



# **‘Working Together for Baffin Island Caribou’**

**Workshop Report – November 2014**

**Department of Environment,  
Government of Nunavut,  
Iqaluit, Nunavut**



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Bâtir le *Nunavut* ensemble

## Executive Summary

On November 3<sup>rd</sup> and 4<sup>th</sup> 2014, The Government of Nunavut Department of Environment in collaboration with Nunavut Tunngavik Incorporated, Qikiqtaaluk Wildlife Board and the Nunavut Wildlife Management Board brought together representatives from Hunters and Trappers Organizations, delegates from all Baffin Region HTOs except for Arctic Bay (due to weather). Over the two day workshop delegates and representatives from co-management organizations broke into 4 groups for 4 separate small group discussions. They discussed the status of Baffin Island caribou, possible management actions and management plans.

Overall, delegates agreed that the Baffin Island caribou survey was well conducted and that there are currently very few caribou on Baffin Island. The results of the 2014 island-wide caribou aerial survey were accepted and Inuit knowledge (Inuit Qaujimagatuqangit) plus science would be used in management planning and decision-making.

Delegates overwhelmingly agreed that some immediate management action was needed. They were in favour of developing a Management Plan in the coming months. Most delegates expressed a strong preference for community- based management, such as a per household caribou allocation. However, there are currently as many households on Baffin Island as there are caribou. Concerns were raised about enforcement, communication, and consensus among co-management partners during the development and implementation of community management actions.

Workshop participants did not have sufficient time in the Workshop to reach consensus on management actions that would form the basis of a Management Plan. They indicated they would need to go back to their community to discuss these ideas further.

Some of the specific management ideas put forward by the delegates and discussed at the Workshop included:

- Restrict harvest in areas where caribou calve
- Allocate harvest on a per household basis
- Make “no harvesting areas” where caribou calve or special places were caribou take refuge
- Restrict annual harvest on a community basis (e.g. 25 caribou/year)
- Stop commercial sale of caribou meat
- Interim closure of caribou harvest for commercial, recreational and non-Beneficiary use until such time as Basic Needs Level can be met
- Limit development on calving grounds
- Target younger bulls and do not harvest cows, pregnant females , cows with calves-
- Take only what you need
- Use HTO Bylaws to regulate harvest

- Request to Government of Nunavut to provide assistance with alternate employment and alternate country food access opportunities.

At the Workshop, delegates committed to share the information provided and report back to their communities. Several cited barriers to getting information into their broader community.

The Government of Nunavut Department of Environment (DOE) will consider information shared during the Workshop to draft a Baffin Island Caribou Management Plan for further consultative review by the affected communities in early 2015.

All wildlife co-management partners are committed to continuing to work together to promote the conservation, sustainable management, and recovery of caribou on Baffin Island.

## **Preface**

*This report represents the Department of Environment's best efforts to accurately capture and translate all of the information that was shared during workshop.*

*The views expressed herein do not necessarily reflect those of the Department of Environment, Government of Nunavut.*

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## **1.0 Welcome and Opening Remarks: Workshop Co-chairs introductions, welcome, purpose, prayer**

Workshop Co-chairs, Gabriel Nirlungayuk (Deputy Minister, Department of Environment, GN) and James Qillaq (President, Qikiqtaaluk Wildlife Board) welcomed participants with their opening remarks and introductions. The purpose of the workshop was reviewed and changes made to the agenda (*Appendix 1*).

## **2.0 Purpose and Objectives of the Workshop**

The purpose of the ‘Working Together for Baffin Caribou – November 2014’ workshop was to bring wildlife co-management partners together from across Baffin Island and Nunavut to share knowledge and work collaboratively towards a management plan for Baffin Island caribou. The workshop was structured around three main themes:

1. **What has happened in the past** - History of caribou on Baffin Island, caribou fluctuations, and previous consultations.
2. **Where are we now** - How many caribou there are now and what recovery of the population could look like.
3. **Where are we going** – work together on a recommended management scenario to form the basis of a Baffin Caribou Management Plan.

## **3.0 Workshop Participants and Structure**

**3.1 Workshop Participants** – The workshop was attended by representatives from the following organizations:

- Hunters and Trappers Organizations (HTOs);
- Elders Advisory Committee (EAC) with the Department of Environment, GN;
- Qikiqtaaluk Wildlife Board (QWB);
- Nunavut Wildlife Management Board (NWMB);
- Nunavut Tunngavik Inc. (NTI);
- Department of Environment; Government of Nunavut (DOE)

The workshop also welcomed the Nunavut Wildlife Management Board Chairperson, Executive Director, and staff as observers to listen to the concerns and management recommendations from the Baffin communities (*See Appendix 2 for a complete participant list*).

**3.2 The Baffin Island Caribou Steering Committee** - The BICSC is comprised of one to three representatives from each of the co-management partner organizations, including Department of Environment, Qikiqtaaluk Wildlife Board, Nunavut Wildlife Management Board and Nunavut Tunngavik Inc. The BICSC was established to provide guidance and direction for the 2013 Caribou Workshop, the ensuing community consultations, and culminating in developing and implementing this Workshop (2014). (*See Appendix 3 for a list of BICSC members*).

### **3.3 Format of Discussions**

During the workshop, presentations by GN Biologists and a Social Scientist provided background information on the historical and current status of Baffin Caribou, the consultation process to-date, and an introduction to caribou management and management plans. Presentations were followed by a question and answer period and further open discussion amongst the participants. The participants were also broken up into four smaller groups during 'Breakout Sessions' to discuss the agenda topics in more focused detail. To facilitate open discussions amongst the delegates following breakout group discussions, workshop participants reconvened and each group reported back on their discussions, summarizing the main points. During the workshop the co-chairs deviated from the agenda on several occasions. This report is a chronological representation of what actually occurred at the workshop.

## **4.0 Caribou Numbers on Baffin Island – Results from the 2014 Baffin Island-Wide Aerial Caribou Survey** (Presentation by Mitch Campbell – Kivalliq Regional Biologist, DOE ; David Lee – Wildlife Biologist, NTI; and Jaylene Goorts – Baffin Wildlife Technician, DOE )

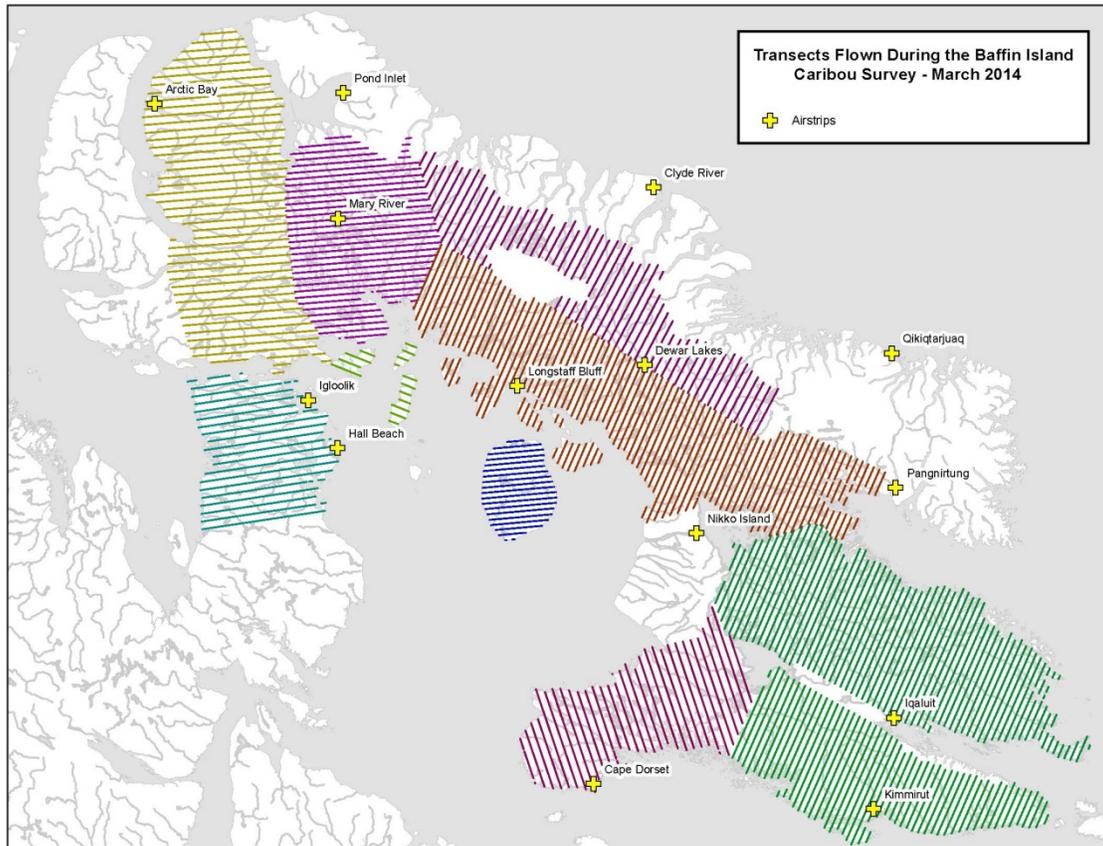
**Status of Baffin Caribou: 2014 Aerial Survey Summary** - The Government of Nunavut completed an aerial caribou survey using a Distance-Double Observer Platform technique that covered all caribou habitat on Baffin Island complex and much of the Melville Peninsula between February 26<sup>th</sup> and March 21<sup>st</sup>, 2014 (*Figure 1*). The survey provided the first ever scientific estimate of caribou abundance and distribution for the entire Baffin Island.

During the three-and-half week aerial survey, crews in three planes and one helicopter flew over 46,000 miles, covering nearly all of Baffin Island and much of Melville Peninsula. With the exception of three bad weather days, conditions for flying and sighting caribou were exceptionally good. The survey was successfully completed ahead of schedule.

All of the information provided by community members and HTO representatives during the Baffin Island consultations (December 2013 – January 2014) was used to design and conduct the survey.

Community concerns about the previous south Baffin survey resulted in the area being re-surveyed this winter, along with the rest of the island and Melville Peninsula. Also, in response to concerns about the previous survey's flight lines being spaced too far apart, the distance between lines was reduced from 10km to 7km for areas with higher densities of caribou. Flight lines in areas thought to have medium and low densities of caribou were spaced 8km apart, and those in areas indicated as having very low densities of caribou were spaced 10km apart (Figure 1). The increased coverage gives us greater confidence in the results.

Using the 1,145 caribou observations from the survey the Government of Nunavut calculated that there are between 3,462 and 6,250 caribou on all of Baffin Island complex (*95% CI (degree of confidence); Table 1*). North Baffin had only between 97 and 521 caribou at the time of survey. These calculations have been checked and verified by GN and NTI biologists. These low numbers are consistent with what many hunters and the communities have been saying - that there are currently very few caribou on Baffin Island. These very low numbers highlight the need for management actions to reduce the chance of eliminating caribou from areas of Baffin Island.



**Figure 1.** Transects flown during the Baffin Island Caribou Survey, using 3 fixed-wing aircraft and one rotary-wing aircraft between February 26<sup>th</sup> and March 21<sup>st</sup>, 2014

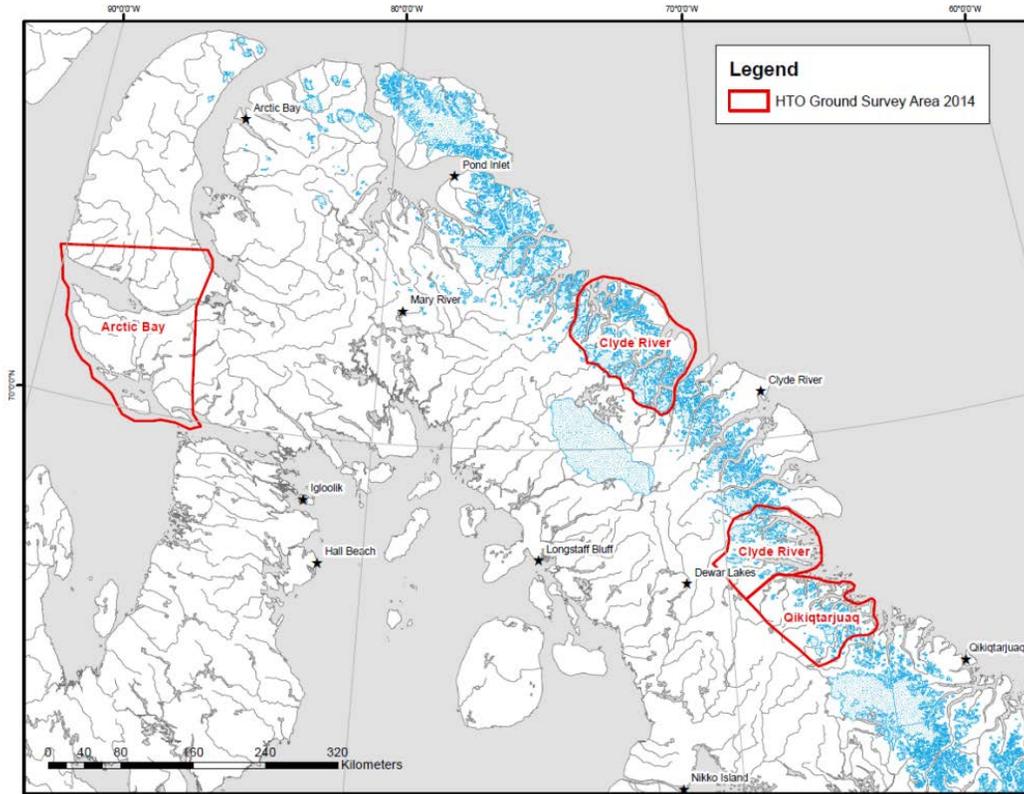
**Table 1.** Estimates of abundance by survey area (*Strata; Figure 2*) from the 2014 Baffin Island survey. The number of individual caribou observed in each stratum is also given for reference.

Strata (Survey Area)	Caribou counted during survey	Caribou estimate	95% Confidence Limit (caribou estimate range)
<u>North Baffin</u>			
Borden Peninsula	1	6	1-30
Mary River	49	224	96-521
North Central Baffin	13	85	31-230
<b>Total</b>	<b>63</b>	<b>315</b>	<b>159-622</b>
<u>South Baffin</u>			
Central Baffin	197	1,091	662-1,798
Foxe Peninsula	20	216	48-972
Hall Peninsula	176	887	467-1,686
Meta-Incognita Peninsula	91	539	256-1,138
Prince Charles Island	557	1,603	1,158-2,220
Total (+ Prince Charles Island)	824	4,337	3,169-5,935
<b>Total</b>	<b>267</b>	<b>2,734</b>	<b>1,777-4,207</b>
<u>Other areas</u>			
Melville Peninsula	26	220	88-551
<b>Survey Area Total</b>	<b>1,130</b>	<b>4,872</b>	<b>3,661-6,484</b>
<b>Baffin Island Total</b>	<b>1,104</b>	<b>4,652</b>	<b>3,462-6,250</b>

**HTO Caribou Ground Surveys** – The HTOs of Arctic Bay, Clyde River, and Qikiqtarjuaq received funding through the NWMB’s ‘Nunavut Wildlife Studies Fund’ to conduct HTO-led caribou ground surveys. These surveys were conducted concurrent to the aerial survey and their observations were used to inform the aerial survey coverage. Ground crews spent 5-7 days covering the survey areas by snowmobile where they expected to find caribou. Ground crews whom travelled south of Clyde River and crews from Qikiqtarjuaq saw no caribou in their survey areas during the week long search. Ground crews who travelled north of Clyde River observed over 30 caribou, and crews from Arctic Bay observed 2 caribou in their survey areas.

**Summary of Discussion** – HTO Representatives that participated in the aerial survey as wildlife observers commented that the survey was good and there were no significant weather delays. Observers were able to easily spot caribou and caribou tracks from the aircraft across most of the survey area. However, in some areas with poorer snow cover or in areas with high cliffs, it was harder to spot caribou. Overall there are few caribou, and there have been caribou harvested since the survey was completed (HTO delegates Methusalah Kunuk and Jeetaloo Kakee).

During the HTO-led ground surveys, rough terrain and poor snow conditions prevented ground surveyors in Clyde River and Qikiqtarjuaq from reaching some of the areas they wanted to cover on the ground surveys. (CR HTO delegate Aisa Piugatuk; QK HTO delegate Philip Sanguya)



**Figure 2.** Ground survey areas for the HTO-led caribou ground surveys conducted by snowmobile in early March 2014.

## 5.0 Breakout Session 1: Community Perspectives on Baffin Caribou

Caribou numbers are critically low on Baffin Island. During the first breakout session participants were asked to discuss what they would like to see happen with their caribou. What should the communities do? What should the Government do? The following is a summary of the main points from each group discussion: **Caribou Numbers**

- There are few caribou on Baffin Island. Caribou move and migrate. Some years caribou are abundant and other years there are few. (Group 1)
- People have accepted the fact that there are hardly any caribou on Baffin Island now. (Group 3)
- We have to do something to conserve caribou before they are extirpated on Baffin Island. We need to make plans for management. (Group 3)

### **Nunavummiut Increasing**

- The population of Nunavummiut is increasing. Half of Nunavummiut live on Baffin Island. (Group 1)
- People have to travel long distances to get caribou on Baffin. In Nunavut, harvesters have the ability to travel to different places; to migrate with the wildlife. (Group 3)

### **Relocating Caribou**

- If caribou are continuing to decline, consideration should be given to relocating caribou to Baffin Island if they are to become extirpated. Eg. Southampton Island Caribou (Group 1,2,3). Caribou from Prince Charles Island were suggested for relocation due to their proximity in location and relationship to Baffin Caribou (Group 3). Introducing reindeer or muskoxen to Baffin Island was also suggested. (Group 1,2)

### **Sale of Caribou Meat**

- Suggestion to stop the sale of caribou meat from the mainland to Baffin so as not to deplete the caribou populations in other areas to fulfill the needs of Baffin residents. (Group 1)
- Representatives from Qikiqtarjuaq highlighted that their hunters have to travel very far from the community to harvest caribou and therefore the community relies on buying caribou from other regions. They expressed concerns that Qikiqtarjuaq would endure added hardship if the sale of caribou meat were to be restricted, and suggested that people may not abide to harvest restrictions if they do not have access to caribou through sales. Representatives from Pangnirtung expressed similar concerns.
  - Clarification was later provided that caribou on Baffin Island should not be sold, but the sale of caribou from other regions should still be permitted, as people will be asking to buy caribou meat from other regions. (Group 4)

## **Education**

- Educate the younger generation to not harvest pregnant females. (Group 1)

## **Research / Monitoring**

- There should be another caribou survey on Baffin Island to determine if the population is increasing or stable, the number of calves, and pregnancy rates. (Group 1)

## **Management**

- Some people think management is not urgently needed, others think the issue needs to be addressed right away. (Group 1)
- In the past, the elders only harvested females during particular times, such as the mating season (rut), when the taste and texture of the meat is preferable. (Group 2)
- There should be no Quota for caribou. (Group 3)
- Harvesting should be the responsibility of the HTO instead of having a quota managed by the government. For example 5 caribou per person or per household. (Group 3)
- The HTO should decide the number of caribou that each person should be allowed to harvest. (Group 4)
- Harvest Restrictions – In the past (1960s), restrictions for harvesting caribou on Baffin Island were introduced. However, there was never a moratorium put in place and basic needs levels were considered. Today, Inuit have to consider the conservation of caribou on Baffin Island. Harvesting should not be stopped, but we have to consider other ways to manage it. (Group 4)

## **Suggested Harvest Restrictions / Management Actions**

- No harvesting on calving grounds (Group 4)
- No development or exploration activities should occur on calving grounds. (Group 4)
- No harvesting pregnant females and females accompanying calves. (Group 4)
- Introduce a tag system (before caribou decrease more). (Group 4)
- Stop the commercial sale of caribou meat. (Group 4)
- There should be a harvest limit for each community and a limit per household (eg. In Coral Harbour there is a TAH of 800 caribou for the community and a limit of 4 caribou per household). (Group 1)
- Seasonal harvest limitation (eg. spring and summer). (Group 2)
- Habitat Protection – To protect wildlife we have to protect the habitat. If caribou do not have adequate vegetation then they will starve. (Group 2)
- No harvesting during the mating season. (Group 2)
- No development or exploration activities should occur on calving grounds. (Group 4)

## **Management Boundaries**

- All communities should have the same management system. Baffin Island should be considered as one population (or management unit) and not separated into North and South Baffin. (Group 1,3,4)

- Igloolik, Hall Beach, Arctic Bay, Pond Inlet, and Clyde River communities should be considered in one management boundary, similarly for Qikiqtarjuaq, Pangnirtung, Iqaluit, Kimmirut, and Cape Dorset. (Group 2)
- Individual communities should create their own management bylaws (Group 2), but adjacent communities should work together to make decisions for shared hunting grounds. (Group 2, 3)

### **Enforcement**

- Wildlife Officers should discuss solutions for enforcing management actions and bylaws with the HTOs. (Group 2)
- Who will enforce HTO bylaws and restrictions? Suggestions include community bylaw officers, Conservation Officers, RCMP. If the responsibility of enforcement falls on the HTOs, will the HTO have to hire enforcement officers? (Group 4)
- In the past when caribou were low and we were told not to harvest caribou, we followed this. There is concern that we are losing our traditional knowledge system. The younger generation may not follow the rules or listen to the Elders. (Group 3)

### **Consultation and Communication**

- Elder's Advisory Committee suggested HTOs should consult with their individual communities before making management decisions, and report workshop proceedings back to the communities. (Group 2)
- In the past, hunters used to get together to talk about wildlife and their wildlife harvesting practices. Communities need to get together to talk about the best way forward in dealing with the decline of caribou. Consideration for broader communication on the status of wildlife in Nunavut. (Group 3)
- Good communication between the communities on Baffin Island is very important if harvest restrictions are to be put in place. (Group 3)

### **Timeline for Restrictions**

- If harvest restrictions or limits are introduced, how long will they need to be in place? Another survey will be needed to determine if the restrictions are having a positive effect on the population. Intervals between surveys should be committed to in writing. Participants emphasized that any restrictions put in place should be flexible to change depending on the status of the caribou population. Nothing should be set-in stone that cannot be changed in the future. Furthermore, Inuit should not be omitted from the process once the restrictions have been implemented. (Group 3,4)

## 6.0 Natural Caribou Population Cycles – What Happened to Caribou in the Past and What Could Happen in the Future

(Presentation by Troy Pretzlaw – Baffin Regional Biologist, DOE )

**Summary of Presentation-** Between 1983 and 1994 former Baffin Regional Biologist, Ferguson interviewed 43 South Baffin Inuit Elders and asked about what happened in the past with caribou. These men shared Inuit Qaujimagatuqangit about the changes that had occurred over their life times and before (This information does not represent all elders opinions). Many of the Elders interviewed said that in the lifetime of an elder there will be periods of great abundance of caribou and periods of great scarcity. They also predicted the current decline of the caribou numbers and even the area where caribou would be numerous last. Ferguson took the information they shared and created a graph (*graph showing decline and increase of caribou between 1910 and 1990- Appendix 1*). There were many caribou in South Baffin between 1900 and 1920, after which there was a very steep decline and very few caribou for around 30 years. In the low caribou years Inuit were forced to hunt more seals and other animals to make ends meet. In the 1960s these numbers began to increase again until the 1980s and 1990s when there were again many caribou. In spite of the abundance of the caribou during the period when Ferguson interviewed these Elders, they kept telling him that the caribou numbers would decline again, and now they have been proven right. Now we are back into hard times, like those these Elders experienced in the 1930-1960s.

Moshi Kotierk conducted public opinion interviews with people across Baffin Island last year. Most people described a similar pattern to that observed by Ferguson; caribou numbers were low in the 1950s increased into the 1990s after which they have decreased again.

All caribou herds around Baffin Island have declined since the 1990s (*map showing relative decline of herds around Baffin Island Appendix 3*). Caribou populations have decreased on Baffin Island, Labrador and Ungava Bay, South Hampton Island as well as the Bluenose, Bathurst, Qamanirjuaq and Beverly herd areas.

Many things can contribute to the decline of a caribou herd, from changes in their habitat, predation, disease and impacts of development or human use. The most prominent theory for Baffin caribou is that the caribou damaged their winter range by overgrazing; leading to decreased caribou calving, calf survival, increased predation and eventually the number of caribou being born was far surpassed by the number dying. The Elders interviewed talked at length about the caribou damaging their range by overgrazing. They described a pattern where the caribou in South Baffin would initially move to find better forage and then eventually decline until the grass, lichen and shrubs had a chance to grow back again (Density dependent overgrazing causing range shift - Ferguson et al. 2001).

The Elders described areas that the habitat stayed good enough to sustain a few caribou even when there were caribou nowhere else. These “Special Places” harbor the caribou that reproduce and may eventually repopulate Baffin when the habitat has had a chance to recover. Identifying and mapping

these areas is important. Additionally, protecting them from industrial development will be critical to assuring that the caribou populations can recover naturally.

A complex interaction of numerous plants and animals make up Baffin Islands ecosystems (*food web showing Baffin ecosystem and humans- Appendix 3*). From a scientific perspective one important part of this ecosystem is us as consumers. It is important that we leave enough caribou on Baffin Island in these hard times to repopulate the island again once the range improves. The Elders said that we will need to wait until the moss and plants grow over the caribou antlers on the ground before the caribou numbers will increase again. Scientists estimate that will take 20-30 years.

**Summary of Discussion** – Many participants agreed that caribou would return in greater numbers when the vegetation recovers. However, some suggested that this process may take longer than 20-30 years, and could be as long as 40-50 years before caribou numbers start to increase again. Others suggested that if conservation measures are put in place then caribou numbers may start to increase sooner.

In addition to vegetation, weather can also affect the caribou population. Icing events in some years can result in the build-up of thick layers of impenetrable ice across large areas preventing caribou access to forage and leading to starvation. Conversely, when the weather is too dry, caribou hooves may start to crack and become infected.

Many of today's Elders had a hard time believing that caribou numbers would increase again when they became very low in the 1950/60s. During that time, their parents taught them the traditional ways of conserving wildlife which included 'respecting wildlife' and 'taking only what you need'. These are concepts that need to be communicated to the younger generation.

## **7.0 Overview of Community Consultations** (Presentation by Moshi Kotierk – Social Science Researcher, DOE)

DOE, together with QWB, NTI, and the NWMB, conducted community consultations across Baffin Island and the adjacent communities of Hall Beach and Igloolik concerning the distribution and abundance of caribou on Baffin Island during December 2013 and January 2014. The purpose of the consultations was to:

- Summarize the results of the scientific and Inuit knowledge studies conducted by DOE.
- Provide an overview of the *Working Together for Baffin Island Caribou 2013 Workshop*
- Obtain community views on the abundance of caribou and the need for management actions to ensure their long term existence

- Discuss the Spring 2014 Aerial Survey and complementary ground surveys and obtain community information to ensure that they meet their intended objectives; and to,
- Discuss the development of a conservation strategy to promote the recovery of the critically low caribou population on Baffin Island.

Every Hunter and Trapper Organization (10 HTOs) and over 380 community members attended the meetings. Participants included hunters, interested community members, elders and youth. HTOs that were met with during the consultation tour were of the general view that management actions should await the results of the aerial and ground surveys. They agreed to give further consideration to the types of management actions that are necessary, either at the community level or island-wide, and continue management discussions in their communities.

*The full details of these consultations are outlined in the report: "Community and Hunter and Trapper Organization Consultations on Baffin Island Caribou, December 2013 – January 2014", Consultation Report, Department of Environment, Government of Nunavut, Iqaluit, Nunavut, 44p.*

## **8.0 Management Options: Things that have worked elsewhere: ideas and potential impact of management options** (Presentation by Troy Pretzlaw – Baffin Regional Biologist, DOE )

**Presentation Summary-** Management Actions are tools that we can use to achieve our management goals. The current low numbers of caribou are thought to be part of a natural cycle and hunting is not being implicated as the direct cause. However, now that there are so few animals we believe that harvesting the remaining population can have an important impact on whether or not, and how fast, the caribou population recovers. Active management of caribou is occurring in many jurisdictions from Alaska to Southampton Island. Based on these experiences and scientific surveys on Baffin Island, we can predict the impact of management actions and monitor their effectiveness. Using Inuit Qaujijamatuqangit and Scientific Knowledge together we can benefit from the cumulative knowledge of many generations of information..

There are many different types of management actions and HTOs may come up with others that are not covered here. Five actions that can affect caribou harvest, and therefore management, are HTO Bylaws, Total Allowable Harvest (TAH), Moratorium, combinations of area closures and regional management and sex specific harvest or NQLs (Non Quota Limitations). HTO Bylaws are enacted for members and can be used to control the distribution of tags as well as setting limits on harvest. Some current examples include the distribution of polar bear tags and narwhal hunting rules. If we are going to use HTO bylaws to manage caribou we need to figure out how the restrictions will be decided, who will enforce these rules and how to deal with overlapping hunting areas. TAH is an enforced limit on the number of animals that can be hunted. Examples of a TAH exist for species like Polar Bear, Narwhal, and Muskox. If we are going to use TAH to manage caribou we need to consider what the TAH should be relative to the

regional population, how we are going to be able to change the TAH over time and who will enforce the limit. Moratorium means no hunting at all. Using a moratorium for caribou will reduce the impact of harvest on recovery to zero, however it will also create greater hardship for caribou hunters and may be extreme especially in areas of Baffin Island where there are still large groups of caribou. If we are going to use a moratorium to manage caribou harvest we need to know who will enforce the ban on hunting and where will people get alternative food from.

Another management action we could use involves restricting harvest by sex and age. Since one bull can impregnate many cows, harvesting cows has been shown in other areas to have the same impact on the population as harvesting three bulls. Therefore by selecting bulls we can probably harvest three times more animals without reducing the population. We need to leave the leaders and big bulls however to ensure that there are always enough bulls around and to keep the caribou population strong.

These management actions can be utilized equally across Baffin Island or different management actions could be used in different areas based on: 1) The number of caribou in each area, 2) The preference of HTOs, 3) The challenges and constraints of enacting any management actions for each area. We need to keep in mind that there are fewer caribou in North Baffin than South Baffin, making this regional group and/or subpopulation of caribou more sensitive to harvest.

No matter what management actions we decide to enact we need to ensure that these actions are getting us closer to our goals and adjust these actions accordingly. This process is called adaptive management and means that we don't just do something and hope it will work. We continue to count caribou and collect caribou samples to see how the population is doing and how healthy the caribou are. If our actions are not improving the situation for caribou we should adjust our management actions and try something different to do better. Some of the work that could be done is surveys like the one that Mitch Campbell talked about this morning, but also much smaller surveys which check how many cows, calves and bulls there are. These are the tools scientists use to check on populations. HTOs will be consulted on any research project that is being proposed. Management actions and monitoring can be formalized into a Management Plan.

The future depends on us. We can deplete the caribou population to zero, hold it at low levels or allow it to grow large again depending on what we do to manage caribou. The decisions we make today will affect how many caribou our children and grandchildren have to harvest in the future, but we are only part of the picture. The increase of caribou numbers will take time, because the reason they declined in the first place was natural, at least in part due to overgrazing and degrading their range. As the Elders told us 30 years ago it will take at least as long as the moss takes to grow over the antlers on the ground.

## **9.0 Breakout Session 2: Options for Caribou Management**

Focus topics for this breakout session included discussions about how the HTOs would like to proceed with the management of Baffin Caribou. What management options are preferable, which ones are not? Will the HTO implement restrictions or should the Government? How can two co-management partners (the GN and the HTOs.) work together? Additional funding for communication efforts and enforcement will be needed if restrictions are put in place, where could this funding come from? The following summarizes the main points from each group discussion:

### **Suggested Harvest Restrictions**

- Limit per household eg. 2 per household per year (Group 1), or per hunter (Group 2)
- Stop commercial sale of caribou meat (Group 3) for at least 5 years (Group 4) – eliminate the commercial hunting licenses. (Group 3)
- Stop non-beneficiary hunting. Eliminate hunting licenses for these. (Group 3)
- Limit the number of caribou harvested per community. (Group 3) – HTO rep. mentioned their HTO suggested an annual harvest limit of 25 caribou for their community.
- Area restriction – no harvesting on calving grounds. (Group 4)
- TAH – tag system (Group 4)

### **Assignment of Rights**

- Non-beneficiaries should be guided by a different set of rules than beneficiaries. This includes those who have harvesting rights under the NLCA that have been assigned from their beneficiary spouse. (Group 1)

### **Management System**

- HTOs should decide what restrictions they want to see implemented. (Group 4)
- Will the HTOs create their own community restrictions, or will the GN introduce a TAH for the whole island? (Group 2)
- Tag systems are not favoured because they restrict Inuit harvesting. (Group 2)
- All communities that harvest on Baffin Island should have restrictions on caribou harvesting. (Group 4)
- The GN should not enforce regulations without HTO consent. (Group 4)

### **Traditional Harvest Management**

- Inuit have a traditional way of managing wildlife. In the 1930-40s, when there were few caribou, Inuit were taught when to hunt and when not to hunt. (Group 1)
- Do not shoot the lead migrating caribou. This will alter the behaviour of the migrating caribou and could have large impacts on the herd. (Group 2)

### **Education**

- Today, the younger generations learn in classrooms. They do not know about the traditional ways of managing caribou because it may not be written down. (Group 1)
- Efforts should be made to educate younger generations about the traditional ways so that they understand this system of management, and their role in it, while they are out hunting. (Group 1)
- Younger Generation might not know not to shoot the lead migrating caribou. (Group 2)

### **Decision Makers**

- The NWMB makes decisions about wildlife, but the Minister of Environment has to decide whether or not to accept the decisions made by the NWMB. (Group 1)
- There is a tier of wildlife co-managers, and the HTOs are at the bottom. (Group 2)
- Who will be responsible for drafting the restriction? (Group 2)
- Who will be responsible for reviewing the recommended restrictions and ensuring they are accurate and fair to the needs of the communities? (Group 3)

### **Enforcement**

- Who will be responsible for enforcement of HTO bylaws? (Group 1,2,3)
- The QWB and HTOs will have to enforce the community bylaws according to Inuit tradition, but they will need assistance from the GN Conservation Officers and additional finances to implement. (Group 1)
- The only way people will abide by restrictions is if they are enforced by the Conservation Officers. (Group 2)
- If people really want the meat, they will find a way regardless of the rules and regulations. (Group 2)

### **Management Boundaries**

- There should not be different management boundaries. Baffin Island should be considered as one management area. (Group 2, 4)
- If there were different management boundaries on Baffin Island, it would be difficult for hunters to know exactly where the boundaries are when they are out hunting. (Group 2)
- One caribou management plan should be made for Baffin Island that encompasses all communities that harvest on the island. (Group 3)

### **Consensus**

- There needs to be a consensus among communities if caribou management is going to be successful. (Group 1)
- The public needs to be consulted and informed of any decisions. Much of this work is being done by the HTOs. (Group 4)

### **Research and Monitoring**

- Why do caribou populations cycle up and down on Baffin Island? Why do they migrate between Baffin Island and the Mainland? (Group 2)
- If caribou always cycle up and down, can we expect that after all of our conservation efforts to increase the population, the population may naturally crash again in the future? (Group 2)

### **Compensation**

- Will the communities be compensated if harvesting and the sale of caribou meat is restricted? (HTO Rep.)
- There are few employment opportunities in the communities. It is becoming harder to provide for families. (HTO Rep.)

**Further Discussion** – The wildlife management process in Nunavut is different today than it was in the past. Inuit have the opportunity to manage caribou populations by asserting their co-management authority to create conservation actions through local HTO bylaws. This Inuit self-management system is the preferred approach; however it was acknowledged that if no action is taken by the HTOs, the Government of Nunavut may put forward its own recommendations for management to the NWMB. There was a general consensus among participants who felt that their respective communities should be consulted prior to implementing any restrictions on harvesting and that any regulations put in place should be flexible to change. Many HTO representatives identified concerns about the HTO's ability to enforce their own bylaws.

## **10.0 Breakout Session 3: Co-Management Issues and Building Consensus – 8 Points**

Topics for discussion for this breakout session were outlined in eight categories by Manager of Wildlife Research, Lynda Orman (DOE). The following overview outlines the eight topics and questions for building consensus, with participant responses (outlined in bullets).

### **1) Aerial Survey Results - Do the HTO representatives accept the results and estimate from the 2014 Baffin Caribou Aerial Survey?**

- The aerial survey results are supported. (Group 1,2,3,4)
- The aerial survey in 2014 was the best survey done because the HTOs were consulted and asked where the caribou would be and observers could see caribou if they were present. (Group 3)
- There should be a survey done on a regular basis even though they are expensive. (Group 1)
- Concern: The transect flight lines are straight, and may not fly directly over areas where caribou may be expected to be found. (Group 4)
- Concern: When it is cloudy or foggy, or when there are no tracks due to poor snow cover, it is harder to see caribou. (Group 2,4)
- It is better to have transect lines spaced closer together. (Group 3,4)
- Were the caribou observed healthy? (Group 4)

- Caribou observed during the aerial survey in March 2014 appeared to be healthy (M. Campbell).
- Ground survey crews had a difficult time travelling in certain areas due to the rough terrain. (Group 4)
- There was room for improvement for the ground survey logistics. (Group 2)

**2) Caribou Cycle** - Do the HTO representatives agree with the IQ presented that caribou populations naturally fluctuate over long periods of time, such as the 35 years presented?

- It will take about 60 years for caribou to return. (Group 4)
- It will take about 30 years for caribou to return. (Group 2)
- The time it takes caribou to return might be different than in the past. (Group 3)
- When caribou are over-populated in one area they eat all of the vegetation and then move elsewhere. (Group 1)
- When caribou are migrating their eyelashes are short. When the eyelashes are longer, they have not been migrating for a long time. (Group 4)

**3) Caribou Stock Groupings and Collaring Information** - DOE is in the process of analyzing its current research on Baffin Island caribou population delineation. Do the HTO representatives support and agree with the collaring information presented from 1987-94 (South Baffin) and 2008-11 (North Baffin) that shows good fidelity of North and South Baffin caribou to these respective areas under both high density population regimes (late 1980s) and low densities (2008 – 2011)? Can we agree to consider these as breeding stock groupings to potentially address separately in management actions?

- Concern: Older collars were too big and did not have automatic drop-offs. (Group 4)
- Collar information is of little value because it only tells us where the caribou migrate, and Inuit already know this information. (Group 4)
- Do not approve of caribou being collared (Group 2, 3) because it is too invasive (Group 1).
- Researchers should look for new technology to survey caribou (Group 2) such as ear tagging (Group 1) which are less invasive.
- Collars can rub on the caribou's neck causing the fur to fall out and sores that can get infected (Group 1)
- Should include information about calving grounds, feeding areas, habitat, and behaviour in studies. (Group 2)
- Treat all caribou on Baffin Island as 1 population, with no separate management boundaries between areas (Group 2, 4 of Day 1 feedback).

**4) HTO-Proposed Community Harvest Restriction** - DOE was encouraged by the many management actions brainstormed yesterday in HTO discussions. DOE would like to follow up on an action proposed by one community HTO in considering management options prior to coming to the workshop, and that was to limit the caribou harvest for the community to 25 caribou for the year.

Question: Would the other communities be willing to consider this same community harvest restriction of 25 caribou for their community for the year?

- Need to discuss with each community and HTO members
- Inter-settlement trade to continue.

**5) Non-beneficiary and Commercial Harvest** - The Basic Needs Level (BNL) for Baffin communities is greater than 20,000, but there are currently only about 5000 caribou. The Nunavut Land Claims Agreement outlines that beneficiaries have the right to first access if a TAH is introduced. Do the HTOs prefer a recommendation to the NWMB to cease the commercial and non-beneficiary hunt until such time that the caribou population becomes large enough to support the BNL and other uses? Under this scenario, beneficiaries would still have the right to 'free disposition'.

- Non-beneficiary harvesting should be stopped when the caribou population is low. (Group 1,2,3)
- Non-beneficiaries with assignment of rights *should not* be allowed to harvest caribou when the population is low. (Group 1,3)
- Non-beneficiaries with assignment of rights *should* be allowed to continue harvesting caribou when the population is low. (Group 2)
- The GN has to make decisions about this. (Group 4)
- Commercial harvest should remain. (Group 3)
- Arctic College and other institutions should not be allowed to do group hunts until the population recovers. (Group 3)

**6) Prince Charles Island Caribou** - Should caribou on Prince Charles Island be protected so that they can potentially be used to supplement the caribou population on Baffin Island in the future, if needed?

- Caribou on PCI might support a commercial hunt. (Group 4)
- There should be no caribou harvesting on PCI because it may be an important calving area. (Group 3)
- Prince Charles Island caribou should be harvested, but managed using traditional methods so that it is not over-harvested. (Group 1,2)
- There should be a written agreement if caribou harvesting on the island is restricted. (Group 1)

**7) Management Plans and Goals** - Discuss short and long-term goals for caribou on Baffin Island. Eg. Short-term goal: co-management partners will work together to prevent the further decline of the caribou population. Promote recovery as the vegetation re-grows to support a larger population of caribou. Eg. Long-term goal: revitalize the caribou population and caribou habitat so that they can provide for the sustainable use by future Inuit.

- Short-term: have to manage wildlife properly using the Inuit traditional way. This was how it was successfully managed in the past. (Group 4)
- Long-term: not concerned about the long-term because Inuit know caribou will return in numbers. (Group 2)

- Caribou should be managed for 5 years (Group 3) 3-4 years (Group 2), after which another survey should be conducted to reassess the population and make changes to the management system as needed. (Group 3)
- Management plans should be flexible to change. (Group 2,3)
- Management restrictions and plans should be agreed on. (Group 1)
- Inuit should be consulted and HTOs should work with their residents to determine what is best for their community when developing a management plan and regulations. (Group 2)

**8) Management Implementation** – How can the government assist in the development, implementation, and enforcement of harvesting restrictions? What other things do we need to consider?

- DOE has to work closely with the HTOs. (Group 3,4)
- Inuit monitors should be hired in the communities. (Group 4)
- There should be harvest reporting so that we know how many caribou are being harvested. (Group 2)
- Government funding should be provided for HTOs to conduct their own caribou surveys. (Group 4)
- Caribou surveys and sampling programs should continue. The HTO should receive funding if they undertake their own studies. (Group 2)
- If caribou harvesting is restricted, will the Government provide compensation to the communities? (Group 1)

## **11.0 Management Planning: What a Management Plan Usually Includes: Flexible, Adaptive, and Able to Adjust for Caribou Numbers.** (Presentation by Troy Pretzlaw – Baffin Regional Biologist, DOE)

**Presentation Summary-** Management plans are formal agreements about what we will do to manage caribou. They are usually written by a group of representatives from concerned organizations that have caribou management or rights to harvest caribou in their mandates. In the case of Baffin island caribou that could include, NTI, QWB, HTOs the GN and any number of agencies which manage caribou or rights to caribou. The idea is that these plans are drafted and then reviewed by the people who will be most affected by the management actions they contain. These plans are collaborative and are put together in a co-management way, including input from all affected people. The plan needs to be agreed upon to be effective.

Management Plans contain many things from a background and review of the planning process and so on, to the key new information like our management goals. These could include how many caribou we

want. However this goal has to be within the capacity of the environment to support. If there are not enough plants for caribou to eat then no amount of management on harvest or industrial development will make more caribou. But when the land is ready the management actions can help the caribou to return. Management plans suggest different management actions at different times based on how many caribou there are and how sensitive they are to harvesting. Management plans therefore usually contain a bunch of recommendations that change depending how many caribou there are. When there are a lot of caribou the management action may be to have no restrictions on harvest and when there are few there may be more restrictions like a TAH or Bylaws. Management plans always include a plan to monitor the caribou because we need to know how many caribou there are, how many calves are being born and how healthy the animals are to adjust management action. Finally management plans contain a timeline which specifies when management actions may be revisited and changed depending on new information on how the caribou are doing, how their habitat has changed and new interest in harvesting.

There are many examples of caribou management plans and four examples from Alaska to Nunavut include 1) Porcupine caribou harvest management plan, 2) Cape Bathurst, Bluenose-west and Bluenose-east Barrenground caribou herds management plan, 3) Management plan for Peary caribou in Nunavut, and 4) Southampton Island caribou management plan.

The Porcupine Caribou Management Board has many partners and has had years to build up planning activities. There has been a long term commitment to funding their activities and enacting management planning by all indigenous organizations and governments involved. They have a very informative website and many supporting materials. The harvest management plan for the Porcupine caribou herd specifies different management actions for different numbers of caribou, from the green zone to the red zone. These thresholds where management actions change are based on what number of caribou the range where this herd lives can sustain (*chart showing the threshold levels and associated harvest restrictions for Porcupine caribou- Appendix 3*). This herd is currently doing well in the green zone with more than 115,000 animals.

The Cape Bathurst, Bluenose-west and Bluenose-east Barrenground caribou herds management plan is still a work in progress. Thus far it has taken five years to develop between many agencies and has an explicit goal of maintaining the herds within the natural range of variation. This plan also includes thresholds for harvest based on where in the cycle caribou are (*Schematic showing thresholds across caribou cycle- Appendix 3*). When they are increasing they are in the Yellow zone during which harvest is open and encouraged up until they are at maximum densities in the green zone. When the caribou are declining in the orange zone harvest is more restricted and when the caribou are at their lowest densities in the red zone harvest is most restricted. This high level plan is coupled to herd specific plans which specify harvest management for each herd.

The management plan for Peary caribou in Nunavut is unique because these caribou are considered endangered and there is relatively small harvest. This plan is based on the Bluenose plan and is mostly an overview of process. This overview is coupled to herd specific plans (Action Plans) for each island group. Action plans specify harvest limits and statuses of each group.

Finally the Southampton Island caribou management plan has been recently created. This island is unique in that these caribou are reintroduced following local extinction in 1955. The caribou numbers increased until the late 1980s after which they have declined to 30% of historic levels. Now there is an agreed upon Harvest management in place. This management uses thresholds similar to the other plans reviewed here and three levels are specified based on number of caribou. There is currently a very generous TAH which requires regular intensive monitoring to ensure the caribou herd is not declining further.

The GN will lead the development of a management plan for Baffin Island Caribou. It is hoped that we will be able to agree on management actions and monitoring activities in order to draft a Management Plan like those covered here. For the management planning process, Inuit knowledge (IQ) and DOE scientific advice will be incorporated and reviewed by the government and co-management partners, including what effect management actions are likely to have on caribou and what monitoring will be required to see how the caribou are doing.

## **12.0 Breakout Session 4: Baffin Island Caribou Management Plan**

During this breakout session, participants were asked to focus their discussions on what they would like to see in a management plan for Baffin Island Caribou. The following summarizes the main comments from each group;

### **Management Plan Development and Timelines**

- DOE should write the management plan but should consult with the local HTOs. (Group 3)
- Some communities may want to write their own individual community Management Plans. (Group 1)
- Suggestion that adjacent communities or communities with shared hunting grounds (eg. Kimmirut, Pangnirtung, Iqaluit) meet with each other to discuss their Management Plans. (Group 4).
- There should be another workshop to review the Management Plan before it is finalized. (Group 3)
- The Management Plan should be modeled on the Porcupine Caribou Management Plan. (Group 3); another Group also indicated it liked the colour-coded format of a Management Plan
- Management plan should be in place for 5 years (Group 4) or 3-5 years (Group 1,2) after which time another survey should be done to assess the effectiveness of the plan and revise it as necessary. (Group 4)

- The management plan should be flexible to change if the caribou population changes. It should not be written in stone (Group 1,2)
- Not everyone will support the Management Plans. (Group 1)

#### **What should be included in a Management Plan**

- Educating the younger generation should be included as a component in the Management Plan (Eg. teach them how to identify males vs. females). (Group 3)
- It should incorporate IQ and information from the Elders. (Group 1)

#### **Harvest Restrictions**

- Area Closure – eg. no harvesting on calving grounds. (Group 1,2,4)
- No harvesting pregnant females and females with calves from February to August. (Group 2,3,4)
- No harvesting during calving (May and June). (Group 2)
- Establish a TAH. (Group 2)

#### **Other Regulations**

- Calving grounds, and migration routes to calving grounds, should be protected. (Group 1)
- Prevent exploration and development on calving and post-calving grounds. (Group 3)
- Management plan should include introducing a bounty on wolves. (Group 3)

#### **Funding**

- Additional funding will be needed to manage the caribou population. (Group 4)
- The Government should provide funding to write and enforce the management plan. (Group 4)
- HTOs will need funding for additional meetings and to communicate with their membership. (Group 1,4)

#### **Timelines for Completion**

Gabriel Nirlungayak (Co-Chair) suggested the DOE develop a draft Management Plan for Baffin Island caribou using the information that was provided during the workshop. The draft Management Plan is to be completed and ready for a first review in the communities by January 2015. Suggested deadline to finalize the Management Plan was April 2015.

## **13.0 Conclusion – What’s Next?**

The HTOs will communicate the information provided during the workshop to their respective community members, and continue to develop community management initiatives in consultation with their membership.

The HTOs will give further consideration to how management scenarios should be incorporated into a Baffin Island Caribou Management Plan.

The Department of Environment will submit a recommendation to the NWMB regarding the sustainable harvest of Baffin Island caribou.

The Department of Environment will consider the information provided during the workshop while drafting a Baffin Island Caribou Management Plan to be reviewed by the co-management partners and affected communities.

## Appendix 1. Workshop Agenda

### Working Together for Baffin Island Caribou

Parish Hall, Iqaluit

November 3 - 4, 2014

*Co-Chaired by Gabriel Nirlungayuk & James Qillaq*

#### Goals of the Workshop

*Bring Co-Management Partners together from across Baffin Island and Nunavut to listen and share knowledge and work collaboratively towards a management plan for Baffin Island caribou:*

- 1) What has happened in the past: History of caribou on Baffin Island, caribou fluctuations and previous consultations*
- 2) Where we are now: How many caribou there are now and what recovery of the population could look like*
- 3) Where we are going – Work together on a recommended management scenario to form the basis of a Caribou Management Plan*

#### Day 1 – All about caribou and the people that rely on them

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1.	8:15-8:45	Registration	
2.	8:45	Opening Prayer	
3.	8:45-9:00	Welcome and Opening Remarks	Gabriel Nirlungayuk James Qillaq

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#### Session 1: What has happened in the past: History of caribou on Baffin Island, caribou fluctuations and previous consultations?

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4.	9:00 – 9:30	<b>Why we are here</b> <b>A. To review where we came from</b> <b>B. To discuss current state of BIC</b> <b>C. To workshop management actions</b> <b>NLCA process and objectives</b>	Moshi Kotierk Paul Irrgaut
5.	9:30-9:50	<b>An Elder’s Perspective on Caribou Numbers on Baffin Island Over Time and Now – Way Forward?</b>	Lew Philip

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9:50-10:05      **HEALTH BREAK**

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**Session 2: Where we are now: How many caribou there are now and what recovery of the population could look like**

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6.	10:05- 10:20	<b>Natural Caribou population cycles. What happened to caribou on Baffin in the past and what could happen in the future</b>	Troy Pretzlaw
7.	10:20– 10:50	<b>Caribou Numbers on Baffin Island (IQ and Science)</b> <b>Share information on 2014 Baffin Island-wide caribou aerial survey</b> <ul style="list-style-type: none"> <li>• Caribou Abundance and Distribution - Aerial Survey Results and Population Estimate, 2014</li> </ul>	Mitch Campbell Jaylene Goorts David Lee
8.	10:50- 11:05	<b>Community Observers: Participant Panel</b> <b>Ground based and areal caribou surveys</b>	HTO Survey Participants

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9.	11:05- 12:00	<b>Community Perspectives on Caribou: What are our Management Goals? (Small Groups Discussions)</b>	All Participants
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12:00-1:30      **LUNCH**

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10.	1:30-2:10	<b>Community Perspectives on Caribou- <i>Continued</i>: What are our Management Goals? (Small Groups Discussions)</b> <i>Report Back to All Participants</i>	All Participants
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**Session 3: Where we are going – Work together on a recommended management scenario to form the basis of a Caribou Management Plan**

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11. 2:10-2:30	<b>Management Options: Things that have worked elsewhere: ideas and potential impact of management options</b>	Troy Pretzlaw
12. 2:30-3:00	<b>Overview of Community Consultations, 2013-2014 – Listed Management Actions (Executive Summary)</b>	Moshi Kotierk Jaylene Goorts
3:00-3:15	<b>HEALTH BREAK</b>	
13. 3:15-5:00	<p><b>Implementing Action: Challenges and Opportunities for Communities- Overview and guiding questions:</b></p> <p>A. What Management options do you think are important? What are good ways to engage the community on management options?</p> <p>B. What are the challenges to enacting management options? What arrangements could be made between communities to support this work?</p> <p><b>Community Perspectives</b> (Small Groups Discussions) <i>Report Back to All Participants</i></p>	Gabriel Nirlungayuk James Qillaq          All Participants
14. 5:00	<b>Closing Remarks for Day 1</b>	Gabriel Nirlungayuk James Qillaq
15. 7:00-9:30	<p><b>HTO Evening Session:</b></p> <p>A. Management options discussion continued: what will work and what will not?</p> <p>B. How do you think your membership will respond to the information shared today? Suggestions for ways to get this information to them?</p>	HTO participants

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**Day 2 – Moving Forward for Conservation and Management of Caribou**

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8:45	<b>Opening Prayer</b>	
16. 8:45-9:05	<b>Opening Remarks for Day 2</b>	Gabriel Nirlungayuk, James Qillaq

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**Session 4: Where we are going – Work together on a recommended management scenario to form the basis of a Caribou Management Plan**

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17. 9:05-9:35	<b>Community Perspectives on Caribou: HTO Evening Session</b> <i>Report Back to All Participants</i>	HTO Participants
18. 9:35-9:50	<b>What we developed yesterday: Our commonalities, our differences, our path forward</b>	Moshi Kotierk Paul Irngaut
9:50-10:05	<b>HEALTH BREAK</b>	
19. 10:05-12:00	<b>Moving Forward on Baffin Island</b> (Facilitated Discussion)  <ul style="list-style-type: none"> <li>• Management Questions / Goals</li> <li>• Management Discussion Points / Considerations</li> <li>• Management Scenarios / Options</li> </ul>	All Participants  Facilitated by Gabriel Nirlungayuk, James Qillaq
12:00-1:30	<b>LUNCH</b>	
20. 1:30-1:50	<b>Management Planning: What a management plan usually includes: flexible, adaptive and able to adjust for caribou numbers</b>	Troy Pretzlaw
21. 1:50-3:00	<b>Community Perspectives on Caribou: Putting it all together/ Implementing solutions</b> (Small Groups Discussions) What a caribou management plan should include (hard copy examples will be available) <ul style="list-style-type: none"> <li>- Interim, Short-Term Management Options</li> <li>- Longer-Term Stewardship Solutions</li> </ul>	All Participants
3:00-3:15	<b>HEALTH BREAK</b>	
22. 3:15-3:30	<b>Community Perspectives on Caribou: Putting it all together/ Implementing solutions- Continued</b> (Small Group Discussions) <i>Report Back to All Participants</i>	All Participants
23. 3:30-4:15	<b>Working Towards a Recommended Management Scenario for Baffin Caribou Management Plan</b> (Facilitated Discussion)	Facilitated by Gabriel Nirlungayuk, James Qillaq

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**Session 5: Moving Forward/ What Happens Next**

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24. 4:15-4:30	<b>Summary of any commitments made</b>	Representatives of HTO's and Agencies
25. 4:40-5:00	<b>Final Closing Remarks</b>	Gabriel Nirlungayuk James Qillaq

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## **Appendix 2. List of Workshop Participants**

### ***Elders Advisory Committee (EAC)***

Lew Philip, (Chair of EAC) - Iqaluit  
Hugh Tularialik – Baker Lake  
Johnassie Nakoolak – Coral Harbour  
Joe Arlooktoo - Kimmirut  
Laisa Ninguik – Grise Fiord  
Jimmy Haniliak – Cambridge Bay  
Barthelemey Nirlungayuk – Kugaaruk  
David Siksik – Gjoa Haven

### ***Hunters and Trappers Organization (HTO) Representatives***

Kapik Ikkidluak – Kimmirut  
Seemeega Suvega – Cape Dorset  
Adamie Nuna – Cape Dorset  
Manasie Naullaq – Hall Beach  
Levi Kaunak – Hall Beach  
David Irngaut – Igloolik  
Natalino Piugattuq – Igloolik  
Elijah Panipakoocho – Pond Inlet  
Jimmy Pitseolak – Pond Inlet  
Jacobie Iqalukjuak – Clyde River  
Aisa Piugatuk – Clyde River  
Philip Sanguya – Qikiqtarjuaq  
Levi Nutaralak – Qikiqtarjuaq  
Leopa Akpialialik – Pangnirtung  
Jacopie Maniapik - Pangnirtung  
Mathusalah Kunuk – Iqaluit  
Jeetaloo Kakee – Iqaluit

\*Arctic Bay HTO representatives unable to attend due to bad weather in their community.

### ***Qikiqtaaluk Wildlife Board (QWB)***

James Qillaq – President, and Workshop Co-Chair  
Jackie Price – Coordinator, Research and Planning

### ***Nunavut Wildlife Management Board (NWMB)***

Ben Kovic–Chairperson  
Jason Akeearok– Executive Director

Peter Kydd – Director Wildlife Management  
Sheila Oolayou – Inuit Qaujimagatuqangit Coordinator  
Karla Letto – Wildlife Management Biologist

***Nunavut Tunngavik Inc. (NTI)***

Paul Irngaut – Director of Wildlife and Environment  
David Lee – Wildlife Biologist

***Department of Environment, Government of Nunavut (DoE, GN)***

Gabriel Nirlungayuk – Deputy Minister, and Workshop Co-Chair  
Lynda Orman – Manager, Wildlife Research  
Moshi Kotierk – Social Science Researcher  
Troy Pretzlaw – Baffin Regional Biologist  
Mitch Campbell – Kivalliq Regional Biologist  
Jaylene Goorts – Wildlife Technician (Baffin Island)  
Jimmy Noble – Senior Manager of Operations, Wildlife Management  
Jason Aliqatuqtuq – Wildlife Manager, Operations – South Baffin  
Brenda Panipakoocho – Wildlife Manager, Operations – North Baffin  
Eric Blair – Acting Communications Manager

## **Appendix 3. Baffin Island Caribou Steering Committee Members**

***Department of Environment, Government of Nunavut (DoE, GN)***

Lynda Orman (Chair) – Wildlife Research Manager  
Troy Pretzlaw - Baffin Regional Biologist  
Mitch Campbell – Kivalliq Regional Biologist  
Moshi Kotierk – Social Science Researcher  
Jaylene Goorts – Wildlife Technician (Baffin Island)  
Eric Blair – Acting Communications Manager

***Qikiqtaaluk Wildlife Board (QWB)***

Joshua Kango – Vice-President  
Jackie Price – Coordinator, Research and Planning

***Nunavut Wildlife Management Board (NWMB)***

Sheila Oolayou – Inuit Qaujimagatuqangit Coordinator  
Karla Letto – Wildlife Biologist

***Nunavut Tunngavik Inc. (NTI)***

Paul Irngaut – Director of Wildlife and Environment

## **Appendix 4. Workshop Presentations**



