part of day-to-day life on the land. Now that most Inuit spend the majority of their time in established communities, there are fewer Inuit on the land and less opportunity to harvest these animals.

Inuit have strong hunting skills in general, and there is a long history as wolf hunters. This combined with extensive traditional knowledge about wolves and grizzly bear give Inuit the ability to be very effective managers. For example, Inuit know where many of the denning areas are of wolves in the BNECH range in Nunavut.

Inuit continue harvesting wolves and grizzly bear to the present. Unfortunately, the price of fur has declined drastically over the last many years and is very low compared to the cost of hunting. The GN has proposed a program to assist the KHTO with regards to the predator control. In addition, the KIA has funding to assist the KHTO to further look into predator management. The KHTO is continuing to work with the GN and KIA for funding to assist with predator management to ensure the health and viability of the BNE Caribou Herd.

Actual development of a predator management plan. Bring hunters together to develop a plan. Wolves are known predators of caribou. It is generally thought that a wolf eats about 25 caribou per year. A properly designed wolf management program that used the traditional skills of Inuit could be a significant help to managing the BNECH, and also conserve Inuit hunting skills. Take for example if there was an incentive in place to motivate Inuit hunters to spend more effort hunting wolves that, on the margin, resulted in an extra 30 wolves being harvested every year. These extra 30 wolves would represent 750 caribou that are not eaten by wolves, and available to assist with population recovery. It would also more than offset the annual harvest by KHTO members.

There is also traditional knowledge that the grizzly bear population has increased considerably in the West Kitikmeot Region of Nunavut and is expanding north and east. It is known that there is a relatively high number of grizzly bears in the calving and post-calving range of the BNECH. Grizzly bears are known to be effective caribou predators. The GN has removed the quota on grizzly bear for Inuit and it is expected the harvest rate of grizzly bears in the area around Kugluktuk will increase as a result. Increased rates of harvest are already occurring.

The Kitikmeot Inuit Association has already endorsed predator management measures and may be willing to assist with securing funds for such a program. In the Northwest Territories (NWT), hunters can get several hundred more dollars as an incentive to kill wolves that is above the price of the fur, if the wolf is killed in a time of year when the fur is valuable. The Government of Nunavut, in geographic areas where there is a conservation concern with caribou, should mirror

the GNWT programs to incentivize the management of wolves. The incentive should be offered year-round so that hunting at the dens for pups can occur.

The KHTO would be willing to implement programs to remove wolf pups in the summer, which significantly reduces the food requirements of wolf packs. This along with a properly designed incentive system for harvesting wolves would use the impressive wolf hunting skills of Inuit to manage the herds. Further, unlike other aboriginal groups in the NWT, Inuit have no traditional beliefs against hunting or handling wolves. Wolf fur is used in everyday winter clothing by Kitikmeot Inuit. The increase of grizzly bear tags will assist with this. The KHTO is advocating for 10 grizzly bear tags for sport hunts. Studies are being conducted this summer on Golden Eagles (raptors) and their impacts on caribou calves.

The Department of Environment implemented a Wolf Pilot sample collection in the Kitikmeot Region. The goal of this project is to collect data about wolves and increase the number of wolves harvested.

2) Continuing and improving education of KHTO members about caribou, respectful harvest practices, and alternate species to harvest

The KHTO has an established caribou education week based in Kugluktuk. This week includes activities such as harvest practices, respectful harvesting, and harvesting alternate animals. There are many other sources of country food in the Kugluktuk area including muskox, moose, arctic char, seal, and geese to name a few. This education week will continue along with every day transfer of knowledge from Inuit to younger generations and include the information and skills that is part of the ICCMP. Education will be completed in two parts: educate what it is in this plan (i.e. hunting zone and no harvest restrictions in terms of dates, the status of the herd and the respectable harvest practices of caribou (parts to utilize, types of firearms)

3) Increased effort to increase the fair quota to the KHTO regarding muskox in the Kugluktuk harvest area to relieve harvest pressure on BNECH.

A new muskox management zone designated by the GN is MX-11. It occurs on the mainland from the east side of the Coppermine River all the way past Bathurst Inlet to the west side of Ellice River. The KHTO for years noted that the muskox population on the east side of the Coppermine River has been increasing and lobbied the GN to re-evaluate the TAH. In 2013 the GN did a survey of the western 25% of MX-11 which is closest to Kugluktuk. The GN estimated that there was a muskox population of 6746 +/- 1851 in this most western portion of MX-11. (GN – DOE Kitikmeot Muskox Harvest Management Plan 207-18). The Total Allowable Harvest for MX-11 is 225.

In September 2017, the KRWB allocated these tags as follows: Cambridge Bay HTO – 25; Omingmaktok HTO – 40; Burnside HTO – 40 and Kugluktuk HTO – 120.

In November 2017, the KHTO allocated their 120 tags as follows: 60 – beneficiaries; 10 – non-beneficiaries; 30 – country food program; 20 – sports hunts.

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Kugluktuk Angoniatit Association

"Hunters and Trappers Organizations are established for the purpose of protecting wildlife in Nunavut Communities, and to promote the health and culture of our communities by regulating, managing, developing and enforcing specific sections of the Nunavut Agreement for the benefit of all Inuit for years to come." Policies and Procedures for HTOs in Nunavut: Volume One Governance, Nunavut Inuit Wildlife Secretariat.

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